

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Main report and annexes

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Map of the Project Area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 02-08-2019

Abbreviations and Acronyms

AWPB	Annual Work Plan and Budget
BMI	Body mass index
CMRC	Community Managed Resource Centre
DCO	District Coordination Officer
FPO	Farmer Producer Organization
GDP	Gross Domestic Product
GGAP	Global Good Agricultural Practices
GII	Gender inequality index
GNI	Gross National Income
GoI	Government of India
GoM	Government of Maharashtra
GSDP	Gross state domestic product
HACCP	Hazard Analysis Critical Control Point
HH	Household
HO	Head Office
IFAD	International Fund for Agricultural Development
IGA	Income Generating Activity
INR	Indian Rupee
IPM	Integrated Pest Management
IT	Information Technology
KM	Knowledge Management
MAVIM	Mahila Arthik Vikas Mahamandal (Women Development Corporation)
M&E	Monitoring and Evaluation
MIC	Middle-Income Country
MIS	Management Information System
MoA&FW	Ministry of Agriculture as Ministry of Agriculture and Farmers' Welfare
MoU	Memorandum of Understanding
NRLM	National Rural Livelihood Mission
NT	Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project
ORMS	Operational Results Management System
PC	Producer Company
PMU	Project management unit
Pro-WEAI	Project-level Women's Empowerment in Agriculture Index
PSC	project Steering Committee
RDD	Rural Development Department
SDR	Special Drawing Right
SHG	Self-help group
SMART	State of Maharashtra's Agribusiness and Rural Transformation Project
SO	Strategic Objective (of IFAD)
TA	Technical Assistance
UNDP	United Nations Development Programme
VC	Value chain
VCD	Value chain development
VO	Village Organization
WA	Withdrawal Application
WFP	United Nations World Food Programme
Aadhar	A 12 digit unique identity issued to all Indian residents based on their biometric and demographic data
Atal Pension Yojana	A guaranteed pension scheme for the unorganized sector
Gram Panchayat	Village level local self-governance structure
Gram Sabha	Village level meeting of the local self-governance structure
Internet Sathi	Village level internet assistant
Jan Dhan Account	Zero balance Aadhar enabled savings accounts
Jan Dhan Suraksha Yojana	A government backed pension scheme targeted at the unorganized sector
Jeevan Jyoti Bhima Yojana	A government backed life insurance scheme
Krushik Sakhi	Para Agricultural Assistant

Lakshmi Mukti Yojana	Securing women's rights in joint ownership of land and property
Panchayat Raj Institutions	Local self-governance structures
Panchasutra	Five principles of SHG mobilization of MSRLM
Pashu Sakhi	Para vet
Sukanya samriddhi yojan	Government backed savings scheme targeted at the parents of girl children
Swachh Bharat Abhiyan	Clean India Campaign with focus on building toilets
Zilla Parishads	District level local self-governance structure

In line with IFAD11 mainstreaming commitments, the project has been validated as:

☐ Gender transformational ☐ Youth sensitive ☐ Nutrition sensitive ☐ Climate finance

Executive Summary

IFAD fielded a design mission in Maharashtra, in September and December 2019, in collaboration with the Government of Maharashtra (GoM) to design Maharashtra Rural Women's Enterprise Development Project (Nav Tejaswini). The mission worked with the Mahila Arthik Vikas Mahamandal (MAVIM) (the Women Development Corporation of Maharashtra) and Departments of Finance, Planning, Rural Development, Agriculture, Livestock, and Women and Child Development, as well as with potential project partners in the financial sector, non-governmental organizations and private sector farm and non-farm businesses. Together with MAVIM teams, the mission visited MAVIM/CMRC activities in 9 districts that provided valuable insights into the opportunities of enterprise development. Prior to the design mission, a project concept note had been approved by the Government of India.

Rationale. The rationale for IFAD's involvement in this project is two-fold: (i) in consideration of persisting rural poverty in Maharashtra, the vulnerability to climate shocks and increasing rates of malnutrition, targeted productive investments are required in the rural areas to increase resilience of poor households, through diversification of livelihoods and ensuring household food and nutrition security; (ii) secondly, the success of the preceding Tejaswini project, exclusively dedicated to empowerment of poor rural women, and particularly successful in establishing strong institutions and financial discipline and well-functioning micro entrepreneurial activities for poor women organized in SHGs, can be leveraged for successful smallholder woman farmer and woman micro-entrepreneur integration within commodity value chains. With the strong capacity base created under Tejaswini, the women SHG members are actively participating in and benefitting from the growing economy of Maharashtra through their nano and micro-enterprises. With increased economic empowerment, women are now aspiring not just to move out of poverty, but also out of a situation of vulnerability and risk of slipping back into poverty.

Lessons from around the globe indicate that integration of small-farmers and entrepreneurs in profitable value chains with comparative advantage, market demand and growth potential, lead to sustainably reducing poverty and food insecurity, improving competitiveness, and generating employment opportunities in the rural economy. Furthermore, poverty reduction in all its forms cannot be achieved unless gender inequalities are removed and biased social norms and cultural beliefs addressed. In light of the above, the new project will: (i) leverage the institutional and capacity gains made in the Tejaswini project to promote women's enterprise in rural Maharashtra; (ii) build on the successful model of the CMRCs to themselves transform into profit making and profit sharing enterprises; (iii) leverage successful partnership with commercial banks to start micro-enterprise loans for women entrepreneurs; (iv) build on past convergence with Government schemes to leverage greater benefits for communities.

Goal and objective. The overall goal of the project is to enable one million poor rural households to overcome poverty sustainably (sustainable in economic, social, and environmental terms, including climatic resilience). The Project's development objective is to improve capacity of rural women to diversify into sustainable enterprises or engage in remunerative employment and enhance their access to markets.

Project area. The project will work across the 34 rural districts of Maharashtra, in the blocks/talukas/villages where MAVIM have organized SHGs, Village Organizations (VOs) and Community Managed Resources Centres (CMRCs).

Target groups. The project's direct target groups are the members of existing viable SHGs and their families who participated in the previous Tejaswini project. By profession, the target beneficiaries are marginal farmers, livestock/fisheries micro-entrepreneurs, producers of non-farm products, workers in service sectors and agricultural labourers. From gender perspective, 100% of present direct beneficiaries are women. About 20% of SHG members are under 35 years of age (young adults).

Outreach. The project will directly service 1 million households; namely 801,979 households through the 66,524 SHGs under 248 CMRCs and an additional 200,000 households, through value-chain interventions and wage employment opportunity creation in the micro-enterprises.

Project components. The project will have three inter-related components: (i) Component 1: Market-driven enterprise development; and (ii) Component 2: Enabling support services; and (iii) Component 3: Institutional Strengthening and Project Management.

Component 1: Market-driven enterprise development. The component will support the establishment/expansion of micro and small enterprises. It will enable farm and non/off farm producers and businesses to link with markets and buyers, increase sales and profit through a combination of interventions in marketing, product development and quality improvement, productivity enhancement, and sustainable business relationships with other businesses. It will facilitate new and expanding enterprises to establish/strengthen their linkages with the agri/non-agri businesses and other value-chain actors. It is expected that 565 000 enterprises approx will be supported through this component and that over 200,000 decent and permanent employment opportunities will be generated, particularly for rural youth. The component will contribute to economic empowerment of women and rural youth and enhance climate resilience through the adoption of climate smart technologies and agriculture practices. This component will comprise four (4) sub-components: 1.1 Farm sector enterprise development; 1.2 Manufacturing and service sector enterprise development; 1.3 Capacity development of CMRCs; 1.4 Supporting innovation.

Component 2: Enabling Support Services. This component will focus on providing an enabling environment at the enterprise levels as well as at household levels, to optimise SHG member's HH's participation in the enterprise development process. To create an enabling environment for ultra-poor households, the project will provide household mentorship and gradually integrate them in savings and credits activities. Under this component, the project will also focus on nutrition security at household level and continue the work on gender transformative activities initiated under the preceding Tejaswini project. The component has four (4) main sub-components: (i) 2.1 facilitating financial linkages; (ii) 2.2 new pathways for ultra-poor households; (iii) 2.3 enhancing nutritional status and gender relations at HH and community levels; and (iv) 2.4 policy engagement.

Component 3: Institutional Strengthening and Project Management. This component comprises of two subcomponents to ensure efficiency of the project: (i) Institutional strengthening of MAVIM to strategically assume broader roles of a) promoter of enterprise development; b) centre of excellence in areas of SHG approach to community development; c) capacity builder for grassroots institutions; and d) implementer of various government schemes for its beneficiaries; and (ii) Project Management.

Gender transformational. This is a gender transformative project. The project recognizes that being a women-led enterprise project does not automatically lead to gender justice and equality. The project will additionally address root causes of gender inequalities, by consolidating the gains and expanding the successes of the previous project in: i) work-load reduction through machinery and women friendly technologies, ii) legal rights awareness training on gender responsive legislations including domestic violence, dowry, sexual harassment etc, iii) women's participation in public spaces and institutions such as local governance, markets and government bodies; iv) promoting joint titling of land and property; v) decision making at community, group and household levels; vi) gender sensitization and orienting services, including specific men's sensitization workshops. These activities address key barriers to women's empowerment and full participation in enterprise development and are aligned to IFAD's strategic objectives on gender equality and women's empowerment.

Nutrition focus. Micro-nutrient deficiency is a major health problem in Maharashtra, especially among women adolescent girls and children in the rural areas. The project's investments will be nutrition-sensitive. The project will promote commodities/crops and its related products that have high nutritional value. Furthermore, recognizing that improved incomes do not automatically lead to better nutrition outcomes, the project will pursue behaviour change, awareness/education campaigns primarily through convergence with government schemes.

Project costs. The total project cost is USD 421.87 million, to be financed through an IFAD loan (on ordinary terms) of USD 50.0 million, an IFAD grant of USD 1.4 million; Government contribution of USD 104.78 million (salary and operational expenses, taxes/duties, and convergence schemes). An estimated USD 250.8 million from domestic financial institution contributing to bank linkage programme, local private sector contribution of USD 9.9 million and beneficiary contribution of USD 4.9 million. There is currently a financing gap of USD 12 million in the IFAD allocation.

Project benefits. Eighteen different subsectors were identified to implement sub-projects across the state, with foreseen participation of 1 million households. Cost benefit analysis indicates that the cash flows for all the identified subsectors were positive. The Financial Internal Rate of Return (FIRR) of the project is 32%. The Economic Internal Rate of Return (EIRR) is 35% (base case) and a benefit to cost ratio (BCR) of 2.93. The Net Present Value (NPV) for the 20 year period is US\$1207 million at a discount rate of 7.5%.

Governance and management. The Women and Child Department will be the state-level nodal Department for the programme and MAVIM will be the implementing agency. The Managing Director of MAVIM will be ex-officio Project Director with full responsibility of proper management of the project as per design and achieving project goals/objectives. A Project Management Unit (PMU), headed by Project Coordinator (General Manager- Programme of MAVIM), will manage planning and implementation of the project. An appropriate number of full time officials of MAVIM at the Head Office will be responsible for various activities and all District Offices will be responsible for Nav Tejaswini at the respective district.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. **Political and economic context.** With a population of more than 1.3 billion, India is the world's largest democracy and the third largest economy in purchasing power parity terms. In 2018, India's Gross Domestic Product (GDP) grew at 8%. Long-term average GDP growth is expected to be around 6% and with stable, diversified, and resilient growth. Agriculture continues to be the primary source of livelihood for nearly 50% of the Indian population, although its contribution to GDP remains low at 12%^[1].
2. Maharashtra, located in the western peninsular region of India is the second-most populous state and third largest by area. Maharashtra's gross state domestic product (GSDP) at current prices accounted for 14.89% of India's GDP in 2017-18, the highest among all states. In 2018, Maharashtra's economy grew by 7.5%. Service and manufacturing sectors dominate the economy of Maharashtra (approx. 61%) and agriculture contributes approximately 13% of the state's GDP. As per the 2011 census, the population of the state is over 112 million of which 55% is rural, and 45% is urban based^[2]. There is an increasing trend of movement of rural men and women to urban areas, not only to tier 1 cities, but also to tier 2 and 3 cities, to participate in the service sectors^[3].
3. **Poverty (SDG 1), food security and nutrition (SDG 2), and smallholder agricultural and rural development context** The incidence of multidimensional poverty in India was almost halved between 2005-06 and 2015-16. Poverty levels are not uniform across the states and poverty is still largely concentrated in the rural areas (80% of India's poor live in rural areas). India has also made rapid strides in lowering the incidence of undernutrition. Owing to concerted efforts at all levels, stunting in children below five years declined from 48 to 38% between 2006 and 2016.
4. In Maharashtra, the poverty head-count ratio is 17.4%^[4], of which 4.5 million have access to BPL cards (Below Poverty Line) and have assured access to the public distribution system. The National Food Security Act 2013 (NFSA) was enacted by the GoI, which provides food and nutritional security through assured availability of adequate quantity of quality food at affordable prices. In Maharashtra NFSA is being implemented since 2014, and about 62.3% of the state's population is entitled to food grains at subsidised rates. As per the Food Security Outcome Index (FSOI) status of rural Maharashtra, all districts are to some extent

food insecure and 8 districts are severely food insecure (IHD, 2010). Despite improvement poverty reduction and overall nutrition, micronutrient deficiency remains a challenge in India and in Maharashtra in particular^[5].

5. **Relevant national strategies, policies and programmes.** The state and central governments have rolled out several policies to tackle the big challenge of unemployment both in rural and urban areas, encouraging enterprise creation for income generation. The Ministry of Micro, Small and Medium Enterprises (MSME), launched a new programme called Udyog Aadhaar to facilitate the easy registration of micro and small enterprises, facilitate loans with low interest rates, and other enabling measures. Under this scheme, till date the GoM has deployed Rs 850 million for employment generation. The state Government also launched the Women Entrepreneurs Policy in 2017 to encourage participation of women entrepreneurs and improve the women entrepreneurship from the current 9% to 20%. The State is first in India to have a separate policy for women entrepreneurs. Towards promotion of financial inclusion and rural livelihoods, the GoM is implementing the State Rural Livelihood Mission (SRLM), which is part of the National Rural Livelihoods Mission being implemented across the country. Pradhan Mantri Mudra Yojana (PMMY) launched in 2015 is a flagship scheme of Government of India to “fund the unfunded” by bringing enterprises to the formal financial system and extending affordable credit upto Rs 10 lakhs for non-farm income generating activities.

6.

b. Special aspects relating to IFAD's corporate mainstreaming priorities

7. **Climate Change.** Temperatures in India are projected to increase by approximately 4°C by 2080-2099, while the mean annual precipitation will rise by 46.5 mm in 2050 (IPCC report), underscoring that the State of Maharashtra is highly vulnerable to climate change. Climate projections for 2030, 2050, and 2070 presented in the Maharashtra State Adaptation Action Plan on Climate Change (MSAAPCC) indicate that temperatures and rainfall will increase across the state, resulting in potentially significant adverse impacts on agriculture productivity. Currently, crop productivity is already exposed to increased climate variability and more frequent droughts (the state experienced 3 droughts in the last five years). Results of climate modelling indicate that the mean temperature is projected to increase between 1.2–1.6°C in the 2030s which might likely further increase by 2.2–3.5°C in the 2070s and result in frequent droughts in some areas. Rainfall is projected to increase from the 2030s to 2070s, with high spatial variability. Extreme rainfall events with longer dry spells are projected to increase in all districts of Maharashtra, resulting in reduced crop yields. The project will contribute to reducing the risks and impacts of climate change and variability by integrating climate smart agriculture and animal husbandry in business advice offered to the women entrepreneurs, and incorporate measures for efficient use of water and energy conservation in processing, manufacturing, and service enterprises. These measures are well aligned with the priorities identified in the Maharashtra State Action Plan for Climate Change (2018).
8. **Gender.** India ranked 127 out of 160 countries on the gender inequality index (GII=0.524 in 2017). The GoI is making concerted efforts to bridge the gender gap, and is giving priority to women's social and economic empowerment. This is reflected in the Draft National Policy for Women (2016), and the strong support to livelihood improvement programmes and promotion of self-help groups, which have created opportunities for women to access finance, extension services for crops and livestock husbandry, and workload reducing equipment, thus improving household incomes and women's decision-making power. Under the purview of policy, the Central Government has launched several integrated programmes for women's economic and social empowerment in India, including Mahila Shakti Kendra (to empower rural women with opportunities for skill development, employment, digital literacy, health and nutrition) and Mahila-e-Haat, a bilingual online marketing platform that leverages technology to help aspiring women entrepreneurs, self-help groups, and NGOs to showcase their products and services.
9. In Maharashtra, out of 16.8 million women in workforce, 69% are highly dependent on agriculture. Maharashtra ranks fifth in the country with regard to women-owned establishments (8.25% of total). While 83% of women owned enterprises are self-financed, access to finance continues to be a constraint for women entrepreneurs besides issues of technical and business development support. The political participation of women is having a positive impact on women's empowerment. With one-third of village government head positions reserved to women, women residing in areas with a female village government head show significant higher levels of political participation and empowerment with improved outcomes for women from low socio-economic strata. However, in rural India, women's economic opportunities remain restricted by social, cultural, and financial barriers. Most notably inheritance laws continue to marginalize women in the household and the larger community. Rural women, particularly of in scheduled castes and tribes, have the lowest literacy rates, and therefore do not have the capacity to negotiate pay or contracts and most often engage in the unorganized sector, self-employment, or in small scale industry. A small study on empowerment indicators, among rural women of reproductive age in Maharashtra, concluded that 76.6% women were married below age of 21; 38.3% women were always involved in household decision making; regarding freedom of movement, 38.3% women have complete freedom whereas 41.7% women have some control over economic resources, but only 30% women have personal savings. 60% women have favourable attitude towards girls' education, and only 33.3% women defy domestic violence.
10. **Youth.** Youth account for almost a third of India's population and Project data indicates that 20% of Tejaswini's beneficiaries are young women. GoI has formulated a National Youth Policy (2014) which defines youth as those in the age group of 15-29 years. However, about 65% of the population is under 35 years of age. At present, about 34% of India's Gross National Income (GNI) is contributed by the youth. However, in 2018 India recorded 10% unemployment rate. There is an increasing trend of young men and women's migration to the cities and often young people find the skills they have are not responding to the market requirements. In this regard the state of Maharashtra has undertaken a substantive sector analysis to identify sectors lacking sufficient skilled employees and focusing on building skills trainings around market needs. With regard to young rural women specifically, unemployment rate is very low at 3%. There has also been significant reduction in early marriages as 26.8% of women aged 20-24 years were married before 18 years in 2015-16 as compared to 39.4% in 2004-5^[7].
11. **Nutrition.** Despite implementing the world's largest programme on Food Security and Nutrition, the nutrition status in the country remains poor. The central government's decision to launch a National Nutrition Mission reflects the Government's urgency to deal with the situation. Maharashtra is often cited as a success story for creating a State Nutrition Mission and managing to reduce

stunting by 15% points during 2006-12[8]. However, the rise in incidences of wasting reflects interruptions in access to food and increased risk of death. Wasting and severe wasting in Maharashtra have also increased from 16.5% and 5.2% in 2005-06 to 25.6% and 9.4% in 2015-16 respectively. Adult women and men in the rural areas also suffer from low BMI (30% women and 23% men). Furthermore, almost 50% of adult women in rural areas are reported to being anaemic, as against 20% of men. While there has been improvement on many indicators the situation of anaemia has remained unchanged in the past decade which calls for concerted efforts. A recent survey in Maharashtra observed that despite women's knowledge of the nutritional benefits of fruits and vegetables, there were seven key themes limiting their ability to obtain these foods for themselves and their children — personal factors, household dynamics, social and cultural norms, workload, time pressures, environmental factors and cost. In particular, household dynamics, and social and cultural norms were major factors[9].

12.

c. Rationale for IFAD involvement

13. The rationale for IFAD's involvement in this project is two-fold: (i) in consideration of persisting rural poverty in Maharashtra, the vulnerability to climate shocks and increasing rates of malnutrition, targeted productive investments are required in the rural areas to increase resilience of poor households, through diversification of livelihoods and ensuring household food and nutrition security. IFAD's experience in Asia and other parts of the world have identified diversification of livelihood as one of the most pertinent adaptation methods. Similarly, nutrition and resilience are strongly interlinked, nutrition is both an input and an outcome of strengthened resilience; (ii) Secondly, the success of the preceding Tejaswini project, exclusively dedicated to empowerment of poor rural women, and particularly successful in establishing strong institutions and financial discipline and well-functioning micro entrepreneurial activities for poor women organized in SHGs, can be leveraged for successful smallholder woman farmer and woman micro-entrepreneur integration within commodity value chains. Lessons from around the globe indicate that integration of small-farmers and entrepreneurs in profitable value chains with comparative advantage, market demand and growth potential, lead to sustainably reducing poverty and food insecurity, improving competitiveness, and generating employment opportunities in the rural economy.
14. The Executing Agency, Mahila Arthik Vikas Mahamandal or MAVIM, has been long associated with IFAD supported projects in the state of Maharashtra. It was an implementing partner of the Maharashtra Rural Credit Project (1993-2002) and thereafter, the lead implementing agency of the Tejaswini Rural Women Empowerment Project (2008-2018), implemented across all rural 34 districts of Maharashtra. Under this project, MAVIM organized 939,816 poor women into 78,318 SHGs across 10,495 villages. It introduced the successful model of Community Managed Resource Centres (CMRCs), which are self-managed federations of SHGs. This is a unique model, each CMRC covering approximately 300 SHGs and providing a range of social and economic services to its members on a cost-recovery basis. At present, MAVIM directly works with 248 CMRCs, covering 66,524 SHGs, with a membership of 801,979 women. Approximately 78% of the CMRCs are financially viable. The SHG-Bank Linkage programme managed to leverage loans from commercial banks and gave access to finance to all members, and 81% members have outstanding loans and saved Rs 650 crores. The project's greatest achievement is the financial discipline of its members, which boasts of a 99.5% repayment rate.
15. With the strong capacity base created under Tejaswini, the women SHG members are actively participating in and benefitting from the growing economy of Maharashtra through their nano and micro-enterprises. With increased economic empowerment, women are now aspiring not just to move out of poverty, but also out of a situation of vulnerability and risk of slipping back into poverty. In this context, the pathway to resilience considered by the Nav Tejaswini project is diversifying and expanding enterprise development by women to improve incomes and through remunerative and decent jobs and ensuring household nutrition security.
16. In light of the above, the new project will: (i) leverage the institutional and capacity gains made in the Tejaswini project to promote women's enterprise in rural Maharashtra; (ii) build on the successful model of the CMRCs to themselves transform into profit making and profit sharing enterprises; (iii) leverage successful partnership with commercial banks to start micro-enterprise loans for women entrepreneurs; (iv) build on past convergence with Government schemes to leverage greater benefits for communities; (v) build on gains under Tejaswini in addressing the root causes of gender inequalities and facilitating women's economic empowerment, strengthening their voice and representation as well as addressing women's workload.
17. Overall, the rationale for IFAD's involvement in this project is related to (i) IFAD's extensive and successful experience in working with women's community based organisations; (ii) ability to leverage global/technical expertise on micro-enterprise development to take the achievements of Tejaswini to the next level; (iii) alignment with strategic focus of the Country Strategic Opportunities Programme (COSOP); (iv) IFAD's overarching commitment to Gol's strategic goal of doubling farmers' incomes (by 2022); (v) potential to leverage strong institutional capacity base; and (vi) opportunity to support MAVIM, as promoter of the CMRCs, to transform from a predominantly livelihood promoter for women to an 'enabler' of enterprise development and women's entrepreneurship.

B. Lessons learned

18. The most important lessons, relevant to the new project, are drawn from the implementation of the Tejaswini project in Maharashtra and Madhya Pradesh:
19. **Poor women willing to pay for quality services and their grassroots institutions enable continued access to services:** The enterprise development model of Tejaswini is based on reliable services to support women members' IGAs by CMRCs/ through public and bank financing, where no subsidy is provided at HH level. This demonstrates the fact that the poor rural women are willing to pay for relevant and quality services they receive.
20. **Grassroots institution building is the key to empowerment of rural women including efficient delivery of last mile**

services: CMRCs in Maharashtra excelled in financial inclusion whereas the Federations in Madhya Pradesh excelled in empowerment and nutrition related activities. This demonstrates that the CMRCs and Federations have become an efficient, last mile service delivery with least burden to the exchequer which can be leveraged to deliver a wide range of services to households at the bottom of the pyramid and key to empower rural women. Furthermore, the nutrition initiatives of 7-Din 7-Saat Ghar and Tiranga Thali from IFAD's supported project of Tejaswini Rural Development Programme (TRDP) in Madhya Pradesh has significantly improved food intake and dietary diversity among beneficiary households through improved agriculture and consumption practices.

21. **Support services-led strategy impacts livelihoods of large number of households:**Tejaswini adopted a simple strategy of providing support services to a large number of households as against providing subsidy. Support services such as Pashu Sakhis, Krushi-Sakhis, milk collection centres, produce aggregation units, agriculture service centres and farm machinery centres were promoted. The results indicate that CMRCs and Federations are able to cover large number of households with limited investment and the outcomes are sustainable.
22. **Reducing women's workload is important for women's participation in economic activities and participation in public spaces:** Under the preceding Tejaswini project, women adopted a range of drudgery reduction techniques such as use of farm machinery (tractor, rice transplanter and cono-weeder), processing equipment, accessible drinking water, latrines, home appliances (such as mixers). The SHG members further initiated rural markets run and managed by the SHGs thus easing long travels to the markets. All these activities freed women's time for participation in SHGs as well as local governance institutions, markets and government bodies. Women also reported taking holidays and enjoying leisure activities.
23. **Vibrant and disciplined grassroots institutions attract both public and private sector service providers:**Disciplined financial behaviour and rigorous monitoring by the CMRCs attracted ICICI Bank with an enviable on-time recovery of over 97%. This performance attracted other financial institutions such as IDBI Bank and NABFINS to provide credit to SHGs. The project also attracted agencies such as Lupin Foundation for e-catering and cashew processing units, Tata Trusts and Google India for Internet Sathi, UNDP and "Future Group" for pigeon pea aggregation and marketing. The CMRCs in Maharashtra also mobilized approximately USD 30 million through Government programmes which they delivered to their membership base.
24. Important lessons from micro-enterprise development initiatives in other countries are:
25. **Micro-enterprises are an effective instrument for rural poverty reduction and job creation.**Lessons from Bangladesh's Promoting Agricultural Commercialisation and Enterprises Project (PACE), demonstrates the positive employment effects of investing in microenterprises. PACE financed 604,566 microenterprises, that generated 1,399,032 full time jobs (2.31 jobs per microenterprise).
26. **Service delivery.** Experience of Palli Karma-Sahayak Foundation (PKSF) in Bangladesh also demonstrated the importance of combining financial and non-financial services to maximise results and impact at microenterprise level. Non-financial services include advisory and business services, improved technologies, value chain integration, and market promotion. Where these two services have been combined, there are proven positive effects on microenterprise turnover and income.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

27. **Goal and objective.** The overall goal of the project is to enable one million poor rural households to overcome poverty (sustainable in economic, social, and environmental terms, including climatic resilience). The Project's development objective is to improve capacity of rural women to diversify into sustainable enterprises or engage in remunerative employment and enhance their access to markets.
28. The project's development objectives contribute directly to SO1 of India's RB-COSOP: "Smallholder food and agricultural production systems are remunerative, sustainable and resilient" and to the following specific indicators in the CRF: (i) number of rural producers' organizations engaged in formal partnerships for input/output supply with public or private entities and financially sustainable; (ii) number of producers reporting adoption of environmentally sustainable and climate-resilient technologies; (iii) number of producers reporting increase of 10% in marketing margins; and (iv) number of HH reporting dietary diversity score > 8. The project's outcomes will contribute to all three objectives of IFAD's Strategic Framework 2016-2025, namely, increased production, increased market participation, and greater resilience.
29. **Project area.** The project will work across the 34 rural districts of Maharashtra, in the blocks/talukas/villages where MAVIM have organized SHGs, Village Organizations (VOs) and Community Managed Resources Centres (CMRCs). It will support all existing nano and microenterprise clusters, in addition to developing new commodity clusters. The project will look for synergies and complementarities with government programmes and investments from similar projects, in overlapping project areas, without duplicating work, e.g. the World Bank funded SMART project and PoCRA, etc.
30. **Target groups.** The project's direct target groups are the members of existing viable SHGs and their families who participated in the Tejaswini project. There will be two targeting mechanisms: i) Below Poverty Line (BPL) card holders identified by the GOM; and ii) identifying poorest households through Participatory Rural Appraisal (PRA) and wealth ranking. Majority of them are engaged in income generating activities (IGAs) and have a credit history. MAVIM is currently working with about 0.8 million rural women, who broadly fall into three distinctive groups as explained in the table below.
31. **Table 1: Target groups, poverty indicators and pathway out of poverty**

Type of target groups	Poverty indicators	Services and pathway out of poverty
Microentrepreneurs (25-30%)	Annual income > Rs 58,000 (BPL) [10] Land ownership > 2.5 acres	<ul style="list-style-type: none"> § Participate in an organized value chain § Individual microenterprise loan more than Rs 100,000 from bank/non-bank financial institution § Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. May receive business services as per need for example productivity related training, marketing support in case of farm sectors and design improvement in case of non-farm product.
Moderately poor (60-70%)	Annual income between Rs 25,000 to Rs 58,000 Land ownership is between 0.5 acre and 2.5 acres	<ul style="list-style-type: none"> § Participate in an organized value chain § Individual member may borrow up to Rs 100,000 through SHG-bank linkage § Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. § Some qualify for selected convergences schemes. § Vocational training for selected SHG or family members
Ultra poor (5-10%)	Annual income less than Rs 25,000 (no regular income and depends mainly on manual labor) Land ownership: landless to 0.5 acre	<ul style="list-style-type: none"> § Participate in a value chain if lives in the same cluster; § Individual member may borrow up to Rs 20,000 through SHG-bank linkage § Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. § Access pro poor convergences schemes § Vocational training for selected SHG or family members for wage employment. § Mentoring for IGA development § Village level wage employment for a subcontractor

32. By profession, the target beneficiaries are marginal farmers, livestock/fisheries micro-entrepreneurs, producers of non-farm products, workers in service sectors and agricultural labourers. From gender perspective, 100% of present direct beneficiaries are women. About 20% of SHG members are under 35 years of age (young adults). The project would target these young adults, women and men, from beneficiary families for skill development programmes to gain remunerative employment. It will indirectly support all value chain actors (input suppliers, traders, processors, aggregators, and advisory service providers). The percentages belonging to each group will be confirmed by conducting a baseline survey before the beginning of the project.

33. **Outreach.** The project will directly service 1 million households; namely 801,979 households through the 66,524 SHGs under 248 CMRCs and an additional 200,000 households, through value-chain interventions and wage employment opportunity creation in the micro-enterprises.

34. Key mainstreaming features

35. **Gender transformative.** This is a gender transformative project. The project recognizes that being a women-led enterprise project does not automatically lead to gender justice and equality. The project will additionally address root causes of gender inequalities, by consolidating the gains and expanding the successes of the previous project in: i) work-load reduction through machinery and women friendly technologies, ii) legal rights awareness training on gender responsive legislations including domestic violence, dowry, sexual harassment etc, iii) women's participation in public spaces and institutions such as local governance, markets and government bodies; iv) promoting joint titling of land and property; v) decision making at community, group and household levels; vi) gender sensitization and orienting services, including specific men's sensitization workshops. The project's contribution to gender equality and women's empowerment will be tracked and measured through Project-level Women's Empowerment in Agriculture Index (Pro-WEAI). The Implementing Agency, MAVIM, is the GoM's State Women's Development Corporation, with its seminal objective being the promotion of social, economic and political empowerment of women in Maharashtra. Its in-house gender-related capacities, given this very specific mandate, envisages a staff primarily specializing in the implementation of various women's empowerment programmes.

36. **Nutrition.** Anaemia is a major health problem in Maharashtra, especially among women adolescent girls and children in the rural

areas. Anaemia, and other micronutrient deficiencies, can result in maternal mortality, weakness, diminished physical and mental capacity, and increased morbidity having a bearing on productivity. The relationship between anemia and reduced productivity has also been well documented. A literature review examining the association between iron deficiency and work capacity identified a strong causal effect of severe and moderate iron deficiency anemia on aerobic capacity, which translates into reduced physical activity and therefore, productivity. Nearly half (47%) of women and 43% of men are either too thin or overweight or obese. Undernutrition is particularly common in the younger age groups, in rural areas, and among scheduled tribes. The project's investments will be nutrition-sensitive. The project will promote commodities/crops and its related products that have high nutritional value. Furthermore, recognizing that improved incomes do not automatically lead to better nutrition outcomes, the project will pursue behaviour change, awareness/education campaigns primarily through convergence. SHG meeting will be the platform for nutrition awareness. It will partner with government programmes and leverage partnerships with other agencies to support women members in SHGs and their households to make better-informed decisions about family's nutritional habits and dietary diversification. The project will also replicate the successful models of Saat din Saat Ghar and Tiranga Thali (nutrition models aimed at dietary diversification, including home gardens and meal plans) undertaken in Tejaswini M.P where appropriate.

37. **Youth.** It is estimated that 20% of the 800,000 women SHG members working with MAVIM are below 35 years. Percentage of youth is expected to increase as it is envisioned that the additional 200,000 beneficiaries will largely be young people. The validation of actual number/percentage of youth in NT will be done at baseline, anticipated as pre-project activity, where the target group will be disaggregated in terms of **age, gender** and other social categories. While NT is not flagged as 'youth sensitive' project, as per IFAD's criteria for social inclusion, NT envisions that young women will participate in and benefit from all the project activities including decent and remunerative employment. The young women consulted during field visits have expressed interest in developing skills in the service and manufacturing sector, the project will envisage vocational training focus for young women. Skills development trainings under sub-component 2.2 is designed with a focus poor rural youth who will benefit in: facilitation to vocational training at formal institutions; upgrading skills in selected employment/self-employment occupations; and apprenticeship with existing industries/ establishments.
38. **Climate:** Temperatures in India are projected to increase by approximately 4°C by 2080-2099, while the mean annual precipitation will rise by 46.5mm in 2050 (IPCC report), while the State of Maharashtra is highly vulnerable to climate change. Climate projections for 2030, 2050, and 2070 presented in the Maharashtra State Adaptation Action Plan on Climate Change (MSAAPCC) indicate that temperatures and rainfall will increase across the state, resulting in potentially significant adverse impacts on agriculture productivity. Currently, crop productivity is already exposed to increased climate variability and more frequent droughts (the state experienced 3 droughts in the last five years). Results of climate modelling indicate that the mean temperature is projected to increase between 1.2–1.6oC in the 2030s which might likely further increase by 2.2–3.5oC in the 2070s and result in frequent droughts in some areas. Rainfall is projected to increase from the 2030s to 2070s, with high spatial variability. Extreme rainfall events with longer dry spells are projected to increase in all districts of Maharashtra, resulting in reduced crop yields. The project will contribute to reducing the risks and impacts of climate change and variability by integrating climate smart agriculture and animal husbandry in business advice offered to the women entrepreneurs, and incorporate measures for efficient use of water and energy conservation in processing, manufacturing, and service enterprises under Component 1, financial services that support resilience such as insurance for livestock under component 2, and capacity building of grassroots organizations on climate adaptation approaches under component 3. These measures are aligned with the priorities identified in the Maharashtra State Action Plan for Climate Change (2018) and are in line with ongoing Government of Maharashtra's climate adaptation programme called Jalyukt Shivar. This is a water conservation programme which has created an irrigation potential of 2,274,744 ha and a water storage capacity of 1,727,229 TMC (thousand million cubic feet) across 16,521 villages in 34 districts of the state since 2015.

D. Components/outcomes and activities

39. The project will have three components: (i) Component 1: Market-driven enterprise development; and (ii) Component 2: Enabling support services; and (iii) Component 3: Institutional Strengthening and Project Management.
40. **Component 1: Market-driven enterprise development**
41. **Outcome:** The outcome of the component is 'Creation of sustainable business linkages for farm and non/off farm enterprises'. The component will enable farm and non/off farm producers and businesses in identified clusters to increase sales and profit through a combination of interventions in marketing, product development and quality improvement, productivity enhancement, and sustainable business relationships. It will facilitate new and expanding enterprises to strengthen their linkages with the agri/non-agri businesses and other value-chain actors. It is expected that the enterprises supported through this component will also generate remunerative and permanent employment opportunities.
42. This component will comprise four (4) sub-components: 1.1 Farm sector enterprise development; 1.2 Manufacturing and service sector enterprise development; 1.3 Capacity development of CMRCs; and 1.4 Supporting innovation.
43. **Sub-component 1.1 Farm sector enterprise development.** The core approach for enterprise development will be to develop organized and well-functioning climate resilient value chains for a product or group of similar products. Within farm sector the project will identify high-value climate resilient crop varieties that enhance tolerance to heat, drought, or flooding such as aromatic and special rice, soya, cotton and others, fruits and vegetables, pulses/seeds and nuts, spices and medicinal plants, poultry and livestock and pond fisheries in selected districts that showed opportunities for farming families and microentrepreneurs. Through these targeted sub-projects, the project will support women to capture higher value, climate resilient and better price realization in collection, aggregation, processing, grading, packaging, licenses, quality control, and certification for products. These sub-projects will also promote machinery and technology targeted at reducing women's workload and promote climate smart agriculture practices to enhance climate resilience through the adoption of climate adaptation measures such as water harvesting and micro-irrigation schemes, micro-insurance, and water efficient technologies/water reuse consistent with the Maharashtra State Adaptation Action Plan on Climate Change. In each sub-project, the following activities will be supported (i) organization of

producers at higher level, such as at the producer collectives; (ii) access of producers to technical assistance from service providers, to improve input quality, improve farm productivity and enhance climate resilience through production practices also aimed at reducing women's workload and building their adaptive capacity to climate change, farmer/entrepreneurs skill development, introduction of new commodity, Global Good Agricultural Practices (GGAP) certification which incorporates climate smart agricultural practices in form of in-situ soil and water conservation, mulching, drought tolerant varieties, soil fertility management, protective irrigation; (iii) forward linkages and identifying opportunities for supplying to big farms, contract farming, setting up chilling plants, processing and so on; (iii) aggregators and post-harvest processors to secure their supply chains; and (iv) provide to participating entrepreneurs business advisory services to develop skills in technology and management (e.g. business plans and cash flow planning; packaging and marketing planning and so on). Where required, the project will invest in appropriate modern technology (mostly equipment). See Annex 8: Project Implementation Manual for further details on selected commodities, value chain profiles of selected commodities.

44. *Stand-alone micro-enterprises.* In many cases, expansion of individual businesses (increase in sales and profit) can be made possible by increasing land (for rice, vegetables, lentils etc), increasing herds (goat, dairy), improving farm productivity using climate smart technologies and practices. The project through the CMRCs and village-based agricultural facilitators (*Sakhis*), will provide/facilitate production and market related assistance to standalone farm/businesses. Access to finance will be facilitated through individual loans under the SHG-Bank Linkage program.
45. **Subcomponent 1.2 Manufacturing and services sector enterprise development.** A number of non-farm and off-farm products have been identified with potential for value enhancement, enterprise development and marketability. These products/services are, among others: a) Wood works, bamboo products, handicrafts; b) spice processing, small food processing; c) Bag, saree, mini-garments (multi-machine tailoring); c) Jewellery and allied products; d) rural eco-tourism and e) wider range of services. New service enterprises such as rural eco-tourism have been preliminarily identified as having potential. The range of products in non-farm sector is numerous and fewer people form one cluster. The main challenges that will be addressed by the project for these value chains are: (i) low-quality and low-priced products targeted to price sensitive, low income buyers; (ii) absence of packaging and recognition; and (iii) poor design. Value chains are short, that is, produced and sold locally and in small volumes. Expansion is difficult at present quality and production quality mix.
46. A similar approach of value chain development will be followed in case of off-farm/non-farm products and services. To address the constraints outlined above the main interventions will be to: (i) train designers and assist design of products through professional designers and design institutions; (ii) introduce mechanization for quality improvement and standardization; (iii) develop skilled workers; d) identify subcontracting arrangement if feasible in case of bamboo products, garments, and wood works, jewellery and handicrafts; e) develop business plans and maintain records; and establish linkage with mainstream marketing channels.
47. *Stand-alone micro-enterprises.* Numerous existing microenterprises/IGAs from non-farm sector such as shops, collection units, can be expanded by providing larger loans, production/design training and linkages with bigger markets. About 20% of beneficiaries are currently engaged in such activities. MAVIM, after need assessment among the entrepreneurs of different trades, will shortlist business development service providers and facilitate availability of their services on fee basis.
48. *Employment generation.* The expansion of micro and small enterprises will generate decent and remunerative employment opportunities. Furthermore, the CMRCs will identify opportunities for connecting SHG members with sub-contractors in selected product supply chains, like IKEA or garments, wood and bamboo works, high value handicrafts etc. Other opportunities may be explored. The project will support the training of participating women to deliver production to specifications required by bulk buyers. This will be done through partnership with businesses to develop supply chains from villages.
49. *Formation of Producer Collectives.* MAVIM will facilitate producer members of CMRCs to form multi commodity producer collectives (cooperatives) to aggregate their output and procure inputs and services in bulk. To maximize the benefit from market opportunities, and deliver economies of scale, about 30 commodity-based producer companies (PCs) will be formed with adequate market savvy capabilities. Co-operatives will subscribe to the share capital of the producer companies. Producer companies will be provided operational cost support and also working capital support to leverage further loans. The machinery and equipment^[11] provided for value chain facilitation will be owned and managed by the cooperatives and producer companies. An Apex PC, if found essential, will be formed for standardizing quality and packaging across the various suppliers and for tapping export markets. The Project Management Unit will engage the services of institutions such as Samunnati Agro solutions for institutions building and market linkages.
50. Each CMRC will be supported for hiring a value chain facilitator for ensuring implementation of VC activities. For the 20 CMRCs which have been identified to be comparatively weak, with low manpower, additional staff cost has been provided for ensuring VC facilitation. These staff will be part of the producer collectives once they are formed.
51. **Subcomponent 1.3: Capacity development of CMRCs.** CMRCs have accumulated extensive experience in facilitating micro-finance, undertaking profitable social enterprises and livelihood support services. Based on this experience CMRCs have the potential to become service delivery hubs. The new project will be transformative for CMRCs as they move focus from livelihoods and SHG formation to enterprise development and market interventions. That requires reorientation of institutional focus of the CMRCs and process of project implementation through training and systems development at CMRCs. The project will organize training of CMRC staff in areas of enterprise development, value chain development and management, financial services for microenterprises, skill development program, M&E and knowledge management (KM), and strategic planning and leadership. Trainings related to skills development, M&E and KM will also be applied to climate-smart technologies and agriculture practices identified in sub-component 1.1. The project will be organizing training through reputed trainers/training providers. Besides, new microfinance software and project management software will be installed and accounting software will be upgraded.
52. **Subcomponent 1.4: Supporting innovations.** This subcomponent will be piloting new enterprises, technologies and products that have not been fully tested or adopted in the project area, but appear to have potential of replication to benefit project

beneficiaries and enhance climate resilience. This will focus on supporting niche crop and non-farm products, climate smart approaches and technologies (such as drip-irrigation, water harvesting systems, diversified cropping patterns, soil conservation, and value addition), renewable energy, waste management and any product/process that supports enterprise development and enhances climate resilience. A few examples have been tried by MAVIM such as small-scale fish fry nursery, neem oil, goat milk products, bio-fertilizers etc., in an isolated manner. The strategy is to develop a commercially successful venture as a pilot initiative and replicate that in wide project areas in enterprise development, green energy, waste management, irrigation etc.

53. **Component 2: Enabling Support Services**

54. Outcome. The outcome of the component is 'an enabling environment to facilitate women's enterprise development and employability in remunerative jobs'. This component will provide the critical complementary services with focus on providing an enabling environment at the enterprise levels as well as at household levels, to optimise SHG member's HH's participation in the enterprise development process.
55. The component has four (4) sub-components: (i) 2.1 Facilitating financial linkages; (ii) 2.2 Evolving new pathways for ultra-poor households; (iii) 2.3 Enhancing nutritional status and gender relations at HH and community levels; and (iv) 2.4 Policy engagement.
56. **Subcomponent 2.1: Facilitating financial linkages.** This subcomponent will have five main areas of focus:
 57. (i) Strengthening of SHG-Bank Linkage Program. The previous Tejaswini project has developed strong bank linkages especially with ICICI Bank (80% of SHG loans are from ICICI Bank), and the recovery rate is 99.5%. The CMRCs and SHGs are well versed with the system. Two issues will be prioritised in this project: increasing loan size per SHG and partnerships with other commercial banks. The bank loans to SHGs will be enhanced to support livelihood plans of the members by increasing SHG member savings to demand higher credit limit from banks, detailed credit plans to assure banks of loan absorption and repayment and Memorandum of Understandings (MOUs) with additional banking partners on similar lines that of ICICI bank.
 58. (ii) Facilitation of micro-enterprise (ME) loan. About 30% of SHG members want more than Rs 100,000 individually to expand their businesses but unable to receive such amount from existing SHG-Bank linkage. The mission explored the possibility of such loans with a number of banks including ICICI Bank and HDFC Bank. The project will undertake steps to mitigate risks and develop partnership with banks to: a) provide training to prospective microentrepreneurs on business management and preparing cash-flow and income statement; b) train Sahyoginis (banking facilitators) on the same issues, who in turn will help micro entrepreneurs to develop bank loan proposals ; c) launch a pilot ME loan program with 2-3 banks to reach to 10,000 MEs in two years, in order to develop a successful ME loan program; d) train/orient bank officers at the branch level of partner banks on ME management and financing, and e) provide risk mitigation instruments in the pilot phase to reduce risks from bank's point of view. The expectation is that a successful pilot program will lead to larger expansion across MAVIM SHGs to eventually reach about 100,000 MEs with individual loans.
 59. (iii) Facilitation of loans to producer collectives. Producer collectives based on their business plans will be facilitated to access working capital by Rural Finance Specialist at PMU. Innovative value chain financing such as receivable financing, warehouse receipt financing, will also be piloted for producer collectives in collaboration with financial institutions (such as Samunnati Financial Intermediation and Services). For equipment, plant and machinery, the PMU will pilot patient capital financing; the collectives based on business plans and viability analysis will be offered long term loans of 3 to 5 years at low interest rates of 4 to 6 percent. In very resource poor regions such as Marathwada and Vidarbha, partial grant cum patient capital will be structured. The idea is to replicate and finance more value chain based interventions than what grants will help establish.
 60. (iv) Advance financial literacy trainings on digital finance, insurance and pension will be offered to all women. Sahyoginis will be trained as trainers on these aspects so that they in turn will train women during SHG meetings. CMRCs will facilitate access of women to crop insurance, health insurance of Government (Ayushman Bharat) apart from pension. MIS will capture data on insurance and pension enrolment and renewal. Where possible CMRCs will enrol as insurance agents.
 61. (v) Financial innovation. The project will explore the piloting of a livestock health service cum insurance program in collaboration with vet service providers and private insurance firm to develop a low-cost and reliable livestock health and insurance service. This pilot will be managed by an organization with successful experience of such project. Livestock insurance is unpopular due to high premium. The premium of livestock is high due to high mortality and morbidity rate, a result of unreliable vaccination and animal health services, and over dependence on government livestock department. Occasionally vaccination camps are organized in the village that do not cover all animals, and curative service is expensive and not always available. The project will offer reliable livestock health services that would reduce mortality and morbidity and consequently, insurance premium. The pilot project will ultimately address the issue of animal health service as well as insurance commercially.
62. **Subcomponent 2.2: Evolving new pathways for ultra-poor households.** The objective is to facilitate the ultra-poor families (5 to 10% of SHG members) to shift to more secure, sustainable and climate resilient livelihoods and improve their incomes. Ultra poor families who are already members of self-help groups will be identified by CMRCs and VOs based on select criteria such as a) depend on insecure livelihoods, including casual farming labor with irregular or seasonal income of less than 50% of the poverty line income per year, b) no borrowing or negligible borrowing from self-help groups, c) household without proper shelter, d) vulnerability to climate variability.
63. Building on lessons from IFAD's Household Mentoring Approach, Sahyoginis will be trained to provide counselling, coaching, and encouragement to the ultra-poor households. Through frequent visits better understanding and solutions for the households to improve their incomes and resilience will be provided, which can include: a) village level training for improving skills and mentoring for small IGAs and participate in a resilient value chain (both farm and non-farm) if lives in the same cluster, otherwise on a standalone basis, b) encourage women to take small loans from self-help groups and counseling to Self-help group leaders and other members to be supportive, c) identify Government schemes for convergence both for livelihoods as well as for social entitlements, d) Vocational training for selected SHG or family members for wage employment. Project MIS will monitor the

performance of the ultra-poor households separately.

64. Skill development training. Three pronged approach will be adopted by the project for provision of skill trainings aimed at increasing wage/self-employment and incomes (these are apart from trainings provided under value chain interventions). a) Vocational training at formal institutions through existing flagship government skills training programs with the objective of enhancing access to services and employment outcomes for youth from poor/ultra-poor households. CMRCs will support Government skill training programmes in provision of pre training services including identification and mobilization of target youth, sharing information packs on types of training and training schedules, providing pre-training counselling services to poor youth to assist them in interpreting available information and making optimal training choices. b) Village based skill development is aimed at enhancing productivity, climate resilience and incomes of poor women through upgrading skills in selected employment/self-employment occupations. Master trainers/Certified trainers will be selected to offer village level trainings thus increasing access to such training for women and other marginalized groups. c) Apprenticeship with existing industries/ establishments for youth in ultra-poor/poor household where by the youth will be absorbed in the establishment after the apprenticeship period/ or set up own establishment. Support will be provided for out of pocket expenses for travel, stay etc., during the apprenticeship period.
65. **Subcomponent 2.3: Enhancing nutritional status and gender relations at HH and community levels.** This subcomponent has two distinct activities: nutrition and health improvement; and women's empowerment.
66. *Nutritional and health improvement.* The project will have a number of distinctive activities for promoting behavioural change, at the household level, with regard to dietary diversification and water and hygiene practises. The activities will include: (i) inputs and training for homestead vegetable gardens, dietary diversification and good diet practises at the household level (tiranga plate) and introduction of dietary supplements; (ii) WASH training through GOM's existing programmes, delivered through participating SHGs; (iii) tracking of SHG members body mass index (BMI) and haemoglobin levels through Primary Health Care centres and targeted follow-up and mentoring of those women recording low rates on either indicator; (iv) support for enrolment in health insurance schemes of the Govt (Ayushman Bharat). Apart from these HH level targeted interventions, the project will also promote nutrition-sensitive value-chains, e.g. vegetables and dairy. These activities will be implemented in partnership with Department of Women and Children and MH Rural Health Mission programmes (NRHM), one of whose major mandate is the implementation of the National Nutrition Strategy. The partners will be responsible for implementation of the micro-nutrient and dietary diversity programme for Nav Tejaswini.
67. *Women's empowerment.* MAVIM through SHG/CMRC structure has successfully promoted gender equality at the family level. A two-pronged approach is applied for gender transformation i) ensuring empowerment of women throughout the project as described under the components; and ii) having gender specific activities that address root causes of gender inequalities that inhibit women's full participation in enterprise development. For gender specific activities, the project will: i) continue to promote gender equality through training, sensitization and orienting services - including specific gender awareness workshops for men focusing on equitable work distribution, family nutrition, women's economic contribution to households; ii) encourage co-ownership by registration of agricultural land in joint names; iii) address women's drudgery in order to ensure time for participation in enterprise related activities. Work-load reduction will be addressed through machinery and women friendly technologies as well as encouraging women to hire labour as their enterprises grow. Further, MAVIM will actively seek convergence with on-going Government schemes on interventions that promote gender equality and women's empowerment as well as address gender related constraints that hinder women-led entrepreneurship. The successful initiatives under Tejaswini will be scaled up including: a) *Mitra mandals* of men supporting women's strategic gender initiatives, b) registration of houses and land in joint names of husband and wife, c) paralegal counselling and rights awareness training on gender responsive legislations including domestic violence, dowry, sexual harassment etc., d) supporting women's participation in public spaces and institutions such as local governance, markets and government bodies; e) promoting decision making at community, group and household levels; etc. Recognizing that women are not homogeneous, the project will ensure that gender disaggregated data tracks specific variables such as age, women-headed households as well as different vulnerabilities of the target groups. The project's contribution to gender equality and women's empowerment will be tracked and measured through Project-level Women's Empowerment in Agriculture Index (Pro-WEAI).
68. **Subcomponent 2.4: Policy engagement.** This subcomponent will focus on specific policy issues identified during project implementation. Some issues that are identified during design stage include: (i) lack of access to individual ME loan, to women graduating from SHGs, from commercial banks and other financial institutions; (ii) develop a more systematic procedure of receiving resources under convergences programs; (iii) define MAVIM's role in skill development and vocational training in the state; (iv) explore long-term collaboration with MSRLM/RDD [12]; (v) explore the possibilities to pilot supply of millet (a drought tolerant crop) and other nutritional and climate resilient crop varieties and products made by SHGs to Aanganwadi to boost nutritional values while enhancing climate resilience.; and (vi) feasibility study on setting up an apex financial institution based on need assessment of enterprises. The PMU will also commission policy specific studies where needed along with reputed institutions. The project will also prepare in-house capacity within MAVIM to prepare policy documents and effective advocacy.
69. **Component 3: Institutional Strengthening and Project Management**
70. Outcome: The outcome of this component is to institutionally strengthen MAVIM in areas of grassroots institution building and enterprise development, and ensure the project is satisfactorily managed.
71. This component comprises of two subcomponents to ensure efficiency of the project: (i) Institutional strengthening and (ii) Project Management.
72. **Subcomponent 3.1 Institutional Strengthening.** MAVIM is expected to strategically pursue the following broad areas: a) promoter of enterprise development; b) centre of excellence in areas of SHG approach to community development; c) capacity builder for grassroots institutions including training on climate adaptation approaches; d) facilitator of financial services to the SHG members; and e) implementer of various government schemes for its beneficiaries. This component will strengthen MAVIM's future roles as a development institution to promote enterprise development and manage large projects with diverse

activities. The project will finance training for MAVIM officials in business management and financial analysis, value chain analysis, project and sub-project design, management, M&E systems, financial services, and strategic planning. Besides, exchange visits and senior management trainings are recommended. In addition, the project will assist MAVIM to establish an environmental and social management system to screen, manage and monitor environment and social risks and impacts of the sub-projects. This includes building the capacity of MAVIM to: (i) review and categorize business plans submitted by CMRCs, according to the potential environmental and social risks and impacts; (ii) screen/categorize business plans against exclusion list and applicable national laws; and (iii) monitor environmental and social performance of the business.

73. MAVIM as a centre of excellence for community institutions. MAVIM has accumulated extensive experience in developing a model for financially-viable and sustainable SHGs that could be replicated within India and also in other countries. The new project offers a unique opportunity to show case the growth of SHG members to be entrepreneurs accessing appropriate technical support, business development services and access to micro enterprise loans on a sustainable basis. Nav Tejaswini will offer learning opportunities for other SHG programmes in Maharashtra, in other states in India as well as in other countries, on individual and collective enterprise promotion, and this will be coordinated with the Departments for Women and Child Development, Rural Development and Medium and Small Enterprises at both state and national levels. MAVIM will be supported to document their experiences, develop training and learning modules and training capacity of staff and specialists to become a paid training resource centre.
74. Specialized technical assistance will also be provided to MAVIM to explore the possibility of establishing a consumer brand for the sale of selected products. The TA will be to identify market potential of the MAVIM brand, to build a brand identity and identify sales and market linkage platforms for these specialised products.
75. System upgrading development. The project will support procurement of a) a robust microfinance software that can handle SHG and individual loans and real time tracking of transactions including mobile phone based financial transactions; b) project management software to manage all subprojects; c) human resources and office management software; and d) upgrading of TALLY software to monitor all transactions real-time.
76. **Sub-component 3.2: Project Management.** The project will be managed by a Project Management Unit (PMU), established within MAVIM, headed by Project Coordinator (GM- Programme of MAVIM) to manage planning and implementation of the project reporting to the Managing Director of MAVIM. An appropriate number of full time officials of MAVIM at the HO will be responsible for various activities and all District Offices will responsible for Nav Tejaswini at the respective district. MAVIM will need to recruit additional experts as required to implement the project. The PMU will be supported by Regional Coordinating and District Coordinating Offices. Further details provided under the section on Organizational Framework.

E. Theory of Change

77. **Contextual challenges.** The major contextual challenges to be addressed by the project are primarily two-fold: (i) women-led enterprises in rural Maharashtra are still facing challenges in areas of productivity, market participation, financial services, and business capacities. Improving production quality would entail having access to bigger individual loans (more than Rs 100,000), quality inputs, and know-how to expand their enterprises, but currently they are unable to access such services. Eighty percent of women are still marginal farmers and nano-entrepreneurs and unable to optimise market opportunities in the absence of access to larger markets and market information. Most microenterprises produce small, low quality, low-price products that are targeted to price sensitive local buyer. The SHG loan amount is small and inadequate to support livelihoods and enterprise needs. Finally, management capacity within existing producer groups and businesses promoted by individual entrepreneurs are still weak. These challenges are compounded by asymmetry in prices and business information available to producers; poor access to business development services; limited available labour time of women; women's poor nutrition status that further undermine their productivity and increase risk of illness; women without agency to start-up enterprises have limited IGA opportunities other than paid seasonal agricultural labour; policy gaps in financing for small enterprise development. (ii) The second contextual challenge is the persisting rural poverty and vulnerability among households in Maharashtra. Lack of livelihoods diversification makes rural households vulnerable to climate and market shocks. Similarly, lack of nutrition security also impacts the resilience of households, and especially of women and children, to deal with vulnerability. Numerous studies have shown the detrimental impact of lack of micronutrients on productivity of women.
78. **Underlying assumptions.** It is assumed that targeted productive investments are required in the rural areas to increase resilience of poor rural women and their households, through diversification of livelihoods and ensuring household food and nutrition security. Furthermore, poverty reduction and resilience, in all its forms, cannot be achieved unless gender inequalities are removed and biased social norms and cultural beliefs addressed. IFAD's experience in Asia and other parts of the world have identified diversification of livelihood as one of the most pertinent adaptation methods. Similarly, nutrition and resilience have been found to be strongly interlinked, as nutrition is both an input and outcome of strengthened resilience. The IFAD-supported Tejaswini project, which recently closed, had successfully reduced the income vulnerability of households living below poverty line and raised social awareness on gender empowerment issues. The next level of development will be to transform the present small income generating activities into microenterprises to become an important source of income for the rural poor households and not only come out of poverty but also become resilient to shocks. That requires, simultaneously, assured access to market and demand-driven financial services of a higher order, strong support services including financial and skill development for poorer section of the SHG-members, and enhanced capacity of MAVIM and CMRCs to facilitate enterprise development process. Economic empowerment will have to be complemented by social empowerment, to ensure that women have the productive space, agency at institutional and household levels and capacities to be able to be successful entrepreneurs. To build on the gains of the Tejaswini-MH, social awareness village level programmes including gender sensitisation will be conducted by MAVIM. Focused group discussions will be held with SHG-members and their spouses to ensure that increased economic empowerment does not lead to unintended negative impact for women.
79. **Pathways.** The above assumptions will be operationalised through Nav Tejaswini's key interventions, which will include: (i) market-driven enterprise development, with key activities that will provide technical support to women and women's groups to

develop farm, manufacturing and service enterprises (economic empowerment of women); (ii) provision of an enabling environment at enterprise level for women to access financial linkages and services (enhanced access to services and participation in public spaces for women); (iii) mentoring the ultra-poor households to find pathway out of extreme poverty (gender and socially inclusive targeting); (iv) enhancing nutritional status and gender relations at household and community levels as well as policy engagement on specific issues (equal voice and equitable workload for women and opportunity to influence gender responsive policies).

80. **Outcomes.** It is expected that the project's interventions will achieve the following outcomes: (i) women establish sustainable and profitable enterprises; (ii) women's enterprises are not considered high-risk for commercial loans; (iii) sustainable and profitable enterprises create incremental employment opportunities; (iv) members of ultra-poor households engage in decent paid employment; (v) income increases of all targeted households; (vi) nutrition status of women/families improve; and (vii) women led enterprises are recognised as profitable models for replication and scaling up.

F. Alignment, ownership and partnerships

81. **Alignment with SDGs.** The project will contribute to the government's target of increasing incomes of rural households, while delivering on improved nutrition security at household and community levels. With its focus on largely women and women's enterprises, the project will contribute significantly to the achievement of SDG 1 - end poverty; SDG 2 - zero hunger; SDG 5 - gender equality; and SDG 8 – decent work and economic growth.
82. **Ownership.** MAVIM with support from its parent Department of Women and Child Development, GOM, spearheaded the drafting of the concept note for the Nav Tejaswini Project, which was approved by the Department of Economic Affairs, GoI in June 2019. MAVIM will be the implementing agency for the project and will be responsible for project management.
83. **Alignment with IFAD corporate priorities.** With the specific focus on strengthening women's enterprise development, Nav Tejaswini is well aligned with the single strategic objective of IFAD's RB-COSOP for India (2018-2024): smallholder food and agricultural production systems are remunerative, sustainable and resilient. The project further adheres to the IFAD's targeting policy and the new targeting guidelines. The mainstreaming themes under Nav Tejaswini are informed by the following IFAD thematic Action Plans: Mainstreaming gender transformative approaches at IFAD Action Plan 2019-2025; Rural Youth Action Plan 2019-2021; the Nutrition Action plan; Mainstreaming nutrition at IFAD Action Plan 2019-2025; IFAD strategy and action plan on environment and climate change 2019-2025.
84. **Partnerships.** The project will promote convergence and partnerships with existing Government programmes in Maharashtra. It will also partner with agricultural advisory service providers, private businesses for component 1 and with banking and non-banking financial institutions for component 2. It will partner with research institutions as well as other donors such as BMGF for policy engagement activities.

G. Costs, benefits and financing

a. Project costs

85. **Project costs.** The total project cost is USD 421.87 million, to be financed through an IFAD loan (on ordinary terms) of USD 50.0 million, an IFAD grant of USD 1.4 million; Government contribution of USD 104.78 million (salary and operational expenses, taxes/duties, and convergence schemes). An estimated USD 250.8 million from domestic financial institution contributing to bank linkage programme, local private sector contribution of USD 9.9 million and beneficiary contribution of USD 4.9 million. There is currently a financing gap of USD 12 million in the IFAD allocation, that will be covered either through IFAD12 PBAS or through finances made available from restructured problem projects in India. In the case the grant finances are not available, the activities to be covered under the grant will be covered under loan proceeds and the total IFAD allocation would be USD 51.4 million loan on ordinary terms.
86. **Allocations by component.** Of the USD 50 million of IFAD loan, USD 34.30 million is allocated for Component 1, followed by USD 9.14 million for component 2 and USD 6.56 million for Component 3 that includes institutional strengthening of MAVIM and contribution for incremental project expenses. Table 5 presents details cost by component and financier, Table 6 by expenditure category and financier, and Table 7 by component and project year.
87. **Climate Finance.** The IFAD total climate finance for this project is USD 22.9 million or 58% of the total IFAD financing (calculated as per MDB Methodologies for Tracking Climate Adaptation and Mitigation Finance). The share of finance for climate change adaptation represents 100% of the IFAD total climate finance.

b. Project financing/co-financing strategy and plan

88. **Project financing strategy:** The following Table 8 summaries the financing strategy of the project where banks/financial institutions are the main co-financiers of the project followed by convergence schemes. The project will be leveraging funds via MAVIM.
89. **Table 8: Summary of project finances**

	IFAD Loan		IFAD Grant		Funding Gap		MAVIM		Gol		Banks/ Fis		Beneficiaries		Enterprise		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Market Led Enterprise Promotion	24 104	20.3	-	-	10 194	8.6	2 706	2.3	66 991	56.4	-	-	4 950	4.2	9 900	8.3	118 846	28.2
2. Enabling Support Services	7 306	2.8	-	-	1 837	0.7	1 276	0.5	-	-	250 840	96.0	-	-	-	-	261 259	61.9
3. Institutional Development and Project Management	6 559	15.7	1 400	3.4	-	-	33 808	80.9	-	-	-	-	-	-	-	-	41 767	9.9
	37 969	9.0	1 400	0.3	12 032	2.9	37 790	83.7	66 991	15.9	250 840	59.5	4 950	1.2	9 900	2.3	421 872	100.0

90. **Lending terms:** India is on IFAD ordinary terms. The maturity period for the loan is at the choice of the borrower, subject to a ceiling of 35 years and to a maximum average repayment maturity of 20 years. IFAD reference rate that the Gol will be charged will be based on the average repayment maturity bucket which is a pre-defined range of average repayment maturities. There are currently six average repayment maturity buckets, and Gol can choose any of the average repayment maturity buckets. The grace period is variable at the choice of Gol, subject to a ceiling of 10 years. Interest is paid on the loan principal disbursed and not yet repaid by the Borrower. Gol can choose either the fixed spread or variable spread and denomination currency in either EURO, SDR or USD. The terms related to the loan assistance will be as per the Guidelines for IFAD Lending Terms and Financing Conditions.

c. Disbursement

91. The total loan allocation of IFAD will be USD 38.0 million on ordinary lending terms as per policies of IFAD financing. Additionally, IFAD will fund a grant of USD 1.4 million. Two Designated Accounts in USD for Loan and Grant will be opened by the Gol at Reserve Bank of India (RBI) to which funds will flow from IFAD. Gol will transfer IFAD funds to GoM. The advance funding from IFAD to the Designated Account will be USD 4.2 million which is equivalent to about six months of the total loan allocation and USD 0.1 million for the Grant. The project will have a separate bank account at each of the implementing units wherein the amounts received from GoM including IFAD and its own share will be deposited and used for project activities. IFAD encourages the use of pre-approved start-up advance for specific activities that enable project fast-start between the date of signature of the Financing Agreement (Entry into Force) and the conditions precedent to the first withdrawal having been met. In addition, as an exception to the General Conditions for Agricultural Development Financing, IFAD is seeking Executive Board approval for retroactive financing from the loan of up to US\$1.0 million for eligible expenditures incurred as from 1 November 2019 until the date of entry in force of the financing agreement.
92. Close attention will be paid during implementation to ensure that Government of Maharashtra funds are released timely and that the justification of advances to service providers are not delayed. The Enterprise Development Fund represents over half of the loan financing and as such no IFAD funds will flow until the controls including procedures have been fully agreed. These controls will be implemented to mitigate the risks pertaining to: inaccurate claims (mathematical errors in the costings); incomplete claims; entitlement issues (the recipient or the individual proposal are not compliant with the Fund's requirements in terms of value limits and eligibility, including any potential fraudulent claims); and operational issues such as the satisfactory performance of applicant screening and award controls (including the relevant contractual paperwork); and controls over the Management Information System used to track the claims and communicate the CRMC awards to their respective banks.
93. **Submission of withdrawal applications (WAs):** The project will prepare and submit to IFAD WAs once every quarter, or after incurring expenditures of up to 30% of the amount advanced to the DA, whichever is earlier, through DEA. All financing and loan service payments shall be exempt from taxes. The current accounting and reporting system of MAVIM is robust enough to generate report based withdrawal applications and the WA should be quarterly Interim Unaudited Financial Report (IUFR).

d. Summary of benefits and economic analysis

94. Beneficiaries. The project, with multiple components and activities, will have many different direct beneficiaries. An estimate of beneficiaries by category presented in Table 9. It is understood that one person may belong to multiple categories making the total 3.05 million compared to actual one million person of direct beneficiaries.
95. **Table 9: Project beneficiary category**

	Type of services	beneficiaries
1	Value chain participants (farm/non-farm)	565,400
2	Standalone businesses	200,000
3	Skill Development/Vocational training	26,800
4	Innovation projects	4,800
5	Nutrition/Gender services	800,000
6	Ultra-poor assistance	80,000
7	Convergences	408,000
8	Microfinance (Regular -SHG)	800,000
9	Microfinance - ME loans	100,000
10	Livestock health/insurance pilot project	40,000
11	New wage employment	34,000
	PROJECT TOTAL	3,059,000

96. Economic rate of return. Models were developed for main value chains such as dairy, goat keeping, poultry, fruits, vegetables, bamboo/woodwork, jewellery making, handicrafts and similar common products. The Financial Internal Rate of Return (FIRR) of the project is 32%. The Economic Internal Rate of Return (EIRR) is 35% (base case) and a benefit to cost ratio (BCR) of 2.93. The Net Present Value (NPV) for the 20 year period is US\$1207 million at a discount rate of 7.5%. These figures along with sensitivity analysis will be revised with final estimates.

97. Sensitivity analyses were carried out for several scenarios with variations in benefits and costs along with delays in realizing the benefits (See Table 10). Two scenarios of increase in cost by 10% and 20%, the EIRR decreases to 31% and 28% respectively. Similarly, 10% and 20% decrease in benefits reduces EIRR to 31% and 27% respectively. Similarly, a simultaneous increase in cost by 10% and drop in benefits by 10% the EIRR comes down to 28%.

98. **Table 10: Sensitivity analysis**

		Economic DR =			7.5%
Sensitivity Analyses	EIRR	B/C Ratio	NPV (USD mn)	NPV (Rs Mn)	
Base Case	35%	2.93	1,207	84,500	
All cost increase by 10%	31%	2.66	1,144	80,115	
All cost increase by 20%	28%	2.44	1,082	75,730	
All benefits decrease by 10%	31%	2.63	1,024	71,665	
All benefits decrease by 20%	27%	2.34	840	58,830	
Cost increase by 10% and benefits decrease by 10%	28%	2.39	961	67,280	
1-year delay in getting benefits	27%	0.38	1,024	71,706	

e. Exit Strategy and Sustainability

99. The project builds on the largely self-sustaining community institutions- CMRCs- supported by an existing government institution- MAVIM- which is mandated to promote social and economic empowerment of women and is not a Special Purpose vehicle created for the project. These factors lay the ground for the project's sustainability and exit strategy. Whereas the previous project (Tejaswini) had contributed in building strong CMRCs which in turn helped in strong SHG- Bank linkages, this project will focus on (i) filling any gaps in ensuring full self reliance of CMRCs (ii) promoting an ecosystem for sustained income generation of HHs and (iii) consolidating the capacity of MAVIM to handhold CMRCs in their new role. In this way when the project ends, HHs, CMRCs and MAVIM would be in mutually supportive role and have the capacity to engage with markets as well as deal with temporary shocks that can affect their livelihoods.

100. Market-led enterprise development. Nav Tejaswini's market-led enterprise development approach is at the core of sustainability and exit strategy of the project. The value chain approach is primarily led by market demand where producers (in this case SHG members, and other producers) respond to market demand to produce goods and services. The quality, quantity, price etc are determined by market forces. The project will actively establish linkages of producers with buyers, for example, via contract farming and subcontracting arrangement, and other supply arrangement such as to chilling plants/milk processors. These business transactions are, once established, inherently sustainable in absence of the project. At the same time it is not the subprojects that need to be sustainable but the various technologies, business services, production techniques, and marketing arrangements are expected to be adopted and sustained beyond the project period. The project's main objective is to bring systematic changes in production and marketing system that includes SHG members and other small producers in rural areas.
101. Sustainability of technologies and practices. The project will promote agricultural technologies such as IPM which reduces cost of production and ensure food safety without affecting output, promote already environmentally adaptive animal breeds (cows/buffalos, goat and chickens) and fish varieties, farm practices to improve productivity, commercial animal health services etc that are expected to continue as these practices will increase profitability. Introduction of GGAP in the supported commodity value chains allow for improved health and sustainable agricultural practices. Likewise, introduction of bio agent for pest control through adaptation of IPM and the introduction of new crop varieties tolerant to climate change, pest pressure, increase nutritional values and high productivity will also contribute to sustainable agriculture and food security. Similarly in case of non-farm sector, improvements in design, introduction of machineries, skill enhancement of producers, linkage with mainstream buyers are key elements of the project which are sustainable without continued project support.
102. Access to finance. The present SHG-Bank Linkage program is self-sustaining as banks are providing basic loan products to all SHG members through facilitation of CMRCs. The process not only meet demand for small loans up to Rs 100,000 but also brings income to CMRCs. The proposed ME loan is also expected to sustain because the larger loans are profitable for banks, meet demand of entrepreneurs and bring higher income for CMRCs. The SHG-Bank is the most robust sustainable institutional arrangement beyond the project period.
103. Sustainable CMRCs. About 80% of CMRCs are already financially viable due to sustainable income from SHGs and microfinance program, and participation in convergence scheme. The sustainability is expected to be further enhanced with implementation of Nav Tejaswini by strengthening institutional and financial capacity. Besides, cooperatives set up CMRCs are expected to be successful businesses/trading entities.
104. Institutional sustainability of MAVIM. GoM is providing MAVIM's operational expenses through budgetary allocations. The institutional capability of MAVIM will be enhanced through various training and technical assistance to become an effective promoter of enterprise development for rural women. In addition, MAVIM is increasingly implementing GoM/Gol convergence schemes. The main challenge is to ensure the market led implementation for sustainability of enterprises.
105. Since Nav Tejaswini is built on a successful project and implemented through a network of strong CMRCs and SHGs and coupled with the commercial approach for provision of services and inputs the project will ensure a high likelihood for long-term sustainability and ensure safe exit of the project support. See **Annex 10** for further discussion on exit strategy and sustainability.

3. Risks

H. Project risks and mitigation measures

106. The overall project risk probability is rated Low and the impact of these risks is rated as Medium-Low. The risk probability from political and governance, macro-economic, sector strategies related issues are rated Low. The risk probability from technical design of the project, institutional capacity for implementation and sustainability and stakeholder related issues are rated Low whereas the risk probability for financial management, procurement, and environment and social issues are rated low-medium (See **Annex 9**).
107. The financial management risk is assessed as Medium, MAVIM has established accounting and financial system in place with adequate human resources. Additional staff will be recruited to handle the extra workload of the project. Accounting software will be upgraded.

I. Environment and Social category

108. Nav Tejaswini is focused on enterprise development with two technical components: i) market-driven enterprise development (for farm and non/off farm businesses); and ii) enabling support services. The project will not involve land pooling, land acquisition, resettlement or Rehabilitation. As such, the project is rated as '**Category B**' with **Medium** overall Environmental and Social risk. The potential environmental impacts posed by the project are likely to be limited, site specific and constrained to production (including land development and agrochemical management issues), agro-processing facilities (including use of firewood, waste and effluent management, unhealthy working environment, etc.), and possible risks from construction of market infrastructure including market connected feeder roads, and small scale irrigation and drainage development including, tube-well and watering points construction. Most of these impacts would be readily remedied and/or considerably reduced with appropriate mitigation plans. The project will not have any severe negative impacts on the livelihoods of other peoples or social groups including involuntary taking or restriction on the use of land resulting in physical or economic displacement. It is not envisaged to negatively affect indigenous peoples or sites of historic, religious or cultural significance. In line with the campaign of the state government against child labour, the project and MAVIM will have a zero tolerance policy against child labour. The project will not support land use change affecting forests, protected areas, important bird areas, and or new clearing of

contiguous area of above 100 ha in a single location. The mitigation options proposed for environmental concerns provide opportunities to mainstream environment and climate-resilient production and processing systems and creating additional chains (such as waste valorization) within the existing system established by the previous project without extensive additional costs.

J. Climate Risk classification

109. The project is categorized to have a high climate risk. The target group of the area is substantially dependent on climate-sensitive natural resources especially rainwater-fed agricultural plots. Cotton, Soybean, Sugarcane and livestock production value chains have a high propensity to improve the economic status of these rural women if properly implemented. However, owing to the high variability in precipitation and temperature changes, these agribusinesses are prone to be adversely impacted if adequate measures like crop-based insurance and early warning systems are not in place. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability. This suggests the possibility of increased dry spells, drought and delayed rains during the wet season. Increased rainfall intensity, coupled with land clearing increases the risk of surface runoff (flood), erosion and landslides, and risk of river damage to road infrastructure. However, the project has the potential to integrate climate resilience measures without extensive additional costs through capacity building programmes in climate smart agricultural strategies, strong collaboration with extension and weather/climate monitoring institutions for regular agro-climatic information and use of the right/appropriate cultivars. The project will build on the successes of the previous project to scale up activities promoting the use of clean energy infrastructures including production of biogas from effluents, briquettes and other energy saving innovations. Early warning systems, weather information dissemination channels and weather index insurance to cover losses to floods will be deepened to improve the resilience of the target group.

4. Implementation

K. Organizational Framework

a. Project management and coordination

110. **Governance and oversight** There will be two oversight entities: (i) Empowerment Committee, Chaired by the Hon. Chief Secretary Maharashtra; and (ii) the Executive Committee, Chaired by the Secretary of Women and Child Department.
111. **Project management** The loan and grants from IFAD will be transferred to MAVIM which will implement the project as per project design report and project implementation manual (PIM). The project will be implemented in association with CMRCs and SHGs and in partnership with other government and non-government institutions, and private sector businesses as per needs of specific business sector. MAVIM has management autonomy and receives resources annually from GoM for staff salary and other management costs.
112. **Project Director:** The Managing Director of MAVIM will be ex-officio Project Director with full responsibility of proper management of the project as per design and achieving project goals/objectives.
113. **Project Management Unit (PMU):** The project will be managed by a Project Management Unit (PMU) headed by Project Coordinator (General Manager- Programme of MAVIM) to manage planning and implementation of the project. An appropriate number of full time officials of MAVIM at the HO will be responsible for various activities and all District Offices will responsible for Nav Tejaswini at the respective district. MAVIM will need to recruit additional experts including a) Market and Business Development Specialist, b) Value Chain and Project Supervision Specialist (3), c) Financial Services Program Specialist, d) M & E Specialist, e) Procurement Specialist, f) KM and Communication Specialist, g) short-term consultants to do specific jobs. MAVIM's support divisions such as Audit, Administration, Human Resources, Accounts and Finance, Research, Training, MIS, and IT will provide relevant services to the project. The PMU will be supported by Regional Coordinating and District Coordinating Offices.
114. **Regional Coordinating office of MAVIM:** The Regional Coordinating Officer will be responsible for overall monitoring of activities of the project in the Region.
115. **District Coordinating Office:** DCOs will be responsible for overall implementation of the project in collaboration of CMRCs. Since the project will implement several value chain development subprojects in each district, it deploy a full-time Project Supervisor and Monitoring Officer in each district who will report to DCO/MAVIM.
116. **CMRCs:** CMRCs will be grassroots implementers of the project. The project will deploy one Project Supervisor in each CMRC when a CMRC starts implementation to supervise and monitor progress.
117. **MAVIM's role in project Management** MAVIM as the lead implementing agency will: (i) be responsible for implementation of the project; (ii) continue to review and evaluate all enterprise development proposals through an Evaluation Committee headed by Project Coordinator and represented by senior officials, and from time to time attended by sector experts; (ii) MD will be final approver of all subprojects; (iii) organize and fund the capacity building of its own staff as well as CMRCs, banks and other organizations and value chain actors; (iv) identify potential market and market players; (v) provide clear guidance to CMRCs on preparation and management of enterprise subprojects; (vi) contribute to the preparation of enterprise proposals by CMRCs by providing guidance as well as relevant sector and marketing studies; (vii) share experiences with other enterprise development projects/agencies and rationalize common activities; (viii) engage in policy advocacy for necessary changes in rules, laws, and standards; (ix) identify suitable technical assistance providers or individual experts to provide capacity building to MAVIM staff, and value chain actors and associations.

118. **Management of Convergence:** The District Coordinators will be responsible for management of convergence projects as per standard government process and design of each convergence scheme.
119. **Coordination with other development investment projects:** MAVIM is one of the implementing agencies of the World Bank funded SMART project, which is somewhat similar in scope of Nav Tejaswini. Similarly, MAVIM is also functioning in areas where other projects such as IDH and BCI are active. The project will avoid investment in same value chain (product or groups of products) in same CMRC and SHG to avoid the duplication of works and implementation complications.

b. Financial Management, Procurement and Governance

120. During design, a Financial Management (FM) risk assessment has been completed in accordance with Financial Management Division (FMD) guidelines in consultations with MAVIM-HO, and sample district offices and Community Managed Resource Centres (CMRCs). The inherent risk assessment is based on the latest national Public Expenditure and Financial Accountability assessment (PEFA) conducted in 2010 and the audit reports of MAVIM. The TI Corruption Perception Index of India has improved from score 38 in 2015 to score 41 out of 100 in 2018 and ranking 78 least corrupt country out of 180 countries thereby indicating "medium" risk. However, corruption continues to be perceived as a major obstacle to efficient and equitable development. The strength of MAVIM lies in its uniform computerized accounting, synchronization of accounts, reconciliation and reporting procedures, as well as capacity and previous experience in the successful implementation of IFAD funded projects, indicating thereby its robust organizational arrangements.
121. **Control risks**
122. The project will be operating in a medium inherent risk environment due to the persistence of some weaknesses in the public sector financial management systems as outlined in the PEFA analysis. The proposed financial management arrangements for the project incorporate a number of measures intended to reduce such risks to acceptable levels and ensure that (i) the project funds are used for intended purposes in an efficient and effective way; (ii) reliable and timely financial reports are prepared; and (iii) project assets and resources are safeguarded from unauthorized or wasteful use. After mitigation, the overall project fiduciary risk will continue to be Medium.
123. Based on the combination of inherent with control risks, the overall FM risk rating assigned to the project at this stage is MEDIUM. Further analysis, especially in the control area, will need to be performed during project implementation. However, project implementation will still contain some risk elements. Risk m
124. MAVIM is a registered not for profit company registered under the erstwhile section 25 of Companies Act, 1956 (currently section 8 of Companies Act, 2013). MAVIM regularly complies with its legal obligations. The FM assessment concludes the rating of financial management system at MAVIM as Medium risk. This will be further assessed during project implementation. In view of IFAD's positive experiences with FM under TEJASWINI, the new project NAV TEJASWINI will continue to use the national project financial management systems to the extent they are consistent with IFAD guidelines and procedures. Annual budgeting will be undertaken by the project in line with the Government's budget framework and calendar as part of its regular budget submission.
125. **Subsidiary agreements:** Subsidiary agreement between DWCD and MAVIM will be executed for the project duration. The provisions of the subsidiary agreement will include all aspects of implementation and good governance.
126. **FM staffing and responsibilities:** MAVIM has adequate qualified and experienced finance and accounting staff to implement the project where GM (Accts and Finance) is responsible for the overall functioning of the section, for coordination with the Government for disbursement of counterpart funds, taxation issues, preparation of the project's consolidated financial statements, review of financial reports and getting audit completed within the stipulated time.
127. **Accounting systems, policies, procedures and financial reporting:** The project will follow a double entry and computerized accounting system at all levels. The accounting will be in accordance with Standards of Accounting accepted in India MAVIM currently uses Tally software for its accounting at the HO and the districts. CMRCs also use the same software. The system works well with a uniform chart of accounts and consolidation of accounts at the HO every month using the synchronization feature of the software. The group heads are based on the financing categories and data needs to be exported to excel to prepare the financial reports on components. It is proposed that the software be used more efficiently by using groupings and cost centres function to record transactions by components and categories. Customization of the software should be undertaken to generate reports from the system itself in the format required for preparation of the PFS. The accounts at the districts are synchronized every month at the HO based on which the GM/ CAFO at the HO shall be responsible for the preparation of consolidated quarterly financial reports. The reports will be useful for preparation of the quarterly withdrawal applications. The GM shall be also responsible for the preparation of the annual financial statements of the project which will be subject to external audit. The AWPB, six-monthly reports prepared by the project and the audited accounts shall be submitted to the Project Empowered Committee for approval and then forwarded to IFAD.
128. **Budgeting:** The budget will be finalized by MAVIM HO that will be included into the budget of the Department of Women and Child Development (MWCD) of the Government of Maharashtra (GoM) in the state government's budget.
129. **Counterpart Funds:** The GoM shall ensure timely and adequate release of the funds to the project in accordance with the approved budget so that the implementation of the project is in line with the approved AWPB. This will be one of the agreements reached between the Borrower/State and IFAD. Further beneficiary contribution shall also be recorded in the books of the project to arrive at the total project expenditure.
130. **External Financial Audit:** The external audit of MAVIM is conducted by an empanelled firm of Chartered Accountants. The office of the C& AG also conducts transaction audit. For the project, besides these two audits, MAVIM will appoint a CA firm to conduct

audit of the HO and the districts to specifically conduct the audit. The audit needs to be conducted in accordance with the IFAD Handbook for Financial Reporting and Auditing for IFAD financed projects and auditing standards as prescribed by the Institute of Chartered Accountants of India will be adhered to. The audited financial statements shall be submitted to IFAD within six months of the end of each financial year. The audit report shall also include a Management Letter should indicate any weaknesses and opportunities for efficiencies, if any, observed by the auditor in the internal control systems and the recommendations for overcoming them.

131. The proceeds of the IFAD financing will not to be used to pay taxes which will be part of the counterpart funding of GoM to the project. The estimated tax amount is USD 4.6 million which will be borne by the MAVIM besides its contribution as counterpart funding.

132. Procurement

133. Procurement under the project will be done in compliance with IFAD's procurement guidelines and IFAD Procurement Handbook. It is recommended that IFAD Procurement Guidelines shall be followed both at the central level and at the decentralized level by all implementing entities. The PIM will detail procurement procedures, processes and management arrangements. All procurement requiring IFAD prior review will be uploaded in IFAD No Objection Tracking and Utilities System (NOTUS) portal. The prior review thresholds for different categories will be included in the Letter to the Borrower. To ensure effective implementation of project procurement activities in line with the above, the project will have an effective procurement unit in place, and recruit a dedicated full-time procurement officer.

134. A risk analysis has been undertaken based on the Procurement Risk Matrix which indicates a Medium/ Moderate risk. The summary of the risk matrix is provided below

135. Procurement Risk Mitigation Measures

Risk Factor	Initial Risk	Mitigation measures	Residual risk
No dedicated procurement unit	High	Procurement Specialist will be engaged on full time basis, and the appointment will require IFAD's approval.	Medium
Standard bidding documents and contracts	Medium	IFAD Procurement Guidelines and Procurement Handbook will be adopted. IFAD Standard Bidding documents and contract templates will be prescribed for compliance to the project. A Procurement Manual will be developed. IFAD will also undertake capacity building measures for the procurement staff.	Low
Inadequate contract management	Medium	Contract Registers and Monitoring Form will be introduced.	Low
Contract disputes redressal system	High	Formalize system of dispute redressal including arbitration	Medium

136. **Governance and transparency framework:** IFAD's applies a zero-tolerance approach in cases where investigation determines that fraudulent, corrupt, collusive, or coercive actions have occurred in projects financed through its loans and grants. Project design includes several measures to promote transparency: (i) autonomous central project office and relevant district project management offices, operating on the basis of good governance; (ii) annual independent audit; (iii) verification of fiduciary compliance during supervision; (iv) independent impact assessments; and (v) more efficient public financial management systems and ensuring of transparency by strengthening state oversight. In line with the IFAD General Conditions on Agricultural Development Financing and IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations, the project should provide a commitment to abide by these provisions and establish a credible deterrent mechanisms and cooperate fully with IFAD and the notified Government investigative agencies/authorities. In particular, the independent and competent investigating authority responsible for receiving, reviewing, investigating allegations of fraud and corruption will be the additional Secretary, Vigilance Department, GoM.

137. The procurement section is described above. The procurement plan for the first 18 months is available in annex 7.

L. Planning, M&E, Learning, KM and Communication

a. Planning, M&E, Learning, Knowledge Management and Communication

138. **Planning:** The logframe of the project (see Annex 1) will guide the development of work plans and budgets. Planning and

budgeting will be integrated in the GoM processes and budgets and will be based on Annual Work Plans and Budgets (AWPBs). The planning process will start at CMRC level under the guidance of the DCO, MAVIM taking into consideration the overall activities under different components and sub components. District plans and budgets will be consolidated into a comprehensive state level AWPB. Yearly AWPB will be submitted to the PSC for review and approval and then to IFAD for review and the issuing of no objection. The AWPB will clearly indicate the project expenditure, resources to be mobilised from the Government programmes through convergence, credit from financial institutions and beneficiaries' contribution. The approved AWP&B would be used as a key document for reviewing the performance and progress during the supervision missions and project steering committee meetings.

139. **Monitoring and Evaluation:** Nav Tejaswini will develop a robust M&E system in compliance with IFAD and the GoM requirements and fully aligned with IFAD's Operational Results Management System (ORMS). The M&E system will (i) collect, and analyse information on project results and impact; (ii) support PMU in planning and making informed decisions especially on course correcting actions; (iii) review the performance of partnerships with technical service providers, marketing players including contract farming, financial institutions etc.; (iv) create opportunities for learning and sharing results.
140. Project M&E indicators and means of verification are defined in the logical framework (Annex I) which includes relevant core indicators from the ORMS. All people-specific indicators will be disaggregated by gender and youth. The PMU will fine-tune progress, performance and outcome indicators at the Start-Up Workshop with support from IFAD and will report on targets bi-annually as part of the internal planning processes. The project will use IFAD's revised Core Indicators to enhance the measurement of IFAD's results at the outcome level and will launch the core indicator survey at baseline, mid-term and end-line.
141. Tejaswini Maharashtra established a robust MIS system in 2012 with the introduction of the SHE software, through which MAVIM could monitor physical and financial progress of SHGs portfolio regularly. This also generated SHG data that was shared with private commercial banks as credit history of SHG members, to facilitate provision of loans to the SHGs. This system continues to function even after the closure of Tejaswini and will be further strengthened under Nav Tejaswini. Under the new project, the monitoring progress and reporting will be systematized for: (i) management information for project activities, i.e. customized installation of MIS system that will track progress in outreach, activities implemented, and corresponding financial progress; (ii) installation of a robust microfinance software that can handle SHG and individual loans and real time tracking of transactions including mobile phone based financial transactions; and (iii) upgrading of TALLY software to monitor all transactions real-time.
142. Based on the Project Logical Framework (Annex 1), the Project Implementation Manual (PIM) will be further developed to define the responsibilities of each implementation level in collected and aggregating data for selected indicators that to be monitored and their frequency and reporting requirements. Within each unit of implementation, namely PMU, Regional Coordination Office and District Coordination Office, a focal person will be designated to report on specific monitoring and outcome indicators, which will then be aggregated at the PMU level. The Project will produce regular statistical reports and annual reports that document the performance of the project and provide lessons for further refining the project approach.
143. The Nav Tejaswini M&E and MIS systems will be prepared during the project preparation period, to ensure that the key tools are ready and all key information is recorded from the start of the project. In line with recommendations IFAD Financial Management Team, the MIS will also track beneficiary contributions and private sector contributions to project costs so that these can be consolidated in project accounts.
144. A Impact and Outcome Survey of beneficiary households will be undertaken to capture baseline, mid-term and end-line data through a focused survey of expected beneficiaries in the 34 districts of Maharashtra. Sample size will be determined based on the guidelines established by the new COIS methodology. The Impact/Outcome Survey will primarily measure indicators for the Project Development Objective and Outcomes indicators. Data on skills, technology and entrepreneurship will be collected in the survey and will be cross-compared with a treatment group at completion.
145. Annual Outcome Surveys will be carried out starting from PY3. The surveys will cover (i) emerging intermediate outcomes of the services provided, the uptake of new technology; (ii) the views of participants about effectiveness of services provided by project; (iii) assessment of the emerging impact on incomes, employment, growth in businesses and rural enterprise.
146. Nav Tejaswini is expected to provide lessons that can be important to shape the government policy regarding graduation of SHGs from savings and credits groups to established micro-enterprises. The new project offers a unique opportunity to show case the growth of SHG members to be entrepreneurs accessing appropriate technical support, business development services and access to micro enterprise loans on a sustainable basis. Nav Tejaswini will offer learning opportunities for other SHG programmes in Maharashtra, in other states in India as well as in other countries, on individual and collective enterprise promotion. MAVIM will be supported to document their experiences, develop training and learning modules.
147. **Knowledge Management and Learning:** The project's KM activities will support the effective flow of relevant information between project staff, beneficiaries and other stakeholders. A comprehensive KM action plan will be developed in the early stage of implementation. Output, outcome and impact data generated by the M&E system will inform high-quality case studies, briefs and reports. These will be used for policy dialogue, peer-learning, and potential scaling-up of activities. KM products will be communicated through multiple sources including, blogs, written publications, video and social media. Knowledge Management & Learning will involve Departments of Women and Child Development, Rural Development and Medium and Small Enterprises, at state and national levels.

b. Innovation and scaling up

148. The project will introduce innovations in its approach, activities and products to be introduced. (i) Approach. Systematic Graduation from micro-livelihoods to enterprises for rural poor with CMRCs functioning as enterprise promoters is a new

approach. This will be done through building their capacity and promoting systems such as a) robust microfinance software that can handle SHG and individual loans and real time tracking of transactions including mobile phone based financial transactions; b) project management software to manage all subprojects; (ii) Activities. Subprojects will promote piloting of new enterprises, technologies and products that have not been fully tested or adopted in the project area. This will include promotion of niche crops and non-farm products, innovations related to environment, irrigation, renewable energy, waste management and any product/process that supports enterprise development; and (iii) Products. The project will pilot new financial products including a livestock health service cum insurance program in collaboration with vet service providers and private insurance firm to develop a low-cost and reliable insurance service. As the enterprises have not yet been fully identified the list of innovations will be elaborated when the list of enterprise become finalised.

M. Implementation plans

a. Supervision, Mid-term Review and Completion plans.

149. The project will be implemented over a period of six years beginning 2020. The Project Implementation Manual (PIM) presents project implementation plan in details (See Annex 8).
150. **AWPB:** The PMU will prepare Annual Work Plan and Budget (AWPB) for approval by IFAD. It will follow IFAD's prescribed format and be consistent with PDR.
151. **Procurement plan:** The project will also prepare procurement and follow IFAD approval requirement as prescribed in the Letter to Borrower.
152. **Implementation preparedness.** MAVIM has agreed with the design team to pre-finance and undertake the following activities in order to ensure implementation readiness. These activities are:
- Identify potential sectors/value chain development sectors/products by district;
 - Identify potential partners and enter into partnership arrangements for production/ marketing;
 - Identify and map out skill training services provider, and most prospective and effective approach for skill development;
 - Organize training on business management of MAVIM and CMRCs senior officials;
 - Organise capacity building of the weak CMRCs in preparation for implementation of project activities.
 - Procure microfinance management software to monitor in real-time SHG and individual credit of one million of beneficiaries;
 - Develop/procure project management software for management of all enterprise development activities of the project;
 - Make MAVIM accounting software online/real time linked with Head Office;
 - Procure human resources software;
 - Conduct baseline survey (sample survey) SHG families to determine all baseline values of log-frame indicators. The baseline will include pro-WEAI;
 - Complete recruitment process of new staff members;
153. **Supervision, Mid-term Review and Completion plans.**
154. **Supervision:** IFAD will conduct regular supervision and implementation support missions of Nav Tejaswini and support the PMU as and when necessary. These missions will review progress made with physical targets, compliance with fiduciary responsibilities, follow-up audit recommendations etc. IFAD will carry out mid-term review no later than the midpoint of the project implementation period, and meet requirements for project completion review. Necessary surveys/studies including annual outcome surveys and impacts will be conducted.
155. **Participatory monitoring:** Beneficiaries participation in project monitoring will be ensured through three primary tools: (i) participatory supervision: focus group discussions and consultations with randomly selected SHGs and CMRC executive committee will be organized during supervision missions. These consultations will assess if participants are receiving the services requested at design, if services are timely provided, if participants are involved in deciding activities and services; (ii) annual outcome surveys: satisfaction of beneficiaries with quality of services provided will also be assessed through annual outcomes surveys, to be initiated from PY2. The annual outcome surveys are an efficient and effective way of receiving feedback from beneficiaries on which activities they most benefit from and their satisfaction with the package of service delivered. The survey is designed in a simple yes/no format which is easy and time effective for respondents; (iii) grievance redressal mechanism: the Government of Maharashtra has a grievance redressal portal to register complaints about all government financed schemes and departments. The portal is also accompanied by a 24x7 call centre helpline to register complaints. During orientation workshop for all CMRCs, the helpline numbers of the Government of Maharashtra and IFAD's SECAP complaints email address will be distributed among participants for information. The redressal phasing and systems will be spelt out to participants for future reference.

Footnotes

[1] EIU

[2] Census Info India 2011, available at:
http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND027_Maharashtra.pdf

[3] 2017-18 Economic Survey of Maharashtra, available at:

https://mahades.maharashtra.gov.in/files/publication/ESM_17_18_eng.pdf

[4] 2017-18 Economic Survey of Maharashtra, available at: https://mahades.maharashtra.gov.in/files/publication/ESM_17_18_eng.pdf

[5] Gongmei and Toteja, 2018, *Micronutrient status of Indian population*, Indian Journal of Medical Research

[6] Tackling Climate Change in Maharashtra: Maharashtra Action Plan on Climate Change. February 2018. Govt of Maharashtra.

[7] National Family Health Survey-4 (2015-16): Maharashtra state Fact Sheet

[8] 2014, Haddad et al, *Maharashtra's Child Stunting Declines: What is Driving Them? Findings of a Multidisciplinary Analysis*

[9] Kehoe, S et al., 2019, *Barriers and Facilitators to Fruit and Vegetable Consumption Among Rural Indian Women of Reproductive Age*, Food and Nutrition Bulletin

[10] For the State, poverty line as of 2011-12, is estimated at Rs. 967 per capita per month in rural areas and with average family size of 5, the annual income per family is estimated at Rs. 58,000. Source; Economic Survey of Maharashtra, 2018-19.

[11] Bulk milk coolers, dal processing machines, oil expellers, equipment in common facilitation centers etc.,

[12] especially in the areas of a) geographical area delineation, b) sharing of data on institutions and financial services, c) facilitating interest subvention scheme for SHG loans, d) implementing the skilling initiatives of DDUGKY, and e) modalities for facilitating CIF funds flow to CMRCs

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 1: Logframe

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons receiving services promoted or supported by the project				Project monitoring framework/MIS	Quarterly	MAVIM	Project is implemented effectively
	Females							
	Males							
	Young		168315	200000				
	Total number of persons receiving services		841579	1000000				
	Female							
	Young		20	20				
	1.a Corresponding number of households reached				Project monitoring framework/MIS	Quarterly	MAVIM	
	Women-headed households		117821	117821				
	Households		841579	1000000				
	1.b Estimated corresponding total number of households members				Project monitoring framework/MIS	Quarterly	MAVIM	
	Household members		3364000	4500000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Project Goal Enable rural poor to sustainably overcome poverty	Rural households sustainably out of income poverty (> 58,000 Rs/ year)				Impact Study, AOS	Baseline, Endline	MAVIM	Economy maintains or increases growth rates; Terms of trade for rural communities shall not deteriorate; Price inflation for staple food remains below 10%; Rural and peri-urban infrastructure available
	Households			1000000				
Development Objective Improve capacity of rural women to diversify into sustainable enterprises or engage in decent and remunerative employment and enhance their access to markets	Targeted women are engaged in sustainable enterprises or gainful employment				1) Baseline survey report, 2) Mid term, 3) AOS, 4) End line/Impact Study	1) One time, 2) One time, 3) Annual, 4) At the end	MAVIM	Government maintains favourable policies for small businesses; Government continues to support programmes for development of women entrepreneurs
	% of targeted women		35	80				
	Targeted women report an increase in score on pro-WEAI survey				1) Baseline survey report, 2) Mid term, 3)AOS, 4) End line/Impact Study	1) One time, 2) One time, 3) Annual, 4) At the end	MAVIM	
	% of targeted women			75				
	Women reporting improved quality of their diets							
	Percentage		30	70				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Creation of sustainable business linkages for farm and non/off farm enterprises	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				1) AOS, 2)Thematic study, 3) Yearly Survey	Annual	MAVIM	MAVIM successfully establishes collaborative business arrangements between enterprises and mainstream businesses; Private business companies are interested in sourcing products from microenterprises and willing to engage in partnership; CMRCs successfully identify technologies and products for small producers within value chain subprojects and outside.
	Households		200000	565400				
	2.2.2 Supported rural enterprises reporting an increase in profit				1) AOS, 2)Thematic study, 3) Yearly Survey	Annual	MAVIM	
	Number of enterprises		200000	565400				
	Farm							
	Non-farm							
Output Creation of sustainable business linkages for farm and non/off farm enterprises	Batches of standalone businesses receive technical/management training				MIS	Annual	MAVIM	Programme is able to foster an entrepreneurial spirit amongst SHG members; Groups and clusters able to manage collective enterprises in a cohesive manner
	Number of batches		700	2000				
	Number of cooperatives formed				MIS	Annual	MAVIM	
	Number		100	250				
	3.1.1 Groups supported to sustainably manage natural resources and climate-related risks				Project M&E system	Annual	MAVIM	
	Groups supported		20000	45000				
	2.1.1 Rural enterprises accessing business development services				1) Project M&E system	Yearly	MAVIM	
	Rural enterprises		250000	765400				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Development of value chain project management capacity of CMRCs	CMRC staff trained in enterprise development and management				MIS, Training report	Annual	MAVIM	
	No. of staff trained		1000	1500				
Output Supporting innovation	Innovations scaled up by the project				MIS, Enterprise reports	Annual	MAVIM	
	No. of innovations		20	20				
Outcome An enabling environment to facilitate women's enterprise development and employability in decent and remunerative jobs	Women accessing financing for enterprise development of Rs 1 lakh or more				MIS reports	Monthly	Banking Partner, MAVIM	Social and cultural constraints in the material and social environment of women can be effectively overcome;
	Females		50000	100000				
Output Financial linkages	Financial institutions offering > 100,000 Rs financing for enterprise development				MOUs	NA	Banking Partner, MAVIM	Banks remain enthusiastic about lending to SHG members with strong credit history
	No. of institutions		1	3				
	SHG members continue to receive loan under SHG-Bank linkage program				MIS	Quarterly	MAVIM	
	No. of Members	800000	800000	800000				
	Increase in loan outstanding under SHG-Bank Program				MIS	Quarterly	MAVIM	
	Amount	93000	107000	140000				
	Loan repayment rate (%)				MIS	Quarterly	MAVIM	
	Rate %	99.5	99.5	99.5				
	Livestock health and insurance recover operating cost				MIS	Quarterly	MAVIM	
	Percentage	10	60	100				
Output Mentoring the ultra-poor and skill development training	Ultra-poor persons trained in income-generating activities (CI 2.1.2) (M/F/Age)				MIS, Ultra poor study reports	Quarterly	MAVIM	MAVIM is fairly able to identify the ultra-poor households
	Total no. of persons		10000	26800				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Males							
	Females							
	Young							
	Not Young							
	Remunerative wage employment generated				MIS, ultra-poor study reports	Quarterly	MAVIM	
	Number		10000	34000				
Output Improved nutritional status of households	Persons provided with targeted support to improve their nutrition (CI 1.1.8)				MIS reports	Annually	MAVIM	Beneficiaries are eager to participate
	No. of persons		300000	800000				
Output Policy engagement	Policy-relevant knowledge products completed				Policy papers	Annually	MAVIM	Relevant policy issues are identified
	No. of products		4	8				
Outcome Capacity of MAVIM strengthened and project satisfactorily managed	Center of Excellence set up and well-functioning				MAVIM report	Annual	MAVIM	
	Number		1	1				
Output Training of MAVIM officials on enterprise development and system upgraded	MAVIM officials trained				MAVIM report	Annual	MAVIM	
	Number		80	80				
	Institutional assessment of MAVIM completed				MAVIM report	Once	MAVIM	
	Number		1	1				
	All four computerized system installed and upgraded				MAVIM report	Once	MAVIM	
	Number		4	4				

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 2: Theory of change

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

1 million households out of poverty

Outcome

Women establish sustainable and profitable enterprises and create employment opportunities

Women's enterprises are considered credible borrowers

Members of ultra-poor households engaged in remunerative employment

Social and nutritional status increases of targeted women

MAVIM established as a knowledge and training centre for women-led enterprises

Output

Women are trained in production practices and/or technologies

Women's enterprises accessing business development services

Women's enterprises generating employment

ME loans of Rs 1 lakh and over are disbursed to women's enterprises

Members from ultra-poor households develop agency to acquire decent and remunerative jobs

Women are aware of ways to improve their and their HH's nutrition status

MAVIM's capacity to provide business advisory services improved and it becomes a knowledge and training centre

Pathways

Training on production technology (farm and off-farm)

Provision of business development service

Linkages with buyers and markets

Market driven enterprise development and inclusion in value chains

Access of women (CMRCs/SHGs) to new financial linkages and services

Ultra poor SHG members receive mentoring/coaching; Provision of skill development trainings for wage employment

enhancing nutritional status and gender relations at HH level

MAVIM is supported to transition to a resource centre

Challenges

Most microenterprises produce small, low quality, low-price products

Management capacity within producer groups and individual businesses are weak

Farmers and nano-entrepreneurs and unable to optimise market opportunities

Asymmetry in prices and business information available to producers

MEs perceived as high risk borrowers

Loan amount are small and inadequate to support livelihoods and enterprise needs

Persisting rural poverty: Poor HHs without agency, limited IGA opportunities other than paid seasonal agricultural labour

Lack of nutrition security: especially women and children suffering from anemia and micro-nutrient deficiency

MAVIM does not have the guidance and internal capacity to transition into a resource centre

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Government of India
Nav Tejaswini Maharashtra

**Financing of Investment/Recurrent Costs and
Financial Charges by Year**
(US\$ '000)

	Financing						
	20/21	21/22	22/23	23/24	24/25	25/26	Total
I. Investment Costs							
IFAD Loan	3 341	7 435	9 827	8 452	2 556	1 031	32 643
IFAD Grant	882	182	172	80	84	-	1 400
Funding Gap	625	1 942	3 086	1 638	3 640	1 101	12 032
MAVIM Kind	-	-	-	-	-	-	-
MAVIM Tax	674	766	1 097	871	760	399	4 566
Convergence	6 036	15 631	20 018	17 459	7 847	-	66 991
Banks / Financial Institutions	15 960	30 815	39 049	61 634	50 301	53 082	250 840
Beneficiaries	495	1 009	1 466	1 330	650	-	4 950
Enterprise	989	2 018	2 932	2 661	1 300	-	9 900
Total Investment Costs	29 003	59 797	77 647	94 124	67 137	55 613	383 321
II. Recurrent Costs							
IFAD Loan	666	734	824	924	1 035	1 143	5 326
IFAD Grant	-	-	-	-	-	-	-
Funding Gap	-	-	-	-	-	-	-
MAVIM Kind	4 090	4 575	5 120	5 726	6 408	7 167	33 086
MAVIM Tax	19	19	22	24	27	28	139
Convergence	-	-	-	-	-	-	-
Banks / Financial Institutions	-	-	-	-	-	-	-
Beneficiaries	-	-	-	-	-	-	-
Enterprise	-	-	-	-	-	-	-
Total Recurrent Costs	4 774	5 329	5 966	6 674	7 471	8 338	38 552
III. Financial Charges							
IFAD Loan	-	-	-	-	-	-	-
IFAD Grant	-	-	-	-	-	-	-
Funding Gap	-	-	-	-	-	-	-
MAVIM Kind	-	-	-	-	-	-	-
MAVIM Tax	-	-	-	-	-	-	-
Convergence	-	-	-	-	-	-	-
Banks / Financial Institutions	-	-	-	-	-	-	-
Beneficiaries	-	-	-	-	-	-	-
Enterprise	-	-	-	-	-	-	-
Total Financial Charges	-	-	-	-	-	-	-
Total Financing of Costs	33 777	65 125	83 613	100 799	74 608	63 951	421 872

Government of India
Nav Tejaswini Maharashtra
Inflation and Exchange Rates

	Up to Negotiation	Up to Project Start	20/21	21/22	22/23	23/24	24/25	25/26
Inflation (in %'s) /a								
Enterprise Development Fund								
Annual rates								
Local	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Foreign	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Compounded rates								
Local	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Foreign	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Workshops								
Annual rates								
Local	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0
Foreign	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0
Compounded rates								
Local	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Foreign	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Training, Study and Campaign								
Annual rates								
Local	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0
Foreign	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0
Compounded rates								
Local	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Foreign	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Consultancy								
Annual rates								
Local	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Foreign	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Compounded rates								
Local	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Foreign	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Equipment and Material								
Annual rates								
Local	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Foreign	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Compounded rates								
Local	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Foreign	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Vehicles								
Annual rates								
Local	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Foreign	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Compounded rates								
Local	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Foreign	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Operating Costs								
Annual rates								
Local	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Foreign	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Compounded rates								
Local	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Foreign	0.0	0.0	2.0	6.1	10.3	14.7	19.3	24.1
Salaries and Allowances								
Annual rates								
Local	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0

Inflation and Exchange Rates

	Up to Negotiation	Project Start	20/21	21/22	22/23	23/24	24/25	25/26
Foreign	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0
Compounded rates								
Local	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Foreign	0.0	0.0	2.5	7.6	13.0	18.7	24.6	30.8
Non Inflation								
Annual rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compounded rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exchange rates (Local/Foreign) /b								
Enterprise Development Fund								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Workshops								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Training, Study and Campaign								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consultancy								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equipment and Material								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicles								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Costs								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salaries and Allowances								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Inflation								
Rates actually used	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Constant purchasing parity rates	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\a Yearly values are within Each Project Year

\b Yearly values are at Project Year Midpoints

Page 5

Key Figures/Milestones												Table 5: Institutional Development and Project Management											
Detailed Costs																							
												Breakdown of Total Inst. Cost											
												FY 2020											
												Parameters (Rs./Yr)											
												Summary Expenses											
												Expenditure by Function (RS. 000)											
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Government of India

Nav Tejaswini Maharashtra

Procurement Arrangements

(US\$ '000)

Nav Tejaswini Maharashtra

Procurement Arrangements	Procurement Method						
	National	Consulting	Direct				
	Competitive	Services:	Purchase/Negotiations/Single	Unidentified	Unidentified		
	Bidding	LCS	Tender	#1	#2	N.B.F.	Total
A. Enterprise Development Fund	-	-	-	-	-	92 291	92 291
B. Workshop	-	-	181	-	-	-	181
C. Training, Study and Campaign	-	-	21 754	-	-	-	21 754
D. Consultancy	-	2 369	-	-	-	-	2 369
E. Equipment and Material	990	-	-	-	-	-	990
F. Vehicles	46	-	-	-	-	-	46
G. Operational Costs	-	-	15 990	-	-	-	15 990
H. Salaries and Allowances	-	-	22 562	-	-	-	22 562
I. Credit Line	-	-	-	-	250 840	-	250 840
J. Beneficiary	-	-	-	14 850	-	-	14 850
Total	1 036	2 369	60 486	14 850	250 840	92 291	421 872
	-	-	-	-	-	-	-

Government of India

Nav Tejaswini Maharashtra

Procurement Accounts by Years

(US\$ '000)

	Totals Including Contingencies						Total
	20/21	21/22	22/23	23/24	24/25	25/26	
1. Enterprise Development Fund	7 839	21 699	28 107	23 663	10 667	316	92 291
2. Workshop	5	22	23	42	44	46	181
3. Training, Study and Campaign	2 388	3 558	5 019	4 623	3 997	2 168	21 754
4. Consultancy	291	676	1 051	172	179	-	2 369
5. Equipment and Material	990	-	-	-	-	-	990
6. Vehicles	46	-	-	-	-	-	46
7. Operational Costs	2 019	2 233	2 486	2 767	3 078	3 406	15 990
8. Salaries and Allowances	2 755	3 095	3 480	3 907	4 392	4 932	22 562
9. Credit Line	15 960	30 815	39 049	61 634	50 301	53 082	250 840
10. Beneficiary	1 484	3 027	4 398	3 991	1 950	-	14 850
Total	33 777	65 125	83 613	100 799	74 608	63 951	421 872

Government of India

Nav Tejaswini Maharashtra

Disbursement Accounts by Financiers

Disbursement Accounts by Financiers												Banks / Financial								Local			
(US\$ '000)	IFAD Loan		IFAD Grant		Funding Gap		MAVIM Kind		MAVIM Tax		Convergence		Institutions		Beneficiaries		Enterprise		Total		For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes	Taxes
1. Enterprise Development Fund	19 913	21.6	-	-	5 387	5.8	-	-	-	-	66 991	72.6	-	-	-	-	-	-	92 291	21.9	-	92 291	-
2. Workshop	116	64.2	-	-	32	17.8	-	-	33	18.0	-	-	-	-	-	-	-	-	181	-	-	148	33
3. Training, Study and Campaign	11 221	51.6	647	3.0	5 970	27.4	-	-	3 916	18.0	-	-	-	-	-	-	-	-	21 754	5.2	-	17 838	3 916
4. Consultancy	1 299	54.9	-	-	643	27.1	-	-	426	18.0	-	-	-	-	-	-	-	-	2 369	0.6	-	1 942	426
5. Equipment and Material	59	6.0	753	76.0	-	-	-	-	178	18.0	-	-	-	-	-	-	-	-	990	0.2	-	812	178
6. Vehicles	33	72.0	-	-	-	-	-	-	13	28.0	-	-	-	-	-	-	-	-	46	-	-	33	13
7. Operational Costs	1 251	7.8	-	-	-	-	14 599	91.3	139	0.9	-	-	-	-	-	-	-	-	15 990	3.8	-	15 851	139
8. Salaries and Allowances	4 075	18.1	-	-	-	-	18 487	81.9	-	-	-	-	-	-	-	-	-	-	22 562	5.3	-	22 562	-
9. Credit Line	-	-	-	-	-	-	-	-	-	-	-	-	250 840	100.0	-	-	-	-	250 840	59.5	-	250 840	-
10. Beneficiary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4 950	33.3	9 900	66.7	14 850	3.5	-	14 850	-
Total PROJECT COSTS	37 969	9.0	1 400	0.3	12 032	2.9	33 086	7.8	4 705	1.1	66 991	15.9	250 840	59.5	4 950	1.2	9 900	2.3	421 872	100.0	-	417 168	4 705

Government of India

Nav Tejaswini Maharashtra

Components by Financiers

(US\$ '000)

	Banks / Financial																				Local		
	IFAD Loan		IFAD Grant		Funding Gap		MAVIM Kind		MAVIM Tax		Convergence		Institutions		Beneficiaries		Enterprise		Total		For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
1. Market Led Enterprise Promotion	24 104	20.3	-	-	10 194	8.6	-	-	2 706	2.3	66 991	56.4	-	-	4 950	4.2	9 900	8.3	118 846	28.2	-	116 140	2 706
2. Enabling Support Services	7 306	2.8	-	-	1 837	0.7	-	-	1 276	0.5	-	-	250 840	96.0	-	-	-	-	261 259	61.9	-	259 983	1 276
3. Institutional Development and Project Management	6 559	15.7	1 400	3.4	-	-	33 086	79.2	722	1.7	-	-	-	-	-	-	-	-	41 767	9.9	-	41 045	722
Total PROJECT COSTS	37 969	9.0	1 400	0.3	12 032	2.9	33 086	7.8	4 705	1.1	66 991	15.9	250 840	59.5	4 950	1.2	9 900	2.3	421 872	100.0	-	417 168	4 705

Government of India

Nav Tejaswini Maharashtra

	(INR '000)			(US\$ '000)			%	% Total
Components Project Cost Summary							Foreign	Base
	Local	Foreign	Total	Local	Foreign	Total	Exchange	Costs
1. Market Led Enterprise Promotion	7 275 055	-	7 275 055	103 929	-	103 929	-	26
2. Enabling Support Services	18 167 536	-	18 167 536	259 536	-	259 536	-	65
3. Institutional Development and Project Management	2 431 755	-	2 431 755	34 739	-	34 739	-	9
Total BASELINE COSTS	27 874 346	-	27 874 346	398 205	-	398 205	-	100
Physical Contingencies	448 501	-	448 501	6 407	-	6 407	-	2
Price Contingencies	1 208 221	-	1 208 221	17 260	-	17 260	-	4
Total PROJECT COSTS	29 531 067	-	29 531 067	421 872	-	421 872	-	106

Government of India

Nav Tejaswini Maharashtra

Expenditure Accounts by Components - Base Costs

(US\$ '000)

	Institutional				Physical	
	Market Led	Enabling	Development		Contingencies	
	Enterprise	Support	and Project			
	Promotion	Services	Management	Total	%	Amount
I. Investment Costs						
A. Enterprise Development Fund	76 639	2 824	-	79 463	5.0	3 973
B. Workshop	-	143	-	143	5.0	7
C. Training, Study and Campaign	11 112	4 987	1 843	17 942	5.0	897
D. Consultancy	1 329	743	-	2 071	5.0	104
E. Equipment and Material	-	-	925	925	5.0	46
F. Vehicles	-	-	43	43	5.0	2
G. Credit Line	-	250 840	-	250 840	-	-
H. Beneficiary	14 850	-	-	14 850	-	-
Total Investment Costs	103 929	259 536	2 811	366 277	1.4	5 029
II. Recurrent Costs						
A. Operational Costs	-	-	13 404	13 404	5.0	670
B. Salary and Allowances	-	-	18 524	18 524	3.8	708
Total Recurrent Costs	-	-	31 928	31 928	4.3	1 378
Total BASELINE COSTS	103 929	259 536	34 739	398 205	1.6	6 407
Physical Contingencies	4 454	435	1 518	6 407	-	-
Price Contingencies						
Inflation						
Local	10 463	1 288	5 510	17 260	-	-
Foreign	-	-	-	-	-	-
Subtotal Inflation	10 463	1 288	5 510	17 260	-	-
Devaluation	-	-	-	-	-	-
Subtotal Price Contingencies	10 463	1 288	5 510	17 260	4.6	786
Total PROJECT COSTS	118 846	261 259	41 767	421 872	1.7	7 193
Taxes	2 706	1 276	722	4 705	4.8	224
Foreign Exchange	-	-	-	-	-	-

Government of India

Nav Tejaswini Maharashtra

Expenditure Accounts by Components - Totals Including Contingencies

(US\$ '000)

	Market Led Enterprise Promotion	Enabling Support Services	Institutional Development and Project Management	Total
I. Investment Costs				
A. Enterprise Development Fund	88 962	3 329	-	92 291
B. Workshop	-	181	-	181
C. Training, Study and Campaign	13 526	6 048	2 179	21 754
D. Consultancy	1 508	861	-	2 369
E. Equipment and Material	-	-	990	990
F. Vehicles	-	-	46	46
G. Credit Line	-	250 840	-	250 840
H. Beneficiary	14 850	-	-	14 850
Total Investment Costs	118 846	261 259	3 215	383 321
II. Recurrent Costs				
A. Operational Costs	-	-	15 990	15 990
B. Salary and Allowances	-	-	22 562	22 562
Total Recurrent Costs	-	-	38 552	38 552
Total PROJECT COSTS	118 846	261 259	41 767	421 872
Taxes	2 706	1 276	722	4 705
Foreign Exchange	-	-	-	-

Government of India

Nav Tejaswini Maharashtra

Project Components by Year -- Base Costs

(US\$ '000)

	Base Cost						
	20/21	21/22	22/23	23/24	24/25	25/26	Total
1. Market Led Enterprise Promotion	10 137	23 884	31 204	25 662	12 095	949	103 929
2. Enabling Support Services	16 753	32 753	41 202	63 263	51 659	53 905	259 536
3. Institutional Development and Project Management	5 810	5 236	5 574	5 697	6 095	6 328	34 739
Total BASELINE COSTS	32 700	61 873	77 979	94 622	69 849	61 182	398 205
Physical Contingencies	732	1 369	1 692	1 412	840	362	6 407
Price Contingencies							
Inflation							
Local	345	1 883	3 942	4 764	3 920	2 406	17 260
Foreign	-	-	-	-	-	-	-
Subtotal Inflation	345	1 883	3 942	4 764	3 920	2 406	17 260
Devaluation	-	-	-	-	-	-	-
Subtotal Price Contingencies	345	1 883	3 942	4 764	3 920	2 406	17 260
Total PROJECT COSTS	33 777	65 125	83 613	100 799	74 608	63 951	421 872
Taxes	693	786	1 118	895	786	427	4 705
Foreign Exchange	-	-	-	-	-	-	-

Government of India

Nav Tejaswini Maharashtra

Project Components by Year -- Totals Including Contingencies

(US\$ '000)

	Totals Including Contingencies						Total
	20/21	21/22	22/23	23/24	24/25	25/26	
1. Market Led Enterprise Promotion	10 758	26 285	35 527	30 205	14 768	1 303	118 846
2. Enabling Support Services	16 813	32 991	41 572	63 635	52 053	54 196	261 259
3. Institutional Development and Project Management	6 206	5 849	6 514	6 959	7 787	8 452	41 767
Total PROJECT COSTS	33 777	65 125	83 613	100 799	74 608	63 951	421 872

Government of India

Nav Tejaswini Maharashtra

Project Components by Year -- Investment/ Recurrent Costs

(US\$ '000)

	Totals Including Contingencies						
	20/21	21/22	22/23	23/24	24/25	25/26	Total
A. Market Led Enterprise Promotion							
Investment Costs	10 758	26 285	35 527	30 205	14 768	1 303	118 846
Recurrent Costs	-	-	-	-	-	-	-
Subtotal	10 758	26 285	35 527	30 205	14 768	1 303	118 846
B. Enabling Support Services							
Investment Costs	16 813	32 991	41 572	63 635	52 053	54 196	261 259
Recurrent Costs	-	-	-	-	-	-	-
Subtotal	16 813	32 991	41 572	63 635	52 053	54 196	261 259
C. Institutional Development and Project Management							
Investment Costs	1 432	521	548	284	317	114	3 215
Recurrent Costs	4 774	5 329	5 966	6 674	7 471	8 338	38 552
Subtotal	6 206	5 849	6 514	6 959	7 787	8 452	41 767
Total PROJECT COSTS	33 777	65 125	83 613	100 799	74 608	63 951	421 872
Total Investment Costs	29 003	59 797	77 647	94 124	67 137	55 613	383 321
Total Recurrent Costs	4 774	5 329	5 966	6 674	7 471	8 338	38 552

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Annex 4: Economic and Financial Analysis

Introduction and Methodology

1. the Design Mission of the Nav Tejaswini project carried out the economic and financial analysis (EFA) to assess the financial and economic viability of the investments proposed to be made under the project over the next six years. The main objective of the project is to reach 1 million women by facilitating and supporting them to take up micro-enterprises and increase their level of income. During the earlier phase of the project around 65,000 SHG's were set up and nearly 1 million women were covered in the project. This phase of the project builds upon the work done earlier and taking that as a base, value chain approach would be adopted to unlock the value of the enterprises at the village level. The value chain approach would be adopted both for the farm sector and non-farm sector enterprises so that the benefits flow to the women beneficiaries who form the main target group of this programme. Collective marketing and enterprise development will be done through the Community Managed Resource Centres (CMRCs) that were established during the earlier phase.

2. Methodology and approach of the EFA: Based on the observations during the field visit and interactions with the officials of MAVIM and CMRCs and the district level officials the design team members were able to formulate a view on the interventions to be undertaken in this phase of the project. The design team interacted directly with the potential beneficiaries to assess, first hand, their situation and expectations and to ascertain their inclination towards taking up different micro-enterprise related activities. The data used in the EFA consisted of information on crops, market prices, capital expenditure and working capital required for different enterprises to be set up under the project were collected.

3. The design Mission identified 18 different enterprises in the farm and non-farm sector both. These were enterprises related to crops, livestock, rural non-farm sector, handicrafts, basic grading and sorting, processing of spices and millets et cetera. Financial analysis was done for these enterprises to estimate the financial viability, demand for credit besides their profitability. Incremental costs and benefits as a result of implementation of the project were also estimated to assess its impact on the beneficiaries of the project. Enterprises that were similar in nature and targeted towards similar nature were grouped together for ease in implementing the value chain approach. The identified micro-enterprises related to dairy, goat rearing, poultry for eggs and meat, pulses, common spices, crops like soybeans, sorghum, foxtail millet and the like in the farm sector. In the off /non-farm sector enterprises like woodworking, handicrafts small non-gold jewelry making, bamboo work and ecotourism were identified. These are presented in the Table 1 given below.

4. It is essential in the EFA methodology that a clear link between the beneficiaries and the planned interventions is established to attribute the benefits accruing to the beneficiaries as a direct result of the project intervention. The EFA identified these benefits and established a direct connection to the proposed project intervention. This was done, as mentioned above, through extensive interactions of the Design Mission Team Members with not only the beneficiaries, field level functionaries, district level officials but also with the MAVIM officials at their headquarters in Mumbai.

5. All the target beneficiaries are members of the SHGs which in turn are connected to the CMRCs. This enables and ensures that interventions to be undertaken in the project will be targeted in a focused manner towards the women beneficiaries. The CMRCs will also setting up common facility centres for different enterprises for the beneficiaries to get trained and participate in the activities generate income under the project intervention.

Project cost, beneficiaries and assumptions in the EFA

6. The project cost of implementing the Nav Tejaswini Project was ascertained from the estimated costs generated in the COSTAB.

7. The Nav Tejaswini project will be implemented from 2020/21 through 2025/26. As mentioned above, a total of 1 million women beneficiaries will be covered under this project. The distribution of these

beneficiaries is presented in table number xxx given below. Besides covering the beneficiaries under the value

Table 1a Distribution of Beneficiaries- Farm sector

SN	Farm Sector	Number of Sub Projects	No of Women in each sub -project	Total Number of Beneficiaries
1	Dairy	20	2000	40,000
2	Goat/poultry/poultry hatcheries/	131	2000	262,000
3	Fisheries	5	1000	5,000
4	Vegetables	68	1000	68,000
5	Fruits	10	1000	10,000
6	Lentils/Pulses/Millet	33	1000	33,000
7	Nuts/etc	10	200	2,000
8	Special rice/other field crops	34	500	17,000
9	Second round expansion	34	500	17,000
		345		454,000

Table 1b Distribution of Beneficiaries -Non-Farm Sector

SN	Off/Non-Farm Sector	Number of Sub Projects	No of Women in each sub -project	Total Number of Beneficiaries
1	Garments/textiles/looms/similar products	34	510	17,340
2	Bamboo-products/allied products	16	500	8,000
3	Wood products	20	500	10,000
4	Handicrafts	20	510	10,200
5	Jewelry (non-gold metal/stone/wood/lac etc)	20	500	10,000
6	Food processing/spice processing/dal/millet processing	33	1000	33,000
7	Eco/ Agri Tourism etc.	10	250	2,500
8	Restaurants/ Catering services	34	100	3,400
9	Services / Electronic Platform	17	500	8,500
10	Other non-farm products	34	500	17,000
11	Second round expansion	34	500	17,000
		272		136,940
21	Stand alone Businesses	200	1000	200,000
TOTAL BENEFICIARIES		817		790,940

chain approach the programme will also facilitate and encourage 200,000 women beneficiaries to take up stand-alone enterprises that may not be covered directly under any of the value chains. These stand-alone enterprises would be both from the farm and non-farm sector and the choice to carry out these will be made by the beneficiary herself.

Table xxx also presents the phasing and distribution of the beneficiaries by value chain and the enterprises they would take up. The phasing to cover all 1 million beneficiaries has been drawn for a small evenly spread out implementation plan giving enough time to propagate and ground the micro-enterprises.

The following assumptions were made while carrying out the economic and financial analysis (EFA).

- i) The prices prevailing at the time of the mission have been considered as the current prices, current level of technology has been assumed to be the "without project" situation. The with project situation has been estimated using inputs from the beneficiaries, district and state level officials, and the Agri-Value Chain expert in the Design Mission team. The 'with project' scenarios are taken as the most probable scenarios that would or could occur over next few years during the implementation of the project.
- ii) The prevailing wage rate of Rs. 250 per person/day has been taken as the base wage rate for most of the enterprises considered in the project.
- iii) It is assumed that there is scope of improvement in current level of technology however, for the project efforts will be concentrated more on unlocking the value of the produce at the post-production stage by collective marketing, creation of processing and grading and sorting facilities and taking care of the logistics and transport. Collective action for enterprise development amongst these 1 million will be the key factor determining the success of the project.
- iv) Being a nutrition sensitive project, the implementation team will recognise the predominantly agricultural profile of the project beneficiaries to focus their efforts strongly and effectively.
- v) During the interactions at the field level the design team members observed that the potential beneficiaries were willing to participate in the various sub-projects enthusiastically.

Sub project models

Financial models were developed to estimate the impact of different interventions to be implemented under the project using the value chain approach as well as for the stand-alone businesses. Except for the farm-based interventions it was assumed that the interventions will be altogether new hence, the information gathered during the field visits and interactions was used to develop these models for both without project and with project situations.

1. Dairy VC Model: In the dairy value chain model, a short value chain was considered that consisted of the dairy farmer, milk collection centre and the bulk milk cooler. To operationalise this model the beneficiaries would be encouraged to set up a mini dairy of at least two cows and pour the milk at the milk collection centre which in turn would transport the milk to the bulk milk cooler. By doing this dairy farmer would be assured of the right price for the milk produced and regular payments. A total of 40,000 farmers/beneficiaries would be covered under this value chain.
2. Goat/poultry value chain model: In this model it was assumed that the SHG members would be taking up goat rearing or poultry for eggs or meat. By being associated with the CMRCs would ensure better purchase prices to them for the animals/birds, extension services provided through the *pashu sakhis*, better prices for the output and regular payments for their outputs.

3. Vegetable value chain: In this value chain the beneficiary farmers would be encouraged to take up vegetable cultivation and would be able to avail the benefits of being associated with the SHGs/CMRCs. The CMRCs would be facilitating collection of vegetables and marketing to ensure that the beneficiaries are able to get the prices for their produce. Based on the discussion at the field level, it was estimated that, on an average, the beneficiaries would be able to get at least Rs. 1.50/kg of produce than if they would sell it individually without being associated with the CMRCs/value.
4. Fruits value chain model: the food value chain model: To unlock the value for the fruit growers, a short value chain set up was assumed. In this value chain, fruit grading and sorting facilities would be set up and the farmers will be able to bring their produce to get it created and sorted to realise better prices and markets.
5. Special rice or other field crops: In some areas of the state, area specific local varieties of rice that are either aromatic or black in colour are grown by very small number of farmers. In this project, 34 subprojects of 500 farmers each growing these specialised crops would be implemented under this value chain. The CMRCs would be facilitating the farmers to procure seed and help in their produce also. They would also be facilitating extension services so that the farmers are able to grow/produce good quality rice.
6. Second round of expansion: Under the second round of expansion, those beneficiaries who have already one round of activities in the last round would be covered. These beneficiaries would be taking up activities related to vegetable growing, goat keeping or dairy farming.
7. Garments/textiles/looms model: in this model, a common facility centre would be established where the participating beneficiaries would be trained in tailoring and the related skills. These trained women beneficiaries would then be working at the CFC to produce garments and or other cloth/textile items. During the discussion in the field, it emerged that with the ban on plastic bags in place, the demand for cloth bags had increased substantially and there is a readily available market for such items. In this model, the analysis is done keeping in mind the manufacturing of cloth bags as the primary item. However, as the women are trained in tailoring and other skills they can also manufacture other garments/clothes if need be.
8. Bamboo products: Some districts of the state have ample quantities of bamboo available for being exploited commercially. The products made out of bamboo -like mementos, diary covers showpieces etc are gaining demand. These items are also considered as good gifts by the buyers. This setup would consist of a common facility centre fully equipped with the required machinery and tools. It will be managed by the CMRC. The gain to the participating beneficiaries in these NFS models is by way of wages which they would get and also a percentage of the revenue earned by the CFC in marketing the products.
9. Wood products: Raw wood is readily available in the eastern districts of Maharashtra. Showpieces and artefacts are manufactured out of the raw wood by the trained hands. In this sub project proposed, a common facility centre would be established to train women and then use their skills to manufacture wood products. Currently, the artifacts/showpieces do not fetch high prices due to inferior quality of the product, The new setups would focus on training the women beneficiaries in getting better quality output..
10. Handicrafts: Traditional handicraft work, Kantha work is very popular throughout the state. traditional motifs are stitched on silk or handloom cloth. These products are in demand because of the novelty and uniqueness. The participating beneficiaries in this activity model would be trained and their skills used for manufacturing handicraft items. Women will be earning in terms of wages as well as a small incentive (5-10%) from the revenue of the CFC.

11. Jewelry making: the CFC to be set up for this activity would train women beneficiaries and manufacture of small (non-gold) jewelry items. Trained beneficiaries would be working at the CFC and earning on a per piece basis besides a percentage of revenue earned by the CFC. The role of the CFC is to provide the facilities, input material, machines et cetera and marketing of the finished goods.
12. Food processing model: in this particular model a combination of paddy processing and spice (mainly turmeric) processing was considered the farmers would be using these processing facilities to add value to their produce before selling it further.
13. Eco-/Agri tourism: Keeping up with the times, there is scope for eco-/Agri tourism where participating women beneficiaries can take this up after proper training. The CMRCs would be taking the lead in identifying and getting the women beneficiaries trained to handle this operation. This is a new model that would be experimented and would be refined and expanded further.
14. Rural catering/rural restaurants: During the field visit, the design Mission members found that there was a demand for rural catering/rural restaurants in the hinterland too. Women expressed their willingness to set up such small units to augment their income.
15. Other non-farm products: in this category to non-farm activities like paddy processing and spice processing (also considered in another sub project above were grouped under this head to have a focused approach and implementation.
16. Second round of expansion NFS: In the second round of expansion, activities of handicrafts, jewelry making and woodworking were combined together to provide an opportunity to those who have already participated in some livelihoods/income generating activity earlier. The activity is considered under this head would help women in getting training and then having the choice to work at the CFC or set up their own independent small unit.
17. Stand Alone Businesses: Under this activity head, the individual beneficiaries would be taking up activities of their choice, on their own (not part of any value chain/efforts undertaken by CMRCs). They would not be able to benefit from the benefits of a value chain. These would be 200 sub-projects of 1000 members each – covering an overall number of 200,000 beneficiaries

Financial Analysis and Demand for Credit

18. Partial budgets were prepared for the enterprise/sub project activities for the financial analysis. (Cost benefit analysis (CBA) was done for all the subproject models and net present values, BC ratio were estimated to examine the financial viability of the enterprise. The NPD's were calculated at the project level for all the subprojects.
19. All the activities being taken up in the project were financially viable and generated sufficient cash flows to support credit uptake. Potential credit demand generated from crop enterprises is presented in Table 2 below. The credit demand is estimated at 90% of the production costs. These are short-term crop loans.

[Refer Annex B PDR EFA Economic file](#) on xdesk

[Refer Annex C PDR EFA Financial file](#) on xdesk

Table 2: Potential annual credit demand from crop enterprises

SN	Crop	Number of Beneficiaries	Bank loan per unit (Rs)	Total demand (Rs in million)
1	Vegetables	141400	32906	4653
2	Soybeans	23250	11399	265
3	Jowar	6600	12457	82
4	Bajra	4950	13856	69
5	Moog	21600	13239	286
6	Arhar	6600	10460	69
			Total	5424

20. Similarly, credit demand for the livestock activities was estimated separately at 80% of the investment costs. The details are presented in Table 3 given below:

Table 3: Credit Demand generated by livestock activities

SN	Activity	Number of Beneficiaries	Bank loan per unit (Rs)	Total demand (million Rs)
1	Dairy	63400	171200	10854
2	Goat Keeping	153400	43220	6630
3	Poultry-eggs	106800	100000	10680
4	Poultry- Meat	92000	364200	33506
			Total	61670

21. Dairy farming and poultry meat activities generate the bulk of the demand as the per unit bank loan is higher as compared to that of goat keeping activity.
22. Potential credit demand generated by the non-farm/farm activities was also estimated at 80% of the project investment cost the details are presented in the Table 4 below:

Table 4 Potential Bank loan demand

SN	Off/Non-Farm Sector	No of Units	Bank loan per unit (Rs 000)	Totl Bank Loan (million Rs)
1	Garments/textiles/looms/similar products	578	1324	765
2	Bamboo-products/allied products	80	3120	250
3	Wood products	134	4480	600
4	Handicrafts	680	1280	870
5	Jewelry (non-gold metal/stone/wood/lac etc)	536	2336	1252
6	Food processing/spice processing/dal/millet processing			
	Millet	33	13637	450
	Paddy	134	1104	148
	Spice	236	920	217
7	Eco/ Agri Tourism etc.	10	1880	19
8	Restaurants/ Catering services	340	136.8	47
			Total	4618

23. The credit demand generated by the crop enterprises will be on an annual basis while that generated by the off/non-farm enterprises will be a one-time credit demand.
24. Additional employment generated by crop enterprises: as a result of implementation of the Nav Tejaswini project, additional employment 374,000-man days would be generated annually. This is substantial considering that incremental labour requirement was minimal at the activity level. The benefits which accrue to the beneficiaries were a result of being part of the value chain and realising better prices for their produce has also production and losses substantially at the farm level due to the extension activities carried out by the CMRCs.
25. It would be pertinent to examine the NPV is generated for different subprojects. As mentioned earlier the NPVs were calculated at a discount rate of 12% which is the normal lending rate prevalent. The details of the NPVs are given in Table 5 below:

Table 5 NPV of the Sub projects (@12% DR for 20 year period)		Rs in million
SN	Sub Project	NPV at 10%
1	Dairy	13727
2	Goat/poultry/poultry hatcheries/	22965
3	Vegetables	1116
4	Fruits GS	560
5	Lentils/Pulses/Millet	125
6	Special rice/other field crops	53
7	Second round expansion	2170
8	Garments/textiles/looms/similar products	522
9	Bamboo-products/allied products	407
10	Wood products	833
11	Handicrafts	585
12	Jewelry (non-gold metal/stone/wood/lac etc)	1548
13	Food processing/spice processing/dal/millet processing	1553
14	Eco/ Agri Tourism etc.	107
15	Restaurants/ Catering services	91
17	Other non-farm products	379
18	Second round expansion	1473

26. The financial internal rate of return (FIRR) for the project as a whole world **out to** 32% with a BC ratio of 2.77 calculated at the discount rate 7.5%. The details are presented in Excel sheets.

Economic Analysis

27. Economic values for the economic analysis was generated by adjusting the figures generated in the financial analysis that was carried out the financial analysis. Figures were adjusted conversion factors and the following assumptions:
 - a) The prices prevailing during the design Mission in August/September 2 019 was taken for valuing the inputs and outputs.
 - b) Analysis was carried out for a 20 year, that includes a six-year period of project implementation
 - c) a standard conversion factor of 0.9 was used for adjusting the labour wages and a conversion factor of 1.1 was used for converting fertiliser prices to their economic values.
 - d) Lead directly attributable benefits from the crop enterprises as well is of farm enterprises were included.

- e) For economic analysis and discount rate of 7.5% was taken. This is the long-term bond rate in India.

28. The major gain to the participating beneficiary for the crop enterprises was mainly in terms of increased income that resulted from their being associated with the project as a value chain participant and by way of reduction in losses by taking up post harvest operations which will generally better handling of the produce that they were doing earlier.
29. All the benefits that flowed from taking up activities like dairy farming and poultry have not been ascertained as they have wider implications. These benefits include enhanced nutrition availability in terms of milk eggs and meat.
30. The results of the cost benefit analysis showed that the overall project EIRR worked out to 35% with a BC ratio of 2.93 discounted at 7.5%. The NPV for the 20-year period stood at INR 84,500 million.

Sensitivity Analysis

31. Sensitivity analysis was carried out to analyse the robustness of the project and to know whether the project is economically viable to withstand risks of increasing cost of production of enterprise and decreasing benefits to the beneficiaries. Various scenarios were created to analyse the behaviour of the figures generated in the economic analysis. Various scenarios and related numbers analysed in the sensitivity analysis are presented in the table given below:

ECONOMIC VALUES		Economic DR = 7.5%		
Sensitivity Analyses	EIRR	B/C Ratio	NPV (USD mn)	NPV (Rs Mn)
Base Case	35%	2.93	1,207	84,500
All cost increase by 10%	31%	2.66	1,144	80,115
All cost increase by 20%	28%	2.44	1,082	75,730
All benefits decrease by 10%	31%	2.63	1,024	71,665
All benefits decrease by 20%	27%	2.34	840	58,830
Cost increase by 10% and benefits decrease by 10%	28%	2.39	961	67,280
1-year delay in getting benefits	27%	0.38	1,024	71,706

32. An increase in cost by 10% decreases the EIRR to 31%. However, the maximum decrease in the EIRR happens in the scenario where all benefits decrease by 20% and there is he one-year delay in getting the benefits.

The EIRR decreases to 28% in the scenario of 10% increase in cost and 10% decrease in benefits simultaneously which a rather extreme condition. The NPV decreases to INR67,280 million in this scenario.

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

SECAP Review Note on India: Nav Tejaswini Maharashtra Rural Women Enterprise Development Project (NT)

I. Major landscape characteristics and Issues (Social, natural resources, and climate) of the State of Maharashtra

A. Introduction

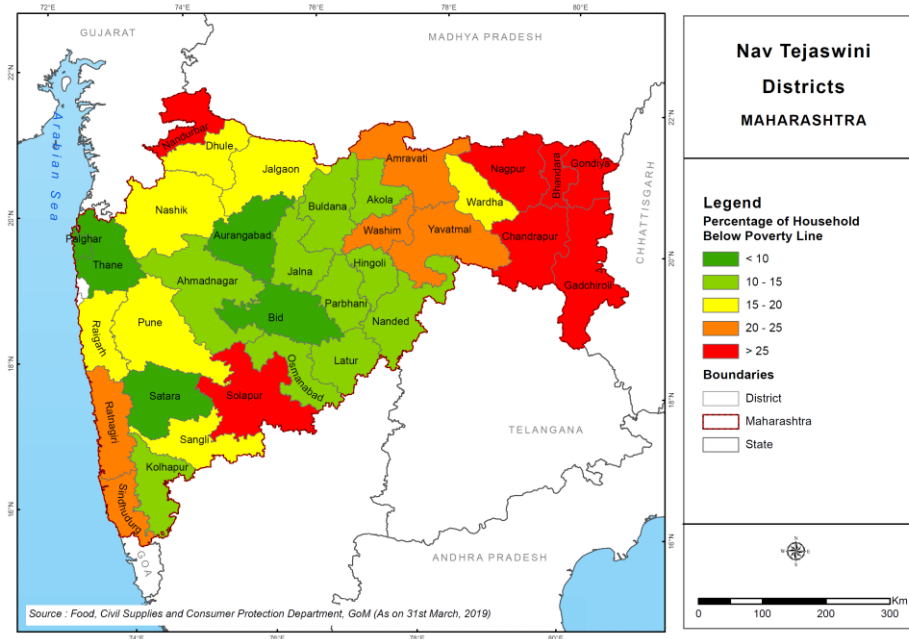
1. The overall goal of the Nav Tejaswini Maharashtra Rural Women Enterprise Development Project is to enable one million poor rural households to overcome poverty. The Project objective is to improve capacity of rural women to diversify into sustainable enterprises or engage in remunerative employment and enhance their access to markets. The project will benefit 10 lakh (1 million) rural women, the majority of whom are members of established self-help groups federated into community managed resources centres (CMRCs). The CMRCs are present in all 34 rural districts of Maharashtra and were established under the now closed Tejaswini Maharashtra Rural Women Empowerment Programme (2007-2018). The SECAP Review Note comprises an analysis of the main social, environment and in-depth climate issues within the project area, with a view to providing suitable adaptation and mitigation measures to build sustainability and resilience into the project interventions both within the project lifetime and thereafter.

B. Development Profile

Nav Tejaswini Districts: Nav Tejaswini project implementation is proposed to be taken up in 34 rural districts of Maharashtra state. These include, Ahmadnagar, Akola, Amravati, Aurangabad, Bhandara, Beed, Buldhana, Chandrapur, Dhule, Gadchiroli, Gondiya, Hingoli, Jalgaon, Jalna, Kolhapur, Latur, Nagpur, Nanded, Nandurbar, Nashik, Osmanabad, Palghar, Parbhani, Pune, Raigad, Ratnagiri, Sangli, Satara, Sindhudurg, Solapur, Thane, Wardha, Washim and Yavatmal.

2. Figure 1 shows the Nav Tejaswini districts of Maharashtra and incidence of poverty estimated on basis of percentage households below the poverty line (BPL households).

Figure 1: Nav Tejaswini Districts of Maharashtra



3. **Overall poverty situation:** Maharashtra state is the second in population and third in geographic area in India. According to the Population Census 2011 the state has a geographical area of about 3.08 lakh sq. km. Total population for Maharashtra State is 112,374,333 with 58,243,056 males and 54,131,277 females. The rural population is at 61,556,000 (55%) compared to the urban population at 50,818,000 (45%). The total population for Scheduled Castes is at 13,276,000 and Scheduled Tribes is 10,510,000. Maharashtra is expected to be the second most urbanized State of India after Tamil Nadu with a projected urbanization rate of 62% in 2050. The rural population is expected to be stabilized by the end of the projection period while the urban population is estimated to soar up owing to the rapid pace of urbanization and industrial development that is taking place in the State already.
4. In Maharashtra, the poverty head-count ratio is 17.4%, of which 4.5 million have access to BPL cards and have assured access to the public distribution system. The National Food Security Act 2013 (NFSA) provides food and nutritional security through assured availability of adequate quantity of quality food at affordable prices. In Maharashtra NFSA is being implemented since 2014, and about 62.3% of the state's population is entitled to food grains at subsidised rates. Per the Food Security Outcome Index (FSOI) status of rural Maharashtra, all districts are to some

extent food insecure and 8 districts are severely food insecure (IHD, 2010). Despite improvement poverty reduction and overall nutrition, micronutrient deficiency remains a challenge in India and in Maharashtra in particular¹.

5. In Maharashtra as is the case in the rest of India, identification of the poor is done by the State Governments based on information from Below Poverty Line (BPL) censuses - the latest of which is the Socio-Economic Caste Census 2011 (SECC 2011). Allocation of expenditures on anti-poverty programs is sometimes also done using instruments other than the poverty ratio. Universal programs such as those under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Sarva Shiksha Abhiyan (SSA) are available to all (NITI Aayog; 2016).
6. Multi-Dimensional Poverty Index (MPI) is a measure that takes into account the incidence of poverty and the extent of deprivation. Going beyond just monetary measures, the MPI takes into account several factors (broadly three dimensions of poverty including health, living conditions and education with total 10 indicators- years of schooling, school attendance, child mortality, nutrition, cooking fuel, sanitation, drinking water, electricity and housing assets). India's MPI stood at 0.121 in 2016, half of the figure of 2006. The MPI for the state of the Maharashtra for 2015-16 is 0.069, incidence of poverty is 16.8% and intensity of poverty is 41.3%. This also marks a reduction in poverty by -0.113 from 2005-06 MPI data. Only Nandurbar district in northern Maharashtra has poverty rates bordering 60%.
7. **Gender:** India ranked 127 out of 160 countries on the gender inequality index (GII=0.524 in 2017). Despite considerable progress at the policy and legislative levels, women remain significantly less empowered politically, economically and socially than men. In political representation, women hold only 11.6% of parliamentary seats, and only 39% of adult women have reached at least a secondary level of education as compared to 64% males. Female participation in the labour market is 27.2% compared to 78.8% for men (UNDP, 2018). In terms of voice and representation, the State Government of Maharashtra has stepped up reservation for women in local bodies to 50%, compared to 30% provision at the national level.
8. The National Policy for women (2016) acknowledges that while some progress has been made on women's empowerment, there are persistent socio-economic problems that continue to hinder gender equality and holistic empowerment of women. Challenges include: feminization of agriculture, women entitlement to land and assets ownership, malnutrition and anaemia, among others. In terms of climate change, the National Policy for Women 2016, notes that women have been side-lined in debates about management of climate change and environmental resources - yet climate change has significant gendered impacts. In order to overcome these challenges, the GoI is making concerted efforts to bridge the gender gap, and is giving priority to women's social and economic empowerment. This is reflected in the strong support to livelihood improvement programmes and promotion of self- help groups, which have created opportunities for women to access finance, extension services for crops and livestock husbandry, and workload reducing equipment, thus improving household incomes and women's decision-making power.

¹ Gongmei and Toteja, 2018, *Micronutrient status of Indian population*, Indian Journal of Medical Research

Maharashtra is among the pioneer states in the country that nurtured and scaled up the SHG movement nearly 3 decades ago.

9. In Maharashtra, out of 16.8 million women in workforce, 69% are highly dependent on agriculture. Maharashtra ranks fifth in the country with regard to women-owned establishments (8.25% of total). While 83% of women owned enterprises are self-financed, access to finance continues to be a constraint for women entrepreneurs besides issues of technical and business development support. The political participation of women is having a positive impact on women's empowerment. With one-third of village government head positions reserved to women, women residing in areas with a female village government head show significant higher levels of political participation and empowerment with improved outcomes for women from low socio-economic strata. However, in rural India, women's economic opportunities remain restricted by social, cultural, and financial barriers. Most notably inheritance laws continue to marginalize women in the household and the larger community. Rural women, particularly of in scheduled castes and tribes, have the lowest literacy rates, and therefore do not have the capacity to negotiate pay or contracts and most often engage in the unorganized sector, self-employment, or in small scale industry. A small study on empowerment indicators, among rural women of reproductive age in Maharashtra, concluded that 76.6% women were married below age of 21; 38.3% women were always involved in household decision making; regarding freedom of movement, 38.3% women have complete freedom whereas 41.7% women have some control over economic resources, but only 30% women have personal savings. 60% women have favourable attitude towards girls' education, and only 33.3% women defy domestic violence.
10. Maharashtra State has registered some improvement in some key social indicators. Percentage of women who are literate has increased from 70.3% in 2006 to 80.3% in 2016. In comparison, the literacy rate for men is higher at 92.8%. In terms of Gender Based Violence, the percentage of ever-married women who have ever experienced spousal violence is 21.4% (in 2016). However, this is an improvement from 30.7% in 2006 (ibid). Crime against women (reported cases) in Maharashtra in 2013 saw an increase of 46.79% as compared to 2012. As part of addressing gender-related issues under the just completed Tejaswini project, MAVIM identified and trained Kayda Saathis (para-legal workers) for each CMRCs and a village level gender focal point. MAVIM also established MAVIM Mitra Mandal (Friends of MAVIM) comprising the spouses of SHG members after realizing the need to engage with men to bring about qualitative changes in gender relations and to address issues related to violence against women and girl children. Nav Tejaswini will build on the success of such activities to continue addressing gender and social related issues, principally through convergence with relevant Government schemes.
11. In terms of the gender division of labour, MAVIM's Scoping Study On & Off farm livelihood activities in Maharashtra (2019) observed that 80% of the women play a significant role in manual farm activities such as stubble pricking, sowing, weeding, fertilizer application and harvesting. Tasks which required usage of machinery such as plough machine, tractor, harvester were found to be done by men. The remaining 20% of the women farmers are engaged in both pre and post-harvest on farm activities. These post-harvest on farm activities primarily include packaging, storing, transportation and selling of produce in the nearest local market. The scoping study found that women from tribal areas of Nashik region had lesser participation in market-oriented

responsibilities, primarily due to: i) lack of access to market outside their village/ taluka markets; ii) lack of mobility and societal norms towards women participation in market-oriented responsibilities; and iii) lack of exposure to latest market trends and available possibilities to scale up their existing activities.

12. Nav Tejaswini aims to transform gender relations focusing not only on economic empowerment, but also on activities that address root causes of gender inequalities and hinder achievement of gender equality and women's empowerment. The project recognizes that being a women-led enterprise project does not automatically lead to gender justice and equality. The project will therefore consolidate the gains and expand the successes of the previous Tejaswini Maharashtra programme in: i) drudgery reduction through machinery and women friendly technologies, ii) legal rights training, iii) women's participation in public spaces; iv) promoting joint titling of land and property; v) gender sensitization, including specific men sensitization workshops. The project's contribution to gender equality and women's empowerment will be tracked and measured through Project-level Women's Empowerment in Agriculture Index (Pro-WEAI). The project adheres to the IFAD's targeting policy and the new targeting guidelines and is aligned with the Mainstreaming gender transformative approaches at IFAD Action Plan 2019-2025.
13. **Youth:** The National Youth Policy (2014) defines youth as those in the age group of 15-29 years who comprise 27.5% of the population. About 65% of the population is under 35 years of age. At present, about 34% of India's Gross National Income (GNI) is contributed by the youth, aged 15-29 years. The policy recognizes the need to increase youths labour force participation and their productivity in order to tap into their huge potential to contribute to national development. Early marriages remain a key issue for young women as 26.8% of women aged 20-24 years were married before 18 years (which is the age of consent in India). Together with the National Youth Policy, the National Policy for Skill Development and Entrepreneurship (2015) provides an umbrella framework for youth development and links skills with demand centres. The youth unemployment rate in India in 2018 was estimated at 0.42%. The Government of Maharashtra is undertaking various initiatives to provide the requisite infrastructure for training the youth and promoting access to finance through initiatives such as MUDRA and skills India. There is an increasing trend in the migration of young men and women to the cities and oftentimes, they realise their skills do not fit the job market requirements. In this regard, the GoM has undertaken a substantive sector analysis to identify sectors lacking sufficient skilled employees and focusing on building skills around market needs.
14. **Indigenous peoples and marginalized groups:** Although households from scheduled tribes and scheduled castes in India have experienced upward mobility, poverty among these groups in rural areas is higher than the average. Nav Tejaswini will follow the previous project's targeting mechanism which was well focused and sharp and all poor households in the operational villages were included in self-help groups using a two-fold strategy: i) Below Poverty Line (BPL) card holders identified by the GOM; and by ii) identifying poorest households through Participatory Rural Appraisal (PRA) and wealth ranking. The current Self-Help Group member composition (which MAVIM will continue working with under Nav Tejaswini) indicates that about 32.5% are from Scheduled Caste (SC), 13% from Scheduled Tribe (ST), 8% from Nomadic Tribe (NT), 3% from minority, 30% from other marginal groups and the remaining 14.5% are from upper castes. The

social composition of Governing bodies of CMRCs indicates increased participation of SC (34%), ST (16%) and NT (7%) in leadership positions. As part of pre-project planning activities, MAVIM will collect data on current poverty status of all members as per the Socioeconomic Caste Census categorisation before the project commences.

15. **Nutrition:** India has made rapid strides in lowering the incidence of under nutrition. Owing to concerted efforts at all levels, stunting in children below five years declined from 48 to 38% between 2006 and 2016. However, India continues to have one of the world's highest child under-nutrition rates which remain the prime risk factor in over 40% of under-five child deaths (Niti Aayog 2018). According to National Family Health Survey-4 (NFHS-4), 2015-16, over one-third of all under-five children are stunted (low height-for-age), every fifth child is wasted (low weight-for-height), and more than 50% of the children are anaemic. The health survey shows the following nutrition related indicators: Stunting - 38.4; Underweight - 35.7; Children (6-59 months) who are anaemic - 58.4%; All women (15-49 years) who are anaemic 53%. At the state level, about 35% of children under five in the Maharashtra exhibit stunted linear growth, which is only slightly lower than the Indian average of about 39% prevalence of stunting. The prevalence of wasting among children under five in the state is 26% (UNICEF, 2016).
16. A large portion of the population is still affected by micronutrient deficiency. Anaemia, the most common form of micronutrient deficiency affects almost 50 to 60 per cent preschool children and women, while vitamin A deficiency and iodine-deficiency disorders (IDD) have improved over the years². In Maharashtra, the country's second most populous state, about 50 per cent of women are chronically energy-deficient and over 75 per cent of non-pregnant and non-lactating women are anaemic³. Eating a variety of fruits and vegetables is associated with reduced risk of micronutrient deficiencies and non-communicable diseases. A recent study by Aguayo, Nair, Badgaiyan and Krishna has further helped identify factors most significantly associated with child stunting in Maharashtra. Using a representative sample of over 2,500 children (0-23 months old), Aguayo and colleagues conducted a multivariate regression analysis to determine predictors of stunting and poor linear growth. The researchers found that children's birthweight and feeding practices were clear predictors of undernutrition. However, the team also noted that women's nutrition and status and broader factors – such as household sanitation and poverty – were among the most significant factors that predicted stunting and poor linear growth.
17. A recent study⁴ in *Food and Nutrition Bulletin* analysed data from nine focus group discussions and 12 one-on-one interviews with 18- to 40-year-old women from eight villages surrounding eastern Maharashtra's Wardha district — a region highly dependent on agriculture for food and income. It was observed that despite women's knowledge of the nutritional benefits of fruits and vegetables, there were seven key themes limiting their ability to obtain these foods for themselves and their children — personal factors, household dynamics, social and cultural norms, workload, time pressures, environmental factors and cost. In particular, household dynamics, and social and

² Gongmei and Toteja, 2018, *Micronutrient status of Indian population*, Indian Journal of Medical Research

³ A. V. Vijaya BhaskarD. J. NithyaS. RajuR. V. Bhavani, 2017, *Establishing integrated agriculture-nutrition programmes to diversify household food and diets in rural India*

⁴ Kehoe,S et al., 2019, *Barriers and Facilitators to Fruit and Vegetable Consumption Among Rural Indian Women of Reproductive Age*, Food and Nutrition Bulletin

cultural norms were major factors. One married woman interviewed in the study said, “Women do not get to eat proper meals the way they are supposed to. Men get a proper meal”. Some women said they were so tired at the end of the day that they did not feel like eating a big meal and simply wanted to eat a small amount of bread or rice. And many of them alluded to marital norms — preventing distribution of time-consuming household chores to their husbands.

18. At the same time, women also talked about being at the mercy of their husbands’ food choices at the market. Caste too played a role. For women who belonged to some select castes, it wasn’t considered acceptable to go to the market. And when fruits and vegetables were available, many women preferred that their children eat them rather than themselves. Most women also stated that the relatively high cost of fresh produce, which includes transportation and inflation, was a major determinant of how much they consumed. But even when wild green leafy vegetables were freely available, some women remarked that these were considered “dirty” or “poor people’s food” by members of their communities. Therefore, increasing rural women’s fruit and vegetable consumption should be a top priority for tackling micronutrient deficiencies.
19. The GOI's decision to launch a National Nutrition Mission reflects the Government's urgency to deal with the situation. Maharashtra is often cited as a success story for creating a State Nutrition Mission and managing to reduce stunting by 15% points during 2006-12 . However, the rise in incidence of wasting reflects interruptions in access to food and increased risk of death. Wasting and severe wasting in Maharashtra have also increased from 16.5% and 5.2% in 2005-06 to 25.6% and 9.4% in 2015-16 respectively. Adult women and men in the rural areas also suffer from low BMI (30% women and 23% men). Furthermore, almost 50% of adult women in rural areas are reported to being anaemic, as against 20% of men. While there has been improvement on many indicators the situation of anaemia has remained unchanged in the past decade which calls for enhanced efforts.
20. The project's investments will be nutrition-sensitive. The project will promote commodities/crops and its related products that have high nutritional value, especially micronutrients. Furthermore, recognizing that improved incomes do not automatically lead to better nutrition outcomes, the project will pursue behavioural change, awareness/education campaigns primarily through convergence programmes in partnership with the Department of Women and Child and the National Rural Health Mission, on the importance of consumption of fruits and vegetables for women and children and good hygiene habits. SHG meeting will be the platform for nutrition awareness. It will partner with government programmes and leverage partnerships with other agencies to support women members in SHGs and their households to make better-informed decisions about family's nutritional habits. The project will also replicate the successful models of Saat Din Saat Ghar and Tiranga Thali undertaken in Tejaswini M.P where appropriate.
21. **Child Labour:** The risk of child labour in the State of Maharashtra is considered low and is currently managed through the national Child Labour (Prohibition and Regulation) Act, 1986 which prohibits employment of children below 14 years of age in all forms of employment. In case of violation of the Act, stringent penalties are incorporated into the Act to include imprisonment and fines. In implementing the law, the State of Maharashtra has also established an online grievance

mechanism that addresses concerns and grievances in connection with child labour. The project will follow these existing laws and mechanisms⁵.

22. **Target Group.** The project will directly provide services to 801,979 women through the existing 66,524 SHGs under 248 CMRCs and 200,000 women and men, through enterprises along the agri value-chains, in the manufacturing and service sectors and through creation of decent jobs.

23. The project's direct target group are the members of existing viable SHGs and their families. The membership falls under three categories: a) Micro-entrepreneurs with steady family income above poverty line of Rs 58,000; b) Moderately poor with family income from all sources is between Rs 25,000 to Rs 58,000; and c) Ultra/very poor that earn less than Rs 25,000 and having no regular income. By profession, the target beneficiaries are marginal farmers, livestock/fisheries micro-entrepreneurs, non-farm products producers, workers in service sectors and agricultural labourers. About 20% of SHG members may fall under 35 years of age (young adults). The project would include young adults, women and men, of beneficiary families for skill development programmes to gain decent and remunerative employment. In the UN's spirit of leaving no-one behind, the project will include beneficiaries from different categories including Scheduled Caste (SC), Scheduled Tribe (ST), Nomadic Tribe (NT), minority and other marginal groups as well as those from upper castes. PRAs will be conducted to ascertain the numbers and poverty levels of each category. The profile of the target group is presented in table 1 below.

Table 1. Profile of the Project Target Group

Type of target groups	Poverty indicators	Services and path out of poverty
Micro-entrepreneurs (25-30%)	<ul style="list-style-type: none"> Annual income > Rs 58,000 (BPL)⁶ Land ownership > 2.5 acres Already engaged in 3 IGAs Avg. loan size, Rs.30,000/- Strong enterprising ability 	<ul style="list-style-type: none"> Participate in an organized value chain Individual microenterprise loan more than Rs 100,000 from bank/non-bank financial institution Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. May receive business services as per need for example productivity related training in case of farm sectors and design improvement in case of non-farm product.
Moderately poor (60-70%)	<ul style="list-style-type: none"> Annual income between Rs 25,000 to Rs 58,000 Land ownership is between 0.5 acre and 2.5 acres 	<ul style="list-style-type: none"> Participate in an organized value chain Individual member may borrow up to Rs 100,000 through SHG-bank linkage Some farm/non-farm businesses may not join any organized

⁵ <https://mahakamgar.maharashtra.gov.in/online-grievances.htm>

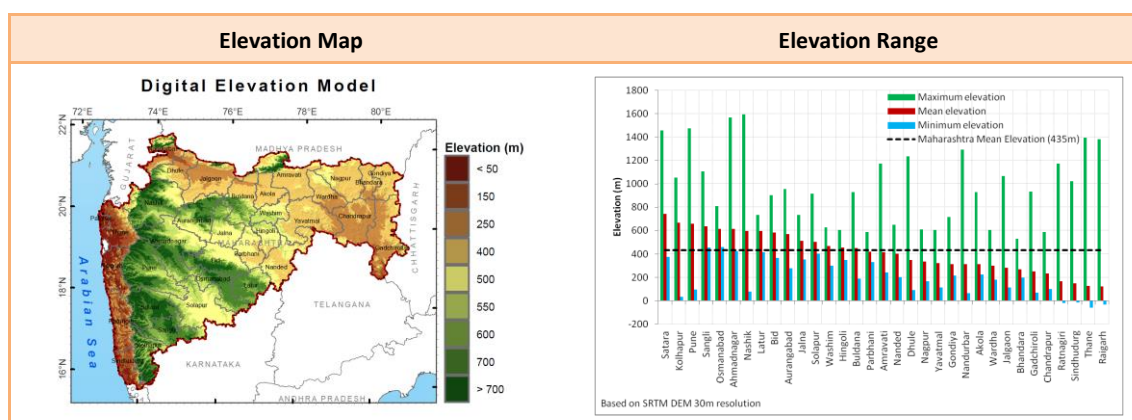
⁶ For the State, poverty line as of 2011-12, is estimated at Rs. 967 per capita per month in rural areas and with average family size of 5, the annual income per family is estimated at Rs. 58,000. Source; Economic Survey of Maharashtra, 2018-19.

	<ul style="list-style-type: none"> ▪ Already engaged in 1 or 2 IGAs (small shop etc) ▪ On the verge of enterprising curve 	<ul style="list-style-type: none"> value chain subproject but grow as individual businesses. ▪ <u>some</u> qualify for selected convergences schemes. ▪ Vocational training for selected SHG or family members
Ultra poor (5-10%)	<ul style="list-style-type: none"> ▪ Annual income less than Rs 25,000 (no regular income and depends mainly on manual labor) ▪ Land ownership: landless to 0.5 acre ▪ Wage employment ▪ Lack of self & peer confidence to avail bigger loans ▪ Need more facilitation 	<ul style="list-style-type: none"> ▪ Participate in a value chain if lives in the same cluster; ▪ Individual member may borrow up to Rs 20,000 through SHG-bank linkage ▪ Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. ▪ Access pro poor convergences schemes ▪ Vocational training for selected SHG or family members for wage employment. ▪ Mentoring for IGA development ▪ Village level wage employment for a subcontractor

C. Natural Resources Profile

24. **Nav Tejaswini Districts' Geography:** Average elevation above sea level varies from 123m to 744m in the districts (State average elevation is 435m amsl). Districts of P Satara, Kolhapur, Pune, Ahmadnagar, Nashik, Dhule, Nandurbar, Ratnagiri, Sindhudurg, Thane and Raigarh have the largest elevation differences (**Error! Reference source not found.**).

Figure 2: Nav Tejaswini Districts at a Glance - Development profile



25. **Topography and Physiography.** Maharashtra State is spread over a geographical area of 3,07,713 sq. km. Its geographic location is latitude 15°40' N to 22°00' N and longitude is 72°30'E to 80°30'E. Based on topography and physical features, the state can be divided into three physical divisions, viz. The Konkan Coastal Lowland, the Western Ghats and the Maharashtra plateau. The topography of Maharashtra is characterized by a narrow coastal plain that separates the Arabian Sea from the Western Ghat Mountains. On the eastern side of the mountains the climate is drier and the topography is characterized by a large plateau formed by a series of table-lands that occupy most of the central part of the state. The State is divided into nine agro-climatic zones differentiated mostly by the rainfall, soil and cropping patterns. The western coastal plains have high rainfall, followed eastward by the ghat mountain zone, the transition zone, and the drought prone zones. The eastern zones are again characterized by moderate to high rainfall patterns.
26. **Maharashtra Water Resources:** Maharashtra is drained by major 5 river basins namely; (i) Godavari (49.5% geographical area), (ii) Krishna (22.6%), (iii) Tapi (16.7%), (iv) Narmada (0.5%) and (v) West Flowing Rivers (10.7%). These are further sub-divided into 15 sub-basins and 1505

watersheds (as per Section 2 of Maharashtra Groundwater (Regulation for Drinking Water Purposes) Act 1993⁷. 55% of the dependable yield is available in the four river basins (Krishna, Godavari, Tapi and Narmada) east of the Western Ghats. These four river basins support 92% of the cultivable land and have more than 60% of the population in rural areas.

The estimated ultimate irrigation potential is 12.6 million ha which includes 8.5 million ha surface water and 4.1 million ha ground water. Till 2012, a potential of 4.86 million ha (Mha) has been created through 79 major, 249 medium and 3004 minor irrigation projects⁸.

- **Ground Water:** Most of the Maharashtra state is occupied by hard rocks, 85% is covered by Deccan basalts and rest of the state by Quaternary alluvium, Gondwanas, Cuddapahs, Kaladgis, Vindhyans, Dharwars and Archaeans. Ground water availability is limited due to variations in hard rock hydro geological characteristics; physiography and variability in the rainfall. Net annual ground water availability is 31.21 BCM and annual ground water draft is 15.09 BCM with stage of ground water development of 48 %. Out of the total 353 talukas, 10 talukas are categorized as over exploited, 2 talukas are categorized as critical and 16 talukas are categorized as semi-critical. There are over exploitation of ground water⁹. Ground water quality issues, including salinity, fluoride, and hardness persists in many districts.
- **Water Pollution:** According to the Hindustan times , Five water bodies in Maharashtra contain 'heavily polluted' water, and Mumbai's Mithi River is one of them, according to a water quality analysis done by the Maharashtra Pollution Control Board (MPCB) in May 2019. The MPCB's findings were compiled after monitoring water quality at 250 locations in Mumbai, Thane, Pune and Nagpur, under the National Water Monitoring Programme. These included rivers, sea coasts and creeks, drains, dams and wells . While 81%, or 139 of these sites had 'non-polluted' water, 28 sites (16%) contained 'polluted' water, and five (3%) were 'heavily polluted'.

Most sites where the MPCB recorded poor water quality were in the urban areas of Mumbai, Thane, Pune and Nagpur. The MPCB said the reason more locations in Mumbai were identified as having polluted water was because it collected samples near marine outfalls, which releases both treated and untreated sewage into the sea, experts pointed out how this showed not enough was being done to stop industries from releasing untreated waste into the sea.

27. **Maharashtra Soil:** The soils of Maharashtra are residual, derived from the igneous basalts. The soil in the river basins of Godavari, Bhima, Krishna and Tapi has a deep layer of fertile black basalt soil, which is rich in humus. The semi-dry plateau of Deccan has a medium layer of black regur (black) soil which is clayey and moisture retentive, rich in iron but poor in nitrogen and organic matter. The higher plateau region has murmad soils, which contain more gravel. The peaks of the Sahyadri Mountains, the districts of Ratnagiri and Sindhudurg and the western regions of Kolhapur and Satara have a reddish lateritic soil. The Konkan coast has sandy loam soil. Farther away towards the east in Vidarbha region, with a better mixture of lime, the

⁷ Report on the dynamic ground water resources of Maharashtra (2011 - 2012), Groundwater Surveys & Development Agency (G.S.D.A.), GoM.

⁸ Maharashtra Water Resources Department-Vision 2020 Report. Government of Maharashtra..

⁹ Ground Water Scenario of Maharashtra , http://cgwb.gov.in/gw_profiles/st_Maharashtra.htm.

morand soils form the ideal Kharip zone. North Konkan, eastern Vidarbha region like Bhandara, Gondia and Gadchiroli districts have reddish and yellowish soil¹⁰.

Table 2. Soil types by Agro-Climatic zones

S. No.	Agro-climatic Zones	Name of the Zone	Soil Type
1	South Konkan Coastal Zone	Very high rainfall zone with lateritic soils	Lateritic, PH-5.5-6.5 acidic, poor in phosphorous rich in nitrogen and Potassium
2	North Konkan Coastal Zone	Very high rainfall zone with non-lateritic soils	Coarse & shallow, PH 5.5 to 6.5, acidic Rich in nitrogen, poor in phosphorus & potash.
3	Western Ghat	Western Ghat Zone/Ghat zone	'Warkas' i.e. light laterite & reddish brown. Distinctly acidic, poor fertility low phosphorous & potash content.
4	Transition Zone-1	Sub Montane Zone/ Transition Zone 1	Soils are reddish brown to black tending to lateritic. PH 6-7. Well supplied in nitrogen but low in phosphorous & potash
5	Transition Zone-2	Western Maharashtra Plain Zone /Transition-2	Topography is plain. Soils greyish black. Moderately alkaline 7.4-8.4, lowest layer is 'Murum' strata. Fair in NPK content. Well drained & good for irrigation.
6	Scarcity Zone	Western Maharashtra Scarcity Zone/Scarcity Zone	General topography is having slope between 1-2%. Infiltration rate is 6-7 mm/hr. The soils are vertisol. Soils have Montmorillonite clay. Poor in nitrogen, low to medium in phosphate & well supplied in potash.
7	Assured Rainfall Zone	Central Maharashtra Plateau Zone /Assured Rainfall Zone	Soil colour ranges from black to red. Type- 1) vertisols, 2) entisols & 3) inceptisols PH 7-7.5
8	Moderate Rainfall Zone	Central Vidarbha Zone /Zone of Moderate Rainfall	Black soils derived from basalt rock. Medium to heavy in texture alkaline in reaction. Low lying areas are rich and fertile.
9	Eastern Vidarbha Zone	Eastern Vidarbha Zone/ High Rainfall Zone with Soils derived from parent material of different crops. There are 4 sub-zone based on climate, soils and crop pattern	Soils derive from parent rock granite, gneisses, and schist. Brown to Red in colour. PH6 to 7

Source: NIDM, Maharashtra; Maharashtra State Adaptation Action Plan on Climate Change (MSAAPC), Dept. of Environment, Govt. of Maharashtra, 2014

28. **Maharashtra Land use:** The total reporting area for land utilization of the state is around 30.77 million ha. The contribution of net area sown is (56.47 per cent), area not available for cultivation (10.35 per cent), current fallow land (4.55 per cent), forest (15.93 per cent), land other than current fallow land (3.88 per cent), culturable wasteland (2.97 per cent) and

¹⁰ A critical study of industrial investment in Maharashtra (in the period 2000-2001 to 2009-2010), 2014, Khuba Shridevi Chandrakant, University of Pune.

permanent pastures & other grazing lands (4.04 per cent).¹¹ **Error! Reference source not found.** shows land use statistics.

29. **Forestry.** According to the 'People's Forests' report produced by the Centre for Science and Environment, Delhi, 2016; Maharashtra has the highest potential Community Forest Resource (CFR) area of 4,820,028 hectares. Although Maharashtra is faring better than other states, however there is a scope for improvement, as only 14 per cent of the potential community forest resource area has been actually recognised. The report further states that Maharashtra has been in the forefront to show how the forest communities can contribute in conserving the forest areas in recent times and that the communities understand better about the native plantations in the forest and also assist in preventing any artificial commercialisation. To this end, the project has made a commitment in the PCN not to embark on land development activities which will require a forest clearance or permit.
30. **Maharashtra Agriculture:** Agriculture is the dominant land use category in the state. It accounts for about for about 65 per cent of the total geographical area of the state. Agriculture in the state is predominantly rainfed and only 18% of cropped area is irrigated. Agriculture is the major income activity of over 64% of the state's population. Principal crops grown in the State are rice, jowar, bajra, wheat, tur, mung, urad, gram and other pulses. The State is a major producer of oilseeds. Groundnut, sunflower, soyabean are the major oil seed crops. The important cash crops are cotton, sugarcane, turmeric and vegetables. Maharashtra's agriculture is dominated by small and marginal farmers (78.6 per cent).
31. **Disaster Profile:** Maharashtra is prone to various natural hazards such as drought, floods, cyclonic storms, earthquake, landslides and heat wave. According to the National Disaster Risk Index, Maharashtra has been ranked at the top of the list of Indian states, vulnerable to natural disasters, followed by West Bengal, Uttar Pradesh, and Madhya Pradesh.¹²
Earthquake: The State of Maharashtra has witnessed two major earthquakes namely, the Koyna earthquake of magnitude 6.6 in 1967 and the Latur earthquake of magnitude 6.2 in 1993. The most seismic active region in the Maharashtra is the west coast and Western Ghats regions¹³. 6 districts fall in seismic zone IV (high zone) and 20 districts in seismic zone III (moderate zone). Districts of Kolhapur, Pune, Raigarh, Ratnagiri, Sangli and Satara fall under high zone. Districts of Chandrapur, Gadchiroli, Mumbai, Mumbai-(Suburban), Thane, Yavatmal, Ahmadnagar, Akola, Amravati, Aurangabad, Bid, Buldana, Dhule, Jalgaon, Latur, Nandurbar, Nashik, Osmanabad, Sindhudurg and Solapur fall under moderate zone.
Cyclone: The coastal areas of Maharashtra are risk prone to cyclones. Being on the west coast, Maharashtra is classified under moderately vulnerable category. Districts of Sindhudurg, Ratnagiri, Raigarh, Mumbai and Thane are most prone to cyclones. Maharashtra coast has witnessed 6 cyclones with maximum sustained wind speed greater than 38 knots, out of which 4 fall under Severe Cyclonic Storm (≥ 47 kts) during the period from 1981-2017¹⁴.
Drought: Drought is a recurring phenomenon in Maharashtra. 40% of the area is drought prone.

¹¹India State of Forest Report (ISFR) 2017, <http://fsi.nic.in/forest-report-2017>.

¹² Draft report prepared by the Union home ministry with support from the UNDP, 2019. <https://www.in.undp.org/content/india/en/home/blog/equipping-states-for-disaster.html>

¹³Maharashtra State Disaster Management Plan, 2016, SDMA, GoM. https://rfd.maharashtra.gov.in/sites/default/files/DM%20Plan%20final_State.pdf

¹⁴ Annual frequency of cyclones, IMD. <http://www.rsmcnewdelhi.imd.gov.in/images/pdf/climatology/frequency-cyclone/landfallingcd.pdf>

70 per cent of the State's geographical area lies in semi-arid region rendering it vulnerable to water scarcity. Geographically, historically and culturally, Maharashtra is divided into 5 regions namely, Vidarbha, Marathwada, Konkan, Khandesh and Paschim Maharashtra. Vidarbha and Marathwada are affected by frequent anomalies in rainfall during monsoon season leading to drought. Based on the districts declared by the State¹⁵, 5 districts (Buldana, Amravati, Chandrapur, Gadchiroli and Wardha) out of 11 districts of Vidarbha have experienced drought in 7 to 8 years during the period from 2000 to 2015. Similarly 6 districts (Latur, Jalna, Osmanabad, Aurangabad, Beed and Nanded) out of 8 districts of Marathwada have experienced drought in 7 to 10 years during the same period. Kandesh region districts have experienced drought in 7 to 10 years during 200 to 2015, Ahmadnagar, Nasik (10 years), Dhule (9 years), Jalgaon and Nandurbar. Most affected years are 2019 and 2002 (32 districts), 2015 and 2009 (28 districts), 2014 and 2000 (26 districts). District wise probability of drought occurrences in moderate, severe or extremely severe events has been calculated based on standardized precipitation index (SPI) using the data for the period 1901-2015 for the southwest monsoon period (June-September) over India by Guhathakurta, P., Menon, P., Inkane, P.M. *et al*¹⁶. According to this literature, drought probability of districts of Maharashtra under different category are: (a) Moderate drought: Ahmadnagar, Hingoli, Jalna, Osmanabad, Sangli and Thane with 10-15% probability and Kolhapur, 15-18% probability; (b) Severe drought: Ahmadnagar, Amravati, Aurangabad, Beed, Bhandara, Chandrapur, Gondiya, Jalna, Latur, Ratnagiri, Satara, Sindhudurg, Solapur and Yavatmal with 3 to 6% probability; (c) Extreme drought: Akola, Aurangabad, Beed, Bhandara, Buldana, Gadchiroli, Gondiya, Hingoli, Jalgaon, Jalna, Latur, Nanded, Nandurbar, Osmanabad, Parbhani, Raigarh, Sindhudurg, Solapur, Thane, Wardha, Washim and Yavatmal with 3 to 6% probability and Chandrapur, Nagpur, Nasik, Pune and Ratnagiri with 6 to 9%.

Floods: All districts of Maharashtra are vulnerable to floods. About 7% of the area of Maharashtra is flood prone. Most floods in Maharashtra are flash floods due to nallah-overflows and poor drainage systems¹³. Flood prone districts include, Akola, Aurangabad, Beed, Kolhapur, Nanded, Nashik, Pune, Raigad, Ratnagiri, Sangli, Satara, Solapur, Thane and Palghar. Figure 3 shows flood damage statistics. Major flood years are 1983, 1984, 1989, 1994, 2002, 2003 and 2019.

32. **Waste Management.** In a study conducted by Arcadis Germany in 2017, the integrated waste management system for Nagpur (one of the districts in Maharashtra) was analysed along with a detailed waste characterisation of municipal solid waste. The waste characterisation exercise was undertaken by the National Environmental Engineering Research Institute (NEERI), Nagpur. A total of 34 samples were collected from all the 10 zones in the city in April/May 2017 and tested for physical and chemical composition analysis, including bio-methane potential. Results from the

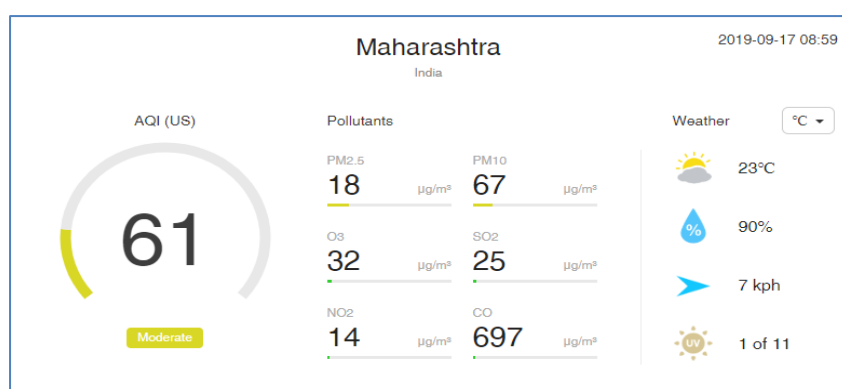
¹⁵ Manual for Drought Management - Ministry of Agriculture, 2016. In India, the State governments are the final authority to declare a region as a region affected by drought. The Union government has recommended four standard monitoring tools when declaring a region as drought affected (Trigger 1: Two mandatory indicators; rainfall deviation and dry spell; Trigger 2: Four impact indicators; agriculture, vegetation indices based on remote sensing, soil moisture, and hydrology. The States may consider any three of the four types of the Impact Indicators (one from each) for assessment of drought, the intensity of the calamity and make a judgement after sample survey for ground truthing.

¹⁶ Guhathakurta, P., Menon, P., Inkane, P.M. *et al*. Trends and variability of meteorological drought over the districts of India using standardized precipitation index. J Earth Syst Sci 126, 120 (2017).

waste characterisation indicate that the average waste composition for Nagpur includes organics at approximately 60%, along with plastics (16%), paper (11%) and inerts (2%). The balance of 11% constitutes wood, metal, glass, etc. The MSW samples were also tested for chemical parameters, such as pH, moisture content, Total Solids (TS), Total Volatile Solid (TVS) ash, calorific value, Chemical Oxygen Demand (COD), average density and C/N ratio. The waste from Nagpur has COD at 24%; the average waste density is 440 kg/m³, and the C:N ratio of waste is approximately 24. The average moisture content is 56 %, TS is 44 %, TVS is 70 %, ash content is 31 %, and calorific value is 1089 kcal /kg. The collected samples from all the zones in Nagpur city were also analysed for their bio-methane potential, which indicated a biogas yield of 93 m³/ tonnes of organic waste and an average methane yield of 45 m³/ tonne. The methane percentage in the biogas was estimated at around 49%. Mindful of the study's findings and in conjunction with other observations from around Maharashtra, it is important that the project joins efforts with GoI, GoM and other development partners to ensure that activities of the project do not impact negatively on the environment and follow Government of India and State norms and good practises in this regard.

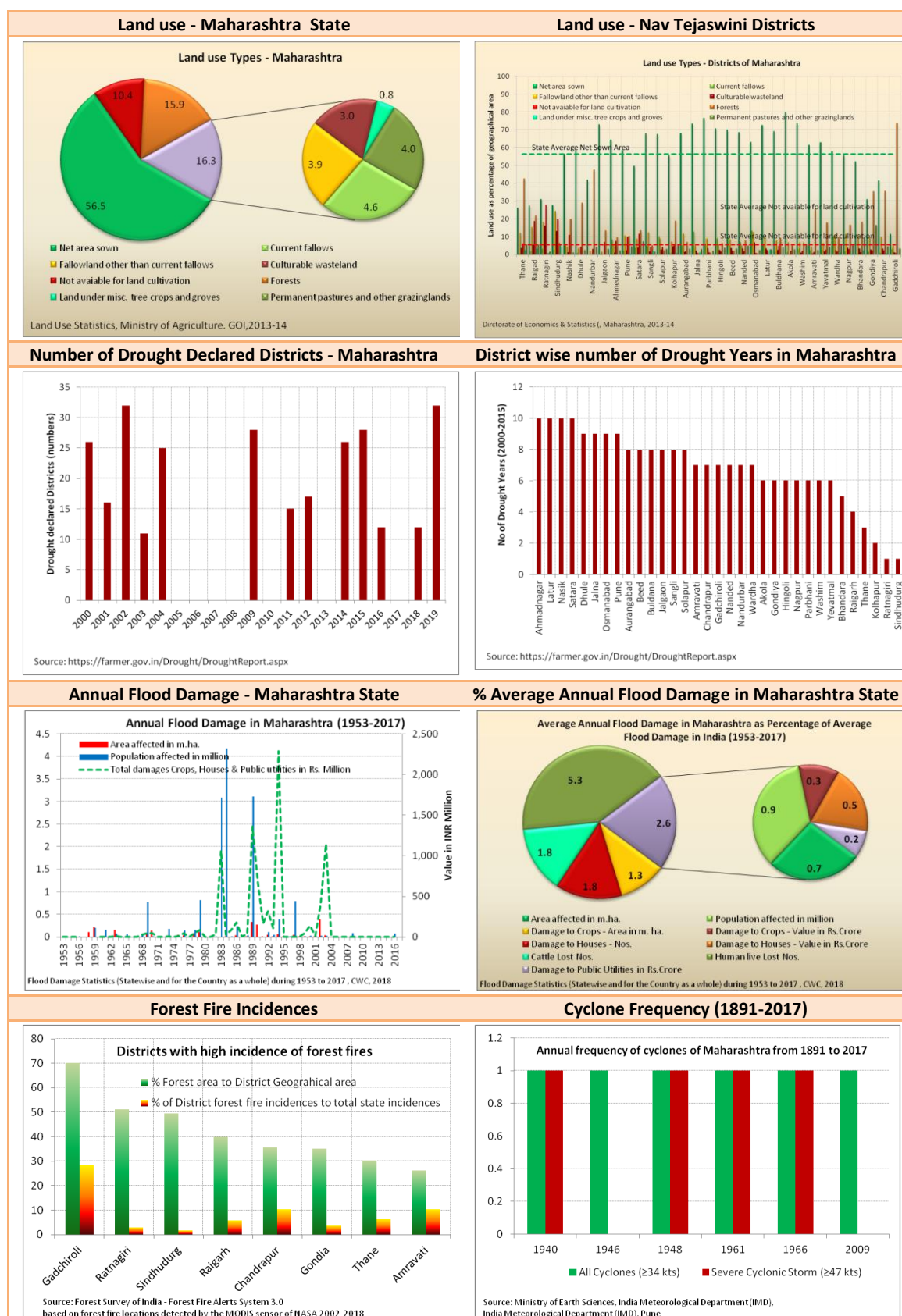
33. **Air Quality** is an important indicator of the status of the environment. The Air Quality Status Report of Maharashtra 2018-19 released on World Environment Day, states that 65% of the daily air quality observations for the state fell under the 'Good' and 'Satisfactory' categories, which is a 5% upward jump from the observations recorded in 2016-17. This displays a positive trend, seeing as it is an increase from the 53% recorded in 2015-16 and 54% recorded in 2014-15. The highlights of the report Air Quality Status Report of Maharashtra 2018-19 are as follows: 6% reduction in PM_{2.5} levels and 9% reduction in PM₁₀ levels have been observed this year, as compared to last year (2017-18); All regions were found to be clean with regard to SO₂, as the concentrations recorded were under the permissible limit of 50 µg/m³; out of the 72 Active Ambient Air Quality Monitoring Stations established across Maharashtra, NO_x concentrations exceeded the standard limit (40 µg/m³) at 29 stations, primarily in the Mumbai, Kalyan and Pune regions.

Figure 2 - Air quality monitoring in Maharashtra



Source: https://air-quality.com/place/india/maharashtra/da212e71?lang=en&standard=aqi_us

Figure 3: Nav Tejaswini Districts at a Glance – Natural resources profile



Data Source: Directorate of Economics & Statistics Maharashtra, Flood Damage Statistics (Statewise and for the Country as a whole) during 1953 to 2017, CWC, 2018, India Meteorological Department (IMD), Forest Survey of India.

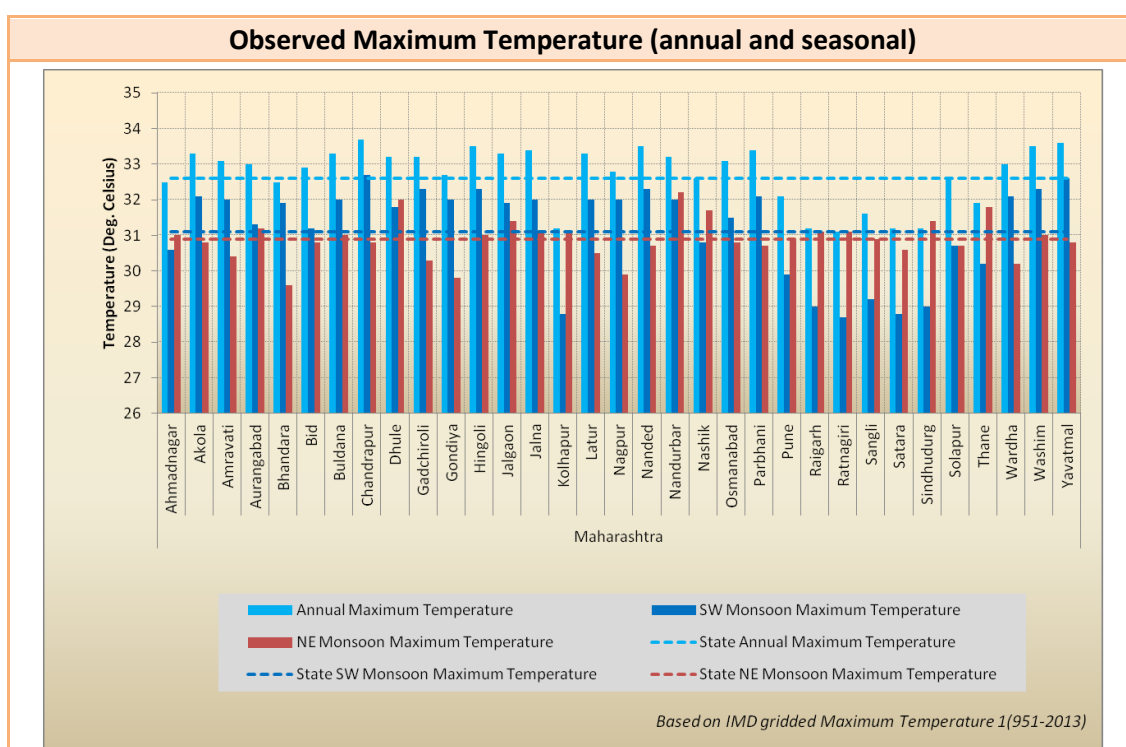
D. Indepth Climate Analysis

34. Maharashtra has a typical monsoon climate, with hot, rainy and cold weather seasons and dry summers. However, dew, frost and hail also occur sometimes, depending upon the seasonal weather. The winter in January and February is followed by summer between March and May and the monsoon season between June and September.
35. **Historical climate:** Assessment of the historical climate variability and trends in mean climate (maximum temperature, minimum temperature and precipitation) for the implementation districts of Maharashtra (High resolution maps are given in Annex) over the period 1951-2013 (63 years), has been made using historical gridded observations from the India Meteorological Department (IMD)¹⁷. Orography and landuse influence spatial distribution of rainfall and temperature. Human-induced landscapes and human activities play a key role in altering the climate at a local and regional scale. It is important to understand the variation in rainfall as well as temperature since these variations have to be kept in mind while designing appropriate interventions (conservation practices or machineries etc.). Therefore analysis has been carried out at the district level. Summary of observed temperature and rainfall for the 16 districts is presented (Figure 5).
36. **Observed Temperature:** Mean maximum temperature of 34 districts is 32.7°C (31.1 - 33.7°C) is observed (Maharashtra state average is 32.6°C). Mean minimum temperature is 20.1°C (19.1 - 21.5°C) is observed (Maharashtra state average is 22.8°C). Both maximum and minimum temperature attain maximum in the SW monsoon season. For annual maximum temperature the highest value is attained for Chandrapur district (33.7°C) while the lowest value is attained for district of Ratnagiri (31.1°C). Increasing trend with high confidence for maximum temperature is observed in 24 districts, with low confidence in districts of Akola, Amravati, Aurangabad, Buldana, Dhule, Jalgaon, Jalna, Nagpur and Nandurbar. Increasing trend with low confidence for minimum temperature is observed in 21 districts except for districts of Ahmadnagar, Aurangabad, Buldana, Jalgaon, Jalna, Kolhapur, Pune, Ratnagiri, Sangli, Satara and Sindhudurg (decreasing minimum temperature trends).
37. **Observed Rainfall:** Mean annual rainfall of 34 districts observed is 1209 mm (636 – 3504 mm). Maharashtra state average rainfall is 1281 mm. Ahmadnagar had the lowest (636 mm) and Sindhudurg had the highest (3504 mm) rainfall. South west monsoon contributes 86.5% (1070 mm) and 9.5% (97 mm) of annual rainfall contribution comes from pre-monsoon months. All districts show decreasing trend in annual rainfall (low confidence) except for districts of Amravati, Akola, Buldana, Nashik and Pune show increasing trend (low confidence). Decrease in number of rainy days is observed in all 32 districts, out of these, decreasing trend in raindays in the districts of Amravati, Aurangabad, Gadchiroli, Kolhapur, Nanded, Parbhani, Satara and Solapur is statistically significant. Out of 63 years rainfall analysis, Nav Tejaswini districts on an average had 40 normal rainfall years (Ratnagiri had 50 years and Nandurbar had 27 years), 11 years had excess rainfall (Nandurbar had 18 years and Satara had 5 years) and 13 years had deficit rainfall (Pune had 21 years and Ratnagiri had 5 years).
38. **Summary historical climate:** In summary the Nav Tejaswini districts historically show an increasing trend in maximum temperature (high confidence) and minimum temperature (low confidence). Increase in maximum temperature is observed during summer and post monsoon, while minimum temperature is observed during SW monsoon. Decreasing trend in annual

¹⁷ www.imd.gov.in/advertisements/20170320_adv_t_34.pdf.

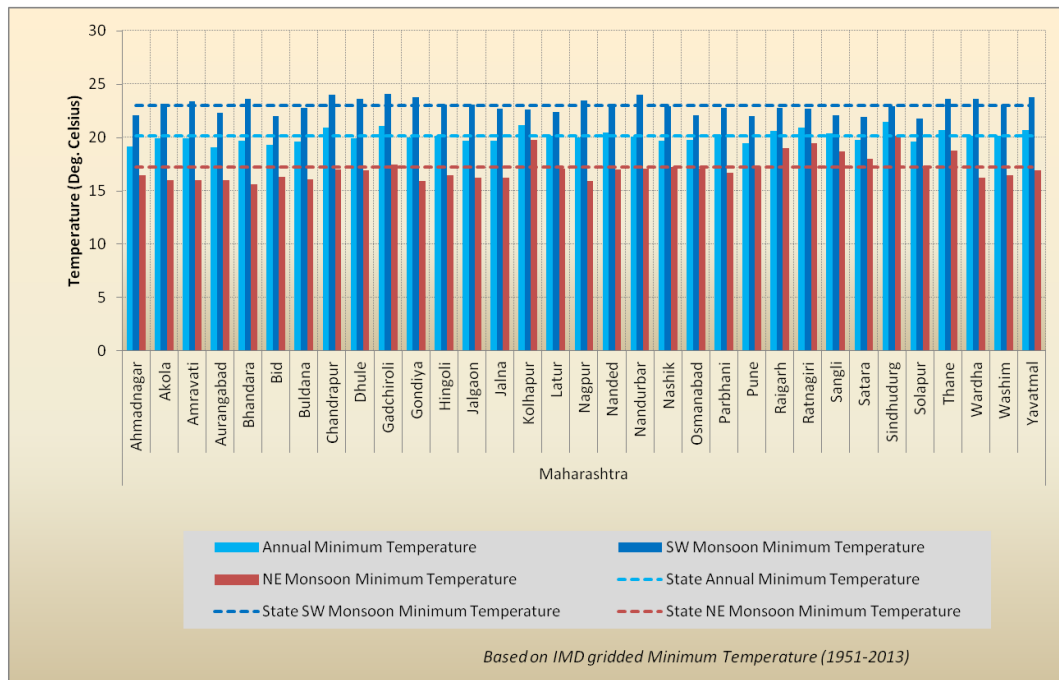
rainfall is observed in 28 districts (low confidence) and increasing trend in 5 districts (low confidence). Decreasing trend in rainy days is observed in 25 districts (low confidence) and decreasing trend in 8 districts (high confidence). Annual rainfall distribution analysis shows that majority of the 34 districts on an average had 63% normal, 20% deficient and 16% excess rainfall years¹⁸. Analysis carried out at district level for seasonal temperature and rainfall is given in Annexure. Increasing trend in maximum temperature for the districts results in additional water demand (crop, human and livestock). Districts with increasing trend in temperature and decreasing trend in rainfall would likely have water stress and drought like situation. Uneven rainfall distribution and extreme events may result in flood.

Figure 5: Historical Climate Summary for Nav Tejaswini Districts of Maharashtra

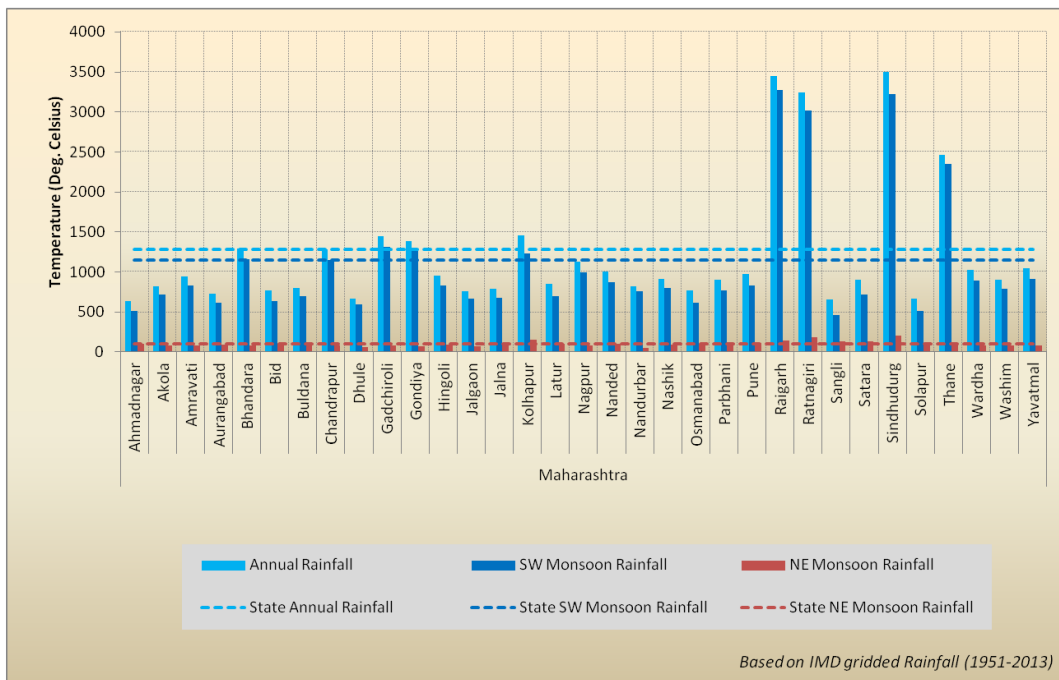


¹⁸ +/-19% Long Period Average (LPA): Normal rainfall year, <-19% to -59% LPA: Deficient rainfall year, >+19% to +59%: Excess rain fall year (http://www.imdpune.gov.in/weather_forecasting/glossary.pdf).

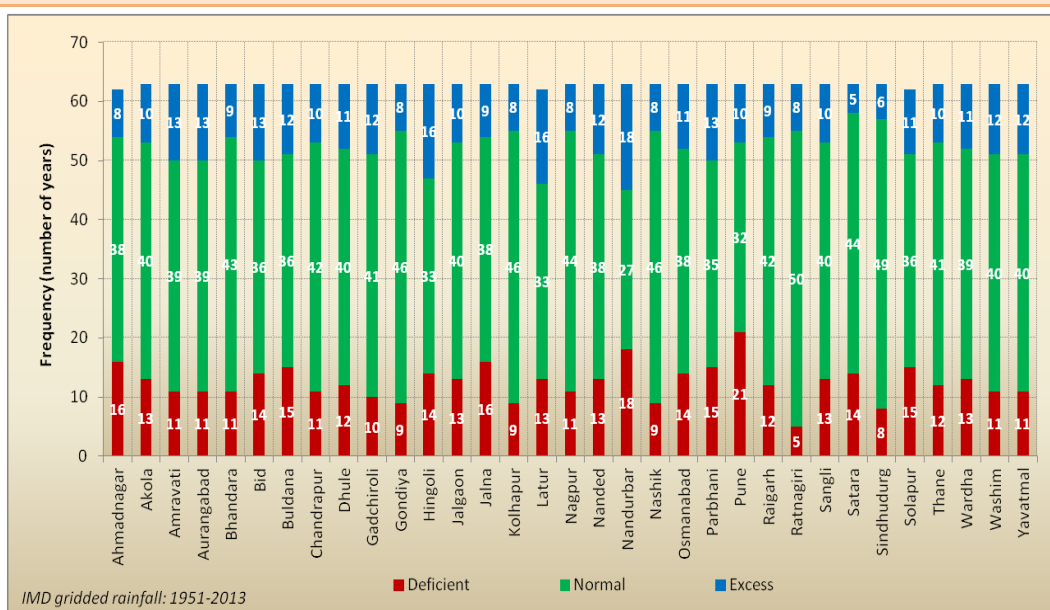
Observed Minimum Temperature (annual and seasonal)



Observed Rainfall (annual and seasonal)



Frequency of deficient, normal and excess rainfall years



Observed Trend in Temperature and Rainfall

State	District	Rainfall					Maximum Temperature					Minimum Temperature				
				J	O	A			J	O	A			J	O	A
		J F	M A	J A	O N	A N	J F	M A	J A	O N	A N	J F	M A	J A	O N	A N
Maharashtra	Ahmadnagar															
	Akola															
	Amravati															
	Aurangabad															
	Bhandara															
	Bid															
	Buldana															
	Chandrapur															
	Dhule															
	Gadchiroli															
	Gondiya															
	Hingoli															
	Jalgaon															
	Jalna															
	Kolhapur															
	Latur															
	Nagpur															
	Nanded															
	Nandurbar															
	Nashik															
	Osmanabad															
	Parbhani															
	Pune															
	Raigarh															
	Ratnagiri															
	Sangli															
	Satara															
	Sindhudurg															
	Solapur															
	Thane															
Wardha																
Washim																
Yavatmal																

Increasing (high confidence)

Increasing (low confidence)

Decreasing (high confidence)

Decreasing (low confidence)

Data Source: India Meteorological Department (IMD) gridded temperature and rainfall.

39. **Projected Climate:** The CORDEX South Asia modelled climate data on precipitation, maximum temperature, minimum temperature and climate extremes indices have been analysed for 34 Nav Tejaswini districts (High resolution maps are given in Annex) for baseline (BL, 1981-2010) and mid-century (MC, 2021-2050). Ensemble mean of 10 RCMs at a spatial resolution of 50kmx50km has been used. The CORDEX South Asia simulations with the models indicate an all-round warming over Nav Tejaswini districts. Summary of projected temperature and rainfall for 34 implementation districts is presented.
40. **Projected Climate for Maharashtra:** For the state of Maharashtra as whole, increase in maximum temperature is projected to increase by 1.2°C towards mid-century under IPCC AR5 RCP4.5 scenario while increase of 1.5°C towards mid-century under IPCC AR5 RCP8.5 scenario is projected. Similarly change in minimum temperature is projected to increase by 1.5°C and 1.8°C towards mid-century under IPCC AR5 RCP4.5 and RCP8.5 respectively. Projected increase in minimum temperature is higher than maximum temperature and increase is higher in winter for maximum temperature and in SW monsoon season for minimum temperature. Average annual rainfall is projected to increase marginally by 3% and % under low and high emission scenarios respectively towards mid-century as compared to the baseline. Highest decrease is likely in pre-monsoon season (MAM).
41. **Projected Climate for Nav Tejaswini Districts:** All 34 Nav Tejaswini districts are likely to have increase in maximum and minimum temperatures under IPCC AR5 RCP4.5 and RCP8.5. Projected increase in maximum temperature ranges from 1.1°C (Kolhapur and Ratnagiri) to 1.4°C (Bhandara, Chandrapur, Gadchiroli, Gondiya and Wardha) under RCP4.5 and 1.3°C (Kolhapur and Ratnagiri) to 1.7°C (Gadchiroli and Gondiya) under RCP8.5 towards mid-century. Projected increase in minimum temperature ranges from 1.2°C (Kolhapur and Thane) to 1.7°C (Osmanabad) under RCP4.5 and 1.4°C (Sindhudurg) to 2.1°C (Bid, Osmanabad and Solapur) under RCP8.5 towards mid-century.
Projected change in annual rainfall is negligible to 9% in the implementation districts (more than 8% increase is likely in Dhule and Nandurbar) under RCP4.5 scenario towards mid-century. Marginal to 15% increase in rainfall is projected under RCP8.5 scenario with highest increase in districts of Hingoli (15.3%). Districts of Ahmadnagar, Aurangabad, Bid, Buldana, Jalna, Nanded, Parbhani, Pune and Washim are likely to experience 10% increase in rainfall under RCP8.5 scenario.
42. **Climate Extremes:** Indices representing climate extremes are developed to communicate more complex climate change impact relations in a simplified way. Mean temperature and precipitation sums can be seen as simple climate extremes indices, More complex climate extremes indices incorporate information on the sensitivity of a specific system, such as exposure time, threshold levels of event intensity etc¹⁹. Five temperature indices (responsible for crop loss, infrastructure loss, heat stress, reduction in outdoor activity time, forest fire etc.) and five rainfall indices (responsible for drought, flood, erosion, infrastructure loss, etc.) which may influence the project objectives.
43. **Temperature Indices:** Cool nights (TN10P) are projected to decrease (19 districts with low confidence, 15 districts with high confidence under RCP4.5 scenario; 28 districts with low confidence, 6 districts with high confidence under RCP8.5 scenario). Similarly Cool days (TX10P) are also projected to decrease in all 34 districts (low confidence under RCP4.5 scenario and high

¹⁹ http://www.smhi.se/polopoly_fs/1.805!Climate%20indices%20for%20vulnerability%20assessments.pdf

confidence under RCP8.5 scenario). Warm nights (TN90P) and warm days (TX90P) projected to increase (high confidence) for the districts. Diurnal temperature range (DTR) is likely to reduce in all districts. Warm spell duration indicator (WSDI) is projected to increase. Cold spell duration indicator (CSDI) is projected to decrease (low confidence) and may not occur in future.

44. **Rainfall Indices:** Consecutive dry days (CDD) are projected to increase for 22 districts (low confidence) and decrease for 12 districts (high confidence) under RCP4.5 scenario. Under RCP8.5 scenario, 9 districts are likely to experience increase (low confidence) and decrease in 25 districts (high confidence). Under RCP4.5 scenario, consecutive wet days (CWD) are projected to decrease for 5 districts (high confidence) and increase for 29 districts (4: high confidence and 25: low confidence). Extremely wet days precipitation (R99p) is projected to increase for districts of Bid, Chandrapur, Gondiya, Nagpur and Nandurbar under both low and high emission scenarios. 1 day maximum precipitation (RX1DAY) is projected to increase (low confidence) for districts of Amravati, Bhandara, Bid, Gadchiroli, Gondiya, Nagpur, Nandurbar and Nashik under both low and high emission scenario. Similarly, 5 day maximum precipitation (RX5DAY) is projected to increase (low confidence) for districts of Amravati, Amravati, Bhandara, Bhandara, Bid, Bid, Gadchiroli, Gadchiroli, Gondiya, Gondiya, Latur and Nashik for both low and high emission scenarios. Wet weather may affect standing crops, cause floods and soil erosion, emergence of pest and diseases.
45. **Heat Stress on Humans and Livestock:** Humidex (HI) and temperature-humidity index (THI) are single value depicting the integrated effects of air temperature and humidity associated with the level of heat stress in human beings and animals respectively. Though goats are more tolerant to heat stress than sheep and cows, it is also well known that high temperatures and relative humidity values significantly affect meat yield, quality and composition of small ruminants²⁰. Elevated temperature and humidity as presented in THI negatively affects feed intake and altered hormone concentration leading to negatively affecting the productive and reproductive performance of farm animals²¹.
Under the projected climate THI (heat stress on livestock) is likely to increase in the range from 14% (Chandrapur) to 38% (Sangli) under RCP4.5 scenario and increase in the range from 21% (Chandrapur) to 52% (Pune) under RCP8.5 scenario as compared to the baseline.
Under the projected climate, HI (human heat stress) is likely to increase in the range from 21% (Chandrapur) to 55% (Satara) under RCP4.5 scenario and increase in the range from 32% (Chandrapur) to 75% (Satara) under RCP8.5 Scenario as compared to the baseline. Duration of out-door farm activities like agriculture labour are likely to be affected due to many folds increase in projected heat stress. Months from April to June are significant on account of either high temperature or high humidity.
46. **Summary projected climate:** Projected climate indicate hotter and drier future for most of the Nav Tejaswini districts. Heat wave conditions are likely to increase resulting in additional stress on humans and natural resources. Marginal increase in precipitation is likely in future, most of the increase is likely to be in the form of high intensity rainfall. Spatial and temporal variability makes these districts more vulnerable. Increase in temperature combined with rainfall

²⁰ Silanikove N. The physiological basis of adaptation in goats to harsh environments. Small Ruminant Research. 2000;35:181-193. DOI: 10.1016/S0921-4488(99)00096-6.

²¹ Habeeb AA, Gad AE, Atta MA. Temperature-Humidity Indices as Indicators to Heat Stress of Climatic Conditions with Relation to Production and Reproduction of Farm Animals. Int J Biotechnol Recent Adv. 2018; 1(1): 35-50. doi: 10.18689/ijbr-1000107.

variability may impact on water resources. Warm spell duration indicator (WSDI) is projected to increase for all the districts, Extreme rainfall (1 day and 5 day maximum) is projected to increase, which is likely to exacerbate flood threat. Consecutive dry days (CDD) are projected to increase (low confidence) while Consecutive wet days (CWD) are projected to decrease (low confidence) resulting increasing likelihood of drought and flood.

District-wise analysis carried out for projected temperature and rainfall at district level is given in Annexure.

E. District Climate Change Vulnerability

Climate change and variability is one of the most important matters of concern in terms of livelihood and income of farmers. At the national level, there are studies or unified documents available which assess climate change vulnerability at the district level using the new IPCC risk framework or latest climate change projects of IPCC. The Vulnerability Atlas published by NICRA in 2013 dealt with agriculture vulnerability for 572 rural districts of India²².

Newly constituted Doubling Farmers' Income (DFI) Committee has been tasked to examine issues relating to doubling of farmers' income and recommend a strategy to achieve doubling of farmers' income in real terms by the year 2022. At present, thirteen draft volumes of 'Strategy for Doubling Farmers' Income by 2022' prepared by the Committee have been uploaded on the website for seeking public opinion²³. This Committee compared the 150 districts which topped under very high vulnerability status category in NICRA study, with the 150 districts having lowest income status of farmers (farm income from crops and livestock) as per NSSO-SAS survey, 2013²⁴. The report highlights that "the situation to be more grievous in 33 out of 150 districts, which on the one hand are highly vulnerable to climate change, and on the other are agriculturally undeveloped, and fall in the bottom 150 having lowest agricultural income". One district namely Aurangabad out of 33 highly vulnerable districts belong to Maharashtra. Climate change vulnerability compiled from these two literatures is summarised. Figure depicts the vulnerability category for the Nav Tejaswini implementation districts.

47. **Vulnerability for Nav Tejaswini Districts:** Based on NICRA study (2013) 12 districts in very high vulnerability, 5 districts in high vulnerability, 3 districts in moderate vulnerability, 6 districts in low vulnerability and 7 district in very low vulnerability category are identified. Aurangabad district falls under high vulnerability category which also figures as double stressed district (in terms of climate vulnerability and low farm income) in DFI report. Major drivers of vulnerability identified are projected increase in number of drought years, high net sown area, low rainfall and projected rise in minimum temperature. Districts of Solapur, Ahmednagar, Buldhana, and Amravati are under very high vulnerability category, contributing factor is projected decrease in rainfall leading to drought. Buldhana and Amaravati have high net sown area and low net irrigated area. Districts of Beed, Osmanabad, Latur, Nandurbar, Sangli, Dhule, Nasik and Jalna also fall under very high vulnerability category; contributing factor is projected increase in

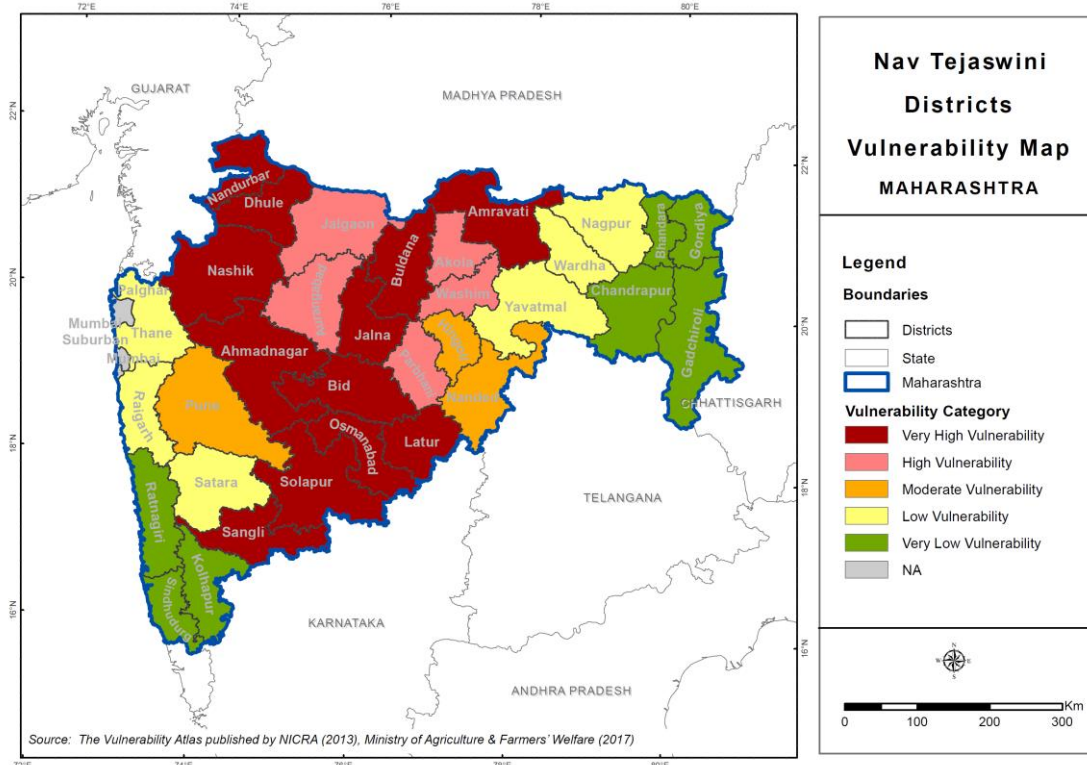
²² Rama Rao C A, Raju B M K, Subba Rao A V M, Rao K V, Rao V U M, Kausalya Ramachandran, Venkateswarlu B and Sikka A K (2013). Atlas on Vulnerability of Indian Agriculture to Climate Change. Central Research Institute for Dryland Agriculture, Hyderabad.

²³ <http://agricoop.nic.in/doubling-farmers>.

²⁴ Income, Expenditure, Productive Assets and Indebtedness of Agricultural Households in India, NSS 70th Round; http://mospi.nic.in/sites/default/files/publication_reports/nss_rep_576.pdf.

minimum temperature. Districts of Osmanabad, Latur and Jalna have high net sown area and low net irrigated area, while Beed, Nandurbar, Sangli, Dhule and Nasik have low rainfall and low net irrigated area. Districts of Akola, Aurangabad, Jalgaon, Parbhani and Washim fall under high vulnerability category; contributing factor is increase in minimum temperature. Akola, Jalgaon, Parbhani and Washim have high net sown area and low net irrigated area.

Figure 6 Vulnerability Map for Nav Tejaswini Districts of Maharashtra



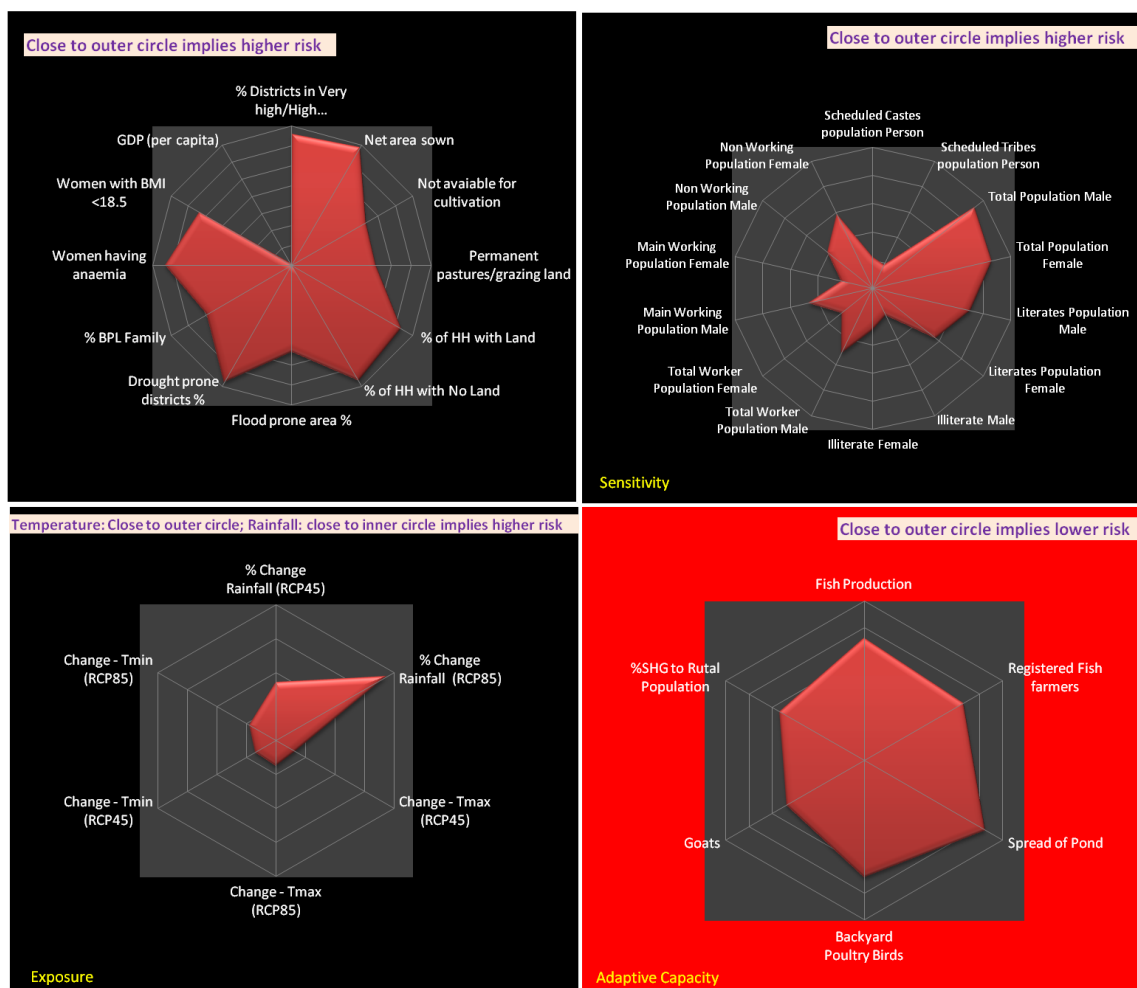
F. Potential project's social, environmental, and climate change impacts and risks

48. **Social Risk:** Maharashtra has 55% rural population with 49% female population (30% rural female literacy). Out of 31% of female working population, 82% are main workers and 18% are marginal workers. In Maharashtra, out of 16.8 million women in workforce, 69% are highly dependent on agriculture (engaged as cultivators and agricultural labourers). Maharashtra ranks fifth in the country with regard to women-owned establishments (8.25% of total). According to the National Family Health Survey IV, 47% of women are anaemic and 27% women are underweight. Close to 54% households are landless, incidence of poverty is 16.8% and intensity of poverty is 41.3%. These factors add to the vulnerability and enhance climate risks. All these factors also contribute to low access to information, technology and capacity building in these districts.
49. **Cultural risk:** The project will be promoting enterprises in the eco-tourism sector. While no major excavation work is foreseen, chance finds of historical and cultural significance may be encountered. In absence of related procedures in Tourism policy of State (see table 3 below), measures will be prepared by MAVIM to plan and execute tourism projects in order to coordinate, facilitate the archiving, safekeeping and documentation of physical cultural resources. Also, necessary steps of public consultations, engagement of cultural or religious

leaders, local authorities will be conducted before decision on the subproject is made. The CMRCs will be trained on these procedures so that they are fully integrated in the sub-projects they submit as well as the contract negotiation with the private sector. The procedures for chance finds are described in PIM. The project is expected to promote 30 sub-projects in eco- and agri-tourism for a value of 3 million USD approx.

50. **Environmental Risk:** 70% of the State's geographical area lies in semi-arid region rendering it vulnerable to water scarcity which is likely to affect water availability and water quality. 40% of the area is drought prone. About 7% of the area of Maharashtra is flood prone. The coastal areas of Maharashtra are risk prone to cyclones and the State is classified under moderately vulnerable category. 6 districts fall in high earthquake zone and 20 districts in moderate earthquake zone.
51. **Climate Risk:** It is evident from the analysis of climate scenarios that the selected districts would have hotter future. Increased Temperature, changes in daytime/night-time temperatures, changes in seasons (e.g., start date of rainy season), increased/decreased/more variable rainfall, and more severe and/or more frequent extreme events may impact agriculture and livestock. Crop loss, increase in crop-water demand, , emergence of new pests, reduced availability of feed and fodder, loss of grazing land due to drought, increase distribution of water and vector-borne diseases, feed and water shortages etc., may need to be addressed. In addition, duration of out-door farm activities of livestock grazing and agriculture labourers are likely to be affected due to heat stress. Reduction in livestock products (milk, meat) are also likely to be impacted due to projected increased THI (temperature humidity index). Feed intake, production and reproductive efficiency of animals are affected by heat stress as a result of increase in temperature. Livestock is a key asset fulfilling multiple economic, social and risk management functions especially for rural poor communities.
52. Figure gives overall summary of social, environmental and climate risk. One can easily see interrelations across multi-dimensional vulnerability indicators in the radar charts plotted. A point closer to the centre on an axis indicates a lower value and vice versa. Lower values for sensitivity and exposure; higher values for adaptive capacity are desirable to achieve reduction in vulnerability.

Figure 7 Social, Environmental and Climate Risk Analysis (Adaptive Capacity graph need to be replaced)



G. Recommended features of project design and implementation

53. **Strengths:** The project design is well suited to address impending environmental and climate risks envisaged in the selected districts. A large section of the target groups belong to the rural poor, small and marginal farmers, especially women and landless groups who are likely to be most affected by climate change, are deemed vulnerable and who may not have ready access to risk-mitigation tools. The project will build on the lessons learnt from the recently concluded project, Tejaswini Maharashtra Rural Women Empowerment Programme (2007-2018).
54. **Weakness:** The just concluded Tejaswini-Maharashtra Rural Women's Empowerment Programme (2007-2018), demonstrated that despite erratic climatic conditions during the project period (see para 45), the incomes and assets of women and their household improved. The impact assessment of Tejaswini also pointed to the following measures taken by women to cope with climate variability and reduce environmental risks: 68.6% of Tejaswini women adopted savings as contingency for future shocks like crops failure vs 61.7% in the control group; the use of improved agriculture practices ranging from soil health cards (which may be correlated with lower use of chemical fertilizers), drip irrigation was higher among the Tejaswini vs the control groups; the

access to latest technology and market rates was substantially higher among Tejaswini women than control groups, 59% vs 11.3%. Throughout the implementation of Tejaswini, women credit discipline improved and the highest repayment rates were recorded in drought affected areas. The productivity of crops (soja and paddy) and livestock was higher among Tejaswini women vs control groups. The impact assessment also queried women on their knowledge and access to social security schemes of the Government, and again the Tejaswini women had significantly higher awareness and nearly 18% had availed at least 3 different social security schemes, vs 7% among control groups. Despite these gains, the impact assessment shows that there is room for improvement in the following areas : women's adoption of improved seeds, proper use of chemical and organic fertilizer and insecticide, access to social security schemes. In Nav Tejaswini, the project is promoting GAP and HCCAP certification, piloting insurance for livestock, and mentoring ultra-poor households among the project target group to facilitate their access to safety nets that supplement their rather low incomes. For service and manufacturing enterprises, the project will promote technologies that conserve water and energy and dispose of waste as per environmental norms of the state.

55. **Recommendations:** The ESMP is available in annex and describes the recommended mitigation measures to comply with environmental and social safeguards; and to promote climate change adaptation and mitigation. The environmental and social classification and climate risk level of the project are listed below.
56. **Environmental and Social Category.** The project is rated as 'Category B' with Medium overall Environmental and Social risk. Nav Tejaswini is an enterprise driven project which main outcome is that 550,000 enterprises will be working profitably by end of the project, and 200,000 decent wage employment will be created. The enterprises are likely to be nano- and small- in nature and dispersed over the state territory. The potential environmental impacts posed by the project will therefore be limited, site specific and constrained to agro-processing and manufacturing facilities (replacement of firewood as source of energy, waste and effluent management, healthy working environment, etc.). Most of these impacts would be readily remedied and/or considerably reduced with appropriate mitigation plans. The project will not have any adverse impacts on the livelihoods of other peoples or social groups including involuntary taking or restriction on the use of land resulting in physical or economic displacement. The project will not have any negative affect on tribal peoples or sites of historic, religious or cultural significance. The project will not support land use change affecting forests, protected areas, important bird areas, and or new clearing of contiguous area of above 100 ha in a single location. As there is no specific regulation related to environment and social safeguards for micro/small/medium enterprises, the mitigation options proposed for environmental and social safeguards allow to pilot test these provisions with a view to further scaling-up. Enterprises in the agriculture and allied sectors will be supported to comply to GAP and HCCAP norms.
57. The recently completed Tejaswini had successfully implemented social enterprise and livelihood activities, reducing the income vulnerability of households living below poverty line. Nav Tejaswini will build on and consolidate the gains as well as expand the successes of the previous project thus mitigating social risks like increased workload for women; domestic conflicts/violence arising from restrictions of women's mobility and participation in economic and public activities; risk of men taking over successful women enterprises; etc in the project area. The project will ensure that multiple levels of discriminations on the basis of class, caste, religion and gender are taken into account when assessing the risk of Gender-Based Violence/Sexual Exploitation and Abuse and will

make sure all groups benefit equally from IFAD-financed activities. Such activities will include: i) drudgery reduction through machinery and women friendly technologies, ii) legal literacy, iii) women's enhanced participation in public spaces; iv) promoting joint titling of land and property; v) gender sensitization and orienting service providers aimed at changing mind sets regarding women's participation in male dominated sectors - such orientation will include specific men sensitization workshops. It is important to note that the project will also work with the ultra-poor who represent 5 to 10% of the members of SHGs.

58. **Climate Risk category.** The project is categorized as high climate risk. Historical and projected future climatic changes suggest that the project areas will experience increase in temperatures and precipitation, increase in rainfall intensity combined with increased likelihood of dry spells, drought and delayed rains during the wet season. The in-depth climate risk analysis is presented above.
59. The project will be supporting enterprise expansion and diversification in the following sub-sectors : on-farm sectors such as but not limited to, dairy, goat keeping, poultry, fruits, vegetables ; and off-farm sectors such as but not limited to, bamboo/woodwork, jewellery making, handicrafts, eco-tourism etc...In order to mitigate the impact of climate change on the enterprises supported by Nav Tejaswini, the project will mainstream climate smart agriculture and animal husbandry in business advice offered to the women entrepreneurs, and incorporate measures for efficient use of water and energy conservation in processing/ manufacturing/ service enterprises. These measures are well aligned with the priorities identified in the handbook for Maharashtra State Action Plan for Climate Change (2018).
60. It is also worth mentioning that at state level, the Government of Maharashtra is already implementing a series of large scale programmes that aim to mitigate the risks of climate change, and the Nav Tejaswini will ensure convergence with these. A case in point is the massive programme launched by the State Government in 2015, called Jalyukt Shivar. This is a water conservation programme which has created so far, an irrigation potential of 2,274,744 ha and a water storage capacity of 1,727,229 TMC (thousand million cubic feet) across 16,521 villages in 34 districts of the state since 2015. Comparative data shows that in 2013-14 when there was 124 per cent rainfall, the agriculture production was 137.91 lakh metric tonnes (MT). However, in 2017-18, despite rainfall being 84.3 per cent of its total capacity, there was an agricultural production of 132.83 lakh MT. Research studies show that it has led to increase in crop yields and even change in cropping patterns in the state. In addition, the Government of Maharashtra has a policy on renewable energy since 2015. In addition to supporting hydropower, wind and solar power, the policy also provides incentives for power generated from sugarcane and other agricultural waste.

H. Primary beneficiary and Institutional stakeholders

61. The institutions that the project will potentially coordinate with include: Department of Women and Child Development (the parent department of MAVIM); Department of Agriculture and Marketing; Department of Animal Husbandry and Fisheries; Department of Small and Medium Enterprises; Department of Skill development; Department of Rural Development; Maharashtra State Rural Livelihoods Mission; financial institutions; and the private sector. The project will be aligned to the existing policies/programs/legislation. Some of the relevant policies/programs/acts are summarized in Table below:

Table 3 Relevant National Acts/Polices/Programs

Act/Rule/Policy	Description	Relevance to the Project
Doubling Farmer's Income	The Government of India has focused its attention on doubling the farmers' income during the seven-year period from 2015–16 to 2022–23. Six major sources for increasing farmers' income, viz., improvement in crop productivity, livestock productivity, resource use efficiency or promoting savings in the cost of production, increase in cropping intensity, diversification towards high-value crops, and enhancement of the real prices received by farmers.	Highly relevant as the project is built realize the mission of DFI
National Livestock Mission (NLM), commenced from 2014-15.	National Livestock Mission (NLM) provides assistance to improve availability of quality feed and fodder, risk mitigation and extension, skill development and training for livestock sector The National livestock Mission is organised into the following four sub-Missions: i. Sub-Mission on Livestock Development. ii. Sub-Mission on Pig Development in North-eastern Region. iii. Sub-Mission on Fodder and Feed Development. iv. Sub-Mission on Skill Development, Technology Transfer and Extension.	All the Sub-mission are highly relevant
Umed – Maharashtra State Rural Livelihoods Mission (MSRLM)	The Mission is implemented through a three tier structure comprising a State Mission Management Unit, District Mission Management Unit and Block Mission Management Unit. The mission envisions poverty elimination through social mobilization, institution building, financial inclusion and the creation of several models of sustainable livelihoods so that each poor family is able to secure incremental annual income.	Highly relevant. Under the overall framework of National Rural Livelihood Mission (NRLM), MSRLM endeavours to impact rural poverty through a range of comprehensive and strategic livelihoods interventions in a time bound manner. The Mission aims at eradication of rural poverty by building sustainable institutions of poor and ultimately leading them to sustainable livelihoods.
Mahila Kisan Sashaktikaran Pariyojana (MKSP).	A sub component of the Deendayal Antodaya Yojana-NRLM (DAY-NRLM) seeks to improve the present status of women in agriculture, and enhance the opportunities available to empower.	Applicable as women constitute an important project beneficiary group and the project needs to ensure participation of women and strengthen their role in decision making, in institutions, access to trainings, in reduction of drudgery.

National commission of women (1990) and National policy for the Empowerment of Women (2001).	These are intended to create a positive environment for the overall development of women and safeguard the rights and legal entitlements of women.	Relevant for ensuring their right to equal remuneration.
National Policy on Tribal Development, 1999.	"The policy seeks to bring scheduled tribes into the mainstream of society through a multi-pronged approach for their all-round development without disturbing their distinct culture.	Highly relevant and the project uses a participatory approach to technology development, demonstration and scaling-up.
Development and empowerment of STs is enshrined in the Constitution and the tribal sub- plans included covered under the Five Year Plans."	"This policy will be applicable to project activities in tribal dominated districts. Project has to ensure participation of tribal communities in the project activities without any adverse impacts on local tribal groups."	Please see below
Tribal Sub Plan	All funds from various programs are pooled and used strategically to support the socio- economic development of tribals within a specified period.	The policy is applicable in the tribal districts. The project interventions can be dovetailed with the Tribal Development Sub Plan.
National Food Security Mission (NFSM).	National Food Security Mission (NFSM) is a Central Scheme of GOI launched in 2007 to increase production and productivity of wheat, rice and pulses on a sustainable basis so as to ensure food security of the country. The aim is to bridge the yield gap in respect of these crops through dissemination of improved technologies and farm management practices.	Highly relevant since all the selected districts are covered under National Food Security Mission.
Maharashtra Industrial Policy 2019 ²⁵	<p>The industrial policy is intended to draw investments of over Rs 10 lakh crore and generating about 40 lakh jobs by 2023-24.</p> <p>The key highlights of the New Industrial Policy are as follows:</p> <ul style="list-style-type: none"> • Promotions of MSMEs under the new Chief Minister Employment Programme • Incentives for great and mega projects • An Infrastructure Capital of Rs. 1,000 crores • Formulation of Commerce and Trade Councils • Further incentives for Agro and Food Processing Industries • Industrial cluster-based strategy to support sustainable, cost-effective, and a comprehensive approach to secure aggressive and enhanced MSME units. 	<p>Highly relevant</p> <p>Some of the thrust sectors of industrial policy include: Agro & Food Processing and Green Energy. The policy is focussed on industrial growth and development of the underdeveloped regions of Vidarbha and Marathwada (separate classification and increase incentives by 10%). Introduction of special component</p>

²⁵ <https://www.aipma.net/Industry-Update/Maharashtra%20Industrial%20Policy%20Draft%20Modified%20on%2002.03.2019.pdf>

		for the development of Maoist and tribal belts of Nandurbar, Washim and Gadchiroli under the industrial cluster development project.
Maharashtra Women Entrepreneurs Policy 2017 ²⁶	<p>The objective is to encourage participation of women entrepreneurs, create an environment which assures entrepreneurship and to provide technical, operational and economic assistance, which will enhance the employment opportunities to women.</p> <ul style="list-style-type: none"> • Job Creation and Investment: the state government is anticipating women-owned business in the region to go up by about 9-20 per cent. The government is also aiming to fetch an investment of worth Rs 2,000 crore. The move will also create about a lakh of jobs across the state in the next five years. The government will keep aside Rs 648 crore for next year's budget for the same. • Moolah Backup: The woman entrepreneurs would get between Rs 15 lakh to Rs 1 crore financial assistance in a proportion of 15%-35% of the capital investment of a project at the subsidized rate of interest up to 5%. • No Man's Land: For real estate acquisition, MSMEs can also avail an interest subsidy of about 5% for the payment made on the term loan to the bank or government-led financial institutions. Maharashtra Industrial Development Corporation (MIDC) across the state will also reserve land of shepreneurs. • Building Ecosystem: The state government of Maharashtra is planning to set up about 10 incubators and clusters depending on the nature of business in the region. Inviting public-private partnership (PPP), the government said it will bear 75% of the project cost, which is capped at Rs 5 crore, of setting up an incubation center. This will however, exclude the cost of land acquisition. • Marketing Purposes: If any commercial real estate developers reserve spaces for women entrepreneurs, they can enjoy additional floor space index (FSI) benefits. Women can use these to display or market their products. • For a wider exposure, women-led business will receive Rs 50,000 or 75 per cent of the rent in a domestic exhibition while about Rs 3 lakh for international events. Also, 50% of the expenditure for the exhibition organized for women entrepreneurs will be provided in maximum limit of 10 lakhs. 	<p>Highly relevant for Nav Tejaswini</p> <p>The woman and child development department will also keep aside Rs 50 crore for the policy, which will be valid for 5 years or till further directives issued by the industries department.</p>

²⁶ <https://www.midcindia.org/documents/20181/28829/Special+Policy+for+Women+Entrepreneur/083d3c6e-e677-4577-9af9-f1e8510c7441>

<p>Maharashtra Tourism Policy 2016²⁷</p>	<p>Understanding the importance of the Tourism Sector and the opportunity it presents, Government of Maharashtra has identified Tourism as a priority sector. Tourism Policy of Maharashtra released in 2006 highlights are:</p> <ul style="list-style-type: none"> • Designate Tourism as a priority sector since it holds the potential to usher in economic development and generate high employment opportunities in Maharashtra – change—the policy will establish. • Achieve sector growth of 10% per annum and share of 15% in GSDP through tourism and tourism related activities. • Generate fresh investments in the tourism sector to the tune of INR 30,000 crore by 2025 • Create 1 million additional jobs in the tourism sector by 2025 • Incentivize tourism units in the state by linking it to the Package Scheme of Incentives, 2013 of Industries, Energy and Labour Department or any modifications thereafter. The incentives under this policy are designed as per the needs of the tourism sector in the state. • Key strategic interventions are identified and special incentives for respective intervention have been laid out. • Strengthening of tourism infrastructure especially in the form of PPP model, special tourism infrastructure Tourism Infrastructure development fund, CSR, etc. are defined in this policy. <p>The Tourism policy does not refer to chance finds of cultural and historical significance that may be encountered during project civil works. Project will therefore put these procedures in place.</p>	<p>Highly relevant as Eco-tourism is one of the interventions proposed in Nav Tejaswini project</p> <p>State to facilitate Eco tours, nature trails and experiential tourism. The DoT will formulate strategy to promote, facilitate and incentivize development of</p> <ul style="list-style-type: none"> • Caravan parks in the public sector, private sector and PPP mode. • Caravans in the public sector, private sector and PPP mode. • The DoT will give special licenses to eco-friendly temporary construction on the beaches of Maharashtra. They need to be eco-friendly and CRZ compliant. • Eco-tourism Policy in place²⁸ (speaks about core concepts like participation of local community, nature education, regulated tourism and uncompromised conservation. It also talks about creation of a separate ecotourism board for looking after the ecotourism).
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²⁷ <https://www.maharashtratourism.gov.in/docs/default-source/tourism-policy-2016/mtdc-tourism-policy-2016.pdf?sfvrsn=2%20target%20=>

²⁸ http://mahaforest.nic.in/policy_file/1310720768eco-tourism-policy.pdf

<p>Maharashtra state forest policy 2008²⁹</p>	<p>The Maharashtra Forest Policy 2008 aims at raising forest cover in the state to a minimum of 33% (101.54 lakh hectares) of total land, as per the recommendations of the Planning Commission and the National Forest Policy, 1988.</p> <p>At present, the forest area in the state is around 20 per cent. Of this 56 per cent is in Vidarbha, five per cent in Marathwada and 39 per cent in western Maharashtra.</p> <p>As part of the policy, Maharashtra is planning on becoming the first state in the country to levy a green tax to encourage forest development.</p>	<p>Relevant because of forests in the Nav Tejaswini districts and kind of activities proposed (Bamboo Handicraft)?</p>
<p>Coastal Zone Regulation rules, 2011³⁰</p>	<p>The salient features of the draft CRZ Notification, 2018 and changes with respect to CRZ Notification, 2011;</p> <ul style="list-style-type: none"> (i) The High Tide Line (HTL) has been demarcated by the National Centre for Sustainable Coastal Management (NCSCM) and shall be reckoned as a universal standard for the HTL for all regulatory purposes under the CRZ Notification, 2018. (ii) Hazard line mapping has also been carried out by Survey of India. The Hazard Line has, however, been delinked from the CRZ regulatory regime and shall be used only as a tool for Disaster Management and planning of adaptive and mitigation measures. (iii) CRZ limits on land along the tidal influenced water bodies has been proposed to be reduced from 100 meters or the width of the creek, whichever is less, to 50 meters or the width of the creek, whichever is less. (iv) A No Development Zone (NDZ) of 20 meters has been proposed to be stipulated for all Islands close to the main land coast and for all Backwater Islands in the main land. (v) For CRZ-III areas, two separate categories have been proposed viz. CRZ-III A and CRZ-III B. (vi) The procedure for CRZ clearances has been simplified and delegations have been made at various levels for recommending/according CRZ clearances to the projects/activities. Only such projects/activities, which are located in the CRZ-I & IV areas, shall be dealt with for CRZ clearance by the MoEF&CC. For all other project activities located in CRZ-II/III areas, CRZ clearance shall be considered at the level of the CZMA. (vii) As per CRZ, 2011 Notification, for CRZ-II areas, Floor Space Index (FSI) or the Floor Area Ratio (FAR) had been frozen at 1991 Development Control Regulation (DCR) levels. In the Draft CRZ, 2018 Notification, it has been proposed to de-freeze the same and permit FSI for construction projects, as prevailing on the date of the new Notification. 	<p>Relevant as the coastal zone management plan (CZMP) for Mumbai, Sindhudurg, Ratnagiri, Raigad, Thane and Palghar have been approved as of 2019.</p>

²⁹ http://mahaforest.nic.in/policy_file/1311066686Maharashtra%20Forest%20Policy%202008.pdf

³⁰ https://mczma.gov.in/sites/default/files/2011_1_6_CRZ_Notification.pdf

	<p>(viii) Temporary tourism facilities such as shacks, toilet blocks, change rooms, drinking water facilities etc. have been proposed in Beaches. Such temporary tourism facilities are also proposed to be permissible in the No Development Zone (NDZ) of the CRZ-III areas.</p> <p>(ix) Wherever there is a National or State Level Highway passing through the NDZ in CRZ-III areas, temporary tourism facilities have been proposed to be taken up on the seaward side of the roads. On the landward side of such roads in the NDZ, Resorts/Hotels and other tourism facilities have also been proposed to be permitted subject to the extant regulations of the concerned State.</p> <p>(x) Regulated limestone mining is proposed to be permitted, subject to strict Environmental safeguards, in areas adequately above the height of HTL, based on recommendations of reputed National Institutes in the Mining field.</p>	
Maharashtra State Water Policy (2019) ³¹	<p>The Maharashtra State Water Policy 2019 is a comprehensive water policy for the state which focuses on increasing water and agricultural productivity, reducing disparity in water supply criteria applied for urban and rural areas, providing water through pipelines from reservoirs and bringing water guzzling crops like sugarcane and banana under micro-irrigation. The policy lays emphasis on making rainwater harvesting mandatory in urban areas and for new colonies, groundwater planning will be devised.</p> <p>The policy also imposes new regulations on groundwater management and states; "... It will be obligatory for water users to adopt groundwater recharge measures to compensate for the water extracted by them".</p> <p>Policy also focuses on flood management, drought mitigation and domestic as well as industrial water usage, among other areas. The policy prioritises judicious use of water, drinking water as well as the water used in industries, and water used for power generation, cultural and religious ceremonies, and sports activities.</p>	<p>Relevant</p> <p>Micro-irrigation, rain water harvesting and ground water usage.</p>
Maharashtra ground water rule, 2018 ³² Draft yet to be approved	<p>Key compliance requirements under the Draft Rules:</p> <p><u>Registration of existing well owners:</u> The Draft Rules, brings in place the procedure in which the existing well owners can register their wells. This registration is subject to a notice published by the State Groundwater Authority mentioning the programme (calendar) and procedure for registration. It also clarifies that existing owners to obtain separate registration for having more than one well.</p>	<p>Relevant, to promote water use efficiency.</p>

³¹ <https://wrd.maharashtra.gov.in/Site/Upload/PDF/State%20Water%20Policy%2005092019.pdf>

³² https://gsda.maharashtra.gov.in/english/admin/PDF_Files/1533615572_Maharashtra_Groundwater_Rules_2018.pdf

	<p><u>Registration of new well owners:</u> For a new well owner, who intends to dig a well in a notified area, the Draft Rules lay a mandate on such persons to apply before the Watershed Water Resources Committee for obtaining permission to carry out the activity.</p> <p><u>Permission required for digging / drilling wells more than 60 meter deep:</u> The Draft Rules makes it mandatory to obtain a permission for digging/drilling deep wells of more than 60 meters depth in order to extract drinking water for drinking water purpose.</p> <p><u>Mandatory construction of rainwater harvesting structures:</u> As per the Draft Rules, in case the occupant / developer / builder of a respective premise, fails to construct rainwater harvesting structures, within a period of 6 months from the date of notice of construction by the State Groundwater Authority, the same will be constructed by the local body and the cost would be recovered which shall be upto 1.25 times the cost of construction.</p>	
State Action Plan on Climate Change: Assessing Climate Change Vulnerability and Adaptation Strategies for Maharashtra : Maharashtra State Adaptation Action Plan on Climate Change (MSAAPC), 2014 ³³	<p>The state action plan discusses the impacts of climate change on six sectors — agriculture, water resources, health, forests and biodiversity, livelihoods, and energy and infrastructure.</p> <p>An important component of the action plan is the Macro Level Vulnerability Index (MLVI) based on 19 indicators, which has identified the most vulnerable districts in Maharashtra. As per this vulnerability index, Nandurbar is the most climate change vulnerable district, followed by Dhule and Buldhana districts. On the other hand, Satara is regarded as the least vulnerable district. Ratnagiri and Sindhudurg districts are also considered less vulnerable to changes in the climate.</p>	Relevant
Special provisions for women farmers in national schemes		
National Mission on Agricultural Extension & Technology (NMAET) – Sub-Mission on Agricultural Extension (SAME)	<p>Agriculture Technology Management Agency (ATMA)</p> <p>Agri-Clinics & Agri-Business Centers (ACABC)</p> <p>Mass Media Support to Agricultural Extension.</p>	Highly relevant as the project incorporates good agronomic practices for agri enterprises
Mission for Integrated Development of Horticulture (MIDH). Centrally sponsored	<p>Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.</p> <p>Under MIDH, financial assistance is provided for following major interventions/activities:</p> <ul style="list-style-type: none"> • Setting up of nurseries, tissue culture units for production of quality seed and planting material. • Area expansion i.e. Establishment of new orchards and gardens for fruits, vegetables, and flowers. · Rejuvenation of unproductive, old, and senile orchards. 	All the Sub-mission are highly relevant specially for protected cultivation/Green House

³³ <http://moef.gov.in/wp-content/uploads/2017/09/Maharashtra-Climate-Change-Final-Report.pdf>

	<ul style="list-style-type: none"> • Protected cultivation, i.e. poly-house, green-house, etc, to improve the productivity & grow off season high value vegetables and flowers. • Organic farming and certification. • Creation of water resources structures and watershed management. • Bee-keeping for pollination. • Horticulture Mechanization. • Creation of Post Harvest Management and Marketing infrastructure. 	
Integrated Scheme for Agricultural Marketing (ISAM). Centrally sponsored	<p>New Agricultural Marketing Infrastructure (AMI) sub-scheme of Integrated Scheme for Agricultural marketing (ISAM) is approved for implementation.</p> <p>The sub - scheme AMI lays special focus on developing and upgrading Gramin Haats (village markets) through strengthening of infrastructure, which may function as farmer - consumer market (retails market) and collection/aggregation points (spokes) with linkage to secondary market (hub) and also to processing/ exporting and retain chain with participation of FPOs, other farmers ' groups and private sector eligible promoters.</p>	Highly relevant.
National Mission for Sustainable Agriculture (NMSA). Centrally sponsored	<p>National Mission for Sustainable Agriculture (NMSA) has been formulated for enhancing agricultural productivity especially in rainfed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation.</p> <p>NMSA has following four (4) major programme components or activities:</p> <ol style="list-style-type: none"> 1. Rainfed Area Development (RAD) 2. On Farm Water Management (OFWM) 3. Soil Health Management (SHM) 4. Climate Change and Sustainable Agriculture: Monitoring, Modeling and Networking (CCSAMMN) 	Highly relevant considering project districts are mostly rainfed. Existing funding under NMSA can benefit Nav Tejaswini project
Agricultural Insurance. Centrally sponsored	Pradhan Mantri Fasal Bima Yojana	Highly Relevant.
State Action Plan on Climate Change (SACC)	Climate Change sectoral adaptation action plans have been drawn.	Relevant for aligning the project mitigation and adaptation strategies with SACC provisions.
Child Labour (Prohibition and Regulation) Act, 1986	The Act aims at prohibiting the employment of children below 14 years of age as per the Section 3 of the Act. It specifically prohibits the employment of all children under the age of 14 and has	Highly relevant in addressing issues related to child labour.

put in place strong penalties for employers floating the law with monetary fines and punishment such as imprisonment.

I. Monitoring and Evaluation

The project's M&E system will be aligned to the project log-frame. M&E data will be disaggregated by gender, by age, and by ST/SC, BPL status. A management information system will be developed in line with other ongoing projects. Baseline, midline and endline surveys as well as annual outcomes surveys will be carried out to document project results and impact. It is recommended that the project staff collect GPS coordinates of all interventions to plot the data on maps and provide a visual representation of activities. This approach enhances monitoring, impact assessment and overall accountability. It also allows follow up of the implementation of environmental safeguards: such as avoiding environmentally fragile or protected areas; absence of deforestation or major excavation of civil works near the enterprises; absence of accumulation of waste around the enterprises; etc...

Annexure 1 – Environment and Social Management Plan

A. Positive impact of project implementation

1. The overall goal of the Nav Tejaswini Maharashtra Rural Women Enterprise Development Project is to enable one million poor rural households to overcome poverty. The Project objective is to improve capacity of rural women to diversify into sustainable enterprises or engage in remunerative employment and enhance their access to markets. The project will benefit 10 lakh (1 million) rural women, the majority of whom are members of established self-help groups federated into community managed resources centres (CMRCs). The CMRCs are present in all 34 rural districts of Maharashtra and were established under the now closed Tejaswini Maharashtra Rural Women Empowerment Programme (2007-2018). Project design is well suited to address impending environmental and climate risks envisaged in the selected districts. A large section of the target groups belong to the rural poor, small and marginal farmers, especially women and landless groups who are likely to be most affected by climate change, are deemed vulnerable and who may not have ready access to risk-mitigation tools. The project will build on the lessons learnt from the recently concluded project, Tejaswini Maharashtra Rural Women Empowerment Programme (2007-2018).

B. Potential project's social, environmental, and climate change impacts and risks

2. **Social Risk:** Maharashtra has 55% rural population with 49% female population (30% rural female literacy). Out of 31% of female working population, 82% are main workers and 18% are marginal workers. In Maharashtra, out of 16.8 million women in workforce, 69% are highly dependent on agriculture (engaged as cultivators and agricultural labourers). Maharashtra ranks fifth in the country with regard to women-owned establishments (8.25% of total). According to the National Family Health Survey IV, 47% of women are anaemic and 27% women are underweight. Close to 54 % households are landless, incidence of poverty is 16.8% and intensity of poverty is 41.3%. These factors add to the vulnerability and enhance climate risks. All these factors also contribute to low access to information, technology and capacity building in these districts.
3. **Cultural risk:** The project will be promoting enterprises in the eco-tourism sector. While no major excavation work is foreseen, chance finds of historical and cultural significance may be encountered. In absence of related procedures in Tourism policy of State (see table 3 below), measures will be prepared by MAVIM to plan and execute tourism projects in order to coordinate, facilitate the archiving, safekeeping and documentation of physical cultural resources. Also, necessary steps of public consultations, engagement of cultural or religious leaders, local authorities will be conducted before decision on the subproject is made. The CMRCs will be trained on these procedures so that they are fully integrated in the sub-projects they submit as well as the contract negotiation with the private sector. The procedures for chance finds are described in PIM. The project is expected to promote 30 sub-projects in eco- and agri-tourism for a value of 3 million USD approx.
4. **Environmental Risk:** 70% of the State's geographical area lies in semi-arid region rendering it vulnerable to water scarcity which is likely to affect water availability and water quality. 40% of

the area is drought prone. About 7% of the area of Maharashtra is flood prone. The coastal areas of Maharashtra are risk prone to cyclones and the State is classified under moderately vulnerable category. 6 districts fall in high earthquake zone and 20 districts in moderate earthquake zone.

5. **Climate Risk:** It is evident from the analysis of climate scenarios that the selected districts would have hotter future. Increased Temperature, changes in daytime/night-time temperatures, changes in seasons (e.g., start date of rainy season), increased/decreased/more variable rainfall, and more severe and/or more frequent extreme events may impact agriculture and livestock. Crop loss, increase in crop-water demand, , emergence of new pests, reduced availability of feed and fodder, loss of grazing land due to drought, increase distribution of water and vector-borne diseases, feed and water shortages etc., may need to be addressed. In addition, duration of outdoor farm activities of livestock grazing and agriculture labourers are likely to be affected due to heat stress. Reduction in livestock products (milk, meat) are also likely to be impacted due to projected increased THI (temperature humidity index). Feed intake, production and reproductive efficiency of animals are affected by heat stress as a result of increase in temperature. Livestock is a key asset fulfilling multiple economic, social and risk management functions especially for rural poor communities.
6. The project should design strategies to protect outdoor workers and livestock from heat stress which may include building awareness about heat related illness to outdoor workers and imparting trainings on heat preventive measures.

C. Proposed Mitigation Measures

7. The risk mitigation measures which may be included in the project design are: (i) Capacity building of partner institutions/Agriculture/Animal husbandry officials and collaboration with National Institutes for technology know-how for reduction of CH₄ emission from enteric fermentation, (ii) water conservation and rain water harvesting (iii) Trained primary veterinary health care and emergency rescue operation person/SHG, (iii) Development of Livestock Early Warning Systems, (iv) water conservation and rain water harvesting.
8. The project is not likely to have any adverse environment impacts on the project area and as result the project is classified as Category B in the environmental and social category

D. Monitoring Programs and Parameters

9. Identify and prioritize climate risk management options based on the more focused assessment using Participatory scenario development workshops

E. Public Consultation Activities

10. Please see record of people met in the annex 6 of the concept note of the project.

F. Responsibilities

11. The responsibility for the implementation of the ESMP rests with MAVIM, the lead implementing agency.

G. Reporting and Reviewing

Capacity building

12. **Capacity building:** Awareness building to bring understanding of the gender-entrepreneurship-climate nexus. Capacity building for women entrepreneurs on access to finances, dedicated women oriented government schemes and programmes. Organise Capacity building on digital financial transactions. Awareness building for access to extension services, credit, education, information, training and knowledge creation. Develop a cadre of women community service providers (CSPs) for capacity building of women farmers.
13. **Mitigation of livestock GHG emissions:** Capacity building of partner institutions/Agriculture/Animal husbandry officials and collaboration with National Institutes for technology know-how for reduction of CH₄ emission from enteric fermentation.

H. Climate Risk Matrix

Target Groups	Threats	Climate triggers	Risk	Mitigation/Adaptation
Landless	Climate shocks	Heavy/excess rainfall days, Drought, Floods, Heat wave	Health, daily income loss (Flood), water availability	Support from the CMRCs to the landless and destitute households under Ultra-Poor related interventions of component 2 of the project.
Belonging to small and marginal land holding category	Climate shocks	Drought, Consecutive dry days, floods, Pest and diseases, High temperature	Forest fires, soil loss, loss of crop leading to income loss, livestock fodder shortage, malnutrition	CMRCs trained to support their members to access Government schemes promoting water harvesting and micro-irrigation, as well as access to crop insurance and other safety nets provided by State Govt. Promotion of good agricultural practices for climate resilient agriculture and quality inputs provided through CMRCs or partner private sector.
With special focus on women farming community including agriculture labourers and landless	Drudgery, health	Heat stress, drought, flood/malaria	Physical exhaustion, health hazards, loss of income due to flood,	For land related activities and non farm enterprises, sub-projects will promote precision machinery that improve labour productivity and reduce drudgery; promote drought resilient farming based on crop diversification, low external input sustainable agriculture. For livestock related activities, the sub-projects will include intensive and semi-intensive livestock husbandry and appropriate sheds/ feed and water troughs.
Livestock with special focus on Goat rearing and backyard poultry	Water availability, methane emission	Temperature, Co2, Flood, drought, High temperature (Early mature, loss of yield), Pests and diseases	Yield loss, poor seed quality	To control methane emissions in livestock, the sub-projects will provide for feed mixes and livestock breeds that have better conversion of feed; recycling of manure into biogas and bio-slurry. To control methane emissions from rice cultivation, CMRCs will expand SRI (as already adopted by SHG members in rice producing areas). For water availability, the sub-projects will include water troughs for livestock. For crops, the sub-projects will include micro-irrigation. For non-farm activities, the sub-projects will include machinery that is water efficient, and where possible, water will be recycled.
Under rainfed conditions	Water availability, erratic rainfall distribution, early maturity	Consecutive wet and dry days, low seasonal rainfall, shifting season (1	Crop loss, nutrient loss, soil erosion	Project will promote water efficient/ high value crop production enterprises; CMRCs will disseminate micro-irrigation and protective irrigation through agro-service centres managed by them; CMRCs trained to facilitate convergence with Govt schemes and help their

week to 10 days), extremely wet days	members access soil and water conservation (watershed development schemes) and Jalyukt Shivar (water harvesting scheme).
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I. Environmental Mitigation Plan

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Land and soil degradation (incl. agrochemicals)	Low	All Districts	The Government of Maharashtra is implementing a large scale soil and water conservation programme called Jalyukt Shivar which aims to develop integrated soil and water conservation works in 5000 villages/ year. Since its implementation in 2015, it created so far, an irrigation potential of 2,274,744 ha and a water storage capacity of 17,27,229 TMC (thousand million cubic feet) across 16,521 villages in 34 districts. Comparative data shows that in 2013-14 when there was 124 per cent rainfall the	Mitigation will be through convergence with the Jalyukt Shivar scheme were applicable.	MAVIM will be tracking the programs it converges with and the number of beneficiaries thereof.	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			agriculture production was 137.91 lakh metric tonnes (MT). However, in 2017-18, despite rainfall being 84.3 per cent of its total capacity, there was an agricultural production of 132.83 lakh MT. As a result the significance rating is assessed as low.			
Water pollution	Medium	All Districts	Minimize use of non-organic fertilizers and encourage use of organic (bio-degradable) manure in agriculture; and reduce use of agro-chemicals in processing and manufacturing processes.	MAVIM	Periodic assessment on how environmental safeguards are mainstreamed in business processes	Every two years
Forest and wetland removal	Low	All Districts	This is not applicable to the project. Enterprises will not be developed /	MAVIM	As above + Geotagging of enterprises to ensure they are not located in environmentally	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			expanded in such areas.		fragile or protected areas	
Erosion and gully	Medium	All Districts	Please see description of Jalyukt Shivar programme of Govt of Maharashtra	MAVIM	MAVIM will track convergence with Jalyukt Shivar and no of beneficiaries	Annual
Bush burning	Low	Districts with tribal population where shifting cultivation is practised	The project is not investing in bush burning and will be promoting good agronomic practices for soil nutrient management.	MAVIM	No of beneficiaries adopting environmental and climate smart production techniques	Annual
Loss of biodiversity	Low	All districts	The project will not be operating in ecologically sensitive areas	MAVIM	Periodic assessment of compliance with the environmental safeguards	Every two years
Waste proliferation	Medium	All districts	Train enterprise owners on sustainable waste management by simple and effective technologies and better hygiene to liquidate waste, including livestock effluents; Create enterprises around waste valorization	MAVIM	Number of sub-projects that incorporate safe waste and effluent disposal.	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			where market opportunities exist.			
Pollution of water and crops due to use of agrochemicals	Medium	All districts	Minimize use of non-organic fertilizers and encourage use of organic (bio-degradable) manure in agriculture.	MAVIM	Convergence with Government schemes for sustainable agriculture	Annual
Flooding	Medium	7% of State area is prone to floods	Encourage regular and timely dissemination of hydro-meteorological information to agri-entrepreneurs; Link target group to crop and other insurance schemes areas; Discourage siting of livestock enterprises in flood prone areas	MAVIM	Convergence with Government schemes and no of beneficiaries	Annual
GHG emissions	Medium	All districts	Ensure energy efficiency and recycling of waste in business processes for the enterprises supported by Nav Tejaswini	MAVIM	Number of sub-projects including GHG emission measures (such as SRI, improved feed conversion ratio for livestock, and use of renewable energy in farm and	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
					non farm enterprises)	
Lack of knowledge and awareness	Medium	All districts	Capacity building of MAVIM and CMRCs on mainstreaming environmental and climate safeguards in the business processes of small enterprises	MAVIM and CMRC	No of trainees from MAVIM and CMRCs	Annual

J. Environmental and Social Management Plan (ESMP)

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
Landless households, marginal farmers, female workers	Mentoring, coaching and skill development for the Ultra-Poor (under component 2 of project) and convergence with Government safety schemes	No of Ultra-Poor supported by the project	CMRCs	Year 1 to 5 for mentoring/ coaching and year 2 to 6 for skill dev. In total, 50,000 HH covered.	4.4 million USD approx
High Temperature, Reduced Rainfall, variability, drought	Demonstration of Drought Proofing techniques / Conservation Agriculture (pilot projects) /change in cropping pattern/crop (livestock) insurance/ Identify existing/convergence with Government schemes for SWC, water harvesting, micro-irrigation, insurance and safety nets	No of sub-projects including climate smart agriculture and allied activities	MAVIM	Year 1 to 5	Provisions for climate resilient agriculture and animal husbandry provided in unit cost of sub-projects – 60,000 to 174,000 USD/ sub-project
Disaster Emergency Response (cyclone/flood/forest fire/earthquake)	CMRCs trained on disaster preparedness and recovery, under capacity building of CMRCs (component 1) , and incorporated in training on value chain project design and management.	Training module incorporates awareness about disaster preparedness and recovery for enterprises	MAVIM	Year 1 to 3	Total training cost is 48,000 USD
Sediment/siltation/water quality	Sub-projects incorporate measures to reduce water pollution and improve water use efficiency. Convergence with Govt	No of sub-projects incorporating water quality and use	MAVIM	Year 1 to 5	Unit cost of sub-project from 80,000 to 160,000 USD

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
	schemes for soil and water conservation.	efficiency measures			
Feed and Fodder/Loss of Common grazing land	Sub-projects incorporate semi-intensive and intensive animal husbandry practices	No of sub-projects that intensify livestock husbandry	MAVIM	Year 1 to 5	Unit cost for dairy is 174,000 USD approx.; and unit cost for goat/poultry/fisheries is 116,000 USD approx.
GHG Emissions	Sub-projects to include renewable energy (solar, biogas), breeds and feed that improve feed conversion ratio and SRI (component 1).	No of sub-projects that reduce GHG emissions	MAVIM	Year 1 to 5	See above for sub-project budget
	Support to innovation in renewable energy and waste management (component 1)	No of innovations that reduce GHG emissions		Year 2 to 5	Total budget for innovation in RE and waste mgt is 240,000 USD approx
Livestock and human health	No of sub-projects that promote livestock intensification with improved sheds, precision farming/machinery, drudgery reduction, protective gear for workers.	No of sub-projects incorporating measures for livestock and human health	MAVIM	Year 1 to 5	See above for sub-project budget
Chance finds of artefacts of cultural and historical significance	MAVIM develops and trains the CMRCs on procedures for chance finds in agri- and eco-tourism projects.	No CMRCs trained	MAVIM	Year 1 to 5	Total training under cap building of CMRC on value chain planning and management is 48,000 USD

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
Effective implementation of ESMP	<p>Inclusion of ESMP indicators in monitoring plan ; geotagging of all enterprises/ sub-projects</p> <p>Establish an environmental and social management system within MAVIM to screen, manage and monitor environment and social risks and impacts of the project including building capacity of MAVIM. This includes: to: (i) review and categorize business plans activities according to the potential environmental and social risks and impacts; (ii) screen/categorize business plans against exclusion list and applicable national laws; and (iii) monitor environmental and social performance of the business plans.</p>	<p>Project monitoring plan incorporates all ESMP indicators</p> <p>An Environmental and Social Management System has been established</p> <p>Training has been carried out</p>	MAVIM	Year 1 to 6	Total budget for project softwares is 918,000 USD (includes project management software)

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

NavTejaswini- Maharashtra Rural Women's Enterprise Development Project
Annual Work Plan and Budget for the year 2020-21
Component 3. Institutional Development and Project Management

Component 3. Institutional Development and Project Management	Unit	No. of Unit	Unit Cost	Planned (Annual)	Component	Expenditure	Financers				Total
			(INR)			Account	IFAD Loan	IFAD Grant	MAVIM Kind	MAVIM Tax	
A. Preproject activities - Retroactive Financing											
Basic small business management (5 day)[all DCOs ,RCs, all NTej Supervisor+ I	Number	40	70 000	2 800 000	COMP3	TRNG_EA	-	2 296 000	-	504 000	2 800 000
Identify potential sectors/value development sectors	Lump Sum			250 000	COMP3	TRNG_EA	-	205 000	-	45 000	250 000
Identify and map out skill development training services providers	Lump Sum			100 000	COMP3	TRNG_EA	-	82 000	-	18 000	100 000
Software procurements (microfinance management software, project management softwre, HR software, and upgrading TALLY software)	Lump Sum			60 000 000	COMP3	EQUIP_EA	-	49 200 000	-	10 800 000	60 000 000
Conduct baseline survey (sample survey) SHG families	Lump Sum			2 500 000	COMP3	TRNG_EA	-	2 050 000	-	450 000	2 500 000
Complete recruitment process of new staff members.	Lump Sum			500 000	COMP3	TRNG_EA	-	410 000	-	90 000	500 000
Capacity building of the weak CMRCs (Strengthening them for implementation of project activities)	Number	15	700000	10 500 000	COMP3	CONSULT_EA	10 500 000		-	-	10 500 000
Subtotal				76 650 000			10 500 000	54 243 000	-	11 907 000	76 650 000
B. HR Development											
Senior official development Training (strategic planning, senior leadership trainin	LS	10	100 000	1 000 000	COMP3	TRNG_EA	820 000	-	-	180 000	1 000 000
Exchange visits	Lump Sum	10	100 000	1 000 000	COMP3	TRNG_EA	820 000	-	-	180 000	1 000 000
Subtotal				2 000 000			1 640 000	-	-	360 000	2 000 000
C. Institutional Development of MAVIM											
Value chain project design and management (5 day)	Number	20	70 000	1 400 000	COMP3	TRNG_EA	1 148 000	-	-	252 000	1 400 000
Contract farming, subcontracting, contract negotiation	Number	-	40 000	-	COMP3	TRNG_EA					-
Project Management	Number	-	80 000	-	COMP3	TRNG_EA					-
M&E and KM management	Number	5	80 000	400 000	COMP3	TRNG_EA	328 000	-	-	72 000	400 000
Skill development training program management	Number	-	80 000	-	COMP3	TRNG_EA					-
Senior Management trainimng	Number	-	100 000	-	COMP3	TRNG_EA					-
Exchange visits (to projects and businesses) [5 day]	Number	10	50 000	500 000	COMP3	TRNG_EA	410 000	-	-	90 000	500 000
Support for KM and Training Center	Number	1	1 000 000	1 000 000	COMP3	TRNG_EA	370 640	449 360	-	180 000	1 000 000
Conduct Institutional Assessment of MAVIM	LS	1	1 000 000	1 000 000	COMP3	TRNG_EA	820 000	-	-	180 000	1 000 000
Subtotal				4 300 000			3 076 640	449 360	-	774 000	4 300 000
E. Audit and Joint supervision											
External audit	Lump Sum	1	600000	600 000	COMP3	TRNG_EA	492 000	-	-	108 000	600 000
Joint project supervision (MAVIM part)	Lump Sum	1	500000	500 000	COMP3	TRNG_EA	410 000	-	-	90 000	500 000
Subtotal				1 100 000			902 000	-	-	198 000	1 100 000
F. M&E and KM											
-											

NavTejaswini- Revised AWPB 2020-21_0603.xlsx

Baseline, Midterm and End project studies	Lump Sum	1	2400000	2 400 000	COMP3	TRNG_EA	1 968 000	-	-	432 000	2 400 000
Website upgradation	Lump Sum	1	500000	-	COMP3	TRNG_EA	-	-	-	-	-
KM products	Lump Sum	1	1200000	1 200 000	COMP3	TRNG_EA	984 000	-	-	216 000	1 200 000
Subtotal				3 600 000			2 952 000	-	-	648 000	3 600 000
G. Computers/printers/AC & Car - Nav Tej											
1. MAVIM											
Cost of AC (2 AC per District & 15AC for HO @35000 per AC)	Lump Sum	1	2980000	2 980 000	COMP3	EQUIP_EA	2 443 600	-	-	536 400	2 980 000
2 Vechicles @ 15 lakhs	Lump Sum	2	1 500 000	3 000 000	COMP3	VEH_EA	2 160 000	-	-	840 000	3 000 000
Inverter & 2 Battery for 35 District	Lump Sum	1	1750000	1 750 000	COMP3	EQUIP_EA	1 435 000	-	-	315 000	1 750 000
Subtotal				7 730 000			6 038 600	-	-	1 691 400	7 730 000
Total Investment Costs				95 380 000			25 109 240	54 692 360	-	15 578 400	95 380 000
II. Recurrent Costs											
A. Salary & Allowance											
1. Project Management Unit (PMU)											
a. MAVIM _ HO	Lump Sum	1	20430000	20430000	COMP3	SALARY_EA	-	-	20 430 000	-	20 430 000
b. MAVIM Support staff- HO	Lump Sum	1	22330000	22330000	COMP3	SALARY_EA	-	-	22 330 000	-	22 330 000
Subtotal				42 760 000			-	-	42 760 000	-	42 760 000
2. Region/Districts - MAVIM	Lump Sum	1	106120000	106 120 000	COMP3	SALARY_EA	-	-	106 120 000	-	106 120 000
Subtotal				106 120 000			-	-	106 120 000	-	106 120 000
3. Nav Tejaswini - Hired officers/support staff - HO											
a. Manager											
Manager (Business Dev)	Lump Sum	1	1150000	1 150 000	COMP3	SALARY_EA	1 150 000	-	-	-	1 150 000
Manager (Enterrpsie Dev and prject superviosn)	Lump Sum	1	3450000	3 450 000	COMP3	SALARY_EA	3 450 000	-	-	-	3 450 000
Manager (Rural Finance)	Lump Sum	1	1150000	1 150 000	COMP3	SALARY_EA	1 150 000	-	-	-	1 150 000
Manager (Training, Policy)	Lump Sum	1	1150000	1 150 000	COMP3	SALARY_EA	1 150 000	-	-	-	1 150 000
Subtotal				6 900 000			6 900 000	-	-	-	6 900 000
b. Deputy Managers											
KM, Communication and Policy	Lump Sum	1	1150000	1 150 000	COMP3	SALARY_EA	1 150 000	-	-	-	1 150 000
Procurement	Lump Sum	1	1150000	1 150 000	COMP3	SALARY_EA	1 150 000	-	-	-	1 150 000
Account and Finance	Lump Sum	1	700000	700 000	COMP3	SALARY_EA	700 000	-	-	-	700 000
Subtotal				3 000 000			3 000 000	-	-	-	3 000 000
c. Nav Tejaswini - Hired officers/support staff - Regions/Districts											
				0							
Regional Monitoring Officer	Lump Sum	1	5040000	5 040 000	COMP3	SALARY_EA	5 040 000	-	-	-	5 040 000
ADCO - N.Tejaswini District Project Supervisor/Monitroing	Lump Sum	1	17430000	17 430 000	COMP3	SALARY_EA	17 430 000	-	-	-	17 430 000
Subtotal				22470000			22 470 000	-	-	-	22 470 000
B. Overhead Cost											
MAVIM - HO (Govt contribution)	LS	1	49060000	49 060 000	COMP3	OPCOST_EA	-	-	49 060 000	-	49 060 000
MAVIM - Regions/Districts (GOM contribution)	LS	1	70680000	70 680 000	COMP3	OPCOST_EA	-	-	70 680 000	-	70 680 000
Travel/DSA etc (NJes) (HO + Region + Districts)	LS	1	12214800	12 214 800	COMP3	OPCOST_EA	10 993 320	-	-	1 221 480	12 214 800
Subtotal				131 954 800			10 993 320	-	119 740 000	1 221 480	131 954 800

Total Recurrent Costs	1	313 204 800	43 363 320	-	268 620 000	1 221 480	313 204 800
		408 584 800	68 472 560	54 692 360	268 620 000	16 799 880	408 584 800

Name of Category	IFAD Loan	IFAD Grant	MAVIM Kind	MAVIM		Total
Equipment and Material - I	6 038 600	49 200 000	0	12 491 400	0	67 730 000
Training Cost - II	8 570 640	5 492 360	0	3 087 000	0	17 150 000
Community Funds & Grants - III		10 500 000				10 500 000
Consultant Studies - IV			0	0	0	-
Salaries - V	32 370 000		148 880 000	0	0	181 250 000
Operation Cost- VI	10 993 320	0	119 740 000	1 221 480	0	131 954 800
Total	57972560	65192360	268620000	16799880	0	408 584 800

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 7: Procurement Plan for first 18 months

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Consultants

Country/Organisation : INDIA/MAVIM

Project/Programme : NAV TEJASWINI Maharashtra Rural Women's Enterprise Development Project

Loan # :

PROCUREMENT PLAN (CONSULTANTS)

Procurement Period : April 2020 to September 2021[illegible]

[illegible]

Procurement Plan of Pre- Project Activities November 2019 to March 2020

[illegible]Conduct baseline survey (sample survey) SHG families

Software procurements

Micro Finance

Project Management

HR Software

Upgrading TALLY Software

Total

[illegible]

Appendix II: Procurement Arrangements

A. Country Level Procurement Framework

1. In India, there is no law exclusively governing public procurement of goods by the departments and ministries at the Central level or at the State level. Rules and directives in this regard are provided in the General Financial Rules (GFR). An important number of instructions, issued by the Central Vigilance Commission (CVC), supplement these regulations. No central authority exists that is exclusively responsible for defining procurement policies, overseeing compliance and grievance redressal systems. A limited control and oversight functions are exercised by the CAG and the Central Vigilance Commission. As per the rules and procedures on procurement stipulated in the GFR, the Corporations/ Departments have been delegated full powers to make their own arrangements for procurement of goods and each of them have issued office orders to define the process. In the Government departments, no dedicated staff are available with procurement skills. In the absence of required procurement expertise, a Department can procure goods through the GEM portal. Tenders for contracts above a threshold size are issued and are reported by the respective State Governments.

2. A complaint mechanism for protests/grievances redressal does not exist. The contract provisions provide for dispute resolution through mutual consultation for the contracts awarded. In case the mutual consultation is not successful, the affected party (usually the contract winner) can initiate arbitration under Indian Arbitration and Conciliation Act, 1996 to settle the disputes and/or differences. The option for complaint/protest available to the unsuccessful bidders is usually to approach the judiciary. However, considering the backlog of cases at the lower level civil courts and higher judiciary, the costs/time delays are not proportional to the value of the contract. Hence, protests/complaints are taken to the judiciary only in cases of large contracts.

3. While the procurement of goods and works have been generally done by the Government departments over the years, the procurement of consultancy services are new to government departments. As the consultancy services are knowledge-based, the Government departments find it extremely difficult to precisely prepare the terms of reference, deliverables, monitoring formats and contract management.

B. Procurement assessment of MAVIM

4. MAVIM has experience of implementing IFAD funded projects. However, the procedures and processes adopted for the projects have not been made applicable to the organization as such. In the absence of national law which safeguards the interests of transparency, fairness, and grievance redressal of the participating bidders/suppliers, it is recommended that IFAD Procurement Guidelines shall be followed both at the central level and at the decentralized level by all implementing entities. Procurement under the project will be done in compliance with IFAD's procurement guidelines and IFAD Procurement Handbook.

5. Procurement Risk Matrix assessment was carried out for MAVIM. Using the tool, the inherent risk rating is 2.00 (Medium risk) and if the risk mitigation measures recommended are fully adopted and complied, the Net Risk Rating becomes 2.31 (medium risk). The risk rating would have been closer to 3 without considering the country risk assessment which is based on PEFA in the year 2011. There have been major changes since 2011 and hence the PEFA ratings of 2011 may not be fully relevant.

C. Risk Mitigation measures proposed

6. The major risk mitigation measures recommended are adoption of (i) setting up of a procurement unit with a procurement specialist; (ii) Standard Bidding Documents including contract templates embedding the bid process, clarifications, evaluation and complaint handling mechanism and policy on preventing fraud and corruption and dispute resolution; (iii) contract management-maintenance of contract registers and contract monitoring. It is to be ensured that contract management is not merely reporting the contracts but continuously monitoring the performance against the deliverables, conditions of the contract, validity and frequent review and resolution of implementation bottlenecks; (iv) preparation and adoption of procurement manual consistent with IFAD Procurement Guidelines and Procurement Handbook which will require IFAD's concurrence. Any

changes/amendments/modifications in the approved Procurement Manual also requires IFAD's no objection and (v) Procurement plan for the initial 18 months of project implementation listing out all procurement activities to be taken up by the project consolidated at the PMU level to be prepared and submitted along with the first AWP&B-For the subsequent years of implementation procurement covering the 12 month period will be sufficient -The procurement plan will be updated at least semi-annually or as required to reflect the actual project implementation needs - All procurement plans and its revisions will have to be approved by IFAD- Any procurement undertaken which is not as per the approved plan will not be eligible for IFAD financing;The summary of the risk matrix is provided below. The risk matrix will be reviewed annually and based on the observations/ review, implementation arrangements mitigating measures will be revised.

Key Issues of the Risk Assessment Matrix

Risk Factor	Initial Risk	Mitigation measures	Residual risk
No dedicated procurement unit	High	Procurement Specialist will be engaged on full time basis, and the appointment will require IFAD's approval. Preparation and adoption of procurement manual	Medium
Standard bidding documents and contracts	Medium	IFAD Procurement Guidelines and Procurement Handbook will be adopted. IFAD Standard Bidding documents and contract templates will be prescribed for compliance to the project. A Procurement Manual will be developed. IFAD will also undertake capacity building measures for the procurement staff.	Low
Inadequate contract management	Medium	Contract Registers and Monitoring Form will be introduced.	Low
Contract disputes redressal system	High	Formalize system of dispute redressal including arbitration	Medium

7. The procurement officer's responsibilities will include the preparation and updating of procurement plans for the project, acting as the focal person for NOTUS, maintaining the contracts register, carrying out all procurement activities of the project, coordinating with the project team on initiating the procurement actions as per the procurement plan, reviewing procurement activities carried out at districts and CMRCs/ community levels, monitor procurement compliance, and provide training to all project staff involved in procurement. S/he will report to GM (Project) directly. A detailed ToR for the procurement officer will be prepared and included in the PIM.

8. During Supervision Missions, the post review procurements will be reviewed on a sample basis selected from the procurement plan, from the stage of preparation of bid documents till contract award and amendments to contract to identify the weaknesses, delays and ineligible procurement. After putting in place the above risk mitigation measures fully and effectively, the residual risk assessment is Medium.

D. Procurement arrangements

9. Procurement of goods and services undertaken for the project will be in accordance with IFAD's Procurement Guidelines and Handbook (dated September 2010) and as amended from time to time as an exception to the provisions of the General Conditions.

10. Goods will be procured using NCB, Shopping and Direct Contracting and will follow the procedures and processes defined in the Procurement Manual/Project Implementation Manual approved by Board of Directors of MAVIM and IFAD. The PIM shall also include details of selection method to be applied in case of consultancies and services such as Quality and Cost Based Selection, Fixed Budget Selection, Least Cost Selection, Consultants Qualification Selection and Single Source Selection. The procedures would be adapted and adopted in accordance with the provisions of IFAD Procurement Guidelines and the Procurement Handbook. Consistent with these Guidelines, the Programme Implementation Manual to be developed will have detailed processes, steps and documentation requirements to comply with the principles of public procurement.

11. The draft PIM will detail procurement procedures, processes and management arrangements. The procurement methods, the prior review arrangements, the estimated cost and time frame, and risk mitigation measures will be defined in the Letter to the Borrower and reflected in the approved procurement plan. The project will be responsible and accountable for project procurement. The design proposes to engage the CMRCs/ community groups for implementing some of the activities across components. The project will provide grants to the CMRCs and the Grant Agreement will define the process of procurement.

12. Standard Bidding Documents are of paramount importance for transparency, speed of the process, increase competition and creation of capacity (standardization of procedures). The SBD to be used in all local open bidding processes would be described in the PIM and it should include: (i) Time to submit bid: minimum 30 days; (ii) Bids may be submitted by post or by hand; (iii) Budget could be disclosed (if local legislation so requires); (iv) Clear instructions on how to buy bidding documents indicating address and price to buy the bidding documents; (v) Clarifications to bidding documents should be in writing only; (vi) Amendments to bidding documents should be advertised with the same procedure used for advertisement of bidding documents; (vii) Single envelope procedure for goods notwithstanding any other Government instructions/guidelines; and (viii) Evaluation Criteria: the bid evaluation criteria should be non-discriminatory -It should be disclosed and rigorously quantified in clear terms to define the "lowest evaluated bidder" - This allows to indisputably identify the lowest evaluated responsive bid.

Procurement Plan

13. As provided in appendix I, paragraph 1 of IFAD's Procurement Guidelines, IFAD review of and no objection to the consolidated procurement plan is compulsory and the 18 months procurement plan for the first year submitted by the project must include as a minimum:

- i) A brief description of each procurement activity to be undertaken during the period and name of the implementing agency responsible for the procurement.
- ii) The estimate value of each procurement activity.
- iii) The method of procurement to be adopted for each procurement activity.
- iv) The method of review IFAD will undertake for each procurement activity indicating either post review or prior review.
- v) Proposed dates for each stage of the procurement.

14. The Procurement Plan should be prepared as a rolling Procurement Plan which captures the procurement during the entire duration of the project and revisions and modifications to the quantities, selection method and the proposed dates will be incorporated as Revision. Any changes and amendments to the procurement plan shall be subject to IFAD's No Objection. A draft procurement plan for the first 18 months is attached as Attachment 1.

Procurement involving community procurement

15. The procurement through CMRCs will be governed by the Grant Agreement to be entered into between MAVIM and the CMRC which should cover the operational and implementation arrangement and shall include implementation, administration, financial management and procurement related activities supported by clearly defined roles and responsibilities of the intermediaries who will assist these CMRCs in performing the activities. Though the project will not include the community procurement in its procurement plan, it is recommended that the description and the quantum of procurement, procurement methods to be adopted will be separately listed out and attached to the Procurement Plan for monitoring.

E. Procurement Methods and Thresholds

16. Procurement of Goods: Methods for procurement of goods is established as follows:

- i) National Competitive Bidding (NCB),
- ii) National shopping
- iii) Direct contracting

17. Consultancy and Services. Consulting service will include project management technical assistance, implementation support technical assistance for different components, conducting studies, mobilisation/establishment of community groups, technical training and strengthening of community groups, and monitoring and evaluation. Services would be provided by consulting firms and individual consultants. The Selection methods available for Consultancy Services and non-consultancy services are:

- Quality and Cost Based Selection
- Fixed Budget Selection
- Least Cost Selection
- Selection Based on Consultants Qualification
- Single Source Selection

18. **Selection of individual consultants.** Individual consultants are selected on the basis of their qualifications for the assignment of at least three candidates among those who have expressed interest in the assignment or have been approached directly by project. Individuals employed by the project shall meet all relevant qualifications and shall be fully capable of carrying out the assignment. Capability is judged on the basis of academic background, experience and, as appropriate, knowledge of the local conditions, such as local language, culture, administrative system, and government organization.

19. Consultancy Services and Individuals consultants may be selected on a **sole-source basis** with due justification in exceptional cases such as: (a) tasks that are a continuation of previous work that the consultant has carried out and for which the consultant was selected competitively; (b) assignments lasting less than six months; (c) emergency situations resulting from natural disasters; and (d) when the individual consultant or consulting firm is the only consultant qualified for the assignment. All proposals for contracts on Sole Source basis will require IFAD's prior review. For facilitating IFAD's prior review, justification for resorting to SSS, the detailed proposal including budget from the sole source agency/institution or individual, recommendation and approval following the Department's internal approval procedures to be submitted to IFAD.

20. The thresholds for the mode of procurement for the mode of procurement to be adopted will be specified in the Letter to Borrower (LTB)

F. Review of Procurement Decisions by IFAD

















21. **Prior and Post Reviews:** IFAD will undertake prior and post reviews of procurement made. (a) Prior review is when IFAD is required to provide a No-Objection (NO) at key stages of a procurement process. This requirement and the associated prior review thresholds are established initially during project design, and adjusted as needed during implementation through modification of the Letter to the Borrower. Country Programme Management Teams and Project Management Units are required to use the No-Objection Tracking and Utility System (NOTUS) to manage Nos; (b) Post review is the assessment by IFAD of the procurement processes conducted by the Borrower/Recipient for a sample of contracts that are not subject to prior preview. As noted above, the intensity and scope of such reviews draws on PRM assessments, issues identified in previous procurement reviews, and taking into account the project's stage of implementation. Post reviews will cover procurement planning, procurement process, contract awarding and management, and risk identification and mitigation.













22. The project will be required to submit to IFAD the pre-qualification document where it is undertaken, the bidding document, the bid evaluation report and the draft contract documents for the prior review of procurement of goods and non-consulting services and the prequalification document, draft RFP, the technical evaluation report, the combined evaluation report and the negotiated draft contract and the minutes of negotiations in case of procurement of consulting services. The thresholds for procurements covered under prior review will be specified in the Letter to Borrower (LTB).















Governance and Anti-Corruption In line with the IFAD General Conditions on Agricultural Development Financing and IFAD Policy on Preventing Fraud and Corruption in its projects, the project should provide a commitment to abide by these provisions and establish credible deterrent mechanisms and internal controls and cooperate fully with IFAD and the notified Government investigative agencies/authorities. The consultants and the suppliers will also be made aware of the provisions and are compliant to these provisions. The detailed measures will be included in all the













bid documents, contracts and Grant agreements ensuring IFAD rights for auditing, investigating provisions and debarment.



















The procurement risk assessment matrix is presented below.

IFAD Procurement Risk Matrix						
	Division	APR				
	Country	INDIA				
	Project	NAV TEJASWINI				
	Date				NET RISK RATING	
	INHERENT RISK RATING	 2.00				 2.31
#	Description of Risk Feature	Rating	Assessment Basis	Remarks	Recommendation /Mitigation	Rating
A	COUNTRY RISK ASSESSMENT	 1.50				 1.50
1	Legal and Regulatory Framework	 1.00				 1.60
a	Country procurement law, regulations and manual exist	 1	3 they all exist, 2 only two exist, 1 only one exist or none	The country does not have any procurement law. The Govt has issued a resolution (GR) indicating the procurement regulations	Procurement Manual to be prepared	 2
b	Existence of Standard Bidding Documents for Goods, Works and Services	 1	3 all exist, 2 only for NCB & ICB, none for Shopping, 1 none exists	MAVIM does not have any standard bidding documents	Standard bidding documents to be prepared	 2
c	Procurement Monitoring	 1	Use PEFA Framework, see worksheet for details	This is based on PEFA findings of 2011 and may not be relevant under the present scenario	Have the PEFA ratings updated or not to use the 2011 findings	 1
d	Procurement Methods	 1	Use PEFA Framework, see worksheet for details	This is based on PEFA findings of 2011 and may not be relevant under the present scenario	Have the PEFA ratings updated or not to use the 2011 findings	 2
e	Public access to procurement information	 1	Use PEFA Framework, see worksheet for details	This is based on PEFA findings of 2011 and may not be relevant under the present scenario	Have the PEFA ratings updated or not to use the 2011 findings	 1





2	Accountability and Transparency	 2.00				 2.60
a	Procurement Complaints Management	 1	Use PEFA Framework, see worksheet for details	Complaint mechanism does not exist	Set up a compliant mechanism and procedure for complaints management	 2
b	Country Corruption Perception Index score	 2	The score is published on Transparency.org. 0 to 29 = 1, 30 to 60 = 2, 61 to 100 = 3	Score is 41 in 2018	Try to get a better rating in the next survey	 2
c	2-tiered system to handle complaints	 2	3 as stated, 2 only a single level system, 1 no system	The complaints can be addressed to the VCMD	Set up a formal complaint mechanism system	 3
d	Existence of a debarment system	 3	3 full existence, 2 existence of complaints body that is the authority, 1 does not exist	The GR issued by the Govt of Maharashtra has a system for penalty/debarring	Implement the GR for project purposes	 3
e	Existence of an independent and competent local authority responsible for investigating corruption allegations	 2	3 existence of independent Anti-Corruption agency, 2 existence of an office within a government ministry/agency that carries out some/all of these functions, 1 does not exist	No separate unit for investigation of corruption allegations. The process involves investigation by VCMD and then by the Dept of Women & Child Devt	Setting up of an independent complaint management team to attend to the complaints	 3
















B	PROJECT INSTITUTIONAL RISK ASSESSMENT	 2.23				 2.67
1	Capability in Public Procurement	 2.20				 2.60
a	Existence of a Procurement Unit with at least 2 staff members (Design stage, reference is to govt agency) Existence of a Procurement Officer (Implementation)	 2	3 as stated, 2 one staff member, 1 does not exist (at Design stage) 3 as stated, 2 someone else doing Procurement, 1 procurement function not consistently handled by anyone	No separate unit for procurement	Set up a procurement unit with atleast one procurement officer	 2
b	Staff member(s) have at least 7 years experience in donor-funded public procurement	 2	3 as stated, 2 for less than 7 years and/or experience in public procurement but not donor-funded, 1 for less than 3 years experience	Members of the procurement committee have less than 7 years experience in donor funded public procurement	With the new project their experience will exceed 7 years	 3
c	What is the general quality of documents produced by the procurement office?	 3	3 for very good bidding documents, evaluation reports and contracts, 2 for mediocre documents, 1 for documents with bad quality	Documents obtained are generally good		 3
d	Do procurement staff have immediate access to the legal and regulatory framework documents?	 2	3 for all, 2 for some, 1 for none	GR is available which regulates the procurement	Ensure access to legal and regulatory framework documents	 2
e	Are the procurement and financial management functions separated?	 2	3 for total separation, 2 for some separation, 1 for procurement being done by FM staff	Interlinked - GM finance heads the procurement committee and CAFO is a member of the committee. The procurement rules are incorporated in the Finance Manual	Have an independent procurement officer	 3





2	Public Procurement Processes	 2.26				 2.75
i	Procurement Methods	 1.75				 2.50
a	Procurement methods for Goods consistent with IFAD Guidelines	 2	3 as stated, 2 for national or international, 1 for none	IFAD guidelines will be followed for project	Adopt IFAD procurement guidelines	 3
b	Procurement methods for Works consistent with IFAD Guidelines	 2	3 as stated, 2 for national or international, 1 for none	No works procurement	NA	 2
c	Procurement methods for Services consistent with IFAD Guidelines	 2	3 for large-value method for firms, small value method for firms and method for individual consultants; 2 for two of the above; 1 for only one or less	IFAD guidelines will be followed for project	Adopt IFAD procurement guidelines	 3
d	Easy access to bidding documents by foreign firms	 1	3 bidding documents are free and could be issued/sent electronically; 2 foreign bidders have to wire funds to Project to buy bidding docs; 1 bidding docs not practically available to foreign bidders	No bidding by foreign bidders as the max amount of contract for the project was not exceeding INR 1 crore except engagement of NGOs	NA	 2

ii	Procurement Planning	 2.67				 3.00
a	Are procurement plans prepared ahead of time and consistent with annual work plans/budgets?	 2	3 prepared ahead and consistent, 2 one of either, 1 none	Yes. Alongwith AWPB for the project	Ensure preparation of timely preparation of procurement plans consistent with AWPB	 3
b	Do procurement people participate in the annual work planning processes?	 3	3 if required by regulation and practised, 2 if required by regulation, 1 if none of above	Yes		 3
c	Are Procurement Plans done using an effective format with planned and actual rows across 3 different categories	 3	3 for all, 2 for some, 1 for none	Yes		 3
iii	Procurement Processes	 3				 3
a	Minimum number of quotations established by law	 3	3 for three or more; 2 for two, 1 if it does not state or less than two	Atleast three quotations are called for		 3
b	Minimum number of days for advertised procurement under competitive bidding processes	 1	3 for minimum of 30 days; 2 for minimum of 20 days; 1 for less than 20 days or not stated	Ranging between 7 and 21 days. For procurement less than 3 lakhs 7 days	For larger procurements where competitive bidding process is followed the minimum number of days should be at least 30	 2
c	Is there enough time provided for bidders to ask questions and receive answers in the bidding process?	 3	3 if bidders have a minimum of 3 days for the RFQ method and 7 days for competitive methods to ask questions, 2 if less than 3 days for RFQ and less than 7 but more than 4 days for competitive methods, 1 if not mentioned in RFQ and less than 4 days for competitive procurements	Pre bid meeting is generally held after 7 days of advertising for clarifications of doubts of the bidders		 3
d	Are clarifications provided to all bidders?	 3	3 for all, 2 for some, 1 for none	Yes		 3

e	Are bids received prior to the deadline securely stored?	 3	3 for all, 2 for some, 1 for none	Online bids only and hence securely stored		 3
f	Are procurement securities securely stored?	 3	3 for all, 2 for some, 1 for none			 3
g	Are public bid openings conducted for advertised procurements, and within an hour of receipt of bids?	 2	3 for both, 2 for bid openings being conducted more than an hour after receipt, 1 for bid openings not being conducted	Public bid opening conducted but not within an hour. Since it is online process the bidders can view the results online	Follow IFAD guidelines for bid opening	 3
h	Are minutes of bid openings taken, and sent to bidders who submitted bids?	 2	3 for both, 2 for minutes being taken but not being sent, 1 for none	Minutes not sent to bidders	Since process is online the bidder can see the result. The project should also make the minutes available online	 3
i	Are evaluations conducted by a suitably qualified ad-hoc evaluation committee?	 3	3 for both, 2 for qualified but not ad-hoc, 1 for ad-hoc or none	Yes. Subject experts are invited for evaluation of technical bids		 3
j	In evaluation, is responsiveness based on criteria requirements in the bidding documents?	 3	3 for all, 2 for some, 1 for none	Yes. If criteria requirements are not fulfilled the bids are rejected		 3
k	Are evaluations completed within the bid validity period?	 3	3 for all, 2 for some, 1 for none	Yes. Bid validity period is generally 90 days within which bids are evaluated		 3
l	Are conditions precedent to contract effectiveness clearly stipulated in the contract? (i.e., advance payment security, performance security, insurance, etc)	 2	3 for all, 2 for some, 1 for none	Generally conditions precedent are stipulated	Ensure conditions precedent in all contracts	 2

m	Does the agency maintain a complete record of the process? This would include copies of all public advertisements, pre-qualification documents (if used, the pre-qualification evaluation report documenting any decisions not to pre-qualify certain potential bidders), the bidding documents and any addenda, a record of any pre-bid meetings, the bid opening minutes, the final bid evaluation report (including a detailed record of the reasons used to accept or reject each bid), appeals against procedures or award recommendations, a signed copy of the final contract and any performance and advance payment securities issued, etc.	 3	3 for all, 2 for some, 1 for none	Yes		 3
n	Are all contracts awarded advertised publicly?	 3	3 for all, 2 for some, 1 for none	Since the award is announced online the bidders are aware of the contract awardee		 3

iv	Contract Administration and Management	 2.00				 2.63
a	Existence of authority levels in the contract management process	 2	3 for existence, 2 for some practice, 1 for none	One co-ordinator (Manager - level) is responsible for each procurement and after confirmation from the co-ordinator payment is made by the accounts department	The procurement officer will follow the authority levels in terms of reporting to GM who in turn reports to the VCMD	 3
b	Existence of approval thresholds for contract amendments	 1	3 for existence, 2 for some practice, 1 for none	No contract amendments done so far and no such provision in manual	Fix thresholds for contract amendments in the procurement policy document	 2
c	Is there an effective contract monitoring system/framework in place?	 2	3 for all, 2 for some, 1 for none	Contract provides for the co-ordinator for monitoring of the contract	There should be a proper system for effective contract monitoring	
d	Is there a process to monitor delivery of goods to verify quantity and quality?	 3	3 for all, 2 for some, 1 for none	Yes. Certification obtained from the recipient of goods		 3
e	Is there a framework for approval of deliverables and payment process for consulting services contract?	 3	3 for all, 2 for some, 1 for none	Yes		 3
f	Is there a process for resolution of final payment and contract closure?	 3	3 for all, 2 for some, 1 for none	Invoice received on completion of the work and payment made resulting in closure of the contract		 3
g	Are contract disputes handled in accordance with a formal complaints/arbitration system?	 2	3 for all, 2 for some, 1 for none	At first stage the VCMD addresses the concerns of the complainant. If this is not acceptable the matter can be referred for adjudication/ arbitration in accordance with the laws of India	Redressal of contract disputes to be formalized and include it in the contract document	 3

h	Are works contracts supervised by independent engineers or a named project manager?		3 for all, 2 for some, 1 for none	No works executed. Any such work is assigned to PWD who supervise the work	NA	
i	Are contracts completed on schedule and within the approved/ contracted contract price?		3 for all, 2 for some, 1 for none	No works contracts as such. All contracts executed on time	NA	
j	Does the organization have contract registers that register all contracts (with names, prices and dates), per procurement category?	 1	3 for all, 2 for some, 1 for none	Contract register not maintained	The procurement officer to be appointed should maintain and monitor contract registers	 2
k	Are adequate contract administration records maintained? (These would include contractual notices issued by the supplier, contractor, purchaser or employer; a detailed record of all changes or variation orders issued affecting the scope, qualities, timing or price of the contract; records of invoices and payments, progress reports, certificates of inspection, acceptance and completion; records of claim and dispute and their outcomes; etc.)	 1	3 for all, 2 for some, 1 for none	Records are maintained separately. Contract register not maintained with all the details but documents of each procurement are maintained	Ensure maintenance of contract registers and other preparation of timely preparation of contract monitoring.	 2
	<u>Risk Rating System</u>					
3	L : Low Risk					
2	M : Medium Risk					
1	H : High Risk					

	PEFA Framework	
	2011 Framework: Procurement assessed under P1-19	
	2011 Framework: Procurement assessed under P1-24	
	2011 Framework	2016 Framework
	Transparency, Comprehensiveness and Competition in the legal and regulatory framework	Procurement Monitoring
	Use of competitive procurement methods	Procurement Methods
	Public access to complete, reliable and timely procurement information	Public access to procurement information
	Existence of an independent administrative procurement complaints system	Procurement Complaints Management
	Procedure	
	1 Open www.pefa.org	
	2 Scroll down and search by country	
	3 Choose whole country, not regions within a country	
	4 Choose latest report. Download entire report	
	5 Examine Pillar PI-19 or PI-24 (depending on Framework used) to see assessment	
	6 Summary information from section of report should be in Remarks of the Matrix	
	7 Score as follows:	
	PEFA	IFAD Matrix
	A	3
	B	3
	C	2
	D	1
	<u>To Note</u>	
1	If the information in the PEFA website points to an analysis only of a national system in a situation where the IFAD-funded project will be implemented by a state or regional government or enterprise, or a system other than the national system, the factors should be scored under INHERENT RISK RATING, while the Assessor should analyse the state, regional or other system and score that under the NET RISK RATING. The Assessor should make a note of this clearly in the PRM.	
2	If the information in the PEFA website is outdated (i.e. before 2011), the Assessor should score the PEFA Report as is under INHERENT RISK RATING, while the Assessor should analyse the factors and score that analysis under the NET RISK RATING. The Assessor should make a note of this clearly in the PRM.	
3	If for whatever reason the Assessor is unable (after diligent attempts) to glean the PEFA ratings from the PEFA site, the Assessor shall analyse the factors and ascribe scores under the INHERENT RISK RATING, and where mitigants are available, viable and necessary, propose these mitigants and score the NET RISK RATING accordingly. The Assessor should make a note of this clearly in the PRM.	

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 8: Project Implementation Manual (PIM)

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Annex 8: Project Implementation Manual (PIM)

Maharashtra, India

Maharashtra Rural Women's Enterprise Development Project (NAV TEJASWINI)

Nav Tejaswini: Project Implementation Manual (PIM)

Implementing agency:

Mahila Arthik Vikas Mahamandal (MAVIM), Maharashtra

September 2019

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- 5. TORs for selected professionals**
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- 8. Environment and Social Management Plan Matrix**

1. INTRODUCTION TO PIM AND NAV TEJASWINI

1. Introduction: This project implementation manual (PIM) has been prepared to guide the project management unit (PMU) to implement all project activities as per project design documents and annual plan. The PIM should be read in conjunction with the project design report (PDR) with associated Annexes and technical background papers produced during the design process. Aside from the PIM, there will be separate manuals/documents such as Financial Management Manual, and Procurement Manual to support the PIM. These documents have been referred to in the PIM as appropriate.
2. Project Partners: The project will be implemented by MAVIM through its existing Community Managed Resource Centres (CMRCs), Self-help Groups (SHGs) as well as future partner organizations. Besides, during the course of implementation the PMU/MAVIM may engage new and different types of partner organizations or project participants such as research organizations, academic institutions, testing & certification institutions, regulatory agencies, any other government and non-government organizations, cooperatives, Farmer Producer Organizations (FPOs), Farmer Producer Companies (FPCs), and private businesses to achieve objective of the project.
3. Nav Tejaswini will support about one million SHG members - who are mostly marginal and small farmers and micro-entrepreneurs – to transform their farm and non-farm livelihoods into commercially viable micro and small enterprises, through linkages with market and access to technical and financial service providers. The project will identify and prioritize markets that can support expansion of women enterprises (such as preferential Government procurement from MSMEs and women enterprises, e-commerce platforms), and integration of enterprises in value-chain, while at the same time selecting commodities that bring nutritional benefits for both producers and consumers and work for gender equality and women empowerment. At the same time, to ensure management of lifecycle risks, project would invest in improved nutrition and health at HH level, to reduce health shocks that may destabilize the economy of the HH and its ability to invest in productive assets. The PIM has been reviewed and approved by the PMU (MAVIM team) and by IFAD.
4. Amendments: The PMU/AMVIM will seek IFAD's approval for future amendments and revisions.
5. Important Dates: The following dates are important for the project:
 - *Financing Agreement*: The Financing Agreement (FA) was signed between IFAD and the Government of India (GoI) on 2020.
 - *Letter to the Borrower*: IFAD issued the Letter to Borrower on 2020 that mentions 2020 as Financing Agreement enforce date.
 - *Project duration*: The Project Completion Date is ---- ----- 2026 and the Financing Closing Date is ----- 2026.

2. PROJECT OBJECTIVE AND COMPONENTS

6. The **Project Goal** is to enable one million rural poor households to overcome poverty.
7. The **Project Objective** is to improve capacity of rural women to diversify into sustainable enterprises or engage in decent and remunerative employment through enhanced market linkages.
8. **Project Components**: The project has three complementary components as follows:
9. Component 1 - Market-Driven Enterprise Development: Nav Tejaswini will enable 765,400 farm and non/off farm producers and businesses (565,400 under organized value chains and 200,000 standalone enterprises) in identified clusters to increase sales and profit through a combination of interventions in marketing, product development and quality improvement, productivity enhancement, and sustainable business relationships with other businesses. It will facilitate new and expanding enterprises to strengthen their linkages with the agri/non agri businesses and other value-chain actors. Besides, standalone businesses in both farm and no-farm sectors will receive business development services to expand business and

increase profit. This component comprises four (4) sub-components: 1.1 Farm sector enterprise development; 1.2 Non/off farm sector enterprise development; 1.3 Capacity development of CMRCs; and 1.4 Supporting innovation.

10. Component 2 - Enabling Support Services: Nav Tejaswini will also focus on providing an enabling environment at the enterprise levels as well as at household levels, to optimise SHG member HHs participation in the enterprise development process. All members of SHG (approximately 800,000 as of June 2019 and will reach to one million during the project period) will participate in various activities, especially in microfinance through SHG-Bank Linkage program and campaign for nutritional improvement and gender equality. Special assistance for ultra-poor has been devised as well. The component has four (4) main subcomponents: 2.1 Facilitating financial linkages; 2.2 Evolving new pathways for ultra-poor households; 2.3 Enhancing nutritional status and gender relations at HH and community levels; and 2.4 Policy engagement.
11. Component 3 - Institutional Strengthening and Project Management: Nav Tejaswini aspires to strengthen MAVIM and its CMRCs. MAVIM is expected to play the following roles: a) promoter of enterprise development; b) centre of excellence in areas of SHG approach to community development; c) capacity builder for grassroots institutions; and d) implementer of various government schemes for its beneficiaries. This component has two subcomponents: 3.1 Institutional Strengthening of MAVIM; and 3.2 Project Management.
12. Logframe: The log-frame of the project is presented in Table 1.

Table 1 – Logical framework of Nav Tejaswini

Results Hierarchy	Indicators				Means of verification			Assumptions
	Name	Baseline	Mid-term	End target	Source	Frequency	Responsibility	
Outreach	<ul style="list-style-type: none"> No. of persons receiving project services (M/F/Age) 	-	841,579	1,000,000	MIS	Monthly	MAVIM	
	<ul style="list-style-type: none"> Number of HHs 	-	841,579	1,000,000	MIS	Monthly	MAVIM	Project is implemented effectively
	<ul style="list-style-type: none"> Number of HH members 	-	3,364,000	4,500,000	MIS	Monthly	MAVIM	
	<ul style="list-style-type: none"> Number of women-headed households 	-	117,821	117,821	MIS	Yearly	MAVIM	
Goal								
Enable rural poor households to overcome poverty	<ul style="list-style-type: none"> Rural households sustainably out of income poverty (> 58,000 Rs/ year) 			1,000,000	Impact Study, Outcome study	Mid-term, end-term	MAVIM	
Development Objective								
Improve capacity of rural women to diversify into sustainable enterprises or engage in remunerative employment and enhance their access to markets	<ul style="list-style-type: none"> 80% of targeted women are engaged in sustainable enterprises or gainful employment Percentage of women, 15-49 years of age, who consume at least 5 out of 10 food groups (CI 1.2.8) 75% of targeted women report an increase in score on pro-WEAI survey 	<p>0</p> <p>Tbd at baseline</p> <p>0</p>	<p>35%</p> <p>30%</p>	<p>80%</p> <p>70%</p> <p>75%</p>	<p>1) Baseline survey report, 2) Mid term, 3)AOS, 4) End line/Impact Study</p>	<p>1) One time, 2) One time, 3) Annual, 4) At the end</p>	MAVIM	
Outcome 1								
Creation of sustainable business linkages for farm and non/off farm enterprises	<ul style="list-style-type: none"> Number of supported rural enterprises reporting an increase in profit (CI 2.2.2) Rural enterprises reporting on adoption of environmentally sustainable and climate resilient technologies and practices (CI 3.2.2) 	<p>0</p> <p>0</p>	<p>200,000</p> <p>200,000</p>	<p>565,400</p> <p>565,400</p>	<p>1) AOS, 2)Thematic study, 3) Yearly Survey</p>	<p>Annual, MTR onwards</p>	MAVIM	

Results Hierarchy	Indicators				Means of verification			Assumptions
Output 1								
Farm, non/off farm enterprise development plans	• Rural enterprises accessing business development services (CI 2.1.1)	0	250,000	765,400	1) AOS, 2)Thematic study, 3) Yearly Survey	Annual	MAVIM	
	• 2000 batches of standalone businesses receive technical/management training	0	700	2000	1) MIS	Annual	MAVIM	
	• 250 cooperatives formed	0	100	250	2) MIS			
	• Rural enterprises supported to sustainably manage natural resources and climate related risks (CI 3.1.1)	0	250,000	765,400	Annual Outcome Survey	Annually	MAVIM	
Output 2								
Development of value chain project management capacity of CMRCs	• 1500 CMRC staff trained in enterprise development and management	0	1000	1500	MIS, Training report	Annual	MAVIM	
Output 3								
Supporting innovation	• At least 40 innovations tested and 20 scaled up by the project	0	20	20	MIS, Enterprise reports	Annual	MAVIM	
Outcome 2								
An enabling environment to facilitate women's enterprise development and employability in decent and remunerative jobs	• 100,000 women accessing financing for enterprise development of Rs 100,000 or more (disagg: Age)	0	50,000	100,000	MIS reports	Monthly	Banking Partner, MAVIM	
Output 1								
Financial linkages	• 3 financial institutions offering > 100,000 Rs financing for enterprise development		1	3	MOUs	NA	Banking Partner, MAVIM	
	• 800,000 SHG members continue to receive loan under SHG-Bank linkage program	800,000	800,000	800,000	MIS	Quarterly	MAVIM	
	• Increase in loan outstanding under SHG-Bank Program	Tbd at baseline	Rs 3442 million	Rs 9769. million	MIS	Quarterly	MAVIM	
	• Loan repayment rate (%)	99.5	99.5	99.5	MIS	Quarterly	MAVIM	

Results Hierarchy		Indicators			Means of verification			Assumptions
	• Livestock health and insurance recover operating cost	10%	60%	100%	MIS	Quarterly	MAVIM	
Output 2								
Mentoring the ultra-poor and skill development training	<ul style="list-style-type: none"> • 26,800 ultra-poor persons trained in income-generating activities (CI 2.1.2) (M/F/Age) • 34,000 wage employment generated 	0	10,000 10,000	26,800 34,000	MIS, Ultra poor study reports	Quarterly	MAVIM	
Output 3								
Improved nutritional status of households	• 800,000 persons provided with targeted support to improve their nutrition (CI 1.1.8) (M/F/Age)	0	300,000	800,000	MIS reports	Annually	MAVIM	
Output 4								
Policy engagement	• 8 of policy-relevant knowledge products completed	0	4	8	Policy papers	Annually	MAVIM	
Outcome 3								
Capacity of MAVIM strengthened and project satisfactorily managed	Center of Excellence set up and well-functioning	0	1	1	MAVIM report	Annually	MAVIM	
Output 1								
Training of MAVIM officials on enterprise development and system upgraded	80 MAVIM officials trained (M/F/Age)	0	80	80	MAVIM report	Annually	MAVIM	
	Institutional assessment of MAVIM completed	0	1	1	MAVIM report	once	MAVIM	
	All four computerized system installed and upgraded	0	4	4	MAVIM	once	MAVIM	

3. PROJECT AREA AND TARGET GROUPS

13. **Project Area:** The project will work across the 34 rural districts of Maharashtra, in the blocks/talukas/villages where MAVIM have organized SHGs, Village Organizations (VOs) and Community Managed Resources Centres (CMRCs). It will support all existing small and microenterprise clusters, in addition to developing new clusters. Besides all standalone businesses of SHG members will receive business development services.
14. **Synergies with and separation from other projects.** *Coordination with other development investment projects:* MAVIM is one of the implementing agencies of the World Bank funded SMART project, which is somewhat similar in scope of Nav Tejaswini. Similarly, MAVIM is also functioning in areas where other projects such as IDH and BCI are active. The project will avoid investment in same value chain (product or group of products) in same CMRC and SHG to avoid the duplication of works and implementation complications.
15. **Outreach.** The project will directly service 801,979 women through the 66,524 SHGs under 248 CMRCs and 200,000 poor women and men, through value-chain interventions and wage employment opportunity creation in the micro-enterprises. These households will be facilitated to join SHGs under existing CMRCs (self or family member). Thus the total target is 1,000,000 households.
16. **Social composition.** The current Self Help Group member composition indicates that about 28% Scheduled Castes, 13% Scheduled Tribe, 31% Other minority castes, 4% Minority, 7% Nomadic Tribes, 31 % OBC and remaining 17% are from other Castes. Scheduled tribes, scheduled castes, nomadic tribes, are considered as deprived.
17. **Target Groups:** The project's direct target group are the members of existing SHGs and their families. Majority of them are engaged in Income Generating Activities (IGAs) and have a credit history. The membership fall under three categories: a) microentrepreneurs with steady family income above Rs 58,000; b) Moderately poor with family income from all sources between Rs 25,000 to Rs 58,000; and c) Ultra/very poor that earn less than Rs 25,000 and have no source of regular income (See **Table 2** for features of each category of beneficiaries). As estimated by MAVIM the percentage of households in these three categories are 30%, 60 to 65% and 5 to 10% respectively which also reflects approximately with SECC data for rural areas of Maharashtra of excluded¹ households (39%), and included² households (61%). MAVIM has to collect data on current poverty/inclusion status of all members as per the Socio Economic Caste Census categorisation and where necessary PRA, before the project commences.
18. By profession, the target beneficiaries are marginal farmers, livestock/fisheries microentrepreneurs, non-farm products producers, workers in service sectors and agricultural labourers. From gender perspectives, 100% of present direct beneficiaries are women. About 20% of SHG members may fall under 35 years of age (young adults). The project would include young adults, women and men, of beneficiary families for skill development programmes to gain decent and remunerative employment. It will indirectly support all value chain actors (input suppliers, traders, processors, aggregators, advisory service providers).

Table 2: Features of beneficiary categories

¹ The parameters for exclusion are at least one of the following parameters a) Households owning motorized two/three/four wheelers/fishing boats, b) Households owning mechanized three/four wheeler agricultural equipment, c) Households having kisan credit card with the credit limit of Rs.50,000 and above, d) Households with any member as government employee, e) Households with non-agricultural enterprises registered with government, f) Households with any member earning more than Rs. 10,000 p.m, g) Households paying income tax, h) Households paying professional tax, i) Households with three or more rooms with pucca walls and pucca roof, j) households owning refrigerator, k) Households owning land line, l) Households owning more than 2.5 acres of irrigated land.

² The parameters for inclusion are at least one of the following parameters a) Only one room with kucha walls and kucha roof, b) No adult member between age 16 to 59, c) Female headed households with no adult male member between age 16 to 59, d) Disabled member and no able bodied adult member, e) SC/ST households, f) No literate adult above 25 years, g) Landless households deriving major part of their income from manual casual labour

Type of entrepreneurs	Poverty indicators	Services and path out of poverty
Microentrepreneurs	Annual income > Rs 58,000 (Poverty Line) Land ownership > 2.5 acres	<ul style="list-style-type: none"> Participate in an organized value chain Individual microenterprise loan more than Rs 100,000 from bank/non-bank financial institution Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. May receive business services as per need for example productivity related training in case of farm sectors and design improvement in case of non-farm product.
Moderately poor	Annual income between Rs 25,000 to Rs 58,000 Land ownership is between 0.5 acre and 2.5 acres	<ul style="list-style-type: none"> Participate in an organized value chain Individual member may borrow up to Rs 100,000 through SHG-bank linkage Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. In some instances may qualify for selected convergences schemes. Vocational training for selected SHG or family members
Ultra/Very poor	Annual income less than Rs 25,000 (no regular income and depend mainly on manual labor) Land ownership: landless to 0.5 acre	<ul style="list-style-type: none"> Participate in a value chain if lives in the same cluster; Individual member may borrow up to Rs 20,000 through SHG-bank linkage Some farm/non-farm businesses may not join any organized value chain subproject but grow as individual businesses. In many instances may qualify for selected convergences schemes promoted by CMRCs/MAVIM. Vocational training for selected SHG or family members for wage employment. Mentoring for IGA development Village level wage employment for a subcontractor

19. **Targeting strategy;** The project will have twin track approach in targeting activities; a) target households which possess basic level of resources, and skills that can be enhanced through the project interventions to enable income increase from economic opportunities, b) target ultra-poor households with focused attention through mentoring, basic skill training to participate in wage job opportunities created in the enterprises promoted, vocational training and in apprenticeships. Table 3 below summarizes targeting strategy for the project.

Table 3: Mapping of target groups/Other Stakeholders by Project Components

Component	Sub component	Target groups
Market led enterprise promotion	Farm sector enterprise development (both cluster based and standalone)	Women in self-help groups to chart out their own enterprise growth plan supported by the CMRCs. The beneficiaries will be the various types of individual enterprises (nano, micro) working in alignment with existing and promoted prioritized commodities, as well as collective enterprises [mainly the producer groups (PGs) and produce companies (PCs)]. Apart from the project promoted enterprise beneficiaries, services will also be open to other enterprises in the ecosystem.
	Off farm/Non-farm sector enterprise development	
	Innovations	Poorer households will undertake jobs/wage employment in both producer collectives as well as in individual enterprises. Innovators, tribal households, artisans, and SHG members involved in specific innovation pilots.

		For livestock insurance, all livestock owners.
Enabling support services	Facilitating Financial Linkages	All members of SHGs through SHG credit linkage. Individual loans to micro entrepreneurs. Insurance to be widely promoted.
	Skill training	Youths, both male and female, from ultra-poor and poor households will be target groups for vocational trainings under Government skill training programmes, private train programs, and apprenticeships with existing Enterprises. For community level skill training, artisans and workers involved in specific trade or interested in that particular trade will upgrade their skill sets from master crafts persons.
	Mentoring program for Ultra-poor Households	Ultra poor households
	Enhancing nutritional status and gender relations at HH and community levels	All members of self-help groups for nutrition related initiatives. Both females and males in their households for gender equality activities in SHGs, VOs, and CMRCs.

20. **Baseline survey.** The project shall conduct a baseline survey before launching to determine profile of project beneficiaries along with poverty status. As Nav Tejaswini is flagged as a gender transformative project, the baseline will also include pro-WEAI survey.

4. PROJECT IMPLEMENTATION APPROACH

21. **Project implementation approach:** The PMU/MAVIM will ensure the following core implementation approach while designing a micro-enterprise / value chain sub-projects as well as offering financial services:

- Identify and develop clusters as well as stand-alone enterprises: One of the core elements of the project is to identify relevant services which cluster-based as well as stand-alone micro-enterprises will require. The project will facilitate business development services to strengthen both these segments. The PMU must guide / advice CMRCs to identify existing value chain based clusters as well as potential stand-alone enterprises to determine constraints as well as services needed to further develop associated micro-enterprises and / or expand these micro-enterprises in another locations. This critical step will help reach out to a large number of similar micro-enterprises, develop commercially viable support and advisory services, disseminate new technologies and information, and standardize & aggregate products / services for buyers.
- Combine micro-enterprise finance and non-financial services: While designing a subproject involving a specific, similar (like vegetables) or linked (like tourism) product / services, the PMU will ensure that participants receive loans as and when required. Since value chains will have micro-enterprises of various size and capacity, specialized financial products shall have to be designed in collaboration with financial institutions to service their individual requirements³. However, it is understood that not all micro-enterprises will need loans or ask for loans as many of them may participate for access to technology, training, and markets.
- Transform subsistence producers into micro-enterprises: The PMU will introduce management practices, technologies, and support services to improve productivity and expand businesses to create broad economic multiplier effects that transform the rural sector and reduce poverty.
- Apply a nutrition-sensitive approach to the selection of commodities to be promoted, to ensure better nutrition for producers and consumers.
- Specifically target women through the selection of commodities/value chains in which women are heavily involved (poultry, livestock, homestead production, fruits, vegetables etc).
- Introduce compliance with food safety (Global GAP, HACCP and FSSAI) and quality standards at producer and micro-enterprise levels to ensure the supply of safe food for producers and consumers.
- Ensure standardization, quality improvement and design innovation at micro-enterprise level to enable targeting premium markets for products and services.
- Leverage commercial finance through scheduled commercial banks / non-banking financial corporations for investment in larger enterprises, value chains, and agribusinesses to expand the market for micro-enterprise output.
- Strengthen the capability of MAVIM and CMRCs as development institutions by leveraging trends in financial services, commercial platforms and new technologies.
- Adhere to the project's Environment and Social Management Plan guided by the Environment and Social Management Plan Matrix (attachment 8)
-

³ Loans will be provided through SHG-Bank Linkage program, ME loan from banks and other type of financial institutions, value chain financing from institutions such as Summunati etc.

5. COMPONENT 1: MARKET-DRIVEN ENTERPRISE DEVELOPMENT

Subcomponent 1.1: Farm Sector Enterprise Development

22. **Organized Value Chain Development:** This component will identify prospective farm products with market demand and opportunities for creation or expansion of enterprises to participate in identified, well-functioning value chains. The project will support 454,000 women to capture larger value and better price realization such as in collection, aggregation, processing, grading, packaging, quality control, and certification for products.
23. CMRCs will be implementers of value chain subprojects under supervision from DCOs/RCs and PMU/MAVIM. See later in the PIM on value chain analysis and subproject design.
24. CMRCs eventually will set up cooperatives and also organizations at higher level, such as at the FPO level to: (i) Provide producers access to technical assistance from service providers, to improve farm productivity through better inputs and production practices, farmer/entrepreneurs skill development, introduction of new commodity, Global Good Agricultural Practices (GGAP) certification; (ii) Support producers to make forward linkages and identifying opportunities for supplying to big buyers, contract farming, setting up chilling plants, processing and so on; (iii) Support aggregators and post-harvest processors to secure their supply chains; and (iv) Provide to participating entrepreneurs business advisory services to developed skills in technology and management (e.g. business plans and cash flow planning; packaging and marketing planning and so on). Where required, the project will invest in appropriate modern technology (mostly equipment).
25. Within farm sector the project will zero in on field crops (aromatic and special rice, soya, cotton and others), fruits and vegetables, pulses/seeds and nuts, spices and medicinal fruits/plants, poultry and livestock and pond fisheries in selected districts. The IFAD design mission has analysed value chains for a number of products that showed significant opportunities for value enhancement in the form of better quality, increased production and better farm prices and additional income for farming families and microentrepreneurs. Commodities that have high value and growing demand, and that are nutrition sensitive, will be selected. Other factors, such as environmental considerations, adverse effects of climate change, and food safety, will also be considered. The project will support value chain analyses for select commodities by either upgrading existing analyses or undertaking new ones.⁴
26. **Major commodities:** The important commodities for value chain and micro-enterprise development are field crops (paddy – coloured / aromatic, soybean, maize, pulses, etc.), vegetables, fruits, dairy, poultry, goat-rearing, nuts, and aquaculture.
27. **Product Targeting by district:** Table 4 below provides the indicative target districts, the commodities and existing clusters which have already been developed.⁵

Table 4: Potential farm products and corresponding districts

Product / Service	Districts with potential for value chain development
Cereals like paddy, maize, millets & wheat	Kolhapur, Raigad, Ratnagiri, Sindhudurg, Bhandara, Chandrapur, Gadchiroli, Gondia, Aurangabad, Sangli, Nandurbar, Jalana, Hingoli, Dhule, Pune, Solapur, Ahmednagar
Oilseeds & Pulses like soybean, groundnut & pigeon pea	Buldhana, Washim, Yavatmal, Jalana, Hingoli, Latur, Osmanabad, Wardha, Kolhapur, Sangli, Satara, Solapur, Akola, Amravati, Beed, Chandrapur
Spices like turmeric	Washim, Yavatmal, Sangli, Hingoli, Wardha

⁴ Further details in Attachment 1

⁵ Value chain profiles, and potential number of clusters and micro-entrepreneurs in Attachment 2

Fruits like mango, mandarin, grapes & pomegranate	Ratnagiri, Sindhudurg, Amravati, Nagpur, Sangli, Nashik, Jalgaon, Ahmednagar, Pune, Solapur,
Other plantation crops like coconut & cashew	Ratnagiri, Sindhudurg
Dairy	Kolhapur, Sangli, Gondia, Solapur
Goat and sheep	All districts
Poultry	All districts
Freshwater Aquaculture	Gadchiroli, Gondia
Sugar cane	Kolhapur, Sangli
Cotton	Amravati, Buldhana, Yavatmal, Aurangabad, Jalana, Chandrapur, Wardha, Dhule
Onion, Tomato & Potato	Satara, Osmanabad, Dhule, Nashik, Ahmednagar, Pune, Solapur
Other Vegetables	Kolhapur, Sangli, Raigad, Nagpur, Dhule, Pune

Note: Nav Tejaswini/MAVIM may choose any block/talukas/district in Maharashtra to respond to demand and opportunities, and proposal from CMRCs

28. Selection of districts for new products: The project may implement subprojects in each district aside from products mentioned in Table 4 on the basis of opportunities. The criteria for selection of new areas will be as follows: a) At least 200 members in one CMRC already engaged in / 200 new members interested in value chain, b) Availability of institutional / assured market for produce, and c) First production should happen at least one year before the end of Nav Tejaswini.
29. Common opportunities for farm sector products: The following opportunities exist for value addition across farm sector products: a) Shift to high yielding varieties, b) Shift to premium varieties like aromatic rice, c) GAP / Sustainability certification, d) Organic production, e) Testing, sorting & grading of final produce, f) Standardisation of quality, g) Removal of non-value adding intermediaries, and h) Basic processing like converting paddy to rice or pulses to dal. These will improve the productivity, increase / assure price realization, enable access to premium markets, and improve margins for producers and micro-entrepreneurs.
30. Common challenges for farm products: The greatest challenge faced by producers and micro-entrepreneurs in the farm sector value chain are inconsistencies in production due to weather / pests, and year-on-year variation in prices of produce. Competition from alternate, cheaper sources, and increase in cost of production are additional challenges faced by the sector.⁶ Besides, farm productivity in many cases can be further improved through use of improved practices and application of technologies.
31. Selection of new value chains: The project/PMU may choose new value chains for subprojects if opportunities arise during the implementation. The new value chain may be selected only if there is: a) Availability of an assured market, and b) proof of production in one of the agro-climatic zones of Maharashtra. Once identified, PMU should commission a feasibility study to further understand the opportunities, requirements, constraints and risks in promoting this new value chain. The project will submit new subproject in the Annual Work Plan and Budget for approval by IFAD.
32. Structure of agriculture value chain in Maharashtra: The following schematic diagram presents typical structure of farm product value chains:

⁶ Challenges and market opportunities in each value chain further detailed in Attachment XX

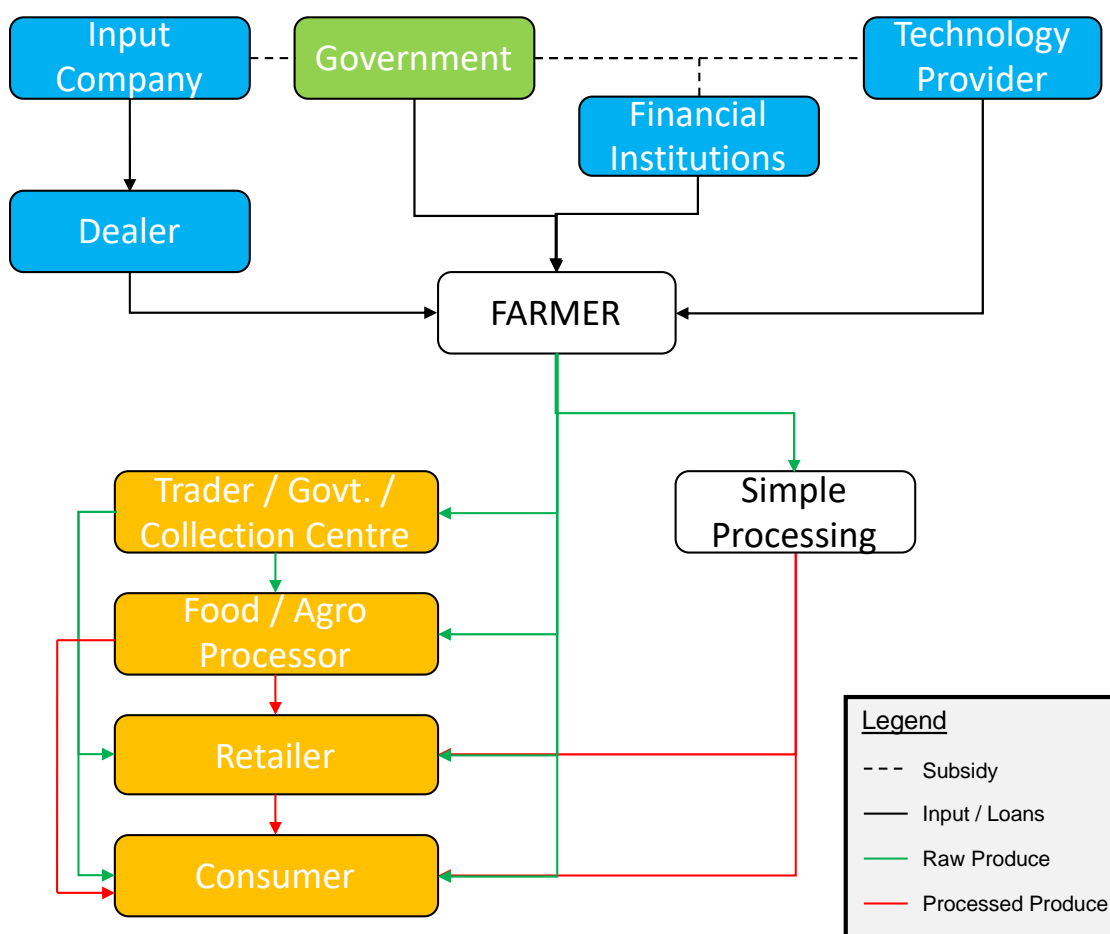


Figure 1: Typical Farm Sector Value Chain

33. *Stakeholders in value chains:* The following Table 5 presents various stakeholders and corresponding roles and challenges faced by each stakeholder in the chain:

Table 5: Stakeholders and challenges

Stakeholder	Role in Value Chain	Challenges
Farmer	Produces agricultural output including cereals, milk, poultry, etc.	<ul style="list-style-type: none"> Climatic conditions pose risk to production Price varies y-o-y and day to day Low productivity Increasing cost of inputs
Input Company	Develops inputs like seeds, fertilizers, cattle feed, etc. for increasing agricultural output	<ul style="list-style-type: none"> Climatic conditions led to cropping pattern shifts No direct connection with farmers to develop understanding & loyalty
Dealer	Provides farmers access to inputs	<ul style="list-style-type: none"> Risk of non-payment since inputs at times sold on credit
Financial Institutions	Provides farmers access to credit, insurance and other financial products	<ul style="list-style-type: none"> Threat of loan waivers and NPAs due to other conditions Small and dispersed landholdings make tracking difficult

Technology Provider	Provides farmers access to agricultural technologies like drip irrigation, poly-houses, etc. to enhance production / improve climate resilience	<ul style="list-style-type: none"> • Dependent on government's subsidy system • Small and dispersed farm landholdings make adoption difficult • Farmers lack finances to make their contribution to schemes
Government	Provides subsidies to farmers to promote use of better inputs, technologies and financial products including insurance	<ul style="list-style-type: none"> • Farmers lack finances to provide their contribution to schemes
Trader / Govt. / Collection Centre	Aggregates farmers' agricultural output and ensures timely payment	<ul style="list-style-type: none"> • Limited financial products available to support timely payments • Logistics (infrastructure and transportation) is unorganized
Food / Agro-Processor	Processes agricultural output to make edible products / increase shelf life	<ul style="list-style-type: none"> • Limited traceability & quality control of supply chain
Retailer	Provides consumers access to food products	<ul style="list-style-type: none"> • Limited traceability & quality control of supply chain
Consumer	Consumers food products	<ul style="list-style-type: none"> • Limited traceability & quality control of supply chain

34. Objective and main strategy for value chain development: The main objective of product/sector specific development is to assist a large number of producers and other actors/entrepreneurs in the value chain (as stated above) to increase profit by expanding businesses or by becoming more efficient in respective business. The main strategy is to grab market opportunities (e.g. more demand for same products, demand for new products etc) and identify and remove challenges faced by entrepreneurs at each stage of value chain.
35. Sub-project Design and Implementation: The sub-projects design & implementation should include the following stages: a) Identification by MAVIM- Selecting the value chain and CMRC, b) conduct feasibility – Selecting the expert and conducting the feasibility study, c) Approval – Approving the sub-project with budgets & milestones by MAVIM, defining the TORs for the Technical Assistance (TA) and team, selecting the TA & team and transferring the funds, d) Implementation – Developing capacities & infrastructure, fostering partnerships and rolling out activities, and e) Closure – Conducting the impact assessment, handing over assets to relevant agencies and designing the post-project support system. All activities shall be implemented by the CMRCs with the support of technical experts and the TA. The project employed District Supervisor/Monitoring officer and DCOs will monitor the progress of these sub-projects. ⁷
36. Value chain analysis: The term 'value chain analysis' in the context of the project is to identify opportunities and constraints of each product/group of products or subsector, and design interventions (Activities) to remove the constraints. The activities such as training of farmers, setting up of milk collection centres, establishing linkages chilling plants etc are implemented to remove constraints of knowledge farmers in specific areas, developing supply chains to chillers, and accessing market.⁸
37. Illustrative Example - Dairy Value Chain: The following section provides a simple analysis and development of a dairy value chain subproject as an illustrative example:

⁷ Further details in Attachment 1

⁸ Further details in Attachment 1

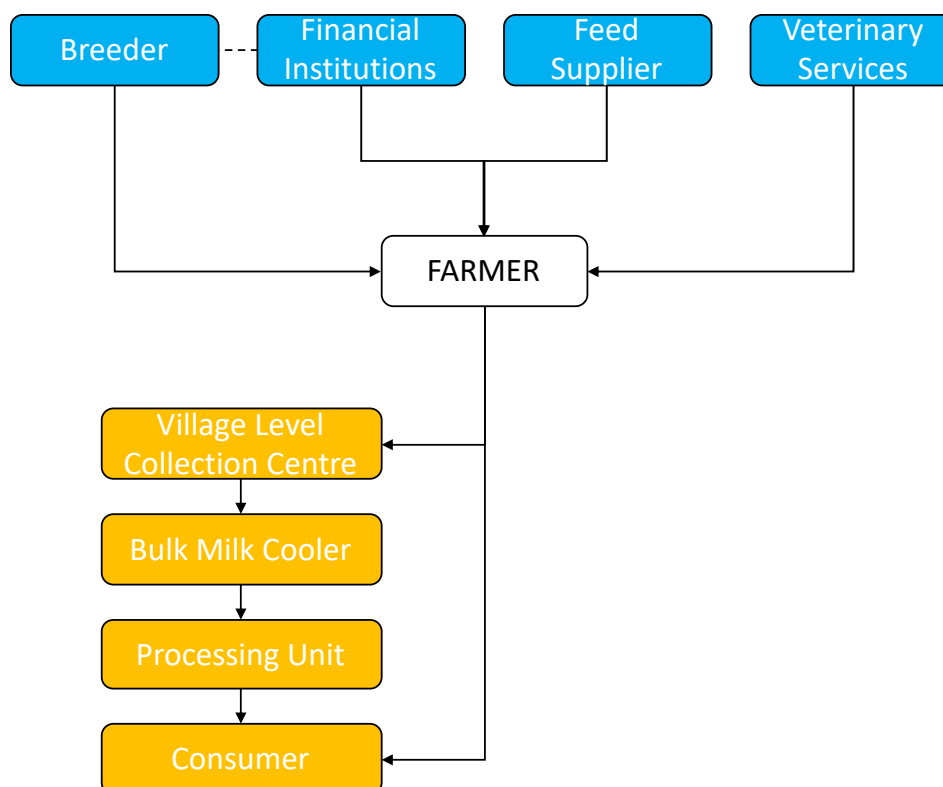


Fig: Dairy Value Chain

38. *Stakeholders in dairy value chain:*

- Breeder: The agency engaged in breeding of dairy cattle (cows – both indigenous & hybrid varieties, and buffaloes) for sale to farmers.
- Financial Institutions: The agency providing credit to farmers to purchase new cattle from breeders. Most financial institutions also bring in partner insurance companies to insure the cattle.
- Feed Supplier: The agency providing a balanced, nutritious diet for cattle to improve their milk yield. The diet would consist of cattle feed, mineral mixture and green fodder. At times partner processing units provide the same to farmers at subsidized rates.
- Veterinary Services: The agency providing health check-up and curative services to the cattle. These services are provided often by the Dept. of Animal Husbandry, partner processors or a local cadre of para vets like pashu sakhis.
- Farmer: The individual rearing the cattle and extracting milk for supplying to either the village level collection centres or to consumers directly.
- Village Level Collection Centre: A village level unit to test and collect milk from various producer-suppliers, and transport to the next aggregation point
- Bulk Milk Cooler: A pre-processing unit to store and cool milk to elongate its shelf life before it can be transported to the processing unit.
- Processing Unit: A manufacturing plant where milk is converted into different grades of pasteurized milk and other products for sale to consumers.

39. *Challenges in the dairy value chain:*

- Highly perishable commodity
- High variation in prices over the last few months

- No always direct access to chillers
 - Limited residual value of cattle past its productive stage
40. Dairy subproject interventions:
- Test higher yielding & better production practices including breed improvement, feeding technologies, etc.
 - Introduce organic / Global GAP compliant production
 - Add value by streamlining production and logistics including better testing, bulk milk cooling, etc.
 - Link with appropriate institutional markets like dairies
 - Setting up collection center and BMC
 - Explore inter-CMRC market linkages for value added products like cottage cheese, etc.
41. Cluster Formation for Sub-Project: One sub-project cluster is expected to engage 2,000 dairy farmers spread over 20 villages with an average of 100 farmers per village. It is expected that each of these farmers shall, due to the efforts of the sub-project, produce 10 litre of milk every day. A total of 20,000 litre of milk shall be produced in the cluster every day – 10,000 litre in the morning and 10,000 in the evening. This sub-project cluster shall require 20 village level collection centres (VLCCs) and one bulk milk cooler (BMC) of 10,000 litre capacity to service the needs of the associated dairy farmers.
42. It is expected that 20 such sub-projects shall be implemented across the state with the first ones coming up in Kolhapur, Sangli, Solapur and Gondia. However, the Project is free to select any other location as per the need / opportunity.
43. Selection of Technical Assistance Agency: Milk is a highly perishable commodity and hence requires stable forward linkages and an efficient supply chain. There are also a lot of government schemes and subsidy programmes to support the development of the dairy value chain including the National Dairy Plan.
44. The Technical Assistance (TA) Agency should have substantial experience of managing the milk supply chain and have strong connects with processing units / off-takers. It is useful if the TA also has some linkages with the government's schemes to ensure that the sub-project can benefit from convergence. National Dairy Development Board (NDDB) has been responsible for transforming the dairy landscape across the country, and it is recommended that the Project explores the possibility of engaging them as the TA. It is also suggested that NDDB is brought on board for all the dairy sub-projects instead of on a sub-project basis.
45. Producer Cooperative / Company Formation: It is recommended that all 2,000 members of a sub-project come together to form a produce cooperative under the guidance of the TA. The TA should then be in a position to assist the various farmer cooperatives to together promote a Producer Company and link up with appropriate buyers. NDDB now has vast experience of promoting Producer Dairy Companies which have the capacity to engage with large milk processors / buyers and source large volumes for them.
46. Utilization of Sub-Project Funds (Illustrative example ONLY and NOT to be used for actual costing of any dairy subproject):

S. No.	Item	Quantity	Unit Cost (INR)	Total (INR)	Contributions (INR)			
					Sub-Project	Govt. Subsidy	Credit / Lease	Others
1	Feasibility Study ⁹	0.05	1,000,000	50,000	50,000	-	-	-
2	Technical Assistance ¹⁰	0.05	10,000,000	500,000	500,000	-	-	-
3	Farmer Trainings	2,000 / 20 = 100	5,000	500,000	500,000	-	-	-
4	Pashu Sakhi Training	20	25,000	500,000	300,000	200,000	-	-

⁹ Assumption that there are 20 sub-projects and only one feasibility study required across sub-projects

¹⁰ Assumption that there are 20 sub-projects and only one TA required across sub-projects

5	VLCC Operator Training	$(2 \times 20) / 20 = 2$	50,000	100,000	100,000	-	-	-
6	VLCC Setup	20	150,000	3,000,000	1,000,000	1,000,000	-	1,000,000
7	BMC Setup	1	2,000,000	2,000,000	-	1,000,000	-	1,000,000
8	Transport – VLCC to BMC	5	500,000	2,500,000	-	-	2,500,000	-
9	Transport – BMC to Buyer	2	1,200,000	2,400,000	-	-	2,400,000	-
10	Sub-Project Manager	1 yr	300,000	300,000	300,000	-	-	-
11	Others	1	250,000	250,000	250,000	-	-	-
TOTAL				12,100,000	3,000,000	2,200,000	4,900,000	2,000,000

47. **Illustrative Example - Vegetables Value Chain:**

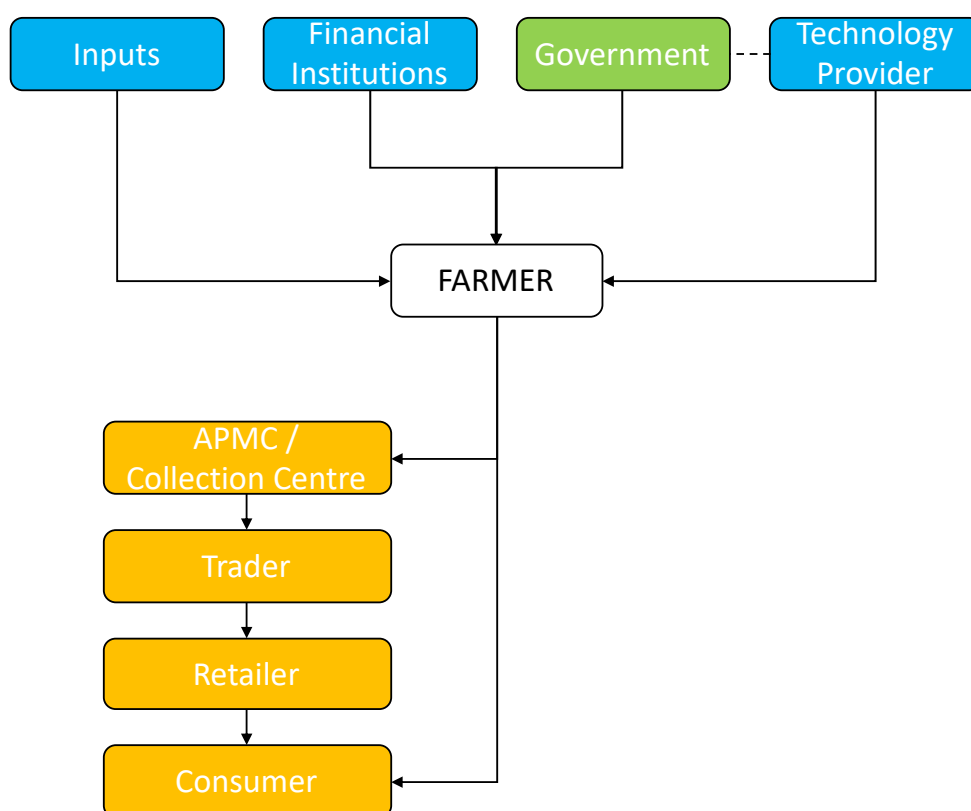


Fig: Vegetables Value Chain

48. Stakeholders in vegetable subproject:

- Inputs: The agency engaged in development of high-quality seeds, fertilizers and pest control solutions to ensure farmers get good yields and quality produce.
- Financial Institutions: The agency supporting farmers with credit to purchase inputs and other services.
- Technology Provider: The agency assisting farmers to improve their production systems by the use of technologies like drip irrigation, protected cultivation, etc.
- Government: Supports adoption of improved and climate resilient technologies through various schemes and subsidies.

- Farmer: Produces the vegetables in owned / leased farms.
 - APMC / Collection Centre: Agencies and infrastructure where farmers' produce is aggregated. APMCs are a platform for farmers and traders to engage in transactions. The produce is generally sold through the open-auction system in APMCs.
 - Trader: Agencies / Individuals who buy & aggregate farmers produce, sort & grade it appropriately, and dispatch to retailers.
 - Retailer: Shops / Modern retail stores where consumers can buy their vegetables from.
49. Challenges:
- Change in weather patterns is severely effecting quality and quantity
 - Input costs increasing especially due to higher instances of pest attacks
 - Limited low-cost opportunities for post-harvest value addition
 - Increased y-o-y variation in prices at the time of harvest
50. Proposed Interventions:
- Test higher yielding & better agricultural practices
 - Introduce organic / Global GAP compliant production
 - Farm-level sorting & grading
 - Link with appropriate markets especially retailers
 - Explore inter-CMRC market linkages
51. Cluster Formation for Sub-Project: One sub-project cluster shall engage 1,000 vegetable farmers spread over 15-20 villages with an average of 50 farmers per village. It is expected that each of these farmers shall, due to the efforts of the sub-project, produce high quality, residue free vegetables year-round. Each of the farmers shall be able to produce about 100 kg of one or more vegetables every day for about 100 – 150 days in a year.
52. The sub-project shall set up 4 – 5 collection centres in the vegetables cluster to cater to a group of about 150 – 200 vegetable farmers residing in adjoining villages. A total of about 5,000 kg vegetables shall be collected at each collection centre every day and 20,000 to 25,000 kg across the sub-project cluster.
53. The sub-project shall focus on: a) improving & standardizing the quality and productivity of the produce through use of better inputs & technologies, b) developing a year-round production system to cater to retail customers, c) setting up collection centres to aggregate farmers' produce, d) linking farmers with markets, and e) getting quality / sustainability / organic certifications for the farmers.
54. It is expected that 2 such sub-projects shall be implemented across each of the target districts. However, the Project is free to review this as per the need / opportunity.
55. Selection of Technical Assistance Agency: This sub-project requires three distinct types of technical assistance: a) technical support to develop a year-round production system, b) certification for sustainability / organic / residue-free / Global GAP compliant production, and c) aggregation and marketing of produce. Unlike milk, where one TA would have been able to play all the three roles or at least two of these, it is likely that no one agency shall be able to play more than one role in this sub-project.
56. For technical support to develop a year-round production system, the sub-project needs to engage either an agriculture institution like IARI or ICAR-IIVR or a technical expert who has been engaged in crop planning at a retail company like Mother Dairy Fruits & Vegetables.
57. For certification, the sub-project needs to select the relevant standard and identify an appropriate agency for the same.
58. For aggregation and marketing, it is likely that a TA might not be available. The capability will have to be developed within the CMRC itself to support this activity.
59. Producer Cooperative / Company Formation: It is recommended that all 1,000 members of a sub-project come together to form a produce cooperative. It is unlikely that one of the TAs will have the requisite know-how, and hence the CMRCs with the help of MAVIM's DCOs and the Business Development & Enterprise Development Expert within MAVIM will have to take on this responsibility. It is also suggested that these cooperatives aggregate at a district / division level and form a Producer Company to improve access to markets. This Producer Company shall hire competent staff to assist in aggregation and marketing of vegetables produced.

60. **Utilization of Sub-Project Funds (Illustrative example only and not to be used for actual estimation of cost for subproject):**

S. No.	Item	Quantity	Unit Cost (INR)	Total (INR)	Contributions (INR)			
					Sub-Project	Govt. Subsidy	Credit / Lease	Others
1	Feasibility Study ¹¹	0.25	400,000	100,000	50,000	-	-	-
2	Technical Assistance - Production ¹²	0.25	1,000,000	250,000	500,000	-	-	-
3	Technical Assistance - Certification	1	500,000	500,000	500,000			
4	Farmer Trainings	1,000 / 20 = 50	5,000	250,000	250,000	-	-	-
5	Lead Farmer Training	20	5,000	100,000	100,000	-	-	-
6	Demonstration Plots	20	10,000	200,000	100,000	50,000	-	50,000
7	Collection Centre Setup ¹³	20	50,000	1,000,000	800,000	-	-	200,000
8	Sub-Project Manager	1 yr	600,000	600,000	600,000	-	-	-
9	Others	1	100,000	100,000	100,000	-	-	-
TOTAL				3,300,000	3,000,000	50,000	-	250,000

61. **Summary value chain analysis:** The design mission has broadly analysed value chains of some important agricultural commodities.¹⁴ The PMU will further analyse these before formally launching value chain subprojects. See Attachment 1 for preliminary profiles of selected value chain.
62. **Global Good Agriculture Practices (GGAP):** In order to cater to specific markets which promote food safety, the project will assist to introduce Global Good Agriculture Practices (GGAP) for marginal/small farmers and micro-enterprises involved in primary production of the selected crops, poultry and livestock, and aquaculture commodities in selected locations. Support will also be provided to enterprises engaged in crop/meat/fish processing to obtain Hazard Analysis Critical Control Point (HACCP) certification.
63. The project will implement GGAP in selected vegetables/fruits products. HACCP may be piloted in food processing sector.
64. **Standalone farming/commodity business:** In many cases, expansion of individual businesses (increase in sales and profit) can be possible by increasing land (for rice, vegetables, lentils etc), increasing herds (goat, dairy), improving farm productivity by improved farm practices etc. The project through CMRCs and village-based agricultural assistants (Sakhis) will provide/facilitate production/market related assistance to standalone farm/businesses.
65. **Services for standalone businesses:** The project will provide various services to stand-alone businesses including trainings on basic business management. These businesses shall also be able to access trainings on basic and advanced skills. Exchange visits for these business shall also be organized Table 6 below presents training and exchange visits microenterprises:

¹¹ There are 4 sub-projects in adjoining districts and only one feasibility study required across those

¹² A group of 4 sub-projects require only one TA

¹³ Includes weigh scales and crates which could be provided by the buyer

¹⁴ Value chain profiles in Attachment 2

Table 6: Training and exchange visits for microenterprises (farm sector)

	Training title	Participants (farm sector)	Main topics to be covered	Training providers
1	Farm sector ME training (20 trainees per batch) [3 day @ CMRC/clusters]	Successful MEs with potential for further growth	Technological and or management as per need	Private, government or NGOs, training centers, associations, another project etc
2	Training materials development (modules)	Farm sector modules, if not already available from other sources	Module of production technologies or management of specific sector MEs.	Private, government or NGOs, training centers, associations, another project or individual experts etc
3	Training of trainers/shakis training (@ 5 per CMRC) [3 day training at CMRC/cluster] [@20 per batch]	Shakis	Sector wise training (field crop, livestock, fisheries etc)	Private, government or NGOs, training centers, associations, another project etc
4	Advance farming/agro-processing training [At cluster level; 3 day training; @ 20 per batch]	Successful MEs for developing local experts, lead farmers and entrepreneurs who can assist others	Sector or product specific advance training	Private, government or NGOs, training centers, associations, another project etc
5	Exchange visits (5 day within India) [5 day exchange visit within India; @ 40 per batch]	Successful MEs, lead MEs or Lead farmers, Shakis	Sector or product specific site visits	Private, government or NGOs, training centers, associations, another project etc

66. Multi-product cooperatives by CMRC: The project will facilitate CMRCs to form multi commodity producer collectives (cooperatives) based on business potential. To maximise the benefit from market opportunities, economies of scale, commodity wise producer companies will be formed with adequate market savvy capabilities. About 30 producer companies will be nurtured. Apex PC will be facilitated for forging market linkages with B2B players and also tapping export markets.¹⁵ See later in the PIM on further details.
67. Access to finance for farm business: Access to finance will continue through SHG-Bank Linkage program. See Component 2 for details on access to finance.

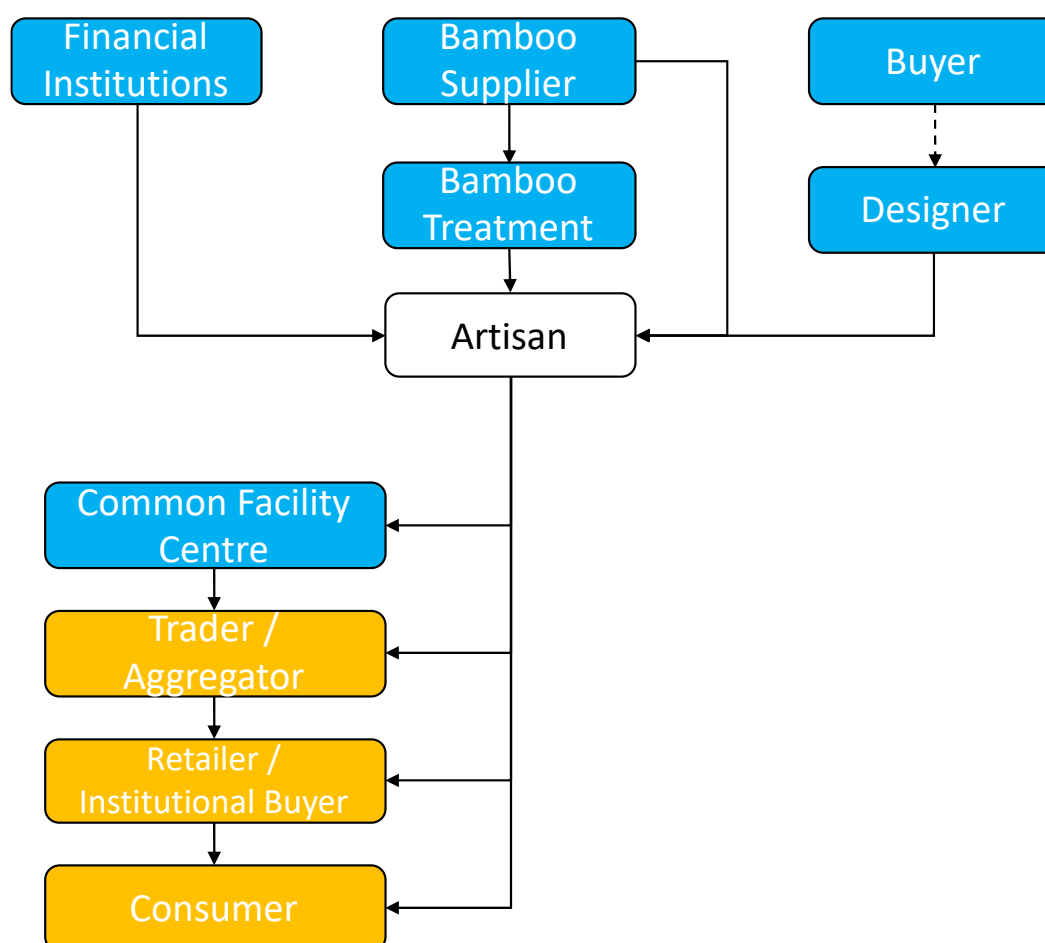
Subcomponent 1.2: Manufacturing and services sector enterprise development

68. A number of non-farm and off-farm products have been identified with potential for value enhancement, enterprise development and marketability. It is expected that 151,400 (111,400 in organized value chain and 40,000 standalone businesses) micro-enterprises shall be engaged in these activities. These products/services are, among others: a) Wood works, bamboo products, handicrafts; b) Spice processing, small food processing; c) Bag, saree, mini-garments (multi-machine tailoring); c) Jewellery and allied products; and d) services (physio therapist, cook, trained attendants, restaurant/eatery management) and tourism (this may include renting of space, catering, guide etc). New service enterprises such as eco-tourism have been preliminarily identified as having potential. The range of products in non-farm sector is numerous and fewer people form one cluster.
69. *Main challenges*: The main challenges to be addressed by the project are (i) low-quality and low-priced products targeted to price sensitive, low income buyers; (ii) absence of packaging and recognition; (iii) poor design, iv) manual production, v) poor workmanship, and vi) lack of access to mainstream market (Up-market). Value chains currently are short, that is, produced and sold locally and in small volumes.
70. The main interventions will be to: (i) Develop designers and assist design of products through professional designers and design organizations; (ii) Introduce mechanization for quality improvement and standardization; (iii) Develop skilled workers; d) Identify subcontracting arrangement if feasible in case of bamboo products, garments, and wood works, jewellery and handicrafts; e) develop business plans and maintain records; and f) assistance for linkage with mainstream market.
71. **Value chain development for non-farm products**. A similar approach as explained in case of farm products will be followed for value chain development of non-farm products. The project will select a product or group of similar products with potential for further growth.

¹⁵ Further details in attachment 3

A similar of analysis of opportunities and challenges will be followed and interventions selected to remove constraints. Each subproject will have activity plans and budget to be approved by MAVIM.

72. **Illustrative Example – Bamboo products microenterprises:**



73. Stakeholders in bamboo subproject:

- Bamboo Supplier: The farmer producing bamboo.
- Bamboo Treatment: The agency engaged in primary processing of bamboo like treatment and / or cutting.
- Designer: The agency involved in designing the products. The same should be working with the buyer and could either be the Buyer's representative or engaged by the CMRC / MAVIM.
- Artisan: Produces the products as per specification either as a stand-alone ME or on a job-work basis depending on the arrangement with a buyer.
- Common Facility Centre: A setup with machinery / tools for advanced / fine jobs which might not be affordable for individual MEs. This CFC could be set up as a part of the sub-project and the artisans could be charged on a pay-per-use basis. Tie ups with existing infrastructure can be explored.
- Trader: Agencies / Individuals who buy, aggregate, standardize and package products and dispatch to appropriate retailers / buyers.
- Retailer: Shops including large furniture stores like Ikea or Pepperfry, or small souvenir shops where consumers can buy the bamboo products from.

74. Challenges:

- Low existing skills of artisans and limited exposure to quality-sensitive premium markets
- Price sensitive existing clientele doesn't incentivize artisans to invest in upskilling or design improvement
- Limited understanding of input material quality and potential uses
- Limited commercial production of bamboo including selection of varieties for specific end uses and sustainability of supply chain
- Limited use of tools and machinery in production processes
- Limited improvement in designs

75. Proposed Interventions:

- Train and upskill artisans to cater to premium, quality sensitive markets
 - Engage with designers / technology providers to improve product and production design
 - Set up Common Facility Centres with tools & machinery to improve quality of the final product through better finishing
 - Identify and engage with potential markets
 - Develop and improve the bamboo supply chain
76. Cluster Formation for Sub-Project: One sub-project cluster shall engage 500 artisans spread over 10-15 villages with an average of 50 artisans per village. It is expected that each of these artisans shall, due to the efforts of the sub-project, produce high quality bamboo products (handicraft, furniture, etc.).
77. The sub-project shall set up 1 common facility centre in the cluster to cater to the group of artisans residing in target villages. This CFC shall have tools and machines to perform finer / complicated procedures on bamboo to improve its quality and finish.
78. The sub-project shall focus on: a) improving the skills of artisans and introducing new designs, b) standardizing the quality and productivity of production through use of better inputs & technologies, c) setting up common facility centres to further improve quality of goods, d) linking artisans with markets, and e) getting artisans regular access to new designs.
79. It is expected that 4 such sub-projects shall be implemented across each of the target districts. However, the Project is free to review this as per the need / opportunity.
80. Selection of Technical Assistance Agency: This sub-project requires two distinct types of technical assistance: a) design support for developing new and premium products, and b) production support for improving the manufacturing processes and overall quality of production. Unlike farm-based enterprises, the TAs involved here will be more specialized in nature with very specific design and engineering skills.
81. For design support, the sub-project needs to engage institutions like NID and NIFT who can also regularly send their teachers / students to engage with the artisans. Agencies like KONBAC and Asian Heritage Foundation can also be engaged.
82. For production improvement, the sub-project needs to select appropriate agencies with the relevant engineering skill sets. IIT Bombay's IDC could be a potential partner.
83. **Utilization of Sub-Project Funds (Illustrative example only and not to be used for actual estimation of cost for subproject):**

S. No.	Item	Quantity	Unit Cost (INR)	Total (INR)	Contributions (INR)			
					Sub-Project	Govt. Subsidy	Credit / Lease	Others
1	Feasibility Study ¹⁶	0.25	200,000	50,000	50,000	-	-	-

¹⁶ There are 4 sub-projects in adjoining districts and only one feasibility study required across those

2	Technical Assistance - Design ¹⁷	0.25	1,000,000	250,000	250,000	-	-	-
3	Technical Assistance - Production	0.25	1,000,000	250,000	250,000			
4	Artisan Trainings	500 / 10 = 50	5,000	250,000	250,000	-	-	-
5	Lead Artisan Training	20	5,000	100,000	100,000	-	-	-
6	CFC Setup	1	300,000	300,000	200,000	50,000	-	50,000
7	Sub-Project Manager	1 yr	300,000	300,000	300,000	-	-	-
8	Others	1	100,000	100,000	100,000	-	-	-
TOTAL				1,600,000	1,500,000	50,000	-	50,000

84. **Standalone businesses.** Numerous existing microenterprises/IGAs from non-farm sector such as shops, micro production, collection units, can be expanded by providing larger loans, production/design training and linkages with bigger markets. About 30% of beneficiaries are currently engaged in such activities.
85. *Training for non-farm standalone businesses.* Table 7 below presents training and other activities for non-farm standalone businesses:

Table 7: Training and exchange visits for microenterprises (non-farm sector)

	Training title	Participants (farm sector)	Main topics to be covered	Training providers
1	Non-farm sector ME training (20 trainees per batch) [3 day @CMRC/clusters]	Successful MEs with potential for further growth	Technological and or management as per need	Private, government or NGOs, training centers, associations, another project etc
2	Training materials development (modules)	Non-farm sector modules, if not already available from other sources	Module of production technologies or management of specific sector MEs.	Private, government or NGOs, training centers, associations, another project or individual experts etc
3	Training of trainers/shakis training (@ 5 per CMRC) [3 day training at CMRC/cluster] [@20 per batch]	Shakis	Sector wise training	Private, government or NGOs, training centers, associations, another project etc
4	Advance non-farm/agro-processing training [At cluster level; 3 day training; @ 20 per batch]	Successful MEs for developing local experts, lead entrepreneurs who can assist others	Sector or product specific advance training	Private, government or NGOs, training centers, associations, another project etc
5	Exchange visits (5 day within India) [5 day exchange visit within India; @ 40 per batch]	Successful MEs, lead MEs, Shakis	Sector or product specific site visits	Private, government or NGOs, training centers, associations, another project etc
6	Marketing and Branding and E-commerce linkages	For successful products		Take assistance from specialized agencies
7	BDS Services for Standalone Business	Lump sum money for selected BDS for selected MEs	As per need	Specialized agencies

86. Expansion of nano and micro enterprises will generate decent and remunerative employment opportunities. Furthermore, the CMRCs will identify opportunities for connecting SHG members with sub-contractors in selected product supply chains, like IKEA or garments, wood and bamboo works, high value handicrafts etc. Other examples may be explored.

¹⁷ A group of 4 sub-projects require only one TA

Women can easily be trained to do the production to specifications. The key issue is to partner with businesses to develop supply chains from villages.

87. A significant proportion of SHG members would like to work in non-farm sector as well as receive wage. Besides, young adults are looking for work outside farms. The project will follow three methods of skill training for creating wage employment: a) through formal government/non-government/private institutions where the project selects trainees to participate various courses; b) village-based training to group of trainees by hired trainers; and c) apprentice program where trainees work as apprentice in selected private businesses (e.g. garments factories, furniture/jewellery/bamboo products/repair shops etc) learn the trades. It will participate in government's skill development programs. The project will commit to a zero tolerance policy on child labour.
88. *Institution building and enterprise Development Facilitation.* This section provides for institutional development of co-operatives, hiring of value chain facilitators for CMRCs, provision of operational expenditure and working capital for Producer Companies.
89. *Multi-product cooperatives by CMRC.* DCO and ADCO (business development) will facilitate CMRCs to form commodity specific/multi-commodity producer collectives (cooperatives) based on business potential, ease of management and governance oversight. To maximise the benefit from market opportunities, economies of scale, commodity wise producer companies will be formed with adequate market savvy capabilities. About 30 producer companies will be nurtured. Co-operatives will subscribe to the share capital of the producer companies. An Apex PC, if found essential, will be facilitated for standardising quality and packaging across the various suppliers and for tapping export markets. A note on the proposed structure of the producer collectives including the rationale and roles of the structure can be seen in Attachment 2.

90. *Implementation steps before formation of co-operatives.*

- PMU will hire the services of a capable and experienced Company Secretary to advise and facilitate formation and registration of the producer collectives and guide on compliances by producer collectives to different regulations periodically.
- PMU will engage the services of institutions such as Samunnati Agro solutions for institutions building of producer collectives and market linkages.
- PMU and District units to facilitate sub project identification under farm and nonfarm sectors. Have forecasts on number of members and volume of business both input and outputs under different sectors.
- District units will facilitate CMRCs to make a realistic assessment of work and activities under Nav Tejaswini for stand-alone micro enterprise promotion and also ultra-poor interventions.
- District units will facilitate CMRCs to make a holistic assessment of the services needed by 3,000 members of CMRCs and which institution (CMRC, producer cooperatives) should provide what type of services.
- District units to facilitate discussions within CMRCs on role division between CMRCs and co-operatives; governance for both structures, staffing for both structures and how to create co ownership of both the structures.
- District units to facilitate business plans for CMRCs and the cooperatives including resource mobilisation.
- Staff (value chain facilitators) hired for sub project implementation will be initially working with CMRCs but move into co-operatives once they are formed.
- In case CMRCs decides on only cooperative form to be continued, work out modalities for winding down especially transfer of business relationships and assets from CMRCs to Cooperatives.

91. The project will promote strong producer collectives which are a function of several factors. Several studies¹⁸ and round tables on collectives of producers have been conducted in the recent past in India. These studies, workshops, and round tables have identified some critical elements for success. These are scale of operation, the product type and product mix, subsector involved, and professional support. However, as many of the following factors as possible have to be adopted to increase the success of collectives.

Factors/Variables	Design Incorporations
Structure of collectives: Need of an organic link between the producers and their organizations. Collective need to be multi-tiered with distinct functions and optimizing ownership, governance and business performance.	Multi-tier organization has been designed. The producer groups at the village level consisting of 50 to 70 aggregate at the CMRC level to form the co operative. The co operatives co own Producer companies which are commodity specific at a higher level of geography – at a district/regional level. The level will be finally decided based on the commodity/subsector and the operational feasibility.
Size of collectives: Presently the size varies from 100–1,000 members. However, bigger membership base of 2,000 are showing enhanced performance.	The size of the co operative will be around 1,500–2,500 members.
Handholding support to the PCs: Intensive handholding support to the collectives for a period of 3–3.5 years is critical to set up systems and process for long-term sustainability.	Institutions like Samunnati will be hired who provide integrated services of institution building, business development and financial services. The producer companies will have core business staff who will work with and hand hold the staff of co operatives.
Paid-up capital: The paid-up capital at the collectives' level is extremely low and signifies low ownership of members, as well as lesser capital availability at the collective level for business purposes.	It will be mandatory to put in at least Rs 1,000 per shareholder – leading to a share capital of Rs 20–25 lakhs (for a membership base of 2,000–2,500). This will create enough capital at the co operative level to invest in PCs, to initiate business. Equity matching grants of SFAC will also be availed.
Financial support to PCs: Experience shows that initial grant support has been very successful in strengthening the PCs.	Working capital at PC level has been provided for. The fund can be used by the PC as collateral to leverage credit, working capital use, to fund critical investment, and so on. Business plans will be provided by PC prior to accessing this fund.
Access to bank loans: There are several issues. Lack of a quality business plan is the first. Second, in many cases, three years of balance sheet is required for the banks to extend loan, which acts as a roadblock. However, financing enhances significantly if the PC is able to demonstrate and generate business volumes in the initial years.	The project will engage the services of institutions like Samunnati to support the PCs develop sound business plans as part of institutional development. Samunnati has innovative value chain financing instruments which the PCs will access. The project will also approach other financial institutions to finance sound business plans.

¹⁸ Producer Company in India: A Study of Performance and Organizations – Sukhpal Singh and Tarunvir Singh, 2013 and Proceeding of National Round Table Discussions on Optimal Design of Farmer Producer Organizations, Xavier Institute of Management, 2016.

<p>Compliance load: Most of the producer companies find it extremely difficult to adhere to all the fiduciary and legal requirements without any external support.</p>	<p>Only few producer companies are to be formed and professionals will be hired and need based experts will be hired for compliances</p>
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92. **Budgets and activities:** Budgets have been provided for institutional development of co-operatives, value chain facilitators for CMRCs, operational expenditure and working capital for Producer Companies. Each CMRC will be supported for hiring a value chain facilitator for ensuring implementation of VC activities. For 20 weak CMRCs, with low manpower, additional staff cost is provided for ensuring VC facilitation. These staff will be part of the producer collectives once they are formed. Additional staff will be hired by cooperatives based on business volumes.
93. For cooperative institutional strengthening, each co-operative will estimate the support needed including additional staff, furniture, computer etc., based on the guidance by District units. CMRCs with the support of district units will mobilise additional resources from agriculture department/ATMA, horticulture department, NABARD, SFAC etc. Where needed, the cooperatives will be provided marketing finance by financial institutions/producer companies.
94. Producer companies will be commodity specific and will operate at scale. The cooperatives will be the shareholders and provide governance oversight. MAVIM will also appoint sector specific experts as advisors to the boards of the Producer companies (the provisions of the Act enables such external expertise to support community representatives). Operational cost support will be provided fully for the first year and scaled down to 50% for the second year. From third year the Producer companies are expected to be financially sustainable.
95. The producer companies will also be provided based on business plans with working capital funds up to Rs. 25 lakhs for the start-up of business activities and create a track record since accessing the first loans is full of challenges. The PC can leverage the share capital and the working capital grant up to 4 times for accessing commercial finance.
96. The machinery and equipment¹⁹ provided for value chain facilitation will be owned and managed by the cooperatives and producer companies. As against grant funding to producer collectives for equipment, plant and machinery, the project will pilot patient capital financing, a long term debt instrument at low rates of interest, to ensure better utilization, accountability and larger replication.(see sub component 2.1 for further details).
97. The apex PC will be formed based on need and business volumes. Project staff at PMU will initially manage this and there will be transition plan for staff transfer and additional staff hiring based on business volumes.
98. The formation of cooperatives and Producer companies will be completed by third year ensuring institutional strengthening of all the producer collectives before project closure. About 300,000 producers (largely farm sector) are expected to be part of the producer collectives.

Subcomponent 1.3: Capacity development of CMRCs

99. **Capacity Development of CMRCs.** A series of training has been planned as follows:
100. A) *Basic small business management Training.* This basic business management training is meant to provide basic understanding of concept of private business and management of single business. The salient features and implementation of this course are as follows:
 - Participants: i) CMRC managers and ii) Sayoginis.
 - Duration: 3 day
 - Objective: The objective is to provide the trainees with basic concept of a private business, management of a business, and business environment. The trainees after completion of the course should be able to analyse a small business, its business

¹⁹ Bulk milk coolers, dal processing machines, oil expellers, equipment in common facilitation centers etc.,

and financial performance, and make determination whether it should be able to expand and maintain profitability.

- Main topics to be covered: a) Business environment in Maharashtra and in rural areas; b) Four core areas of a business – i) product and marketing, ii) technology and production, iii) human resources, and iv) Finance; c) Emphasis should be on product and market analysis, and determining product-market fit, and analysis of profitability of the business; d) analyse income statement and cash flow; e) key success factor in each sector of business; f) various legal forms of business and role of regulators; g) informal businesses run by SHG members; and h) Cooperatives as business entities.
- Method of training: a) Lecture to explain the concepts; b) many case analysis to understand each business function; d) field visit to analyse at least one business by each participants; e) presentations, group discussions, and interactive discussion; f) discussion/experience sharing by successful entrepreneurs etc.
- Provider: The training course can be organized by a) business school in reputed private/public university, b) Consulting firm/training centers with specialization in business, c) NGO/govt training centers with specialization business management. MAVIM may customize the contents of the training course in consultation with the training provider.

101. B) *Training on Value chain project design and management (3 day):*

- Participants: i) CMRC Managers and ii) VCD supervisors of Nav Tejaswini will receive this training.
- Duration: 3 day
- Objective: The objective is to teach the trainees with basic concept of a value chain development of businesses, designing a value chain project and implementation of a value chain project. The trainees after completion of the course should be able to analyse a subsector, its opportunities and constraints, and interventions needed.
- Main topics to be covered: a) concept of value chain; b) process of value chain analysis; c) identification of opportunities and challenges; d) Emphasis should be on product and market analysis, and determining product-market fit, and analysis of profitability of the business; d) determine interventions for each segment of value chain; e) budget and costing; f) Logframe development; and g) monitoring and evaluation.
- Method of training: a) Lecture to explain the concepts; b) many case analysis to understand value chain development; d) field visit to analyse at least one VCD project; e) presentations, group discussions, and interactive discussion; f) discussion/experience sharing by successful VCD managers etc.
- Provider: The training course can organized by a) business school in reputed private/public university, b) Consulting firm/training centers with specialization in business, c) NGO/govt training centers with specialization business management, and VCD. MAVIM may customize the contents of the training course in consultation with the training provider.

102. C) *Contract farming, subcontracting, contract negotiation.* This course for CMRC Managers who will negotiating with large firms/buyers on contract framing, subcontracting arrangement for CMRCs, SHG members or VC participants. The course should be hands on training by studying various contract farming and subcontracting arrangements in the state/country.

103. D) *Project Monitoring.* This is a generic project management training courses meant for Managers and VCD supervisors from CMRCs to enhance their project monitoring/management skills. The focus should be rural development type project management courses. This type of courses are normally offered by Universities, large NGOs, Think tanks, specialised research and training institutes etc.

104. E) *Skill development training program management.* This course is also a specialized training course on management of vocational training /apprenticeship program. This training course may not be available off the shelf. MAVIM may recruit individual consultant to develop the module for the training such training course is not offered by any institution.

105. *F) Institutional transformation training (CMRC to cooperatives).* The training course is open for CMRC managers. The topics may be selected as per cooperative formation issues.
106. *G) Exchange visits (to projects and businesses).* Exchange visits are practical way of learning. CMRCs managers, VCD supervisors and Sahyoginis may choose successful VCD projects, businesses, cooperatives, FPOs, FPCs etc to enhance their knowledge and skills on relevant topics.

Subcomponent 1.4: Supporting innovations

107. *Subcomponent 1.4: Supporting innovations.* This subcomponent will be piloting new enterprises, technologies and products that have not been fully tested or adopted in the project area, but appears to have potential of replication to benefit project beneficiaries. This will focus on supporting niche crop and non-farm products, environment, irrigation, renewable energy, waste management and any product/process that supports enterprise development.
108. *Preliminary areas of piloting.* The following areas are identified: innovative business and technology (farm/non-farm); renewable energy; irrigation technology; waste management. The project will identify other areas as well.
109. *Implementation.* The pilots will be implemented by CMRCs after approval from MAVIM. The idea is to expand the pilots under value chain development if found successful. All pilots will be grants funded but commercial participations are also welcome.
110. **Convergence with Government schemes;** MAVIM DCOs and CMRCs have excellent track record of mobilising Government schemes and programmes for both livelihoods as well as for social entitlements. Under Nav Tejaswini, convergence with Government schemes for producer collectives, SHGs as well as individual members will be sought. Department of Agriculture and farmer welfare implements a number of schemes out of which 11 central sector schemes have reservation of 30% for women; these schemes include Sub-Mission on Agriculture Mechanisation, National Project on Soil Health and Fertility, National Food Security Mission, Rashtriya Krishi Vikas Yojna, Parampragat Krishi Vikas Yojna, Sub-Mission on Seed and Planting Material, National Project on Organic Farming, Pradhan Mantri Krishi Sinchai Yojna-Per-Drop More Crop, Mission for Integrated Development of Horticulture, Sub-Mission on Agriculture Extension, Rainfed Area Development and Climate Change. Jalyukta Shivar Abhiyaan is the flag ship programme of the state for farm pond improvement. Department of livestock Tribal department has a number of schemes such as Promotion of Kitchen Garden in Tribal Districts, Swayam Prakalp (poultry rearing in tribal areas), etc.,
111. Under non farm sector, Prime Minister's Employment Guarantee Scheme (PMEGP), Seed Money Scheme, Special component plan for SC/ST, are possible schemes where convergence can be sought. Planning department is implementing Manav Vikas mission under which schemes for employment generation and skill development are implemented budgets for which are agreed at district level.
112. MAVIM and CMRCs will facilitate convergence with these schemes. The project will jointly develop action plans with the relevant departments for convergence.

6. COMPONENT 2: ENABLING SUPPORT SERVICES

Sub component 2.1. Facilitating Financial Linkages

113. This sub component will be implemented by PMU, MAVIM. An experienced Rural Finance Manager will be hired from the market and will drive the initiatives (the terms of reference is given in Attachment 5). PMU will facilitate MOUs with financial institutions for loans and CMRCs will play the business facilitating role.

114. The previous Tejaswini project has developed strong bank linkages especially with ICICI Bank (currently 80% of SHG loans are from ICICI Bank), and the cumulative recovery rate is reported to be 99.5%. The present MOU between ICICI bank and CMRCs incentivises good repayment performance with 2% commission to CMRCs which substantially covers the costs of CMRCs. The CMRCs and SHGs are well versed with the system. Two issues need resolution: increasing in loan size per SHG and dependency on one bank. MAVIM though had partnership with other banks such as IDBI bank, Dena Bank, RRBs etc., due to operational issues these were not successful. Recently MAVIM has had discussions with HDFC bank and is on the verge of signing MOU. Mission also had interactions with both the banks. Banks lend in multiples of savings and also would like to see more loans being utilised for income generation activities and livelihoods.
115. **Bank Credit workshops:** CMRCs will prepare a financial services plan every year (as part of their business planning) indicating a) plans for augmenting savings within SHGs, b) motivating members for individual savings in Postbank, regulated financial institutions, c) credit needed for SHGs based on member wise credit plan, d) Credit needed by Micro enterprises, e) crop insurance and other insurance products to be availed by the members and their households. They will also identify policy and operational issues that need resolution. These plans will be prepared well ahead of the annual credit plan exercise by the NABARD/State/district level Bankers Committee. Each district office will hold a workshop inviting the relevant financial institutions including insurance companies and the plans will be shared and agreed with. Resolutions for operational issues will be agreed. MAVIM there after will ensure that these plans are reflected in Potential linked credit plans of NABARD, block/district/state level bankers committee's plans and are discussed in these committee's meetings.

Strengthening of SHG-Bank Linkage Program

116. **Savings campaigns and awards to CMRCs;** Since banks provide loans in multiples of savings, CMRCs will carry out campaigns for augmenting savings each year. However, care will be exercised in setting the minimal compulsory savings that is affordable for the poorest member in the group. Awards for savings mobilisation will be given to well performing CMRCs.
117. **Training on introduction of interest on savings;** At present SHGs do not offer interest on savings; after 5 or 10 years the accumulated profits along with full or partial savings are distributed among the members. SHGs will be counselled by Sahyoginis and CRPs to offer interest on savings to motivate members to save more. Sahyoginis and CRPs will be provided practical training on interest rate calculation. The training materials will be developed by Rural Finance Manager and DGM institutional development at PMU, they will hold one day workshops with designated district staff. District staff will train the CMRC staff and CRPs. These trainings will be completed in first two years.
118. **Training on detailed credit planning to improve credit flow;** Rural Finance Manager and DGM institutional development will develop training material for developing credit plans of individual members before bank linkage. Practical training will be imparted to all Sahyoginis, CMRC managers and CMRC accountants in preparing detailed member wise credit plans to assure banks of loan absorption and repayment.
119. MOUs with additional banking partners on similar lines that of ICICI bank will be facilitated by MAVIM. HDFC bank has shown interest and other banks that can explored are Syndicate bank and RRBs.
- Facilitation of ME loan**
120. About 30% of SHG members want more than Rs 100,000 individually. Women are engaged in off farm and non-farm activities and already engaging labour (both members of SHGs and outsiders) and are keen to expand their business. During field visits of the mission, access to larger credit in the range of Rs.1.5 to Rs.12 lakhs are emerging needs expressed by the enterprising women for investment in machinery, sheds and also for working capital. Most of the loans demanded are for enterprises owned and managed by the women themselves; few loans are for enterprises managed by the family members especially husband.

121. Women's access to financial services especially credit has been through Self Help Groups. Women have been unable to receive large loans from existing SHG-Bank linkage since a) the maximum cap for bank loan under SHG lending is Rs. 1 lakh per member, b) with average bank loan size being Rs. 3.5 lakhs to SHG as a whole, larger loans to few members within SHGs creates imbalance with poorer members forced to guarantee larger loans. Enterprising women now mobilise loans from internal savings of the groups, bank loans to groups and also other informal credit external to the group. Key issues are a) difficulty in timely sourcing of these loans to make investments, b) high rates of interest vis a vis returns from the enterprises, c) inefficiencies in servicing multiple loans. Women who have tried to get individual loans on their own find that banks have been reluctant to lend to individuals and the documentation, collateral requirement and transaction time are high.
122. The mission explored the possibility of such loans with a number of banks including ICICI Bank and HDFC Bank. From bankers' perspective, banks are confident of lending to SHGs but individual loans are considered risky a) since SHG loans are micro finance loans and not tied to any single purpose and the individual member and group as a whole are conscious of repayment of the loan; in case of individual loan for a specific enterprise, the bankers apprehend that the entrepreneur will not repay if the enterprise faces any issue, b) while SHG loan is a multi-purpose group loan, when women graduate to being micro entrepreneurs, these loans are classified as agriculture, MSME etc., and separate verticals deal with these loans in banks. They often do not recognize the credit history created within SHGs and also within another vertical of the bank, c) the poor track record of repayment of first time ME borrowers is cited as another reason for the hesitation of banks to offer collateral free loan; most poor women graduating to micro entrepreneurs do not have collateral to offer, d) banks expect the borrowing enterprise to have operated around 18–24 months before ME loan is availed, e) most enterprises do not keep adequate record on income and expenditure, stocks etc., making loan appraisal difficult. Banks need assurance of repayment and find the current schemes of credit guarantee²⁰ inadequate to address the credit risks. The other issue is inadequate/ non availability of loan products for different types of non farm sector. Banks have capability to develop products; how ever they need adequate loan accounts and volumes which MAVIM can assess and provide.
123. The project will undertake a number of steps to mitigate risks and develop partnership with banks:
- a) **Training of trainers programme** will be conducted to develop a cadre of Sahyoginis to provide training to prospective micro entrepreneurs on business management and preparing cash-flow and income statement;
 - b) **Training on bank loan proposals on farm and non farm sectors;** CMRC staff including Sahyoginis will be trained to help micro entrepreneurs to develop bank loan proposals (both farm sector and non-farm sector. These trainings will be conducted with faculty support from participating banks and (ex)bankers).
 - c) **Pilot ME loan program** with 2-3 banks to reach to 10,000 MEs in two years to develop a successful ME loan program; HDFC bank has shown interest. ICICI bank will have to work out internal modalities for graduation of SHG loanees to individual borrowers and has expressed need for risk sharing arrangements. MAVIM will have to discuss with Small Finance Banks like Equitas Small Finance Bank, Aashirwad Small Finance Bank, Regional Rural Banks etc., to explore partnerships.
 - d) **Exposure visit to institution/ programmes with ME loans along with banking partners;** MAVIM senior management along with potential banks/Small Finance bank partners will under take joint study tours to institutions like SKDRDP, Karnataka, to study the ME loan products being offered to SHG members.
124. **Preparing the protocols for pilot.** CMRCs and SHGs need to prepare internally for some SHG members to transition to individual lending. The credit history of members in SHGs (both internal and bank loans) for past three years will need to be updated in the new software. Protocols on loan exposure for such members will be prepared; individual loanees will continue to be members of SHGs but will avail only emergency loans from internal

²⁰ Though collateral free loans are available upto Rs. 10 lakhs under MUDRA, banks prefer to follow separate norms for lending to first time individual borrowers with no assets to back the loans and lend outside MUDRA.

savings of SHGs. Bank loans to SHGs will not be availed by them. Sahyoginis will clarify and train the SHGs on dos and don'ts in dealing with individual loans.

125. For pilots, women with following qualifications will be chosen; a) has been member of SHGs for at least 5 years, b) more than 90% regularity in attendance and savings, c) on time repayment of loans is 100% in the past three loans, d) owns and manages the enterprise with or without family labour, e) new loans are for expanding an existing nano enterprise.
126. To bridge information asymmetry, women entrepreneurs will be advised to open bank accounts if they do not have one and route all enterprise related payments and receipts through the bank account. Sahyoginis will also train and facilitate accounts keeping at enterprise level. These will provide assurance to banks on business volumes
127. Banks will modify their products/develop new products where need arises. Project software will have interface with partner banks through which the banks will have access to MIS data of the enterprises. Both CMRCs and banks will track the loan performance of the MEs.
128. **Risk mitigation instruments** provide risk mitigation instruments in the pilot phase to reduce risks from bank's point of view. Contours of risk sharing will be discussed with banks who insist on this. The risk fund can be a fixed deposit with banks for covering first loss of 5%; it can be individual or portfolio guarantee. The risk fund will also have contributions from CMRC as well as the borrower to ensure repayments. The banks will be informed that this facility is available only for pilot phase to provide confidence. Once the pilot phase is over and the borrowers become repeat customers, the risk sharing funds will be released by the banks and the project will include them under contingencies category and utilise them for other project activities. The share of CMRCs and individuals will be returned to them
129. **Training to branch staff;** PMU will also arrange for need based training to branch and senior management of partner banks on ME management and financing at reputed bankers' training institutions such as College of Agriculture Banking, BIRD Lucknow etc.
130. The expectation is a successful pilot program will lead to larger expansion across MAVIM SHGs to eventually reach about 100,000 MEs with individual loans.
131. **Fintech innovations.** Some of the major FinTech products and services currently used in the market place for loans are Peer to Peer (P2P) lending platforms, crowd funding, artificial intelligence based credit assessment etc. P2P lending and AI based credit assessment are of relevance to Nav Tejaswini.
132. The peer-to-peer (P2P) lending market in India is a nascent one — with a rather modest size of about Rs.300 crores. The interest rates range between 12 to 36% depending on risk profile of the borrower. P2P interest rates tend to be on the higher side. Eleven entities have been licensed by RBI to operate P2P platform. RBI's prudential norms that restrict maximum lending or borrowing by a single lender or borrower to Rs.10 lakhs across platforms and a single lender cannot lend more than Rs. 50,000 to the same borrower are seen as impediments. The current loan demand to sanction ratio is 4:1.
133. Fintech companies are actively developing alternate-data based lending programs for borrowers who have no prior credit score. Cashe, a Mumbai based fintech company, providing personal loans to salaried individuals who have newly entered the workforce, poses questions including the conduct of a psychometric test to determine the credit score of an individual. A Social Loan Quotient is created and AI is leveraged to verify the information furnished by applicants. Similarly, Shriram City Union Finance has entered into an arrangement with Credit Mantri to develop ScoreBuilder for extending personal loans to the companies' customers based on alternative data-based scores. Credit Vidya and Aye Finance are some of the other fintech players active in the sphere of building credit scores for individuals without credit history. AI allows these companies to tap into information available on a number of mediums and create a holistic profile based on this. Furthermore, AI can be leveraged to gain insights on customer behavior which aids in accurate determination of creditworthiness.
134. The Rural Finance Manager, PMU will study the evolution of the platforms and based on discussions PD will take decisions on partnerships.

Facilitation of loans to producer collectives

135. All key staff of the Producer Companies will receive training on value chain financing and also innovative financial instruments such as receivable financing, warehouse receipt financing etc., and the expectations of banks and financial institutions in financing producer companies. These trainings will be organized at College of Agricultural Banking, Pune, Bankers Institute of Rural Development, Lucknow etc., who offer such trainings. Some sessions will be customised to project requirements.
136. Producer collectives based on their business plans will be facilitated to access working capital by Rural Finance Manager at PMU. Innovative value chain financing such as receivable financing, warehouse receipt financing, will also be facilitated for producer collectives in collaboration with financial institutions (such as Samunnati Financial Intermediation and Services).
137. Samunnati is a specialized Agri Value Chain enabler that provides innovative and customized financial and non-financial solutions. Samunnati follows the AMLA (Aggregation, Market Linkage, Advisory Services) approach. FPOs are a major segment of their business; 542 farmers collectives have been supported for institutional and business development and financed by Samunnati. As of 31 August 2019, the loan outstanding is Rs. 2248 million and the over-dues of more than 90 days is Rs. 107 million.
138. For equipment, plant and machinery the PMU will pilot patient capital financing; the collectives based on business plans and viability analysis will be offered long term loans of 3 to 5 years at low interest rates of 4 to 6 percent. In very resource poor regions such as Marathwada and Vidarbha, partial grant cum patient capital will be structured. The idea is to replicate and finance more value chain based interventions than what grants will help establish. PMU will manage the patient capital initially and later the apex financial institution will take over.

Insurance related interventions

139. Advanced financial literacy trainings on digital finance, insurance and pension will be offered to all women. Rural Finance Manager with support from short term consultants will modify the widely available training materials on insurance, pension and digital finance and train key district staff and Sahyoginis as trainers on these aspects so that they will train women during SHG meetings. CMRCs will facilitate access of women to crop insurance, health insurance of Government (Ayushman Bharat) apart from pension. MIS will capture data on insurance and pension enrolment and renewal. Where possible CMRCs will enrol as insurance agents.

Financial innovations

140. Livestock insurance (cattle, goat) is unpopular due to high premium. Currently, members insure only those animals bought out of bank loans. The premium of livestock is high due to high mortality and morbidity rate, a result of reliable vaccination and animal health services, and over dependence on government livestock department. Occasionally vaccination camps are organized in the village that do not cover all animals, and curative service is expensive and not always available. What is actually needed is to offer reliable livestock health services that would reduce mortality and morbidity and consequently, insurance premium.
141. The project will pilot a livestock health service cum insurance program in collaboration with vet service providers and private insurance firm to develop a low-cost and reliable livestock health and insurance service. A feasibility study will be carried out before initiating the pilot. The scope of the feasibility study will include; detailed market study with assessment of present constraints and opportunities, selection of insurance company, identification of pilot area, initial product design for health care service and insurance, risk modelling and pricing, product design tools development (i.e. pricing, claim settlements, etc), public/private stakeholders engagement at local and state level, capacity needs assessment, implementation model with clear roles and responsibilities, business plan for three years, legal/regulatory product approval process if any, design of M&E framework and baseline. Options of hybrid model of mutual insurance of individual loss to be settled by community with co

142. Based on the feasibility of the product, MAVIM will engage the services of an organization with successful experience of similar project. It is expected that it will take two to three years to achieve break even. Budgets are provided for bridging operational costs till the pilot breaks even. The experience under the pilot will be systemically documented for wider knowledge dissemination and also policy advocacy.

Feasibility study for setting up Apex Financial institution

143. MAVIM with financial budgetary support from Planning Department is setting up Tejashri, a financing facility for lending to ultra-poor in Tehsils and districts with low HDI. Rs.68 crores will flow to MAVIM over next three years. Under Nav Tejaswini, patient capital mechanism will be adopted for financing plant, machinery, equipment etc., These two are products not available in the market. MAVIM is keen that the financing facility should offer those products that main stream financial institutions are not offering. The financing facility will initially be housed within MAVIM. However, in the long run decision has to be taken whether this facility will continue to function within MAVIM or will be set up as a separate financial institution. To this end, Senior management of MAVIM will visit similar initiatives such as Sthree nidhi, Telengana and Andhra Pradesh, specialised lending institution set up by SERP with federations and Government contributing to equity, SKDRDP, BC of banks, with ME loan portfolio for SHG members and NABFINS, set up by NABARD with equity from Governments, banks etc.
144. A feasibility study will be conducted by a reputed institution such as (Micro Save, EDA rural systems, M2I etc.,) covering aspects such as a) assessing unmet credit and other financial services needs of women and market opportunities for same, b) opportunities and constraints being faced by women in accessing existing products of financial institutions, c) possible products and services that can be offered by the financing facility, d) options including legal forms, portfolio in own books versus BC of a bank, e) ownership patterns, governance structures, f) management positions, g) roles of district offices, CMRCs/co-operatives, VOs and SHGs in financial intermediation, ensuring discipline and repayment, h) business plan for three years.
145. On the basis of the study three outputs are expected; decision on setting up of financial institution, financial products that address women's needs and policy aspects that need wider attention of policy makers.

Policy workshops

146. Access to financial services for women still have a number of impediments. Though banks prefer self-help group methodology for lending, the services through self help groups has limitations. The 2017 Global Findex survey conducted by the World Bank found that in India, while the gender gap in access to basic bank accounts has decreased to 6% from 20%, the percentage of women who are active users (35%) is less than that of men at 47%. Poor financial product design for women contributes to this.
147. The micro-credit movement including self help groups brought women into the formal financial fold for the first time, with loans and passbooks issued in their names. But there is limited evidence on the scale-up and success of women-led enterprises financed by micro-credit.
148. Women customers take more time to develop trust in a channel/particular agent, requiring more interaction with him or her. The case in point is the BC agent model widely prevalent in the country for financial inclusion. The presence of women agents can be helpful, especially because women customers consider them more trustworthy and better at maintaining confidentiality. Financial service providers haven't invested much resources in supporting women agents and their enterprises. An agent network Accelerator study conducted by MicroSave found just 8% women business correspondents in India. The wide network of self help groups and federations can provide BC agents for wider financial services for women.
149. Studies have shown that women-owned enterprises have stronger repayment records with non-performing loans being 30-50% lower than male entrepreneurs. They also have a likelihood of availing more products than men. This is a significant business opportunity that

Financial institutions. The Financial institutions can use big data analytics to make sense of gender-disaggregated data points.

150. Women-led micro enterprises expect much more than the delivery of financial products—especially in terms of business advisory support in managerial capacity-building, bookkeeping, technological upgradation, skill development, and legal procedures to scale-up their businesses. Models for providing these services on a sustainable basis and twinning these services with financial services will be aspects that need study and advocacy.
151. There is an urgent need to consider women as a distinct segment with specific financial services requirements, without disguising male-focused products as gender neutral. To enable this change, the project will facilitate to under stand in depth the various social and behavioral impediments impacting women, and use this knowledge to advocate for policy changes and also customized product designs.
152. MAVIM will hold half yearly/yearly consultations at regional level to consult CMRC representatives on identifying aspects that require policy adjustments. There are a number of reputed institutions in Maharashtra and also else where who conduct policy research and also hold policy workshops such as College Agricultural Banking, promoted by RBI, Indira Gandhi Institute of Development Research, Mumbai, promoted by RBI, National Institute of Bank Management, promoted by banks, DWARA research, Micro Save, etc.,
153. MAVIM will commission studies with the clear aim of holding policy workshops with key policy making institutions as participants such as RBI, Ministry of Finance, top management of banks etc., These studies and work shops can be co funded by some of these institutions who also have the core agenda and annual budgets for policy work.
154. **Expected results;** The cumulative incremental loans from banks is expected to be a) Rs. 976 crores for SHGs, b) Rs. 735 crores for ME and c) Rs. 43 crores for FPOs. At least 50% of women who own land in their names will avail crop insurance. Similarly 50% of the animals owned by women will be insured, if the pilot on health service cum insurance is successful..

Sub component 2.2 Mentoring program for Ultra-poor Households

155. Ultra poor families who are already members of self help groups will be identified by CMRCs and VOs based on select criteria such as a) depend on insecure livelihoods, including casual farming labor with irregular or seasonal income of less than 50% of the poverty line income per year, b) no borrowing or negligible borrowing from self help groups, c) household without proper shelter.
156. **Mentoring ultra-poor households;** Building on lessons from IFAD's Household Mentoring Approach, Sahyoginis will be trained by individual consultants to provide counselling, coaching, and encouragement to the ultra poor households. During field visit interactions with ultra poor households show that these households are not homogenous groups and there are a number of factors affecting each household including a) women headed households with limited support systems, b) lack of support from family who discourage taking loans, c) no skills in the household except for labour, d) alcoholism, e) poor health, f) lack of hope. Through frequent visits better understanding and solutions for the households to improve their incomes will be arrived at which can include:
 - Village level training for improving skills and mentoring for small IGAs and participate in a value chain (both farm and non farm) if lives in the same cluster, other wise on a stand alone basis, (please section below on skill training for details)
 - Encourage women to take small loans from self help groups for income generation activities and counseling to Self help group leaders and other members to be supportive. Husbands and other family members will also be counselled. Tejashri, financing facility for lending to ultra poor, will be utilised for loans to ultra poor at reasonable rate of interest. SHGs will also be sensitised to lower interest rate for the first two loans of ultra poor from internal savings in SHGs.

- Identify Government schemes for convergence both for livelihoods as well as for social entitlements. CMRCs have on going working arrangements for convergence with Government schemes; district offices will identify those which are suitable for ultra poor households and prioritise them for such convergence.
 - Vocational training for selected SHG or family members for wage employment.
 - If the male members are found to be alcoholic, special de addiction camps will be organized for them in partnership with other specialized agencies. (SKDRDP model can be studied).
157. Project MIS will monitor the performance of the ultra poor households separately. Since pathway out of poverty for ultra poor households are full of challenges, CMRCs will closely monitor each household's performance to ensure that they are progressing as per plans.
158. **Skill Development (ultra-poor/poor families):** Three pronged approach will be adopted by the project for provision of skill trainings aimed at increasing wage/self employment and incomes. The skill trainings will be targeted at women/ other household members:
- Vocational training at formal institutions through existing flagship government skills training programs with the objective of enhancing access to services and employment outcomes for youth from poor/ultra poor households. CMRCs will support Government skill training programmes in provision of pre training services including identification and mobilization of target youth, sharing information packs on types of training and training schedules, providing pre-training counselling services to poor youth to assist them in interpreting available information and making optimal training choices.
 - Village based skill development is aimed at enhancing productivity and incomes of poor women through upgrading skills in selected employment/self- employment occupations. □Master trainers/Certified trainers will be selected to offer village level trainings thus increasing access to such training for women and other marginalized groups.
 - Apprenticeship with existing industries/ establishments for youth in ultra poor/poor household where by the youth will be absorbed in the establishment after the apprenticeship period/ or set up own establishment. Support will be provided out of pocket expenses for travel, stay etc., during the apprenticeship period.
159. Subcomponent 2.3: Enhancing nutritional status and gender relations at HH and community levels. This subcomponent has two distinct activities: nutrition and health improvement; and women's empowerment.
160. *Nutritional and health improvement.* The project will have a number of distinctive activities for promoting behavioural change, at the household level, with regard to dietary diversification and water and hygiene practises. The activities will be targeted at all women beneficiaries and their households. The SHG/CMRC meetings will be the point of dissemination of trainings and monitoring.
161. Activities will include: (i) inputs and training for homestead vegetable gardens, dietary diversification and good diet practises at the household level (tiranga plate) and introduction of dietary supplements. The nutrition initiatives of 7-Din 7-Saat Ghar and Tiranga Thali from IFAD's supported project of Tejaswini Rural Development Programme (TRDP) in Madhya Pradesh has significantly improved food intake and dietary diversity among beneficiary households through improved agriculture and consumption practices. Nav Tejeswani might have potential and readiness to emulate and integrate these two models in their project activities. The staff from TRDP can visit the project areas, conduct training, provide peer to peer learning, and answers queries of project staff to facilitate the adoption of these two initiatives. Alternatively, MAVIM staff and project beneficiaries' can visit TRDP for exposure and learning about 7-Din 7-Saat Ghar and Tiranga Thali.
162. (ii) WASH training through GOM's existing programmes, delivered through participating SHGs; (iii) tracking of SHG members body mass index (BMI) and haemoglobin levels through

Primary Health Care centres and targeted follow-up and mentoring of those women recording low rates on either indicator; (iv) support for enrolment in health insurance schemes of the Govt (Ayushman Bharat). These activities will be implemented in partnership with on-going Government of Maharashtra schemes, especially those of Department of Women and Child and the MH Rural Health Mission programmes (NRHM). MAVIM's District Coordinating offices will be responsible for facilitating all linkages with Government schemes. NRHM has quality training and knowledge material which must be leveraged by MAVIM for implementation of these services to the beneficiary women and their households.

163. Apart from these HH level targeted interventions, the project will also promote nutrition-sensitive value-chains, e.g. vegetables and dairy.
164. *Women's empowerment.* MAVIM through SHG/CMRC structure has successfully promoted gender equality at the family level. The project will: i) continue to promote gender equality through training - including specific gender awareness workshops for men focusing on equitable work distribution, family nutrition, women's economic contribution to households; ii) encourage co-ownership by registration of agricultural land in joint names; iii) address women's drudgery in order to ensure time for participation in enterprise related activities. Further, MAVIM will actively seek convergence with on-going Government schemes on interventions that promote gender equality and women's empowerment as well as address gender related constraints that hinder women-led entrepreneurship. The successful initiatives under Tejaswini such as a) Mitra mandals of men supporting women's strategic gender initiatives, b) registration of houses and land in joint names of husband and wife, c) paralegal counselling etc., will be scaled up. Recognizing that women are not homogeneous, the project will ensure that gender disaggregated data tracks specific variables such as age, women-headed households as well as different vulnerabilities of the target groups.
165. *Subcomponent 2.4: Policy engagement.* This subcomponent will focus on specific policy issues identified during project implementation. Some issues that are identified during design stage include: (i) lack of access to individual ME loan, to women graduating from SHGs, from commercial banks and other financial institutions; (ii) develop a more systematic procedure of receiving resources under convergences programs; (iii) define MAVIM's role in skill development and Vocational training in the state; (iii) explore long-term collaboration with MSRLM/RDD; (iv) explore the possibilities to pilot supply of millet and other nutritional products made by SHGs to Aanganwadi; and (vi) feasibility study on setting up an apex financial institution based on need assessment of enterprises. The PMU will also commission policy specific studies where needed along with reputed institutions. The project will also prepare in-house capacity within MAVIM to prepare policy documents and effective advocacy.
166. *Policy engagement process.* The common process that the project will follow for policy advocacy is as follows: i) study and document the issue in the form of a professionally written policy paper with clear analysis and recommendations; ii) organize dissemination events such as seminar with concerned stakeholders in attendance in collaboration with expert institutions, wherever applicable; iii) present the recommendations and policy paper to concerned policy makers; and iv) continue lobbying for the desired changes.

7. COMPONENT 3: INSTITUTIONAL STRENGTHENING AND PROJECT MANAGEMENT

167. *Subcomponent 3.1 Institutional Strengthening of MAVIM:* The activities and items presented and discussed follow the chronology provided in the COSTAB: C-3. The full COSTAB is available with the project.
168. ***Pre-project activities - Retroactive Financing:*** The following activities have been identified as critical for smooth launching and implementation of the project:

169. *A) Basic small business management Training.* This basic business management training is meant to provide basic understanding of concept of private business and management of single business. The salient features and implementation of this course are as follows:
- Participants: i) As pre-project activity the trainees will be all MAVIM HO professional staff members, Regional Coordinators, and District Coordinators; and ii) after the project is launched, all Nav Tejaswini District Supervisor/Monitoring officers will also receive this training.
 - Duration: 5 day
 - Objective: The objective is to provide the trainees with basic concept of a private business, management of a business, and business environment. The trainees after completion of the course should be able to analyse a small business, its business and financial performance, and make determination whether it should be able to expand and maintain profitability.
 - Main topics to be covered: a) Business environment in Maharashtra and in rural areas; b) Four core areas of a business – i) product and marketing, ii) technology and production, iii) human resources, and iv) Finance; c) Emphasis should be on product and market analysis, and determining product-market fit, and analysis of profitability of the business; d) analyse income statement and cash flow; e) key success factor in each sector of business; f) various legal forms of business and role of regulators; g) informal businesses run by SHG members; and h) Cooperatives as business entities.
 - Method of training: a) Lecture to explain the concepts; b) many case analysis to understand each business function; d) field visit to analyse at least one business by each participants; e) presentations, group discussions, and interactive discussion; f) discussion/experience sharing by successful entrepreneurs etc.
 - Provider: The training course can organized by a) business school in reputed private/public university, b) Consulting firm/training centers with specialization in business, c) NGO/govt training centers with specialization business management. MAVIM may customize the contents of the training course in consultation with the training provider.
170. *B) Identify potential sectors/value chain development sectors.* This is a preparatory for speedy launching of value chain subprojects when Nav Tejaswini is finally approved. The design mission has identified commodities by districts which potentially be further expanded by districts. MAVIM with the help of DCOs and CMRCs should conduct rapid survey of farm/non-farm products by districts and CMRC that can be organized under value chain. In doing so, it should also locate clusters by product and geography as well as potential locations for new clusters.
171. This database should be updated annually or whenever information is available. These information should be captured in the project management software.
172. *C) Identify and map out skill development training services providers:* MAVIM should develop a database of skill development training providers in the state for staff training as well as vocational training for SHG-members and their family members. The database should contain govt (e.g. DICs), partners of GoM/GoI Skilling programmes, private and non-government training providers, business chambers/associations, and if possible prominent individual trainers.
173. *D) Software procurements (microfinance management software, project management software, HR software, and upgrading TALLY software):* The following Table provides basic features of the proposed software:

	Software	Key features and capabilities
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1	Microfinance management software	i) Handle profile of one million plus clients address, identification by national ID #, by SHG etc. ii) All microfinance transactions real time; iii) Capability to handle mobile transactions by members iv) Can handle individual as well as SHG loans v) Consolidate info by member, by SHG, by CMRC, and by MAVIM; vi) Can handle multiple banks vii) Provision for future upgrading viii) Act as MIS for microfinance program ix) Produce different reports.
2	Value chain Project Management software	i) Monitor all programmatic and financial data of all VCD subprojects ii) Maintain beneficiary information iii) Produce all reports iv) Consolidate all reports by MAVIM and DCOs online. Will eliminate any need for sending reports by CMRCs.
3	HR and office management	Available off the shelf; needs customization for MAVIM
4	Upgrade TALLY	Upgrade TALLY to handle all project and MAVIM accounts. Upgrade to handle real time transactions.

174. *E) Conduct baseline survey (sample survey) SHG families:* The baseline survey is one of the critical pre-project activities. The baseline survey should: a) statistically valid sample with control groups; b) gather basic family information; c) gather family income to determine poverty levels of sample groups in three categories ref to PDR; d) gather information to measure all logframe indicators; e) should be repeated in mid-term and end project to ensure longitudinal analysis; and f) provide full analysis of the sample and by extension whole SHG members. A pro-WEAI survey will be part of the baseline survey in order for the project to track women's empowerment and gender transformation.
175. *Terms of reference.* MAVIM has to get clearance of TOR for baseline survey from IFAD.
176. *Complete recruitment process of new staff members.* i) Follow established MAVIM recruitment process; ii) Follow the qualifications and TOR for each position; and iii) get IFAD concurrence for Manager and Deputy Manager positions.
177. **Human Resources Development.** Two basic activities are planned:
178. *A) Senior official development Training (strategic planning, senior leadership training, etc).* This category of training – i) strategic planning and ii) senior leadership training – are meant for present senior officials, Managers and above, or who are expected to move upward to take up senior management positions. Such short training courses are normally offered by to Universities, Think Tanks, Large NGOs, research and development organizations, Management firms etc. MAVIM should develop a calendar for sending senior officers for such training and identify potential providers/organizers for the training.
179. *B) Exchange visits.* The exchange/exposure visits are also meant for senior officials to visit successful value chain development projects, successful FPOs/FPCs/Cooperatives, successful programs related to other components of the projects.
180. **Institutional Development of MAVIM.** A series of training and support for setting up a center of excellence at MAVIM have been planned as follows:
181. *A) Training on Value chain project design and management (5 day):*
- Participants: i) all MAVIM HO professional staff members, Regional Coordinators, and District Coordinators; and ii) after the project is launched, all Nav Tejaswini District Supervisor/Monitoring officers will also receive this training.
 - Duration: 5 day
 - Objective: The objective is to teach the trainees with basic concept of a value chain development of businesses, designing a value chain project and implementation of a value chain project. The trainees after completion of

the course should be able to analyse a subsector, its opportunities and constraints, and interventions needed.

- Main topics to be covered: a) concept of value chain; b) process of value chain analysis; c) identification of opportunities and challenges; d) Emphasis should be on product and market analysis, and determining product-market fit, and analysis of profitability of the business; d) determine interventions for each segment of value chain; e) budget and costing; f) Logframe development; and g) monitoring and evaluation.
- Method of training: a) Lecture to explain the concepts; b) many case analysis to understand value chain development; d) field visit to analyse at least one VCD project; e) presentations, group discussions, and interactive discussion; f) discussion/experience sharing by successful VCD managers etc.
- Provider: The training course can organized by a) business school in reputed private/public university, b) Consulting firm/training centers with specialization in business, c) NGO/govt training centers with specialization business management, and VCD. MAVIM may customize the contents of the training course in consultation with the training provider.

182. B) *Contract farming, subcontracting, contract negotiation*. This course for MAVIM HO officials who will negotiating with large firms/buyers on contract framing, subcontracting arrangement for CMRCs, SHG members or VC participants. The course should be hands on training by studying various contract farming and subcontracting arrangements in the state/country.
183. C) *Project Management*. This is a generic project management training courses meant for senior as well as district and Nav Tejaswini officials to enhance their project management skills. The focus should be rural development type project management courses. This type of courses are normally offered by Universities, large NGOs, Think tanks, specialised research and training institutes etc.
184. D) *M&E and KM management*. This is a specialized training for persons involved in M&E and KM. Such courses are commonly available. Special focus should on M&E of value chain development projects.
185. E) *Skill development training program management*. This course is also a specialized training course on management of vocational training /apprenticeship program. This training course may not be available off the shelf. MAVIM may recruit individual consultant to develop the module for the training such training course is not offered by any institution.
186. F) *Senior Management training*. The training course is open for senior managers. The topics may be selected as per need of MAVIM as well as Nav Tejaswini. The training provider(s) may be selected per nature of the trainings.
187. G) *Exchange visits (to projects and businesses) [5 day]*. Exchange visits are practical way of learning. MAVIM and Nav Tejaswini officials may choose successful VCD projects, businesses, cooperatives, FPOs, FPCs etc to enhance their knowledge and skills on relevant topics.
188. **Support for KM and Training Center**. The resource allocated for the proposed Center of Excellence at MAVIM can be invested in: a) setting up the center (physical facilities); and b) development of trainers, documents, policy papers, training modules, publications, KM products; and c) subsidy for operational expenses. It is expected the center will be financial viable by selling services.
189. *Conduct Institutional Assessment of MAVIM*. The lump-sum amount is allocated for conducting institutional assessment of MAVIM. The assessment report may be used for setting direction, activities and organizational structure of MAVIM. The assessment conducted by an institution or individual expert(s). The TOR for the

assessment needs to be shared with and cleared by IFAD. The report will also be shared with IFAD.

190. *Subcomponent 3.2 Project Management (M&E and KM products).* The project will conduct three studies – baseline, midterm, end of project – to evaluate performance of the project. Besides, annual outcome survey, selected impact studies, selected VC impact studies, case studies will be prepared and distributed through websites and other social media. These will be conducted by firms, individual consultants, in-house experts as per requirement.

8. PROJECT OUTREACH AND BENEFITS

191. *Project benefits and beneficiaries.* The project with multiple components and activities will have many different direct beneficiaries. An estimate of beneficiaries by category presented in Table 8. It is understood that one person may belong to multiple categories making the total 3.05 million compared to actual one million person of direct beneficiaries.

Table 8: Project beneficiary category

	Type of services	Number of beneficiaries
1	Value chain participants (farm/non-farm)	565,400
2	Standalone businesses	200,000
3	Skill/Dev/Vocational training	26,800
4	Innovation projects	4,800
5	Nutrition/Gender services	800,000
6	Ultra-poor assistance	80,000
7	Convergences	408,000
8	Microfinance (Regular -SHG)	800,000
9	Microfinance - ME loans	100,000
10	Livestock health/insurance pilot project	40,000
11	New wage employment	34,000
	PROJECT TOTAL	3,059,000

9. NAV TEJASWINI PROJECT IMPLEMENTATION

192. *Governance and oversight.* There will be two oversight entities: (i) Empowerment Committee, Chaired by the Hon. Chief Secretary Maharashtra; and (ii) the Executive Committee, Chaired by the Secretary of Women and Child Department.
193. *Management.* The loan and grants from IFAD will be transferred to MAVIM which will implement the project as per project design report and project implementation manual (PIM). The project will be implemented in association with CMRCs and SHGs and in partnership with other government and non-government institutions, and private sector businesses as per needs of specific business sector. MAVIM has management autonomy and receives resources annually from GoM for staff salary and other management costs.
194. *Project Director:* The Managing Director of MAVIM will be ex-officio Project Director with full responsibility of proper management of the project as per design and achieving project goals/objectives.

195. *Project Management Unit (PMU)*. The project will be managed by a Project Management Unit (PMU) headed by Project Coordinator (General Manager-Programme of MAVIM) to manage planning and implementation of the project. An appropriate number of full time officials of MAVIM at the HO will be responsible for various activities and all District Offices will responsible for Nav Tejaswini at the respective district. MAVIM will need to recruit additional experts including a) Market and Business Development Specialist, b) Value Chain and Project Supervision Specialist (3), c) Financial Services Program Specialist, d) M &E Specialist, e) Procurement Specialist, f) KM and Communication Specialist, g) short-term consultants to do specific jobs. MAVIM's support divisions such as Audit, Administration, Human Resources, Accounts and Finance, Research, Training, MIS, and IT will provide relevant services to the project. The PMU will be supported by Regional Coordinating and District Coordinating Offices.
196. *Qualification/experience and responsibilities of Specialists in the PMU*. The following Table 9 provides overall qualification/experience and responsibilities of Specialists in the PMU. See Attachment 5 of this Annex for detailed TOR:

Table 9: Qualifications and responsibilities of PMU Specialists

	Designation	Qualification and experience	Responsibilities
1	Manager (Business development) (1)	Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, or agri-business At least 15 years of work experience and 7 years in private sector business development and value chain management type jobs.	Negotiate with large firm/buyers to participate in value chain development subproject; Develop contract farming and subcontracting system for value chain participants; Coordinate with technology providers and establish linkage with CMRCs Assist value chain and project supervision specialists in designing value chain projects. Assist Project Coordinator to develop strategy for the whole project Assist in project report preparation
	Manager (value chain and project supervision) (3)	Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, and agri-business At least 15 years of work experience and 7 years in private sector business development and value chain management type jobs.	Lead feasibility studies, value chain analysis and design of value chain subprojects in collaboration with DCOs and CMRCs. Supervise implementation and monitor project progress in collaboration RCOs, DCOs and Nav Tejaswini supervisors at the DCOs. Undertake corrective actions, if needed in the subprojects. Evaluate performance of subprojects. Assist Project Coordinator to develop strategy for the whole project Assist in project report preparation
	Manager (rural finance) (see attachment 5 for detail TOR)	Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, development studies, or agri-business At least 15 years of work experience in financial institutions and 7 years in	Work with banks and financial institutions to build partnerships in SHG-Bank linkage program; Supervise SHG-Bank linkage program Supervise ME pilot program Supervise expanded ME program Lead design and implementation of livestock health and insurance pilot program

		management of SHG type finance, MFI-managed microfinance, small business finance etc.	Manage portfolio risk instruments for ME loan program
	Manager (Training, Policy)	<p>Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, development studies, or agri-business</p> <p>15 years of work experience in training related jobs as trainer, module developer, training manager, preferably in training related to business management. Preference will be for persons experienced policy advocacy</p> <p>7 year experience in training related to business, microfinance, value chain development etc.</p>	<p>Lead development of training modules of the project for all levels</p> <p>Coordinate all training activities of Nav Tejaswini (Training of MAVIM and CMRC staff members)</p> <p>Manage skill development subcomponent Component 2.</p> <p>Ensure quality of training; measure impact of training in the project</p> <p>Develop database of training providers;</p> <p>Coordinate with M&E Specialist regarding training;</p> <p>Occasionally conduct training sessions</p> <p>Lead all policy development and advocacy activities of Nav Tejaswini</p>
	Deputy Manager (M&E, KM and communications) (see attachment – for detail TOR)	<p>Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, agri-business or development studies</p> <p>12 years of work experience in M&E in business management type projects and KM management</p> <p>5 year experience M&E related to business, microfinance, value chain development</p>	<p>Design and manage MIS of the project</p> <p>Manage all surveys and studies of the project</p> <p>Ensure the MIS system and studies capture all logframe indicators.</p> <p>Assist Finance/Accts and Project Coordinator to prepare annual work plan</p> <p>Lead production of all KM products and ensure proper dissemination</p> <p>Prepare quarterly/annual reports of the project</p> <p>Coordinate with Manager (Rural Finance) and Managers (Value chain) for production of necessary data for various project components</p>
	Deputy manager (Procurement)	<p>Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, agri-business or relevant subjects.</p> <p>12 years of work experience in business management type projects.</p> <p>Demonstrated knowledge regarding GoM/GoI procurement rules and procedures</p> <p>At least 5 year direct experience procurement management.</p> <p>Training in procurement.</p>	<p>Prepare annual procurement plan for the project</p> <p>Ensure all IFAD rules are followed by the project at MAVIM HO, DCOs and CMRCs.</p> <p>Prepare all procurement documents prior to procurement and complete procurement process as per MAVIM internal administrative procedures.</p> <p>Conduct procurement related training for DCOs and CMRCs</p> <p>Coordinate with Accts/Finance regarding procurement.</p>
	Accts/Finance	<p>Post graduate degree in finance or accounting</p> <p>12 years of work experience in relevant areas</p> <p>At least 5 year experience in accounts/finance</p>	<p>Maintain all books of accounts for the project</p> <p>Prepare in collaboration with M&E and Project Coordinator annual work plan, and procurement</p> <p>Prepare all financial reports of the project</p> <p>Prepare all W/As</p>

		Professional training in accounting is preferred	Conduct training on accounting for CMRCs, if needed
	District project (Nav Tejaswini) Supervisor/ Monitor	Post graduate degree in business administration, economics, finance, marketing, accounting, agricultural economics, or agri-business Minimum 4 year work experience in private sector, NGO-MFI, or rural development type projects. One to two year experience in value chain implementation project	Identify opportunities for value chain development (farm/non-farm) in the district, support for standalone businesses as well as skill development in the district. Assist MAVIM HO and CMRCs to design value chain projects Monitor VC projects in the district. Undertake corrective actions with approval from Manager (VCD) and in coordination with RC and DCO. Prepare progress reports and report to RC and DCO. Coordinate with all private sector partners of VCs in the district

197. *Regional Coordinating office of MAVIM.* The Regional Coordinating Officer will be responsible for overall monitoring of activities of the project in the Region. He/she are fulltime persons for the project.
198. *District Coordinating Office:* DCOs will be responsible for overall implementation of the project in collaboration of CMRCs. Since the project will implement several value chain development subprojects in each district, it deploy a full-time Project Supervisor and Monitoring Officer in each district who will report to DCO/MAVIM.
199. *CMRCs:* CMRCs will be grassroots implementers of the project. The project will deploy one Project Supervisor in each CMRC when a CMRC starts implementation to supervise and monitor progress (see Table 9 for responsibilities of the project).
200. *MAVIM's role in project Management:* MAVIM as the lead implementing agency will: (i) be responsible for implementation of the project; (ii) continue to review and evaluate all enterprise development proposals through an Evaluation Committee headed by Project Coordinator and represented by senior officials, and from time to time attended by sector experts; ii) MD will be final approver of all subprojects; (iii) organize and fund the capacity building of its own staff as well as CMRCs, banks and other organizations and value chain actors; (iv) identify potential market and market players; (v) provide clear guidance to CMRCs on preparation and management of enterprise subprojects; (vi) contribute to the preparation of enterprise proposals by CMRCs by providing guidance as well as relevant sector and marketing studies; (vii) share experiences with other enterprise development projects/agencies and rationalize common activities; (viii) engage in policy advocacy for necessary changes in rules, laws, and standards; (ix) identify suitable technical assistance providers or individual experts to provide capacity building to MAVIM staff, and value chain actors and associations.
201. *Management of Convergences:* The District Coordinators will be responsible for management of convergence projects as per standard government process and design of each convergence scheme.
202. *Coordination with other development investment projects:* MAVIM is one of the implementing agencies of the World Bank funded SMART project, which is somewhat similar in scope of Nav Tejaswini. Similarly, MAVIM is also functioning in areas where other projects such as IDH and BCI are active. The project will avoid investment in same value chain (product or groups of products) in same CMRC and SHG to avoid the duplication of works and implementation complications.
203. *AWPB:* The PMU will prepare Annual Work Plan and Budget (AWPB) for approval by IFAD. It will follow IFAD's prescribed format and be consistent with PDR.

204. Procurement plan: The project will also prepare procurement and follow IFAD approval requirement as prescribed in the Letter to Borrower.

10. PLANNING, M&E, LEARNING AND KNOWLEDGE MANAGEMENT

205. *Planning.* The logframe of the project (see Table 1) will guide the development of work plans and budgets. Planning and budgeting will be integrated in the GoM processes and budgets and will be based on Annual Work Plans and Budgets (AWPBs). The planning process will start at CMRC level under the guidance of the DCO, MAVIM taking into consideration the overall activities under different components and sub components. District plans and budgets will be consolidated into a comprehensive state level AWPB. Yearly AWPB will be submitted to the PSC for review and approval and then to IFAD for review and the issuing of no objection. The AWPB will clearly indicate the project expenditure, resources to be mobilised from the Government programmes through convergence, credit from financial institutions and beneficiaries' contribution. The approved AWP&B would be used as a key document for reviewing the performance and progress during the supervision missions and project steering committee meetings.
206. *Monitoring and Evaluation.* Nav Tejaswini will develop a robust M&E system in compliance with IFAD and the GoM requirements and fully aligned with IFAD's Operational Results Management System (ORMS). The M&E system will (i) collect, and analyse information on project results and impact; (ii) support PMU in planning and making informed decisions especially on course correcting actions; (iii) review the performance of partnerships with technical service providers, marketing players including contract farming, financial institutions etc.; (iv) create opportunities for learning and sharing results.
207. Systematizing M&E: Tejaswini Maharashtra established a robust MIS system in 2012 with the introduction of the SHE software, through which MAVIM could monitor physical and financial progress of SHGs portfolio regularly. This also generated SHG data that was shared with private commercial banks as credit history of SHG members, to facilitate provision of loans to the SHGs. This system continues to function even after the closure of Tejaswini and will be further strengthened under Nav Tejaswini. For the new project, as part of implementation readiness activities, PMU will develop/procure project management software for management of all enterprise development activities of the project. The project will establish a robust computerized, web-based MIS that will be accessible for data input, analysis and reporting by CMRCs, producer collectives as well as for data browsing by parties external to the project. The MIS will include Geographic Information System (GIS) data on the locations of the clusters of farm and non farm value chains, producer collectives. MIS will generate quarterly reports on the physical progress of the project. Both VC linked producers as well as stand alone micro enterprises will be facilitated to input data on key enterprise development indicators through mobile based apps linked to the software to analyse the enterprise performance. Nav Tejaswini will also study M&E system in other IFAD supported projects in India including Integrated Livelihood Support Project in Uttarakhand.
208. Under the new project, a digital M&E framework would also be set that will provide management information for project activities, i.e. to track progress in outreach, activities implemented, and corresponding financial progress. Furthermore, the project will invest in the installation of a robust microfinance software that can handle SHG and individual loans and real time tracking of transactions including mobile phone based financial transactions; and will upgrade TALLY software to monitor all MF transactions real-time.

209. Project M&E indicators and means of verification are defined in the logical framework (Annex I) which includes relevant core indicators from the ORMS. All people-specific indicators will be disaggregated by gender and youth. The PMU will fine-tune progress, performance and outcome indicators at the Start-Up Workshop with support from IFAD and will report on targets bi-annually as part of the internal planning processes. The project will use IFAD's revised Core Indicators to enhance the measurement of IFAD's results at the outcome level and will launch the core indicator survey at baseline, mid-term and end-line.
210. Based on the Project Logical Framework (Annex 1), the Project Implementation Manual (PIM) will be further developed to define the responsibilities of each implementation level in collected and aggregating data for selected indicators that to be monitored and their frequency and reporting requirements. Within each unit of implementation, namely PMU, Regional Coordination Office and District Coordination Office, a focal person will be designated to report on specific monitoring and outcome indicators, which will then be aggregated at the PMU level. The Project will produce regular statistical reports and annual reports that document the performance of the project and provide lessons for further refining the project approach.
211. The Nav Tejaswini M&E and MIS systems will be prepared during the project preparation period, to ensure that the key tools are ready and all key information is recorded from the start of the project. In line with recommendations IFAD Financial Management Team, the MIS will also track beneficiary contributions and private sector contributions to project costs so that these can be consolidated in project accounts.
212. A Impact and Outcome Survey of beneficiary households will be undertaken to capture baseline, mid-term and end-line data through a focused survey of expected beneficiaries in the 34 districts of Maharashtra. Sample size will be determined based on the guidelines established by the new COIS methodology. The Impact/Outcome Survey will primarily measure indicators for the Project Development Objective and Outcomes indicators. Data on skills, technology and entrepreneurship will be collected in the survey and will be cross-compared with a treatment group at completion. The project will hire reputed agencies to conduct the surveys. Longitudinal study of both project beneficiaries and control group by setting up a panel and revisiting them periodically will be carried out.
213. Apart from outreach data, data for the project will be collected on three levels: impact, outcome and output. Impact level data (goal and development objective) will be collected at project completion and will assess the long term effect of the project's services on its participants. Outcome data (Components 1,2 and 3) will be collected at mid-term and completion. Output data will be collected regularly and reported bi-annually. The impact indicators will assess the overall achievement of the project in supporting participating women and their SHGs/CMRCs to establish economically sustainable micro-enterprises, i.e., an assessment to be based on an index comprising of the following elements: number of years in operation, minimum level of investment, entrepreneurial returns (or owner's income), sales (turnover), marketing linkages and ability, competition and business environment. SHG sustainability/viability, on the other hand, will be assessed on the following criteria: number of years in operation, available corpus amount, lending portfolio and PAR. At impact level, improvement of women's agency will also be assessed through a pro-WEAI survey at baseline and completion. Once the baseline is established, a target for minimum adequacy score will be set in consultation with the PMU. At the goal level the project will also undertake an assessment at completion of the environmental sustainability promoted by the project, namely, an assessment on determining if project activities have been implemented in a way

that pollution into the environment (air, water and land) is avoided or minimised and the project promoted efficient use of natural resources to avoid or minimise environmental degradation. The project's environmental sustainability will be achieved by implementing environmental mitigation measures described in the Environmental and Social Management Matrix which forms part of the SECAP Review Note and included in the PIM.

214. Nav Tejaswini is expected to provide lessons that can be important to shape the government policy regarding graduation of SHGs from savings and credits groups to established micro-enterprises. The new project offers a unique opportunity to show case the growth of SHG members to be entrepreneurs accessing appropriate technical support, business development services and access to micro enterprise loans on a sustainable basis. Nav Tejaswini will offer learning opportunities for other SHG programmes in Maharashtra, in other states in India as well as in other countries, on individual and collective enterprise promotion. MAVIM will be supported to document their experiences, develop training and learning modules.
215. Annual Outcome Surveys will be carried out starting from PY3. The surveys will cover (i) emerging intermediate outcomes of the services provided, the uptake of new technology; (ii) the views of participants about effectiveness of services provided by project; (iii) assessment of the emerging impact on incomes, employment, growth in businesses and rural enterprise. Annual outcome surveys will enable the project to report on achievement of the project outcomes as per the project log frame. The annual outcome survey will be carried out during the months of January and February from the second project year onwards. The annual outcome survey report will be made available online. The annual progress report for a given year will be submitted no later than 30 June of the following year. Other thematic studies as relevant, including qualitative studies will be carried out.
216. Participatory monitoring: Beneficiaries participation in project monitoring will be ensured through three primary tools: (i) participatory supervision: focus group discussions and consultations with randomly selected SHGs and CMRC executive committee will be organized during supervision missions. These consultations will assess if participants are receiving the services requested at design, if services are timely provided, if participants are involved in deciding activities and services; (ii) annual outcome surveys: satisfaction of beneficiaries with quality of services provided will also be assessed through annual outcomes surveys, to be initiated from PY2. The annual outcome surveys are an efficient and effective way of receiving feedback from beneficiaries on which activities they most benefit from and their satisfaction with the package of service delivered. The survey is designed in a simple yes/no format which is easy and time effective for respondents; (iii) grievance redressal mechanism: the Government of Maharashtra has a grievance redressal portal to register complaints about all government financed schemes and departments. The portal is also accompanied by a 24x7 call centre helpline to register complaints. During orientation workshop for all CMRCs, the helpline numbers of the Government of Maharashtra and IFAD's SECAP complaints email address will be distributed among participants for information. The redressal phasing and systems will be spelt out to participants for future reference.
217. Knowledge Management and Learning: The project's KM activities will support the effective flow of relevant information between project staff, beneficiaries and other stakeholders. A comprehensive KM action plan will be developed in the early stage of implementation. Output, outcome and impact data generated by the M&E system will inform high-quality case studies, briefs and reports. These will be used for policy dialogue, peer-learning, and potential scaling-up of activities. KM products

will be communicated through multiple sources including, blogs, written publications, video and social media.

218. **REPORTING:** The project PMU will produce program and financial reports as per agreed format with IFAD.
219. *Innovations piloted through the project.* (i) Approach. Make the SHGs and CMRCs function effectively by a promoting a) robust microfinance software that can handle SHG and individual loans and real time tracking of transactions including mobile phone based financial transactions; b) project management software to manage all subprojects; (ii) Activities. Subprojects will promote piloting new enterprises, technologies and products that have not been fully tested or adopted in the project area; and (iii) Products. The project will pilot a livestock health service cum insurance program in collaboration with vet service providers and private insurance firm to develop a low-cost and reliable livestock health and insurance service.

11. FINANCIAL MANAGEMENT AND PROCUREMENT

Financial Management

220. **Brief introduction:** This section lays down the basic principles of financial management of the project. It lays down the system of funds flow to the project and within the project, the disbursement systems, submission of withdrawal application for reimbursement of funds, the system of recording transactions, reporting the same and the audit requirements.
221. **Lending terms:** India is on IFAD ordinary lending terms. The maturity period for the loan is at the choice of the borrower, subject to a ceiling of 35 years and to a maximum average repayment maturity of 20 years. IFAD reference rate that the GoI will be charged will be based on the average repayment maturity bucket which is a pre-defined range of average repayment maturities. There are currently six average repayment maturity buckets, and GoI can choose any of the average repayment maturity buckets. The grace period is variable at the choice of GoI, subject to a ceiling of 10 years. Interest is paid on the loan principal disbursed and not yet repaid by the Borrower. GoI can choose either the fixed spread or variable spread and denomination currency in either EURO, SDR or USD. The terms related to the loan assistance will be as per the Guidelines for IFAD Lending Terms and Financing Conditions.
222. **Retroactive Financing:** At the Borrower's request IFAD financing can be provided as retroactive financing as an exception to the General Conditions and with Executive Board approval, to cover eligible expenditures between the date of approval of the design document by IFAD and the date of Entry into Force. Some of the activities that can be funded under retroactive financing will be: (i) costs related to studies to be initiated (ii) procurement of various software; (iii) some operating costs; (iv) staff and consultants recruitment cost; (v) purchase of a minimum set of equipment and materials; and (vi) activities related to a baseline survey. To be eligible for retroactive financing, goods and services must have been procured according to the procurement procedures applicable to loan financing. The activities retroactive finances are in the PDR as well as in the COSTAB (Component 3). It is expected that the costs for these activities will not exceed USD 1,000,000 and will be charged to the respective loan categories. The funds for these activities will be provided initially by the GoM which will be reimbursed once the IFAD conditions precedent to first withdrawal have been met.
223. **Start-up Financing:** IFAD encourages the use of pre-approved start-up advance for specific activities that enable project fast-start between the date of signature of the Financing Agreement (Entry into Force) and the conditions precedent to the first withdrawal having been met.
224. **Fund Flow mechanism:**
 - (I) **To the Project:** The Project will be funded from the following sources: IFAD Loan, IFAD Grant, GoM contribution to MAVIM, by way of operational costs and salaries, GoM

contribution by way of taxes, contributions from beneficiaries and by way of convergence from other Govt schemes besides banks, financial institutions and private sector enterprises. Funds from IFAD loan will flow to a Special/Designated Account maintained in USD in a bank acceptable to IFAD and operated by the Ministry of Finance (MoF), Government of India (GoI). MoF will transfer the IFAD loan to the State Treasury of the Government of Maharashtra (GoM) through the prescribed national procedures for budgetary support to State Governments. The GoM will release these funds to MAVIM as soon as it receives the same from GOI.

- a) IFAD Funds:** Proceeds of IFAD loan funds will be disbursed using one of the following four methods: (i) advance withdrawals or replenishments to the bank account(s) designated to receive loan resources; (ii) direct payment; (iii) Special Commitment (under letter of credit); and (iv) reimbursement. IFAD will make an initial advance of USD 4.2 million which is about six months of IFAD allocation towards the project into the Designated Loan Account and USD 0.1 million into the Designated Grant Account and then replenish the Designated Accounts on the basis of Withdrawal Applications submitted by the Project through the State Government to the CAA&A, Government of India.

b) Counterpart Funding

- (i) Budgetary Allocations:** The PMU of the project will be responsible for preparing the Annual Work Plan & Budget (AWPB) for the Project by consolidating the AWPBs of all DMUs which will be based on CMRC and community level activities. The AWPB comprising of IFAD and GoM funds will be a separate line item in the budget of the Department of Women and Child Development (DWCD) for Grant-in-Aid and will be presented for legislative sanction from the State Assembly. Fund will flow from the DWCD to MAVIM bank account as Grants-in-Aid in one or two tranches once the annual State budget is approved by the State Assembly. Taxes on project implementation will be borne by the GoM

- c) Beneficiary Contribution:** The project also envisages beneficiary contribution. The DCOs/ CMRCs shall evolve a system to collect information in respect of beneficiary contribution to the project on a regular and ongoing basis. This could form part of the reporting system by the DCOs to the PMU. The utilization certificates of funds disbursed for activities which involve beneficiary contribution could be used as a basis for accounting the beneficiary contribution.

- (II) Within the Project:** Initially the PMU shall provide an advance to the DCOs to cover the expenditure for six months based on their AWPB. The DCOs shall submit monthly statements of expenditure to the PMU. The DCOs shall seek replenishment of the amount spent when it has utilized at least 60% of the amount advanced earlier. The DCOs will fund the CMRCs and all other activities at the community level.

225. The CMRCs shall maintain separate bank accounts in respect of funds received from the Project and the amounts utilized towards the project activities. A copy of such bank account statement shall be submitted to the DCOs every month along with the utilization certificate. The project staff or any person authorized by it shall be entitled to verify the books of accounts and all supporting documents and records of the CMRCs in respect of the project expenditure.
226. **Accounts by type: designated accounts, project account, district accounts etc., operation of accounts and accountability:** Two Designated Accounts in USD, one for Loan and the other for Grant, will be opened by the GoI at Reserve Bank of India (RBI) to which funds will flow from IFAD. GoI will transfer IFAD assistance to GoM. The advance funding from IFAD to the Designated Accounts will be equivalent to six months of projected annual budget. GoM will make a request to DEA to transfer the advance funding received from IFAD to the state and thereafter GoM will release this amount to MAVIM. GoM will transfer the estimated budget for the year to MAVIM (project account) in a timely manner. MAVIM will submit WAs for the IFAD financed eligible expenditures as per the procedures and formats agreed with IFAD to the Office of CAA&A, Ministry of Finance, GoI.
227. Each of the districts will have a project account in which funds from the PMU will flow. The DCOs will utilize the funds for project implementation based on the AWPB for the year. The

funds from the district offices shall be advanced/disbursed to the communities through the CMRCs. The CMRCs shall be required to provide utilization certificate for each quarter based on which further releases shall be made. The districts shall provide expenditure statements to the PMU every month based on which the PMU shall prepare and submit withdrawal applications every quarter after consolidating the actual expenditure incurred at the PMU and districts. The counterpart funds, other than salaries to the GoM staff, (which will be paid directly by the Govt) will also be made available by the GoM to the PMU account from which expenditure will be incurred. GoM will provide the details of expenditure incurred by it directly (salaries and allowances) towards the project, to enable consolidation and reporting of total expenditure of the project.

228. **Disbursement procedures, withdrawals and Withdrawal Applications (WA):** There are four standard procedures that are used for disbursing Loan funds from IFAD. The Loan Disbursement Handbook for IFAD Directly Supervised Projects provides details of disbursement methods and submission of Withdrawal Applications.
229. **Procedure I: Designated Account (DA) and initial advance:** IFAD financing to the Project will be routed through a Designated Account denominated in United States Dollars maintained at the Reserve Bank of India (RBI). Controller of Aid, Accounts and Audit (CAA&A), Department of Economic Affairs (DEA), Ministry of Finance (MoF) will administer the Designated Account. IFAD will establish an Authorized Allocation for initial advance, initially up to USD 4.2 million for Loan and USD 0.1million for Grant will be indicated in the Letter to the Borrower. However, the quantum is subject to the agreement of both GoI and GoM at Loan Negotiations, as this will count for the payment of interest and service charge.
230. **Procedure II: Reimbursement of funds to DA:** The DA shall be reimbursed periodically based on the utilization of funds by the project. It is proposed to adopt Interim Financial Reports (IFRs) modality for submission of withdrawal applications to IFAD through CAA&A, Ministry of Finance. The sample format of the IFRs are provided in the Attachment 6 1 to the PIM.
231. MAVIM shall submit withdrawal applications every quarter based on the actual eligible expenditures incurred at PMU and district level. These expenditures shall be reported in quarterly consolidated IFRs, subject to audit certification at the end of each financial year. Expenditure categories eligible for financing under the Financing Agreement and as per the disbursement percentage will be financed out of the proceeds of the IFAD loan/Grant.
232. IFRs shall be prepared by grouping expenditures in accordance with the disbursement categories as outlined in Schedule II of the Financing Agreement. Background/supporting documentation shall be retained by the project and submitted to IFAD upon request. IFRs shall contain in annex the list of contracts above USD 50,000 equivalent for which disbursements have been executed during the period as well as all the required supporting documentation. Full supporting documentation shall be annexed to the IFRs for single payments above USD 50,000 equivalent executed in the period. These prescriptions are applicable to all cost categories outlined in Schedule II of the Financing Agreement.
233. IFRs shall be submitted to IFAD on a timely basis within 45 days after the end of each quarter. In case of fund requirements above USD 5 million equivalent, ad-hoc IFRs can be prepared and submitted to IFAD anytime.
234. IFRs, together with all required annexes, shall be prepared by the project's GM (F& A), and shall be signed by the GM and the Project Director before submission to CAA&A in New Delhi for the signature of the authorized representative and subsequent claim to IFAD. In its claim, CAA&A shall indicate the bank account placed at RBI where IFAD funds for reimbursement shall be transferred. Detailed disbursement modalities shall be indicated in the Letter to the Borrower.
235. **Procedure III: Direct Payment.** Under this procedure, the government requests the Fund to pay suppliers directly from the loan/grant funds. The procedure is similar to Procedure I described above but the payment is made direct to the third party as advised and instructed by the Government.

236. **Procedure IV: Direct Payment to a foreign supplier.** Under this procedure, the government uses a Letter of Credit (L/C) as a mode of payment to a foreign supplier. Form 301, an Application for a Special Commitment, Form 302 Letter of Commitment from IFAD to a Bank and Form 303 Bank's Request for Payment. This is extensively used for financing import of goods and under this procedure IFAD gives assurance to the suppliers.

Disbursement Procedure	Disbursement Type	Description
Procedure I	Special/ Designated Account	This is for advance funding from IFAD for start up activities and is used for claiming further deposits to replenish the Special/ Designated Account
Procedure II	Reimbursement	This procedure is used for claiming reimbursement where eligible project expenditure reimbursable by IFAD have been pre-financed by the Government
Procedure III	Direct Payment	IFAD makes direct payment to a third party on the basis of Government instructions
Procedure IV	Special Commitment	This is used for items imported by the Project under a Letter of Credit requiring guarantees for reimbursement

237. The formats of the above mentioned forms will be provided at the time of start-up of the project.
238. **Checklist for compiling a withdrawal application:** Following aspects need to be checked and verified before an Application for withdrawal is sent to IFAD for reimbursement or payment. The supporting documents mentioned below are needed only if the expenditure exceeds the threshold of USD 50,000 for a single payment:
- Designation of WA signatory
 - Designation for operation of the special/designated account
 - WA Sequential number and coverage period
 - WA signatory
 - Currency and the amount due
 - Account number
 - Banking instructions
 - Correspondent bank
 - Supporting documents
 - Percentage of Financing
 - Disbursement procedure used
 - Procurement details
 - Contract or purchase order no and date
 - Description of goods, works or services
 - Currency and total amount of contract
 - Invoice numbers and net amount of invoice covered by this application
 - Withdrawal details: category and % of expenditures to be financed by IFAD
239. The records evidencing such expenditures need not be submitted to IFAD, but will be retained by the project and made available for inspection by the representatives of IFAD. The PMU will retain the relevant documents and make them readily available for inspection and review by joint review missions and the auditors. No taxes and duties will be financed out of the proceeds of the IFAD loan. The PMU will compile and consolidate, on a timely basis, eligible Project expenditures for all project activities and consolidate and process, on a timely basis, withdrawal applications for all eligible Project expenditures and submit such withdrawal applications to IFAD through MoF for reimbursement or replenishment of the Special/Designated Account.
240. No withdrawal can be made in respect of expenditures until the conditions precedent to the first withdrawal as specified in the Letter to Borrower/ recipient have been fulfilled such as
- (i) the PMU and the DCOs shall have been duly established and finance staff recruited
 - (iii) the GOI shall have duly opened the Special/Designated Accounts
 - (iv) the Project shall have duly opened the Project Accounts; and
 - (v) the first AWPB, including the procurement plan for the initial 18 months of Project implementation, shall have been submitted to, and approved by IFAD.

241. **Audit procedures and arrangements for conducting effective audit for each year and arrangement for internal audit and its procedures:** The accounts of the Project for each Fiscal Year shall be audited by independent auditors acceptable to IFAD. The audit shall be in accordance with Article 9 of the IFAD's General conditions and the IFAD Handbook of Financial Reporting and Auditing of IFAD-financed Projects. The ToR for the auditors is also provided in the aforesaid Handbook. An independent firm of Chartered Accountants will be engaged for the purpose. The appointment of the auditor shall be through a fair, transparent and competitive process and within 90 days after loan effectiveness for the first year and also for each of the subsequent years of the project period. Besides the annual audit by the chartered accountant, the AG office will continue to carry out the transaction audit of MAVIM as is the current practice.
242. The auditors should not be appointed as consultants responsible for designing accounting and control systems on which they would be required to comment. Such appointments would create a conflict of interest and create a risk that auditors might not report shortcomings in the project.
243. The PMU shall prepare a TOR for selection of the auditors and send the same to IFAD for approval which will be in accordance with the IFAD Handbook of Financial Reporting and Auditing of IFAD-financed Projects. On receipt of the approval the PMU shall conduct the selection process subject to IFAD prior review and convey to IFAD the name of the auditor appointed and the selection process adopted. The agreed time frame for appointment of the auditor in accordance with the financing agreement will be adhered to.
244. In making a proposal for appointment of a private auditor, the project should provide IFAD with relevant supporting documentation and should address the following questions:
- i. Does the firm adhere to nationally accepted auditing standards? The firm's audit procedures and methods should ensure compliance with such standards.
 - ii. Is the firm independent of the project entity to be audited and of the people appointing the auditor?
 - iii. What is the legal status of the firm? This includes such aspects as partners' status and any limited liability provision in the firm's articles.
 - iv. Are any of the assigned audit staff employed by or closely linked to the project entity to be audited, or to any government body or public agency?
 - v. Can the auditor confirm that there is no conflict of interest or lack of independence implicit in accepting the appointment?
 - vi. Is the auditor committed to providing qualified and experienced staff that can ensure timely submission of audit reports?
245. The auditors shall adopt the Standards of Auditing acceptable to IFAD and the Government while auditing and reporting on the Project Accounts. The accounting and auditing standards adopted should be disclosed in the notes to the accounts. The audit report shall contain a clear expression of the auditor's opinion regarding the financial statements. The auditor is required to deliver an audit package that includes: (i) the audited financial statements including additional disclosures as required by IFAD Handbook (ii) an audit opinion on the financial statements (iii) a report on factual findings and any ineligible expenditure identified should be reported (iv) a Management Letter. Through the management letter, the auditor will identify deficiencies in the project accounting records, procedures, systems and internal controls and make appropriate recommendations for improvement. It will also include any significant matters that come to the auditor's attention and might have a material impact on project implementation. The audit of the Designated Account will be done by the Office of the C&AG.
246. In reviewing the project accounts and financial statements, the auditor will adhere to the scope of audit provided in the IFAD Handbook (Appendix 7). The auditor also will:
- verify that acceptable accounting standards have been consistently applied and indicate any material deviation from these standards, and the effect of such deviation on the annual financial statements;
 - assess the adequacy of accounting and internal control systems (procedures and responsibilities) for monitoring expenditures and other financial transactions (commitment, review, approval, payment and accounting) and ensuring safe

custody of project-financed assets, and document any instances where controls are lacking or need strengthening;

- determine whether the PMU/DCOs have maintained adequate documentation for all transactions; e.g. procurement documents, contracts, suppliers. invoices, letters of credit and evidence of payment, and ascertain that expenditures were properly authorized and in compliance with legal requirements;
 - verify the numerical accuracy of statements and accounts;
 - verify that disbursement requests for expenditures submitted to IFAD are eligible for financing under the loan agreement, and identify clearly any ineligible expenditures; and
 - carry out a physical verification of any significant assets purchased and confirm their existence and use for project purposes.
 - report on the status of implementation of recommendations issued in the previous years
247. The auditor shall discuss the findings in the form of a draft report with the project's finance and accounts department and the Project Director. The auditor shall consider and include the response of the project in the final report.
248. The audited statement of accounts along with the audit report and the Management Letter shall be furnished by the project to IFAD within six months of the end of each Fiscal Year. The auditor shall discuss the draft management letter with the PD/GM and include the Project's replies/comments in the final version of the management letter. In any case, the project shall submit to the auditors and IFAD the reply to the management letter of the auditors within one month of receipt thereof.
249. The Project shall maintain an Log of Audit Observations made by the auditors and also a Table of Summary Status of Audit Observations and get it validated by the auditor during the subsequent audit or earlier. While, the conduct of project audit is the responsibility of the Government, it will keep IFAD informed at various stages of the audit process.
250. **Internal Audit:** MAVIM does not have a system of internal audit. It is proposed that a firm of Chartered Accountants will be engaged as Internal Auditor (IA) of the project who will be responsible for the internal audit of the PMU on a quarterly/ half yearly basis. MAVIM will form an in-house team to conduct the internal audit of the DCOs. The report of the DCOs will be shared with the internal auditor of the PMU who will consider its main observations for drafting the report to the Vice Chairman & Managing Director (VCMD). A copy of the report along with the Management replies to the observations will also be submitted to IFAD. The internal auditors will, besides the financial audit, will review the systems of internal control and suggest improvements, if required, thereto. The internal audit should also include statutory compliances. The terms of reference for the internal audit are included in the Project Implementation Manual. The TOR will include the key aspects of financial management and procurement. The internal auditors will submit quarterly reports to the VCMD. Corrective follow up action shall be taken by the GM (F&A)/ CAFO at the PMU. The action taken report shall be submitted to the PD and the internal auditors. The internal auditors will evaluate action on previous internal audit reports, and effectiveness thereof and report on the compliance thereof in the subsequent report. The Project Director will place the reports and its action taken reports before the Board every six months. The quality of internal audit reports submitted by the internal auditors in the first year of implementation will be reviewed by the Review Mission/ IFAD ICO and if these reports are found to lack quality, MAVIM may be requested to make alternate arrangements, acceptable to IFAD, for conducting the internal audit in later years. The ToR of the Internal Auditor will be submitted to IFAD for prior review.
251. **Ineligible Expenses.** If the auditors during the course of their review find ineligible expenses, these will be reported as an exception regardless of their materiality. If the ineligible expenditures are immaterial and if the project agrees on the auditor's review, IFAD recommends immediate correction, in order to avoid unnecessary qualifications. If the WA

are found to include ineligible expenditures, the borrower will be required to refund the amounts in question.

252. **Accounting systems, policies, procedures and financial reporting.** The project will follow a double entry and computerized accounting system at all levels. The accounting will be in accordance with Standards of Accounting accepted in India with consistently applied accounting practices adequate to reflect the operations, resources and expenditures related to the project until the Financing Closing Date, and shall retain such accounts and records for at least ten (10) years thereafter.
253. MAVIM currently uses Tally software for its accounting at the PMU and the DCOs. CMRCs also use the same software. The project will have a uniform chart of accounts across all its offices and consolidation of accounts will be done at the PMU every month using the synchronization feature of the software. It is proposed that the software be used more efficiently by using groupings and cost centres function to record transactions by components and categories. Customization of the software should be undertaken to generate reports from the system itself in the format required for preparation of the project financial statements (PFS). The accounts at the DCOs are synchronized every month at the PMU based on which the GM/ CAFO at the PMU shall be responsible for the preparation of consolidated quarterly financial reports. The reports will be useful for preparation of the quarterly withdrawal applications. The GM shall be also responsible for the preparation of the annual financial statements of the project which will be subject to external audit. The AWPB, six-monthly reports prepared by the project and the audited accounts shall be submitted to the Board of Directors of MAVIM for approval and then forwarded to IFAD. The PFS shall include financial statements covering the reporting period in accordance with IPSAS – Financial Reporting under the Cash Basis of Accounting. In addition, the following specific disclosures will be included in the financial statements
 - Withdrawal application statement – appendix 1 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects
 - Sources and uses of funds statement- appendix 2 to the IFAD Handbook
 - Statement of Expenditure – appendix 5 to the IFAD Handbook (applicable to grants)
254. The formats of the PFS are provided in Attachment 1 to the PIM
255. **Taxes:** Section 11.01 of the General Conditions stipulates that the Loan and all Loan Service Payments shall be exempt from all Taxes, and all loan service payments shall be made free and clear of taxes. It is the policy of the Fund that Loan proceeds are not to be used to pay Taxes, including (but not limited to) any taxes levied on the imports, procurement or supply of any good, civil work or services financed by the Loan but excluding taxes on the overall income. If taxes are to be absorbed by the Government, they will be recorded under the counterpart contributions. A separate record should be kept for taxes paid by the Project.
256. **Materiality:** Information is material if its omission or misstatement could influence the decisions or assessment of the users made on the basis of the financial statements. Materiality depends on the nature or size of the item or error judged in the particular circumstance of omission or misstatement. In the public sector, materiality includes compliance with authorities, legislative concern or public interest. In the context of IFAD-financed operation will include compliance with the Project Financing Agreement and in particular the requirement that IFAD funds may only be used for the purpose stated therein.
257. **Project completion report with reference to financial management:** The Project will be completed and loan/grant closed as specified in the Finance Agreement.
 - Withdrawal Applications may be continued up to the Loan Closing date i.e. six months after the project completion date.
 - Only payments made, or payments due for goods and services, which have been provided prior to the project completion date, qualify for disbursement. The only additional expenditures allowed are for winding up activities (salaries, audit fees, project completion report)
 - No replenishment will be made after the project completion date.

- The Special/Designated Account recovery will begin early enough to ensure that no balance remains in the special/designated account at the closing date.
 - The following three steps will be adhered to for loan closing: (i) final statement of accounts, (ii) preparation of final audit report, and (iii) preparation of Project Completion Report
258. **Asset Management:** Proper record of fixed assets shall be maintained at the PMU and the DMUs which shall include the date of purchase, the specification, the unique identification number, the location and the cost. In case assets are allocated to any staff member this should be mentioned in the asset register. The fixed assets shall be physically verified at least once in a year and the evidence thereof shall be recorded in the asset register. All assets procured by the project shall be adequately insured. The asset registers should be regularly reconciled with the books of accounts.
259. **Financial Manual:** MAVIM has a manual for Financial Regulations which was approved and adopted in 2004. The regulations contain operational processes of accounting, financial rules, maintenance of books of accounts, procurement rules, structure of various committees and its roles, delegation of financial powers and Travel Allowance/ Daily Allowance (TA/DA) rules etc. Since these regulations were formulated and adopted in 2004, MAVIM should update this with the current rules, regulations, policies and accounting systems which have undergone significant changes since then and the same can be used as a Financial Manual for the project.

Procurement

260. To ensure effective implementation of project procurement activities and compliance with IFAD procurement guidelines, the project will ensure that the project has an effective procurement system in place, with a dedicated full-time procurement officer recruited for the project.
261. The procurement officer's responsibilities will include the preparation and updating of procurement plans for the project, acting as the focal person for NOTUS, maintaining the contracts register, carrying out all procurement activities of the project, coordinating with the project team on initiating the procurement actions as per the procurement plan, reviewing procurement activities carried out at districts and CMRCs/ community levels, monitor procurement compliance, and provide training to all project staff involved in procurement. S/he will report to GM (Project) directly. A detailed ToR for the procurement officer will be prepared and included in the PIM.
262. All procurement requiring IFAD prior review will be uploaded in IFAD No Objection Tracking and Utilities System (NOTUS) portal. The prior review thresholds for different categories will be included in the Letter to the Borrower.
263. The project will prepare a procurement plan initially for 18 months followed by yearly procurement plans which be based on the AWPB. The procurement plan will need to be revised with the revision of the AWPB. Any procurement which is not in accordance with the approved AWPB and procurement plan will be treated as ineligible expenditure and not be financed by IFAD.
264. **Prior and Post Reviews:** IFAD will undertake prior and post reviews of procurement made. (a) Prior review is when IFAD is required to provide a No-Objection (NO) at key stages of a procurement process. This requirement and the associated prior review thresholds will in the Letter to the Borrower. The Country Programme Management Teams and the PMU are required to use the No-Objection Tracking and Utility System (NOTUS) to manage NOs. (b) Post review is the assessment by IFAD of the procurement processes conducted by the Borrower/Recipient for a sample of contracts that are not subject to prior preview. Post reviews will cover procurement planning, procurement process, contract awarding and management, and risk identification and mitigation. The project will be required to submit to IFAD the bidding document, the bid evaluation report and the draft contract documents for the prior review of procurement of goods, works and non-consulting services and the draft RFP, the technical evaluation report, the combined evaluation report and the negotiated draft contract and the minutes of negotiations in case of procurement of consulting services.

The procurements covered under prior review, thresholds for the same and the thresholds for the mode of procurement will be specified in the Letter to Borrower (LTB).

265. **Governance, transparency and anti-Corruption.** In line with the IFAD General Conditions on Agricultural Development Financing and IFAD Policy on Preventing Fraud and Corruption in its projects, the project should provide a commitment to abide by these provisions and establish credible deterrent mechanisms and internal controls and cooperate fully with IFAD and the notified Government investigative agencies/authorities. The consultants and the suppliers will also be made aware of the provisions and are compliant to these provisions. The detailed measures will be included in all the bid documents, contracts and Grant agreements ensuring IFAD rights for auditing, investigating provisions and debarment.
266. **Transparency framework.** IFAD's applies a zero-tolerance approach in cases where investigation determines that fraudulent, corrupt, collusive, or coercive actions have occurred in projects financed through its loans and grants. Project design includes several measures to promote transparency: (i) autonomous central project office and relevant district project management offices, operating on the basis of good governance; (ii) annual independent audit; (iii) verification of fiduciary compliance during supervision; (iv) independent impact assessments; and (v) more efficient public financial management systems and ensuring of transparency by strengthening state oversight.

A. Applicability of the Procurement Provisions

267. Procurement of goods and consultancy services shall be done in accordance with the provisions of IFAD Procurement Guidelines and Procurement Handbook, 2010, and as amended from time to time. (The IFAD Procurement Guidelines can be accessed from https://www.ifad.org/documents/38711624/39421027/procure_e.pdf/e1a99511-d57d-4695-a05b-3d9b597d0149 and the IFAD Procurement Handbook can be accessed from https://www.ifad.org/documents/38711624/39421018/proc_handbook_e.pdf/2febc53a-4244-4447-a788-d06a632fd3b5). In the absence of national law which safeguards the interests of transparency, fairness, and grievance redressal of the participating bidders/suppliers, IFAD Procurement Guidelines shall be followed both at all implementing levels. IFAD Procurement guidelines takes precedent over Government rules and regulations, to the extent such are inconsistent with the IFAD Procurement Guidelines. The PMU has the overall implementation responsibility of procurement and on the interpretation, the update of this Manual, and obtain the necessary agreements, clarifications and no objection from IFAD.

B. Guiding principles of Procurement

Transparency, Competition, Fairness and Elimination of Arbitrariness

268. Public procurement should be conducted in a transparent manner to bring competition, fairness and elimination of arbitrariness in the system. This will enable the prospective bidders to formulate competitive tenders with confidence. The following are some important measures to achieve the same and, thus, secure best value for money:
- a) The text of the bid document should be user-friendly, self-contained, comprehensive, unambiguous, and relevant to the objective of the procurement. The use of terminology used in common parlance in the industry should be preferred.
 - b) The specifications of the required goods/terms of reference for consultants should be framed giving sufficient details in such a manner that it is neither too elaborately restrictive as to deter potential bidders or increase the cost of procurement nor too sketchy to leave scope for sub-standard supply.
 - c) The bid document should clearly mention the eligibility criteria to be met by the bidders such as minimum level of experience, past performance, technical capability, manufacturing facilities, financial position, ownership or any legal restriction etc. Restrictions on who is qualified to bid should not stifle competition amongst potential bidders.

- d) The procedure for preparing and submitting the bids; deadline for submission of bids; date, time & place of public opening of bids; requirement of earnest money and performance security; parameters for determining responsiveness of bidders; evaluating and ranking of bids and criteria for full or partial acceptance of bids and conclusion of contract should be incorporated in the document in clear terms.
- e) Bids should be evaluated in terms of the criteria already incorporated in the bid document, based on which bids have been received. Any new condition, which was not incorporated earlier, should not be brought into consideration while evaluating the bids.
- f) Sufficient time should be allowed to the bidders to prepare and submit their bids.
- g) Suitable provisions should be kept in the bid document allowing the bidders reasonable opportunity to question the bid conditions, bidding process, and/or rejection of its bid and the settlement of disputes, if any, emanating from the resultant contract.
- h) It should be made clear in the bid document that bidders are not permitted to alter or modify their bids after expiry of the deadline for receipt of bid till the date of validity of bids.
- i) Negotiations with the bidders for procurement of goods must be avoided. In case of consultancy services negotiations may be conducted with the highest combined ranked consultant, to clarify certain aspects and to confirm the team of experts proposed.
- j) The name of the successful bidder to whom the contract is awarded should be appropriately notified by the project for the information of general public through its website or any other means.

Efficiency, Economy and Accountability

269. Public procurement procedures must conform to exemplary norms of best practices to ensure efficiency, economy and accountability in the system. To achieve this objective, the following key areas should be taken care of:
- a) To reduce delays, MAVIM should prescribe appropriate time frame for each stage of procurement; delineate the responsibility of different officials and agencies involved in the purchase process and delegate, wherever necessary, appropriate purchase powers to the lower functionaries with due approval of the competent authority.
 - b) MAVIM should ensure conclusion of contract within the original validity of the bids. Extension of bid validity must be discouraged and resorted to only in absolutely unavoidable, exceptional circumstances with the approval of the competent authority after duly recording the reasons for such extension.

Value for money

270. Underpinning all of the above is the need to obtain value for money for all project procurement activities through the optimum combination of several factors, including:
- a) Applying sound, internationally recognized procurement principles.
 - b) Ensuring that the goods, works or services procured meet the requirements for the task and are not over-specified.
 - c) Ensuring that the goods, works or services are contracted on the best possible terms, taking into account their expected life cycle.
 - d) Ensuring that the provider/supplier of the goods, works or services is qualified, legally entitled and competent to execute the contract.
271. Best value does not necessarily mean the lowest initial price option, but rather represents the best return on investment, taking into consideration the unique and specific

circumstances of each procurement activity; the balance of time, cost and quality required; and the successful overall outcome of the contract in meeting its original objectives.

General Provisions

272. The procurement of goods and consulting services under the project is to be undertaken by observing the following specific requirements.
- a) Procurement is to be carried out in accordance with the IFAD's Procurement Guidelines, the respective Loan/ Grant agreement, and any duly agreed amendments thereto.
 - b) Procurement is to be conducted within the project implementation period, except where the financing agreement provides for retroactive financing and then within the limits therein specified.
 - c) The cost of the procurement is not to exceed the availability of duly allocated funds as per the financing agreement.
 - d) Procurement is to be consistent with the duly approved annual work plan and budget (AWPB) including a procurement plan for at least the initial 18 months and subsequently updated annually.
 - e) Procurement is to result in the best value for money as defined by the IFAD Procurement Guidelines.

C. Codes of Conduct and Conflicts of Interest

Codes of Conduct

273. Negative perceptions of procurement can quickly and easily be formed by individuals or groups looking in at the process from the outside. It is therefore imperative that procurement is not only conducted in an ethical, transparent and fair manner, but that it is seen to be conducted that way.
274. The ethical conduct require that no person shall use his/her authority, position or office for personal gain, which will be defined as soliciting, accepting or otherwise benefiting from anything of material value, in any form, either in person or indirectly through close relatives or associates, as a result of procurement financed by IFAD. The officials of MAVIM and its district units shall respect the confidentiality of information gained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder or supplier or contractor. Information given in the course of his or her duty shall be true, fair and not designed to mislead.

Gifts and Hospitality

275. Any official of MAVIM involved in IFAD- funded procurement activity shall:
- a) not be permitted to accept any business gifts from current or potential suppliers, contractors or consultants unless such gifts are of very small intrinsic value such as a calendar or business diary.
 - b) refrain from accepting any business hospitality that might be viewed by others as having an influence in making a business decision as a result of accepting that hospitality; and
 - c) has a duty to promptly report refer any cases of irregular practices which include but not limited to fraud and corruption as defined in IFAD's Anti-Corruption Policy by a colleague, bidder, supplier, contractor or consultant to IFAD and National Authorities as required

Mis-procurement

276. IFAD shall have the right not to finance contracts which are not procured strictly following the procedures as set forth in the Procurement Guidelines and Procurement Handbook, IFAD

Letter to the Borrower, and will cancel such portion of the Financing. If mis-procurement continues, IFAD may suspend the Financing or even go up to the cancellation of the Financing.

Good Governance and Accountability Policies

277. The IFAD Procurement Guidelines and Anti Corruption Policy, which are adapted to this Project through the Financing Agreement and IFAD General Conditions for Agricultural Development Financing, require zero tolerance to prohibited practices. Therefore, the procurement process also requires a strict adherence to these Guidelines and Policy.
278. Pursuant to this policy, the following provisions shall be applied throughout the project implementation:
- (a) For the purpose of this provision, the terms set forth below are defined:
 - (i) "Corrupt Practices" mean the offering, giving, receiving, or soliciting directly or indirectly of anything of value to influence improperly the actions of another party.
 - (ii) "Fraudulent Practices" is any act or omission including a misrepresentation that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - (iii) "Collusive Practices" is an arrangement between two or more parties, designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) "Coercive Practices" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party, or the property of the party to influence improperly the actions of a party.
 - (v) "Obstructive Practices" mean: deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an IFAD investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or acts intended to materially impede the exercise of the IFAD's inspection and audit rights provided for under sub-clause (e) below.
 - (b) The Borrower and IFAD will reject a proposal for award if it determines that the bidder or consultant recommended for award, or any of its personnel. Or its agents, or its sub-consultants, subcontractors, service providers, suppliers and/or their employees has directly or indirectly engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
 - (c) IFAD will declare mis-procurement and cancel the portion of the loan/grant allocated to the contract if it determines at any time that representatives of the borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, coercive, collusive or obstructive practices during the procurement or implementation of the contract in question without the borrower having taken timely and appropriate action satisfactory to the DP to address such practices when they occur, including failing to inform the DP in a timely manner at the time they knew of the practices.
 - (d) IFAD will declare a consultant or firm ineligible, either indefinitely or for a stated period of time, to be awarded a future IFAD financed contract if it at any time determines that the bidder, supplier, contractor, service provider or consultant has engaged in corrupt, fraudulent, coercive, collusive or obstructive practices in competing for, or in executing, an IFAD-financed contract; and

- (e) All contracts financed out of the proceeds of the project has a provision requiring supplier, contractor or consultants to permit both the Borrower and IFAD to jointly or separately inspect their accounts and records relating to the performance of the contract and to have them audited by auditors appointed by the Borrower and/or IFAD.
- 279. All staff involved in the procurement process has a duty to report to the Project Director and IFAD (i.e. through its Country Director/ Program Manager) of any suspected instances of prohibitive practices when identified.
- 280. In the case of collusive behavior, if the evidence suggests that all or some of the bidders or consultants are involved, the evidence should be reviewed by the Project Director, and if necessary, the procurement process is cancelled and all of the involved firms or individuals are sanctioned which could be up to the debarment. If the procurement is still in process, then the procurement must be cancelled and reinitiated only after the matters have been addressed properly.

Complaint Handling Mechanisms (CHM)

- 281. There are three distinct types of complaints that are typically found in a Project; i.e., (a) complaints concerning bid protest from aggrieved contractors, suppliers, service providers and consultants, which are addressed during or immediately after the bid process, (b) performance disputes, which are governed by the General Conditions of Contract (GCC) and Special Conditions of Contract (SCC), and, (c) non procurement related complaints from any parties.
- 282. A complaint is any notification regarding an alleged illegal or improper procurement action and/or conduct of procurement officials, consultants, and/or sub-contractors directly or indirectly supporting a project or associated with its implementation, which the complainant believes is wrong, either under the law or on the grounds of unacceptable behavior.
- 283. The PMU shall ensure the confidentiality of any complainant and shall hold harmless any person reporting a complaint, oftentimes referred to as a "whistle blower", with provisions to shield complainant(s) or public official(s) from retaliation when they provide information that they reasonably believe to be a violation of the provisions of the agreed procedures.
- 284. All procurement related complaints shall be addressed to the Vice Chairman & Managing Director, MAVIM, to which the PMU shall respond within 7 business days. If PMU needs more time due to complex investigation related to the complaints, then it shall state so in writing to the complainants, but in any case a complaint shall be put into closure within 30 business days.
- 285. The complainant need not be personally aggrieved or impacted, and may be acting merely in accordance with a sense of civic duty, such as an NGO or private citizen, in bringing an occurrence to the attention of project authorities.
- 286. All complaints, whether notified by persons who feel personally aggrieved or acting out of a sense of civic duty, will be acknowledged and acted upon by responsible authorities in accordance with the procedures specified in this section.
- 287. Concerning bid protests, from time to time, with and without justification bidders, suppliers, contractors, service providers and consultants may choose to lodge a complaint concerning some aspect of the contract award process. In the event the contract has been awarded and a contractual relationship exists between the parties, there are established dispute mechanisms in the GCC that shall be followed, up to and including judicial review.
- 288. A formal mechanism to satisfactorily respond to bid protest complaints must be followed, consistent with this Manual and the steps to be followed by aggrieved bidders, suppliers, contractors and consultants and the complaints procedure will be specified in the Bid/Request for Proposal documents.

289. Complaints may also be addressed directly to IFAD, to which IFAD will resolve the complaints within its service standard.

Conflicts of Interest

290. It is a requirement of the IFAD Procurement Guidelines that any public official of the Borrower/recipient involved in IFAD-funded procurement activity shall declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to his duties (conflict of interest).
291. Upon being aware of such a situation of this nature arising or having the potential to arise, the official(s) concerned should immediately recuse themselves from any aspect of the procurement process to avoid being placed in a position of conflict.
292. Where IFAD becomes aware of a situation where a conflict of interest may have existed but was not declared then this is sufficient grounds to declare mis-procurement in line with the IFAD Procurement Guidelines.
293. Where there is doubt that a conflict of interest, or potential conflict of interest, may exist or arise, IFAD may be consulted for advice or guidance, however the general principle is that if there is uncertainty then it is safer to recuse oneself from the process than to risk a negative perception of the process and mis-procurement being declared.
294. A firm/entity/individual participating in a procurement process under this project shall not have a conflict of interest. Any firm/entity/individuals found to have a conflict of interest shall be ineligible for award of a contract.
295. A conflict of interest is a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest is not acceptable under the FABS Project. The Recipient will take appropriate actions to manage such conflicts of interest which may include rejecting a proposal for award if it determines that a conflict of interest has flawed the integrity of any procurement process.
296. A firm shall be considered to have a conflict of interest in a procurement process if:
- a)** such firm is providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of a project that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm.; or
 - b)** such firm submits more than one bid, either individually or as a joint venture partner in another bid, except for permitted alternative bids. This will result in the disqualification of all bids in which the Bidder is involved; or
 - c)** such firm (including its personnel) has a close business or family relationship with a professional staff of the Recipient (or of the project implementing agency, or of a recipient of a part of the grant) who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved acceptable to IFAD throughout the procurement process and execution of the contract; or
 - d)** such firm does not comply with any other conflict of interest situation as specified in the Bidding Documents relevant to the specific procurement process.
297. It is the duty of all project staff and any other public employee directly or indirectly involved with the procurement process and particularly the preparation of bid documents, bid evaluation, contract negotiations, contract management and payments to avoid any potential conflicts of interest. A conflict of interest arises when the individual has a direct or indirect relationship with a bidder, consultant, contractor, service provider or supplier.
298. In the event that a project staff or a member of the procurement committee (PC) or an employee who is directly involved with the procurement process feels that there is the

potential for a conflict of interest they shall declare it to the PC and remove themselves from the procurement process.

Standard of Ethical Conduct

299. All project staff and consultants involved in procurement activities, shall observe the Code of Business Ethics as outlined below.
300. No individual shall use his/her authority or office for personal gain. Personal gain includes accepting or requesting anything of material value from bidders, prospective bidders or suppliers for the individual, his or her spouse, parents, children or other close relatives, or for other persons from whom the individual might gain direct or indirect benefit of the gift.
301. An individual shall seek to maintain and enhance the reputation of the Government by:
- a) Maintaining the highest standards of honesty and integrity in all relationships both inside and outside the Entity in which he works.
 - b) Developing the highest standards of professional competence.
 - c) Using funds and other resources for which he/she is responsible to provide the maximum benefit to the Government
302. Conflict of interest - An individual shall declare any personal interest that may affect or might reasonably be deemed by others to affect impartiality in any matter relevant to their duties.
303. Disclosure of personal relationships – an individual shall declare any relationship with a bidder, supplier, contractor, service provider or consultant and shall take no part in either the decision making process or the implementation of any contract where such a relationship exists. A personal relationship is defined as consanguinity or affinity up to the third civil degree.
304. Confidentiality and accuracy of information - An individual shall respect the confidentiality of information gained in the course of duty and shall not use such information for personal gain or for the unfair benefit of any bidder, supplier, contractor or consultant.
305. Information given by an individual in the course of their duty shall be true, fair and not designed to mislead.
306. Competition - All bidders, suppliers, contractors and consultants shall be treated with fairness and impartiality, and avoid any business arrangement that might prevent the effective operation of fair competition.

Examples of Unethical Conduct

307. The following are examples of the type of conduct prohibited by this Code of Ethics:
- a) Revealing confidential or "inside information" either directly or indirectly to any bidder or prospective bidder;
 - b) Discussing a procurement with any bidder or prospective bidder outside the official rules and procedures for conducting procurements;
 - c) Favoring or discriminating against any bidder, prospective bidder or consultant in the Preparing of technical specifications, terms of reference or standards or the evaluation of bids and proposals;
 - d) Destroying, damaging, hiding, removing, or improperly changing any formal procurement document;
 - e) Accepting or requesting money, travel, meals, entertainment, gifts, favors, discounts or anything of material value from bidders or prospective bidders, suppliers, contractors or consultants;
 - f) Discussing or accepting future employment with a bidder or prospective bidder, suppliers, contractors or consultants;
 - g) Requesting any other person to violate the public procurement rules or procedures;

- h) Ignoring evidence that the Code of Ethics has been violated; and
- i) Ignoring illegal or unethical activity by bidders or prospective bidders, suppliers, contractors, service providers or consultants, including any offer of personal inducements or rewards or otherwise.

Debriefing

308. All bidders and consultants whose offers are unsuccessful have the right to request a debriefing from the Project Manager, however no debriefing will be delivered until after the contract has been signed. The debriefing will be limited to the content of the bidder's bid or consultants' proposal and in no way will cover the content of any other firms offer or provide any information on the details of such other than information in the public domain such as minutes of opening and the Summary of Evaluation. The reasons for this are four-fold:
- (a) It increases the levels of transparency in the procurement process,
 - (b) It will provide essential guidance (especially to local firms) on the relative strengths and weaknesses in their offers. Local firms will be able to take the opportunity to strengthen their bids and proposals in the future leading to a more competitive local market.
 - (c) The more equitable potential bidders and consultants feel the process to be, the more likely they are to submit bids or pursue shortlisting again increasing the overall levels of competition.
 - (d) It will provide a benchmark for unsuccessful bidders and/or consultants, i.e. they will become aware of the quality and pricing levels required to win contract awards.
309. The overall goal of this debriefing process is to improve the level and quality of competition.
310. When de-briefing bidders and consultants care should be taken to ensure that no commercial confidences are breached, i.e. it is acceptable to give an indication of where a bid or proposal was weak but not acceptable to disclose details of other bids and proposals received. Debriefing's should be requested in writing and may either be delivered in writing or in a meeting chaired by the Project Manager at the Project Manager's option. If a meeting is held it must be documented and signed by both parties and a copy of the minutes of the meeting placed on the relevant contract file.
311. To facilitate the de-briefing process simultaneously to the notice of award or award of contract (services) being sent to the successful bidder or consultant, all un-successful bidders and consultants will be sent a in a Notice of an Awarded Contract, the following details:
- The name of each bidder or consultant submitting an offer
 - Bid prices as read out at bid opening²¹
 - In case of services, the technical points score of each consultant
 - The name and evaluated price of each bid or proposal and in the case of services the financial score
 - The name of bidders or consultants whose bids or proposals were rejected and the grounds for the rejection
 - Name of the winning bidder or consultant, the amount of the contact, the duration and final scope of the contract.
 - Details of how to request a de-briefing from the Project.

²¹ Except in Quality Based Selection of Services where only the highest ranked firm's financial proposal is opened.

312. In case an unsuccessful bidder or consultant feels that it has valid grounds for a complaint regarding the procurement process, it may lodge a complaint in accordance with the process outlined in the Bidding Document or Request for Proposals as the case may be.

D. Role of Lead Implementing Agency in Procurement

313. The 'Lead Implementing Agency for Nav Tejaswini is MAVIM which has overall responsibility for the execution of the project and retains overall responsibility and accountability for the project to IFAD and the Government. In respect of procurement, MAVIM would be responsible for the entire procurement process, including but not limited to functions such as:

- a) preparing procurement plans;
- b) preparing statements of requirements, specifications, terms of reference and/or bills of quantities;
- c) agreeing with IFAD on the procurement method or method of selection for each procurement activity;
- d) undertaking pre-qualifications, advertising, management of expressions of interest and short-listing;
- e) preparing bid solicitation documents and draft contracts;
- f) issuing bidding documents, responding to clarification requests and overall management of the bidding process;
- g) bid receipt, bid opening and bid evaluation;
- h) evaluation reporting;
- i) bid cancellation;
- j) contract award and negotiation;
- k) drafting contract documents and contract placement;
- l) contract management; - draft of contract monitoring format is provided in Annex 1
- m) invoicing and payment;
- n) dispute resolution;
- o) contract completion and assessment.

E. Procurement methods

314. Procurement of goods, works and consultancy services under the project will be obtained using any one of the following selection methods:

Goods

- a) National Competitive Bidding
- b) National Shopping
- c) Direct Contracting

Consultancy Services

- a. Quality cum Cost Based Selection (QCBS)
- b. Fixed Budget Selection (FBS)
- c. Least Cost Selection (LCS)
- d. Selection based on Consultants' Qualification (CQS)

- e. Single Source Selection (SSS)
 - f. Individual Consultants
315. Each of these selection methods involve different processes like preparation of bid documents, preparation of technical requirements, selection criteria and evaluation. These processes are described in the IFAD Procurement Handbook. MAVIM will develop a detailed Procurement Manual which will contain the processes, procedures and standard document templates adopting the provisions contained in the IFAD Procurement Handbook for the use of the project team. Procurement Manual, will be prior reviewed by IFAD.

F. Project Procurement Plan

316. It is a requirement of the IFAD Procurement Guidelines that at the outset of each project, the Borrower/recipient, in conjunction with IFAD, establishes a procurement plan covering the first 18-months of the project followed by 12 months successive plans synchronised with the Annual Work Plans and Budget during implementation.
317. Planning is a critical part of the procurement process to enable objectives and priorities to be set, workloads to be estimated and resources allocated. It enables the procuring entity to plan, organise, forecast and schedule its procurement activities and to identify potential areas for aggregation of needs.
318. As far as possible, procurement planning should be integrated with financial planning of a project so that budgets and procurement needs are synchronised as far as is practical.
319. Each procurement plan shall identify procedures which must be implemented by MAVIM to ensure consistency with the IFAD Procurement Guidelines. As provided in appendix I, paragraph 1 of IFAD's Procurement Guidelines, IFAD review of and no objection to the Borrower/Recipient's procurement plans is compulsory and the first 18 months procurement plan and the update for the subsequent 12 months procurement plan submitted by the Borrower/Recipient must include as a minimum (format provided in Annex 2):
- a. A brief description of each procurement activity to be undertaken during the period and name of the implementing agency responsible for the procurement;
 - b. The estimate value of each procurement activity;
 - c. The method of procurement to be adopted for each procurement activity and;
 - d. The method of review IFAD will undertake for each procurement activity indicating either post review or prior review.
320. Any amendments to the Consolidated Procurement Plan shall be subject to the Fund's no objection.

Updating a plan

321. As already stated above, the initial 18-month project procurement plan is required to be prepared at the outset of each project with successive 12 month procurement plans to follow during the course of implementation.
322. Once this initial plan receives a 'no objection' from IFAD the plan should form the basis of the procurement activity for the project.
323. It is important however that procurement plans are not static documents. They should be considered as 'live' documents and updated on a regular basis. Any major adjustments or amendments should be done promptly, but in any event, plans should be reviewed and updated at least annually but ideally every six months. Any major adjustment or amendments would require IFAD no objection.

G. Prior Review by IFAD

324. In accordance with the IFAD Project Procurement Guidelines, the following will be subject to prior review by IFAD:

325. Award of any contract for goods and equipment to cost USD 100 000 or equivalent or more. The following will be reviewed:
- a. Prequalification documents and shortlist when prequalification is undertaken;
 - b. Bid Documents for goods and works;
 - c. Evaluation Reports and Recommendations for Award; and
 - d. Draft contracts and subsequent amendments.
326. Award of any contract for consulting services estimated to cost USD 50 000 or equivalent or more. The following will be reviewed:
- a. Prequalification documents and shortlist when prequalification is undertaken;
 - b. Request for Proposal (RFP);
 - c. Technical Evaluation Report;
 - d. Combined (technical and financial) evaluation report and the recommendation for award; and
 - e. The minutes of Negotiation, draft contracts and subsequent amendments.
327. All direct contracts above the prescribed procurement method thresholds (indicated in the Letter to the Borrower issued by IFAD) shall be undertaken in accordance with the provisions of IFAD Procurement Guidelines for direct contracting and single source selection and subject to IFAD prior review. All the single source selection of consultancy services (national/international organizations/UN agencies) would require a detailed proposal including budget and deliverables, which will be evaluated by the project and submitted to IFAD's prior review before entering into the contract.
328. In addition to prior review threshold of consultancy services (ii) above, the first two procurement actions of consultancy services, irrespective of the selection methods, in a programme year, will also subject to IFAD prior review.

IFAD Prior Review Portal – NOTUS

329. IFAD has introduced a new system to manage 'No Objections' for project procurement and non-procurement related activities requiring prior review. The system, known as NOTUS (No Objection Tracking Utility System), has been rolled out across IFAD-financed projects/programmes.
330. NOTUS is a user-friendly tool that will systematize the submission, monitoring, review, commenting, and archiving of documents sent by projects to IFAD for 'No Objection'. It will significantly mitigate risks (e.g. data loss) from use of different and often manual methods of document naming, versioning, submission and archiving, as well as streamline the no-objection process. Ultimately, NOTUS will ensure better organization and efficiency in these processes, and in turn help project implementing agencies and IFAD realize important productivity gains.
331. All actions, which require IFAD prior review, will only be uploaded in NOTUS portal by the project team. PMU will nominate 3-4 staff members to IFAD for providing access to the portal. This access requires a two factor authentication. Only the staff members who have been granted access will be able to upload the documents/comments/replies. PMU will inform IFAD about the changes in the nominations forthwith during implementation

H. Contract Management

332. Good contract management is necessary for all contracts therefore the guidelines below applies equally to goods, consulting and non-consulting services. Effective contract administration is critical to successful contract implementation and meeting the objectives of the procurement requirement. Contract administration procedures are designed to ensure that:
- i. the supplier performs the contract in accordance with the terms and conditions specified in the contract;

- ii. the procuring entity fulfils its obligations and duties under the contract; and
 - iii. swift remedial or preventative action is taken when problems arise or are foreseen.
333. The procuring entity has the overall responsibility for contract management, but will draw on other resources, such as technical expertise, payment services, legal services and supply management systems, as required. Where such other services and systems are used, the procuring entity will remain responsible for monitoring their performance and ensuring that their activities, in relation to the contract, are completed on time and in accordance with procurement rules. Day-to-day contract management/administration will often be assigned to an end user or technical expert.

Contract management responsibility

334. The procuring entity will always retain overall responsibility for contract management but not necessarily the day-to-day functional activity which can often be undertaken from outside the procuring entity if deemed to be appropriate. For example, the procuring entity will normally retain control of contract amendments, payments and dispute resolution, but may allocate day-to-day liaison with the supplier, contractor or consultant to the end user.
335. When considering the most appropriate person or team to manage/administer the contract the procuring entity should take into account:
- a) whether supervision needs to be conducted by a person with appropriate technical skills, such as for construction contracts or the installation of complex plant and machinery. If so, contract administration is best allocated to the end user or an external consultant;
 - b) where contract administration is likely to be time-consuming or require skills not available within the procuring entity, an external contract administrator should be appointed, such as a project manager for a major construction contract;
 - c) where goods are to be delivered directly to the end user, contract administration is best allocated to either the end user or procurement staff;
 - d) where a consultant is required to work with the end user in conducting a study, providing advice or building capacity, contract administration is best allocated to the end user and particular counterpart staff may need to be designated to work with the consultant.
336. Where services are provided in support of the general management or administration of the procuring entity, contract administration is best allocated to the member of staff responsible for that function. The nominated Contracts Manager or Contracts Management Team should:
- a. carry out a review of the contract to assimilate the details of the requirements and the program for fulfilling them;
 - b. ensure that a signed copy of the contract is received from the supplier, contractor or consultant;
 - c. ensure that any required performance security or advance payment security is received from the supplier, contractor or consultant;
 - d. ensure that the procuring entity meets any immediate obligations, such as advance payment;
 - e. for larger contracts, prepare a contract implementation plan, showing key milestones, such as dates for mobilisation, deliveries or completion of certain deliverables or sections of work, and the procuring entity's obligations, such as providing access to a works site, payment or approval of reports.
337. The contract implementation plan is a key management tool to ensuring that the contract is performed as intended and within the obligations undertaken in the contract by both parties. It enables the Contract Manager to formulate an expediting plan for the contract to proactively ensure that deliverables are received on time.

Monitor implementation of contracts

338. The task of contract monitoring is to ensure that both parties to the contract perform in accordance with that contract and to take action as required to address any problems or delays, whether actual or anticipated.

339. For goods contracts ensuring that goods are delivered on time, that the goods are acceptable to the procuring entity, in terms of quantity, quality and supporting documentation, and that the procuring entity meets its obligations to pay for the goods delivered.
340. When managing services contracts, the focus is on ensuring that services are delivered on time and to an acceptable quality. This can be difficult, as the quality of services, particularly consultancy services, can be subjective and difficult to measure. A good working relationship with the consultant and ongoing monitoring of services is therefore important, to ensure successful contract performance. The procuring entity must also ensure that it meets its obligations, particularly where the performance of consultancy services is dependent on certain inputs or information from the procuring entity or where staff must be made available to benefit from capacity building initiatives.

Documents/Records Required:

341. All correspondence and documentation relating to contract administration must be kept on the procurement file. In particular, records are required of:
- i. all invoices and other payment documents;
 - ii. all documentation relating to contract performance, such as delivery notes, progress reports and other deliverables;
 - iii. all contract variations;
 - iv. all contract amendments;
 - v. all documents relating to claims under the contract, including warranty claims;
 - vi. all documents relating to contract disputes and dispute resolution.

12. PROJECT COSTS AND FINANCING

342. Project financing strategy: The following Table 8 summaries the financing strategy of the project where banks/financial institutions are the main co-financiers of the project followed by convergence schemes. The project will be leveraging funds via MAVIM. See COSTAB for detail.

Table 10: Summary of project finances

	Financing Sources	Amount in USD – million	% of total project cost
1	IFAD loan	50.00	11.85
2	IFAD grant	1.40	0.31
3	MAVIM/GoM (in kind)	33.08	7.84
4	MAVIM/GoM Taxes	4.71	1.11
5	Converges	66.99	15.88
6	Banks/financial institutions	250.84	59.47
7	Beneficiaries	4.95	1.17
8	Enterprises (private sector)	9.90	2.35
9	Total	421.87	100

Attachment 1 - DESIGN AND IMPLEMENTATION OF SUB-PROJECTS

Background

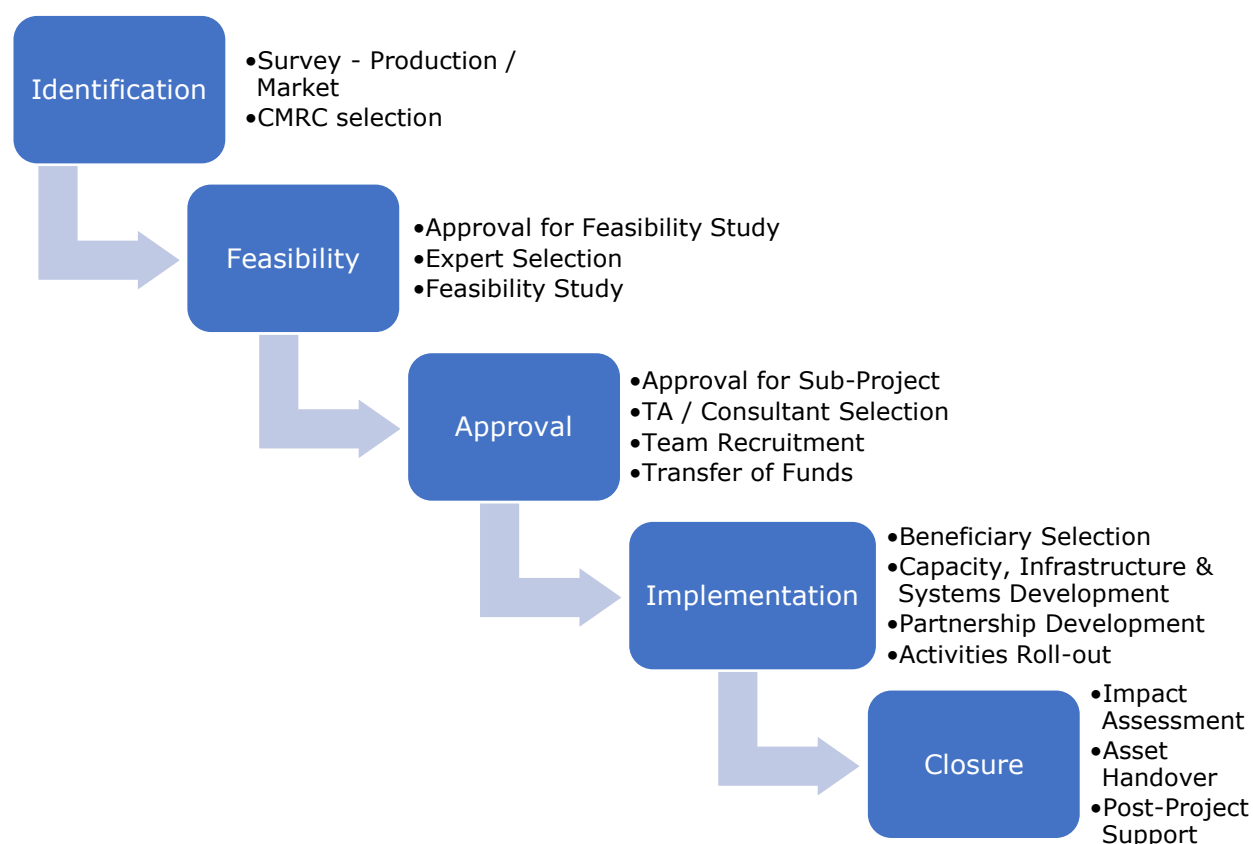
Nav Tejaswini shall be focussing on assisting women to setup and manage their own farm or off / non-farm micro-enterprises. These women are already engaged in some or the other form of livelihood / income generating activity, but to graduate them to the level of a micro-enterprise requires handholding.

Nav Tejaswini intends to identify and support suitable value chains along which these women can set up their micro-enterprises and earn a decent income from. This activity shall be done as a part of 'sub-projects' which shall be proposed and executed by one or more CMRCs with the support of professional experts.

The objective of these sub-projects shall be to streamline specific value chains and enable the women micro-entrepreneurs to participate in the same. These sub-projects shall focus on developing the capacities of these women as well as setting up common infrastructure where required.

The design mission has identified some 25 types of sub-projects in the farm sector and another 10 in the off / non-farm sector. However, these projects are only indicative, and Nav Tejaswini (with CMRCs) is expected to identify other potential opportunities which can facilitate the development of more women micro-entrepreneurs.

Process of Sub-Project Identification & Implementation



S. No.	Stage	Activity	Responsibility
1	Identification	Survey – Production / Market Identify value chain based on production in member network or market demand	Production – CMRC Market – MAVIM
		CMRC Selection Identify CMRC with the potential to engage in the selected value chain	MAVIM
2	Feasibility	Approval for Feasibility Study	MAVIM Committee
		Expert Selection Define TOR and select Expert to conduct Feasibility Study	MAVIM
		Feasibility Study Conduct Value Chain analysis, identify potential Markets, and design Roll-out Plan	Expert
3	Approval	Sub-Project Approval Define Targets, Timeline, Impact Metrics, Activities & Budget including Convergence	MAVIM Committee
		TA / Consultant Selection Define TOR and select TA / Consultant	MAVIM
		Team Recruitment Define TOR and select implementation team	CMRC
		Transfer of Funds Transfer funds from MAVIM to CMRC(s)	MAVIM
4	Implementation	Beneficiary Selection Identify beneficiaries and conduct baseline	CMRC
		Capacity, Infrastructure & Systems Development Train beneficiaries, set up infrastructure, and design systems for micro-enterprises	TA / Consultant
		Partnership Development Identify and on-board relevant partners especially markets (with alternatives)	TA / Consultant
		Activities Roll-out Implement sub-project activities as per the timelines and implementation plan	TA / Consultant + CMRC
5	Closure	Impact Assessment Conduct post-project survey and assess impact across the value chain especially on micro-entrepreneurs	TA / Consultant + MAVIM
		Asset Handover Design & execute post-project asset handover plan	CMRC
		Post-Project Support Identify post-project support requirements for micro-entrepreneurs including convergence and set up relevant systems	MAVIM + Relevant Line Department

Structure of MAVIM Committees

Feasibility Study Sanctioning Committee

Role: Responsible for identification of high potential value chains for micro-enterprise development and sanctioning feasibility studies to further analyse those value chains

Composition: General Manager (Program) + Manager (Business Development) + Managers (projects Implementation/Monitoring)

Sub-Project Approval Committee

Role: Responsible for analysing feasibility reports on value chains, identifying TA / Consultant for supporting sub-projects, and sanctioning of sub-projects

Composition: Managing Director + General Manager (Program) + Manager (Business Development) + Expert from Relevant Line Department

Components of Feasibility Study

The Feasibility Study should include the following aspects:

- Beneficiary Identification
 - Profile & number of current producers in the target sub-project area
 - Potential to increase number of beneficiaries over time
 - Expected incremental income of beneficiaries post sub-project
- Value Chain Analysis
 - List of Stakeholders in the entire Value Chain
 - Requirements & constraints analysis of each Stakeholder
 - Opportunities to remove stakeholders or add value; List of potential micro-enterprises
 - Current marketing strategy of sub-project beneficiaries
- Market Size
 - List of all products / services generated in the value chain
 - Overall Maharashtra, India and International market size
 - List of potential customers / markets, and competitors
- Production
 - Current raw material production amongst all members
 - Opportunity to improve productivity / quality of raw material
 - Design of value addition infrastructure / facilities / systems
- Support System
 - List of govt. schemes to support enterprise development in value chain including capacity development & financial products
 - Existing infrastructure / facilities to add value in the target area

Terms of Reference

Expert for Feasibility Study

Prior Experience: 10 years of experience in business planning; 5 years of experience in the selected value chain; Prior experience of conducting landscape analysis and developing feasibility reports

Responsibility: Analysing the feasibility of developing a selected value chain for micro-enterprise promotion; All components as described above to be included

TA / Consultant for Sub-Project Implementation

Prior Experience: 10 years of experience in the selected value chain; Prior consulting / project management experience is beneficial

Responsibility: Guide the CMRCs on project execution; Identify potential markets & onboard buyers; Identify & avail relevant govt. subsidies & convergence; Design standard operating procedures and information flow protocols

Team for Sub-Project Implementation

Prior Experience: Graduate with 2 years of Sales / Business Dev experience

Responsibility: Overall implementation of the sanctioned sub-project

Criteria for Buyer Partnership

Due Diligence

It following steps are recommended to be undertaken before MAVIM / CMRC agree any contract with a potential buyer:

- Presentation by buyer to MAVIM and CMRC representative on past performance and future plans
- KYC documents of the buyer like: a) incorporation certificate, b) PAN Card copy, c) Bank account details, and d) audited annual financial statements (preferably for the last three years); Most documents are also available on the Ministry of Corporate Affairs website
- Analysis of buyer's audited financial statements by a specialist and comparison with the presentation made to MAVIM and CMRC

Agreement

A formal agreement should be put into force whenever MAVIM / CMRC plan to work with a potential buyer. The agreement should capture the following:

- Specify quality and quantity of products / services to be delivered by MAVIM / CMRC to buyer
- Define payment process, terms and penalties
- Include a contingency plan in case of environmental disasters or market failures
- Build a guarantee mechanism to ensure buyers fulfil their obligations

Reporting Formats

The CMRCs shall send regular updates on the status of the sub-projects to MAVIM DCOs. The MIS which shall be developed as a part of Nav Tejaswini shall assist the CMRCs in preparing and managing these updated. Some of the reports which shall be required are as follows:

- Names and profiles of beneficiaries; Pre-subproject status of beneficiaries
- List of trainings / interactions, no. of participants / beneficiaries, and next steps agreed
- List of assets procured, capacity utilization, no. of beneficiaries, benefits accrued per beneficiary
- Increase in beneficiary incomes including data on productivity, quality, cost of production, price realization, etc.
- No. of new jobs created
- Funds utilization and progress status as per agreed timelines

ILLUSTRATIVE EXAMPLE - DAIRY SUB-PROJECT

Identification

Survey - Production / Market

- Total dairy processing capacity in the state by region
- Current capacity utilization of each processor

CMRC selection

- Total milk production in the state by the CMRC
- Select CMRCs with sizeable milk production / scope for increased production

Feasibility

Approval for Feasibility Study

- Feasibility study approved by internal MAVIM committee

Expert Selection

- Design TOR and call for EOI
- Seek Dept. of Animal Husbandry to shortlist prospective experts
- Interview applicants and finalize

Feasibility Study

- Survey markets for milk purchase
- Survey target CMRCs
- Analyse milk value chain, and identify constraints
- Submit report based on desired format

Approval

Approval for Sub-Project

- Present feasibility report in Sanctioning Committee meeting with a special invitee from the Dept. of Animal Husbandry
- Finalize targets and TOR for TA / Consultant
- Approve sub-project for implementation

TA / Consultant Selection

- Design TOR and call for EOI especially from experts like NDDB
- Seek Dept. of Animal Husbandry to shortlist prospective experts
- Interview applicants and finalize

Team Recruitment

- Design TOR and organize recruitment drive
- Select and appoint appropriate team to lead the sub-project implementation

Transfer of Funds

- Agree on milestone-based release of funds with the CMRC, TA / Consultant and Team

- Release funds as per agreed schedule

Implementation

Beneficiary Selection

- Identify high potential villages within the CMRC network
- Identify members already engaged in or interested in taking up dairy farming

Capacity, Infrastructure & Systems Development

- Identify existing bulk milk coolers, milk routes, etc.
- Link up interested farmers with existing collection centres
- Set up Village Level Collection centres in collaboration with buyer
- Redesign or set up milk routes to procure, and bulk coolers to chill

Partnership Development

- Identify potential buyers and onboard
- Tie up with insurance companies, veterinary service providers, govt. schemes, etc. to enable value chain development
- Tie up with existing village-level collection centres, bulk milk coolers, transporters, etc.

Activities Roll-out

- Train farmers on good agricultural practices
- Ensure proper operations of collection centres, transporters, bulk coolers, etc.
- Ensure access to proper services to dairy farmers

Closure

Impact Assessment

- Determine impact on incomes of associated farmers pre and post sub-project
- Identify micro-enterprises like village level collection centres, transporters, bulk milk coolers, para-vets, etc. generated due to the sub-project
- Determine increase in cattle population, productivity improvement, reduced mortality, etc.

Asset Handover

- Ensure ownership and management of all assets is clearly defined
- Enable CMRCs to intervene in case assets have been created as a part of the sub-project but are not being utilized properly

Post-Project Support

- Link up Dept. of Animal Husbandry, para-vets cadre and insurance company to provide a package of services to dairy farmers
- Ensure availability of high-quality feed & fodder by promoting micro-entrepreneurs for those businesses
- Organize regular cattle health camps with the support of partner buyers

Attachment 2: VC profiles

1. PADDY

NO. OF BENEFICIARIES	80,000 (25 sub-projects of 3,000 farmers each)
TARGET DISTRICTS	Bhandara, Chandrapur, Gadchiroli, Gondia, Kolhapur, Raigad, Ratnagiri, Sindhudurg
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Paddy Trading • Rice • Rice Flour • Processed / Packaged Foods
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Government's PDS / FCI • Government's Mid-Day Meal / ICDS programmes • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Rice Mills, Traders, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to higher value varieties (coloured / aromatic) • Improve productivity • Reduce cost of cultivation / water usage • Convert Paddy to Rice -> Rice to Rice Flour / Other Value Added Products • Improve packaging
CHALLENGES	<ul style="list-style-type: none"> • Climate change especially due to high water consumption • Lack of institutional market for high quality rice • Lack of grading and packaging facilities
STRATEGY	<ul style="list-style-type: none"> • Test coloured / aromatic varieties in collaboration with potential markets, and promote over time • Add value by converting paddy to rice (use existing milling capacity / set up new capacity where not available) • Grade produce and link with appropriate markets • Improve packaging design and quality • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-NRRI, ICRISAT, etc. • Buyers: Govt. (WCD / PDS), Rice Mills / Traders, Local, e-Commerce, MAVIM members • Processing: Local Millers, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Miller for Processing / Set up Processing Capacity • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

2. SOYBEAN

NO. OF BENEFICIARIES	70,000 (25 sub-projects with 3,000 farmers each)
TARGET DISTRICTS	Buldhana, Hingoli, Jalana, Latur, Osmanabad, Wardha, Washim, Yavatmal
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Soybean Trading
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Institutional Buyers like Oil Processors / Traders
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, high yielding varieties • GAP / Sustainability certification • Organic production • Reduce cost of cultivation
CHALLENGES	<ul style="list-style-type: none"> • Climate change and higher instances of pest attack • Increased y-o-y variation in prices at the time of harvest • Limited opportunities for post-harvest value addition
STRATEGY	<ul style="list-style-type: none"> • Test high oil / protein varieties in collaboration with potential markets, and promote over time • Grade produce and link with appropriate markets
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IISR, State Universities, RTRS, etc. • Buyers: Traders • Processing: Local Soy Millers
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on improved production practices
ROLE OF CMRC	<ul style="list-style-type: none"> • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

3. MAIZE

NO. OF BENEFICIARIES	20,000 (6 sub-projects with 3,000 farmers each)
TARGET DISTRICTS	Aurangabad, Nandurbar, Sangli
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Maize Trading • Corn Flour • Processed / Packaged Food • Cattle / Poultry Feed Manufacturing
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Corn Processors, Traders, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, high-yielding varieties • Improved post-harvest practices to control aflatoxin • Convert to Feed, Flour or other value added products
CHALLENGES	<ul style="list-style-type: none"> • Climate change and higher instances of pest attack especially FAW • Increased y-o-y variation in prices at the time of harvest • Management of aflatoxin post-harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding varieties, and promote over time • Ensure aflatoxin free maize by improving post-harvest practices • Add value by converting to corn flour, cattle / chicken feed • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIMR, Agri Universities, etc. • Buyers: Traders, Local, Feed Manufacturers, e-Commerce, MAVIM members • Processing: Local Flour Mills, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Flour Mill for Processing / Set up Processing Capacity • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

4. COTTON

NO. OF BENEFICIARIES	45,000 (15 sub-projects with 3,000 farmers each)
TARGET DISTRICTS	Amravati, Aurangabad, Buldhana, Chandrapur, Dhule, Jalana, Wardha, Yavatmal
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Organic / BCI cotton • Raw Cotton Trading • Cotton Fibre & Seed Trading • Yarn • Fabric • Textile
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Traders, Ginners, Spinners, Mill, Brands, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Organic / BCI certified • Improved variety (colour & length) • Ginning, Spinning and Fabric Manufacturing
CHALLENGES	<ul style="list-style-type: none"> • Climate change and higher instances of pest attack • Limited opportunities for post-harvest value addition • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher length varieties with controlled use of pesticides • Add value by ginning raw cotton to fibre & seed (use existing ginning capacity / set up new capacity where not available) • Grade produce and link with appropriate markets • Explore yarn / fabric manufacturing • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CICR, Agri Universities, etc. • Certification Agencies: BCI, Agencies empanelled by APEDA, etc. • Buyers: Traders, Ginners, MAVIM weavers, etc. • Processing: Local gins
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner including certification agency • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products • Link with other CMRCs requiring cotton fibre / yarn / fabric especially for bag-making
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Ginner for Processing / Set up Ginning Unit • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

5. PULSES

NO. OF BENEFICIARIES	60,000 (20 sub-projects of 3,000 farmers each)
TARGET DISTRICTS	Akola, Amravati, Beed, Buldhana, Chandrapur, Hingoli, Osmanabad, Sangli, Wardha, Washim, Yavatmal
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Pulses Trading • Dal Trading • Flour • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Government's Mid-Day Meal / ICDS programmes • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Dal Mills, Traders, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to shorter duration, better quality, higher yielding variety • GAP certified • Convert to Dal / Processed Foods • Standardisation of quality and grading • Improved packaging & branding
CHALLENGES	<ul style="list-style-type: none"> • Climate change and higher instances of pest attack • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / shorter duration, better quality varieties and promote over time • Add value by converting to dal (use existing milling capacity / set up new capacity where not available) • Grade produce and link with appropriate markets • Improve packaging design and quality • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIPR, ICRISAT, etc. • Buyers: Govt. (WCD / PDS), Dal Mills / Traders, Local, e-Commerce, MAVIM members • Processing: Local Millers, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Miller for Processing / Set up Processing Capacity • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

6. MILLETS

NO. OF BENEFICIARIES	20,000 (8 sub-projects of 2,500 farmers each)
TARGET DISTRICTS	Hingoli, Jalana, Nandurbar, Pune, Solapur, Ratnagiri
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Millets Trading • Flour • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Government's Mid-Day Meal / ICDS programmes • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Health Food Companies / Startups • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher yielding varieties • GAP certified • Premium market coming up due to status as health food • Convert to Flour / Processed Food • Manufacture Feed
CHALLENGES	<ul style="list-style-type: none"> • Limited market due to change in food habits
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / shorter duration, better quality varieties and promote over time • Grade produce and link with appropriate markets • Add value by converting to flour (use existing milling capacity / set up new capacity where not available), or packaged foods • Improve packaging design and quality • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIMR, ICRISAT, etc. • Buyers: Govt. (WCD / PDS), Traders, Local, e-Commerce, MAVIM members • Processing: Local Flour Mills, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Flour Mill / Set up flour mill • Develop and produce packaged foods • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

7. WHEAT

NO. OF BENEFICIARIES	10,000 (3 sub-projects of 3,000 farmers each)
TARGET DISTRICTS	Ahmednagar, Jalana
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Wheat Trading • Flour • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Government's PDS / FCI (if prices are below MSP) • Government's Mid-Day Meal / ICDS programmes • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Flour Mills, Traders, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher yielding varieties • GAP certified • Convert to Flour / Processed Food
CHALLENGES	<ul style="list-style-type: none"> • Competition from cheaper wheat available from other regions
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / shorter duration, better quality varieties and promote over time • Grade produce and link with appropriate markets • Add value by converting to flour (use existing milling capacity / set up new capacity where not available), or packaged foods • Improve packaging design and quality • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIWBR, Agri Universities, etc. • Buyers: Govt. (WCD / PDS), Traders, Local, e-Commerce, MAVIM members • Processing: Local Flour Mills, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Flour Mill / Set up flour mill • Develop and produce packaged foods • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

8. SPICES

NO. OF BENEFICIARIES	5,000 (5 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Hingoli, Sangli, Wardha, Washim
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Spices Trading • Organic / EU-MRL compliant • Processing
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Spice Processors, Traders, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher yield varieties • GAP certified • Convert to masala • Standardise quality and improve packaging
CHALLENGES	<ul style="list-style-type: none"> • Increased y-o-y variation in prices at the time of harvest • Competition from cheaper spices available from other regions
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding varieties & better agricultural practices • Introduce organic / EU-MRL compliant production • Add value by sorting & grading, and processing • Link with appropriate markets • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-NRCSS & IISR, SSI, etc. • Buyers: Traders, Local retail & institutional, e-Commerce, MAVIM members • Processing: Local Units, CFTRI, Manufacturers in Rajkot / Ambala • Certification: APEDA empanelled agencies
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local processor / set up processing unit • Develop masala mixes • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

9. GROUNDNUT

NO. OF BENEFICIARIES	10,000 (4 sub-projects of 2,000 farmers each)
TARGET DISTRICTS	Kolhapur, Sangli, Satara, Solapur
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Groundnut Trading • Deshelling • Oil Extraction • Cattle Feed Manufacturing
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Oil Mills, Traders, etc. • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher yield varieties • GAP certified • Improve post-harvest practices to control aflatoxin • Oil extraction and cattle feed manufacturing
CHALLENGES	<ul style="list-style-type: none"> • Increased y-o-y variation in prices at the time of harvest • Management of aflatoxin post-harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding varieties, and promote over time • Ensure aflatoxin free groundnut by improving post-harvest practices • Grade produce and link with appropriate markets • Add value by converting to oil, snacks / packaged foods, cattle feed, etc. • Improve packaging design and quality • Explore e-commerce and inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-DGR, Agri Universities, etc. • Buyers: Govt. (WCD), Traders, Local, e-Commerce, MAVIM members • Processing: Local Oil Mills, CFTRI, Manufacturers in Rajkot / Ambala
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Local Oil Mill / Set up oil mill • Set up feed manufacturing unit / Feed distribution set up • Develop and produce oils & packaged foods • Aggregate and grade / standardize produce including aflatoxin compliance • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

10. ONION

NO. OF BENEFICIARIES	10,000 (8 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Ahmednagar, Dhule, Nashik, Osmanabad, Pune, Satara, Solapur
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Onion Trading • GAP Certified Onion • Dried Onions • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers like Retailers & Food Processors • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, high-yielding varieties • GAP Certified • Convert to dried flakes / processed foods
CHALLENGES	<ul style="list-style-type: none"> • Increased input costs • Limited opportunities for post-harvest value addition • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / strategically suitable varieties & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-DOGR, Agri Universities, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Value-Addition: Local warehouses, Driers
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify warehouse / sorting & grading unit / drying unit, or set up required infrastructure • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

11. POTATO

NO. OF BENEFICIARIES	2,000 (2 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Pune, Satara
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Potato Trading • GAP Certified Potato • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Retailers, Wafer Manufacturers, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher-yielding varieties • GAP certification • Dried chips / Processed foods
CHALLENGES	<ul style="list-style-type: none"> • Increased input costs • Limited opportunities for post-harvest value addition • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / strategically suitable varieties & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore e-commerce & inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CPRI, Agri Universities, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Value Addition: Cold Storages, Processors
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner including certification agency • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify cold storage / sorting & grading unit / processing unit, or set up required infrastructure • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets

12.TOMATO

NO. OF BENEFICIARIES	5,000 (3 sub-projects of 1,500 farmers each)
TARGET DISTRICTS	Dhule, Nashik, Pune
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Tomato Trading • GAP Certified Tomato • Tomato Pulp • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers like Retailers, Pulp Manufacturers, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher-yielding varieties • GAP certification • Ensure year-round production • Pulp / Process inferior quality
CHALLENGES	<ul style="list-style-type: none"> • Climate change • Increased input costs especially due to pest attacks • Limited low-cost opportunities for post-harvest value addition • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding / strategically suitable varieties & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIVR, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Pulping units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner including certification agency • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres / pulping unit, or set up required infrastructure • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver, with focus on coordinated, year-round production • Coordinate linkage with potential markets

13. OTHER VEGETABLES

NO. OF BENEFICIARIES	5,000 (6 sub-projects of about 1,000 farmers each)
TARGET DISTRICTS	Kolhapur, Sangli, Raigad, Nagpur, Dhule, Pune
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Vegetables Trading • GAP Certified Vegetables Trading • Dried Vegetables
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers like Retailers, Pulp Manufacturers, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, higher-yielding varieties • GAP certification • Ensure year-round production
CHALLENGES	<ul style="list-style-type: none"> • Climate change • Increased input costs especially due to pest attacks • Limited low-cost opportunities for post-harvest value addition • Increased y-o-y variation in prices at the time of harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIVR, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Drying units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner including certification agency • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver, with focus on coordinated, year-round production • Coordinate linkage with potential markets

14. SUGARCANE

NO. OF BENEFICIARIES	20,000 (7 sub-projects of 3,000 farmers each)
TARGET DISTRICTS	Kolhapur, Sangli
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Sugarcane Trading • Jaggery Manufacturing • Processed / Packaged Food
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban • Institutional Buyers like Retailers and Traders • E-Commerce
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better quality, high-yielding varieties • GAP certification
CHALLENGES	<ul style="list-style-type: none"> • Climate change especially due to high water consumption • Delay in payments from sugar mills • Payment cycles are between 1 and 1.5 years • High investment required during sowing
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production with certification • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IISR, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Sugar mills, Traders, Retailers, Processors, MAVIM members, etc. • Processing: Jaggery units, Processed Food Units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify prospective cane buyers • Introduce improved varieties and production practices to increase productivity • Identify / set up jaggery manufacturing units • Coordinate linkages with prospective buyers and ensure timely payments

15. MANGO

NO. OF BENEFICIARIES	2,000 (2 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Ratnagiri, Sindhudurg
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Mango Trading • GAP Certified Mango Trading • Pulp Manufacturing
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • Develop new plantations on the UHDP model • GAP certification • Improve packaging • Collective marketing • Pulp / Process inferior quality
CHALLENGES	<ul style="list-style-type: none"> • Climate change and increased occurrence of extreme weather conditions • Unavailability of labour during harvest
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-IIHR & CISH, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Pulping units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Identifying or set up pulping units • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets • Coordinate with weather insurance providers • Engage with certification & testing agencies

16. ORANGE

NO. OF BENEFICIARIES	1,000 (2 sub-projects of 500 farmers each)
TARGET DISTRICTS	Amravati, Nagpur
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Orange Trading • GAP Certified Oranges Trading
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • Develop new plantations on the UHDP model • GAP certification • Improve packaging • Collective marketing • Pulp / Process inferior quality
CHALLENGES	<ul style="list-style-type: none"> • Climate change and increased occurrence of extreme weather conditions • Unavailability of labour during harvest • Increased y-o-y variation in prices • High instances of pest & disease attacks, and increase in input costs
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CCRI, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Pulping units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Identifying or set up pulping units • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets • Coordinate with weather insurance providers • Engage with certification & testing agencies

17. GRAPES

NO. OF BENEFICIARIES	5,000 (2 sub-projects of 2,500 farmers each)
TARGET DISTRICTS	Nashik, Sangli
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Grapes Trading • GAP Certified Grapes Trading • Raisins
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • GAP certification • Improve packaging • Collective marketing • Pulp / Process inferior quality
CHALLENGES	<ul style="list-style-type: none"> • Climate change and increased occurrence of extreme weather conditions • Unavailability of labour during harvest • Increased y-o-y variation in prices • High instances of pest & disease attacks, and increase in input costs
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-NRCG, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Drying units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Identifying or set up drying units • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets • Coordinate with weather insurance providers • Engage with certification & testing agencies

18. BANANA

NO. OF BENEFICIARIES	1,000 (1 sub-project of 1,000 farmers)
TARGET DISTRICTS	Jalgaon
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> Banana Trading GAP Certified Banana Trading
POTENTIAL MARKETS	<ul style="list-style-type: none"> Nearby Urban Centres like Mumbai, Pune, etc. Local Markets Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> Shift to better quality, high-yielding varieties GAP certification Improve packaging Collective marketing Process inferior quality
CHALLENGES	<ul style="list-style-type: none"> Climate change and increased occurrence of extreme weather conditions Unavailability of labour Increased y-o-y variation in prices High instances of pest & disease attacks, and increase in input costs
STRATEGY	<ul style="list-style-type: none"> Test higher yielding & better agricultural practices Introduce organic / Global GAP compliant production Add value by sorting & grading Link with appropriate markets especially retailers Explore inter-CMRC market linkages, and Govt. markets
STAKEHOLDERS	<ul style="list-style-type: none"> Technical Support: ICAR-NRCB, Agri Universities, etc. Certification Agencies: Agencies empanelled by APEDA, etc. Buyers: Govt., Traders, Retailers, Processors, MAVIM members, etc.
ROLE OF MAVIM	<ul style="list-style-type: none"> Identify & engage Technical Support partner Identify potential markets and link with CMRCs Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> Identify collection centres, or set up required infrastructure Aggregate and grade / standardize produce Estimate production Ensure availability of inventory in case of agreement to deliver, and promote year-round production Coordinate linkage with potential markets Coordinate with weather insurance providers Engage with certification & testing agencies

19. POMEGRANATE

NO. OF BENEFICIARIES	2,000 (3 sub-projects of 500 farmers each)
TARGET DISTRICTS	Ahmednagar, Pune, Solapur
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Pomegranate Trading • GAP Certified Pomegranate Trading
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • Develop new plantations on the UHDP model • GAP certification • Improve packaging • Collective marketing • Process inferior quality including drying
CHALLENGES	<ul style="list-style-type: none"> • Climate change and increased occurrence of extreme weather conditions • Unavailability of labour during harvest • Increased y-o-y variation in prices • High instances of pest & disease attacks, and increase in input costs
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Introduce organic / Global GAP compliant production • Add value by sorting & grading, and processing • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-NRCP, Agri Universities, etc. • Certification Agencies: Agencies empanelled by APEDA, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc.
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Identifying or set up processing units • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets • Coordinate with weather insurance providers • Engage with certification & testing agencies

20. COCONUT

NO. OF BENEFICIARIES	1,000 (2 sub-projects of 500 farmers each)
TARGET DISTRICTS	Ratnagiri, Sindhudurg
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Copra • Mature Coconut • Tender Coconut • Coir • Coconut Processing – Virgin Oil / Milk
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Goa, Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • Use better saplings (dwarf / hybrid) for new plantations • Tender coconut marketing • Value addition through virgin coconut oil, other products
CHALLENGES	<ul style="list-style-type: none"> • Unavailability of labour to harvest • Increased instances of pest & disease attacks, and challenges in managing due to height to plants
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Focus on tender coconut production, and other value added products • Link with appropriate markets especially retailers
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CPCRI, CDB, Agri Universities, etc. • Buyers: Traders, Retailers, Restaurants, MAVIM members, etc.
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Estimate production • Ensure availability of inventory in case of agreement to deliver, and promote year-round production • Coordinate linkage with potential markets

21. CASHEW

NO. OF BENEFICIARIES	2,000 (2 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Ratnagiri, Sindhudurg
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Raw Cashew Nut Trading • Kernel Extraction • Kernel Processing / Value Addition
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Nearby Urban Centres like Mumbai, Pune, etc. • Local Markets • Institutional Buyers like Retailers, Exporters, Processors, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Shift to better practices including drip irrigation to increase yield • Develop new plantations on the UHDP model • GAP certification • Improve packaging • Collective marketing • Convert broken / inferior quality into processed food
CHALLENGES	<ul style="list-style-type: none"> • Climate change and increased occurrence of extreme weather conditions • Increased y-o-y variation in prices
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better agricultural practices • Add value by sorting & grading • Link with appropriate markets especially retailers • Explore inter-CMRC market linkages • Explore value addition to develop premium markets
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-DCR, Agri Universities, etc. • Buyers: Traders, Retailers, Processors, MAVIM members, etc. • Processing: Processing units
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure • Aggregate and grade / standardize produce • Identifying or set up processing units • Estimate production • Ensure availability of inventory in case of agreement to deliver • Coordinate linkage with potential markets • Coordinate with weather insurance providers

22. DAIRY

NO. OF BENEFICIARIES	40,000 (20 sub-projects of 2,000 farmers each)
TARGET DISTRICTS	Gondia, Kolhapur, Sangli, Solapur
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Milk Trading • Organic / Safe Milk Trading • Bulk Milk Cooler • Milk Processing – Curd / Cottage Cheese / Khoa • Milk Packaging
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers in urban clusters • Processors including Dairy Cooperatives
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Organic / Safe milk production • Bulk collection • Bulk milk cooling • Basic processing including curd / khoa / paneer manufacturing • Packaging for retail sales
CHALLENGES	<ul style="list-style-type: none"> • Highly perishable commodity • High variation in prices over the last few months • Limited residual value of cattle past its productive stage
STRATEGY	<ul style="list-style-type: none"> • Test higher yielding & better production practices including breed improvement, feeding technologies, etc. • Introduce organic / Global GAP compliant production • Add value by streamlining production and logistics including better testing, bulk milk cooling, etc. • Link with appropriate institutional markets like dairies • Explore inter-CMRC market linkages for value added products like cottage cheese, etc.
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: NDDDB, ICAR-NDRI, Vet Universities, etc. • Buyers: Local, Dairies (generally coop), MAVIM members, etc. • Processing: BMC, Transporter • Veterinary service provider
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify collection centres, or set up required infrastructure with testing equipment • Aggregate and transport milk • Identify or set up processing units especially bulk milk coolers • Identify or set up feed manufacturing • Estimate production • Ensure availability of inventory in case of agreement to deliver with focus on consistent year-round supply • Coordinate with cattle insurance providers • Coordinate with 'Safe Milk' certification agencies

23. POULTRY

NO. OF BENEFICIARIES	50,000 (15 sub-projects of 3,000 farmers each)
TARGET DISTRICTS	Bhandara, Chandrapur, Dhule, Gadchiroli, Gondia, Nandurbar, Palghar, Raigad, Ratnagiri, Sindhudurg, Thane, Yavatmal
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • For Meat • For Meat – By the variety / GAP Certified • Eggs
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers in urban clusters
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Produce premium varieties • Improve production practices to increase yields • GAP certification • Differentiated packing for country eggs • Collective marketing
CHALLENGES	<ul style="list-style-type: none"> • Threat of bird flu and other diseases
STRATEGY	<ul style="list-style-type: none"> • Test premium varieties and improved production practices • Ensure availability of good quality day-old chicks and feed • Introduce antibiotic-free / GAP compliant production • Add value by streamlining production and logistics especially for layers • Link with appropriate institutional markets
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-DPR, Agri Universities, etc. • Buyers: Traders, Processors, Local, MAVIM members, etc. • Hatchery • Transporter • Veterinary service provider
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Aggregate and transport birds • Identifying or set up hatchery • Identify or set up feed manufacturing • Estimate production • Ensure availability of inventory in case of agreement to deliver with focus on consistent year-round supply • Coordinate linkage with potential markets • Coordinate with insurance providers • Coordinate with 'antibiotic-free / safe meat' certification agencies

24. GOAT

NO. OF BENEFICIARIES	30,000 (25 sub-projects of 1,000 farmers each)
TARGET DISTRICTS	Ahmednagar, Akola, Amravati, Aurangabad, Beed, Bhandara, Buldhana, Chandrapur, Dhule, Gondia, Hingoli, Jalana, Kolhapur, Latur, Nagpur, Nanded, Nandurbar, Nashik, Osmanabad, Parbhani, Pune, Sangli, Satara, Solapur, Thane, Washim, Yavatmal
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • For Meat • For Meat – By the variety / GAP Certified • Milk & Milk Value Added Products
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers in urban clusters
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Produce premium varieties • Improve production practices to increase yields • GAP certification • Collective marketing
CHALLENGES	<ul style="list-style-type: none"> • Threat of disease outbreaks • Negative outlook towards consumption of red meat
STRATEGY	<ul style="list-style-type: none"> • Test premium varieties and improved production practices • Ensure availability of good quality bucks and feed • Introduce disease-free / GAP compliant production • Add value by streamlining production and logistics • Link with appropriate institutional markets
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CIRG, Goat Trust, Agri Universities, etc. • Buyers: Traders, Local, MAVIM members, etc. • Transporter • Veterinary service provider
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Aggregate and transport animals • Identifying or set up nursery for better quality bucks • Estimate production • Ensure availability of inventory in case of agreement to deliver with focus on consistent year-round supply • Coordinate linkage with potential markets • Coordinate with insurance providers • Coordinate with 'disease-free / safe meat' certification agencies

25. FRESHWATER AQUACULTURE

NO. OF BENEFICIARIES	1,000 (2 sub-projects of 500 farmers each)
TARGET DISTRICTS	Gadchiroli, Gondia
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • For Meat • For Meat – GAP Certified
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Institutional Buyers in urban clusters
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Produce premium varieties • Improve production practices to increase yields • GAP certification • Collective marketing
CHALLENGES	<ul style="list-style-type: none"> • Climate change and threat of droughts / floods • Lack of hatcheries • Limited demand for freshwater fishes in the state
STRATEGY	<ul style="list-style-type: none"> • Test popular fish varieties and improved production practices • Ensure availability of good quality fingerlings • Introduce disease-free / GAP compliant production • Add value by streamlining production and logistics • Link with appropriate institutional markets
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: ICAR-CIFA, WorldFish, Agri Universities, etc. • Buyers: Traders, Retailers, Local, MAVIM members, etc. • Hatchery
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Aggregate and transport fishes (requires cold chain) • Identifying or set up hatchery • Estimate production • Ensure availability of inventory in case of agreement to deliver with focus on consistent year-round supply • Coordinate linkage with potential markets • Coordinate with insurance providers • Coordinate with 'disease-free / safe meat' certification agencies

26. Mini ready to wear garments

NO. OF BENEFICIARIES	
TARGET DISTRICTS	All
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Job-Work basis • Standalone enterprise
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local (district and block level, small market) • Large garment manufacturers
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Sub-contracting relations for big buyers/brands • Improved designs, materials, workmanship, fashion and responding to trends
CHALLENGES	<ul style="list-style-type: none"> • Poor/cheap raw materials, old/poor design, not trendy, targeted to low-price market; often sold locally
STRATEGY	<ul style="list-style-type: none"> • Improve design and quality and trendy products for district level market • Become subcontractors for larger buyers/brands
STAKEHOLDERS	<ul style="list-style-type: none"> • Large buyers, design house, designer developers, good raw materials suppliers
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Organize entrepreneurs; organize training on tailoring; establish linkage with designer; facilitate training of designers. • Organize peoples who are interested to work as wage employee; organize training, negotiate with buyers in case of subcontracting arrangement

27. FOOD PROCESSING

NO. OF BENEFICIARIES	33,000 (33 sub-projects)
TARGET DISTRICTS	All
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Dal / Millet Processing • Masala Manufacturing • Papad / Pickle / Prasad / Namkeen Manufacturing
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local Markets • Nav Tejaswini MAVIM members • Non-Nav Tejaswini MAVIM members especially urban
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Improve input quality and production process • Standardize production quality • Aggregate demand for inputs across MEs and purchase in bulk • Improve packaging quality to increase shelf life • Introduce Food Safety processes and certifications
CHALLENGES	<ul style="list-style-type: none"> • Variations in input costs • Variations in input quality • Competition from existing processors especially in the unorganized sector • Price sensitive customer • Low brand differentiation
STRATEGY	<ul style="list-style-type: none"> • Define input purchase parameters and quality testing protocols • Tie up MEs with producers within the MAVIM network • Improve and define processing procedures • Improve packaging design • Explore setting up Common Facility Centres for activities like packaging • Engage with local administration to get contracts for government catering, prasad making, etc., and facilitate appropriate infrastructure
STAKEHOLDERS	<ul style="list-style-type: none"> • Technical Support: CFTRI, ICAR-CIPHET, etc. • Input producers preferably from within the MAVIM network • Buyers especially retail sales outlets, MAVIM members, govt. agencies, etc. • FSSAI and other relevant certification agencies • Common Facility Centres • Packaging material providers • MAVIM for support on design and product standardization
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Identify Technical Support Agency • Ensure product standardization through input, process and packaging improvement and control

	<ul style="list-style-type: none"> • Coordinate with government and other institutional buyers / partners • Identify or set up Common Facility Centres • Coordinate with certification agencies especially FSSAI
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29. BAMBOO CRAFT

NO. OF BENEFICIARIES	8,000
TARGET DISTRICTS	Sindhudurg, Others (Total 16 sub-projects of 500 members each)
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Bamboo Handicraft • Bamboo Furniture • Bamboo Building Material
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Local markets and word of mouth • Exhibitions and fairs • Retail outlets especially Souvenir shops for handicrafts • Institutional buyers like Ikea, Pepperfry, Urban Ladder, etc.
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Quality improvement and product standardization • Design improvement and regular updating • Access to premium markets
CHALLENGES	<ul style="list-style-type: none"> • Low focus on end-quality since current target markets more price sensitive than quality sensitive • Limited focus on input material quality and sustainability of supply chain • Limited mechanization in production processes • Limited improvement in designs
STRATEGY	<ul style="list-style-type: none"> • Improve skills of producers and introduce mechanization • Improve bamboo supply chain • Link producers with designers • Set up common facility centres for higher end production
STAKEHOLDERS	<ul style="list-style-type: none"> • Bamboo producers • Technical and design support agencies like NID, NIFT, IIT, etc. • Institutional Buyers like KONBAC, Ikea, furniture retailers, etc. • Common facility centres
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Improve skills of associated producers • Improve sustainability in supply chain and quality of bamboo production • Identify and engage with providers for machines & tools to improve production • Regularly engage with designers to improve designs • Set up and manage common facility centres • Identify and engage with institutional buyers

32. ECO-TOURISM

NO. OF BENEFICIARIES	2,500
TARGET DISTRICTS	As per requirement
POTENTIAL ENTERPRISES	<ul style="list-style-type: none"> • Home Stays & Eateries • Tour Guide • Photographs
POTENTIAL MARKETS	<ul style="list-style-type: none"> • Urban / International tourists seeking a rural experience
OPPORTUNITY FOR VALUE-ADDITION	<ul style="list-style-type: none"> • Improve and standardize stay facilities • Train on food preparation, presentation and quality for urban / international clientele • Train on cleanliness and hospitality management • Prepare for ancillary services like tour guides, photographers, etc.
CHALLENGES	<ul style="list-style-type: none"> • Limited existing infrastructure for providing stays / home stays • Limited understanding of urban / international tastes • Availability of multi-lingual individuals
STRATEGY	<ul style="list-style-type: none"> • Train interested members on cleanliness, hospitality management • Train local eateries on cleanliness, presentation and preparing food for the urban / international clientele • Design layout for stay infrastructure and develop infrastructure accordingly • Design tour plans with focus on local cultural experiences • Prepare notes / brochures on local history • Train interested members on skills like photography • Link up with tour operators in urban areas • Engage with the Tourism department / local administration to promote tourism in the area • Link up with corporate training organizations / HRs of companies
STAKEHOLDERS	<ul style="list-style-type: none"> • Urban / International tourists seeking a rural experience • Stay providers • Eateries • Tourism spots in the area • Tour and travel operators in urban areas • Local taxi operators • Technical Support partners including CSR of
ROLE OF MAVIM	<ul style="list-style-type: none"> • Identify & engage Technical Support partner • Identify potential markets and link with CMRCs • Guide CMRCs on standardization of processes & products
ROLE OF CMRC	<ul style="list-style-type: none"> • Training individuals on various skills • Identifying tourism destinations and designing tour plans • Aligning all stakeholders for smooth tour operations especially stay providers, eateries, cab providers, etc.

	<ul style="list-style-type: none"> • Assisting MEs in designing stay infrastructure • Engaging with tourism department / local administration to promote eco-tourism in the area • Taking feedback from customers on experience and appropriately tweaking tour plans / guiding stakeholders
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Attachment 3: STRUCTURE OF PRODUCER COLLECTIVES & COMPANIES

Background

MAVIM under Tejaswini have mobilised women into three tier structures of community owned and managed structures of Self-Help Groups (SHGs), Village Organisations (VOs) and Community Management Resource Centers (CMRCs), which are federations of SHGs.

SHGs: At the village neighbourhood level 10 to 20 members chosen on the basis of mutual trust and affinity form a SHG. SHGs undertake savings and credit functions and are the key institutions through which, services are accessed by members. The SHGs in a village form the Village Organisation.

VOs: Voluntary unregistered structure functioning as a pressure group of the women in a village. VOs carry forward the social agenda set by the CMRCs as well as address local issues affecting members and community. VOs in select blocks also carry out financial intermediation function.

CMRCs: The registered apex structures, are member owned and managed with good governance structure, and with systems and processes to ensure sustainable operations. The CMRCs broadly carry out six key functions; (i) group maintenance functions – books writing, auditing, training, conflict resolution, sharing good practices, monitoring the group performance; (ii) facilitating access to financial services – linking the groups to banks, insurance companies, post office, participating in pilots and studies; (iii) facilitate livelihood support services - effectively putting in place a system of community based support services to provide technology, package of practices, credit, CRP support and marketing support, (iv) convergence with various Government programmes for livelihoods and social entitlements thus mobilizing HH level government support (v) running of profitable social enterprises, and (vi) trainings/studies for other agencies.

CMRCs are vibrant institutions and a one of its kind model where CMRCs cover their operational costs of an average Rs. 6 lakhs per year. Members of CMRCs pay for services thus creating a mutually reinforcing quality control mechanism.

MAVIM has created the “brand” CMRCs, which is widely recognised by banks, Government departments, and Companies under CSR. CMRCs with MAVIM support mobilise every year Rs. 60 crores worth of convergence under different Government programmes and schemes. Business development partnerships were formed between banks and the CMRCs which has enabled credit flow of Rs. 500 crores annually and CMRCs earn a commission of 2 percent to ensure quality and discipline of SHGs and bank loan repayments. With their effective outreach to poor households especially women and also efficiency in delivering services, companies fund CMRCs under CSR and districts mobilise Rs. 2 crores on an average every year though this is not uniform across all districts. .

Proposed Structure under Nav Tejaswini

Nav Tejaswini intend to convert these CMRCs into hubs of economic activities and business enterprises. This will need a relook at suitable legal forms. The CMRCs, with a membership of 2,500-3,000 women each are registered under the Societies & Trusts Act. Most CMRCs are registering robust growth in funds with diversified income sources and their balance sheet sizes are increasing. As per the acts, these institutions can neither carry out businesses nor share profits with members. The other limitations are Societies and Trusts cannot mobilise share capital to initiate and expand businesses, and corporates hesitate to have business dealings with Societies and Trusts.

To run and grow businesses CMRCs need to facilitate formation of co-operatives and farmer producer companies/non farm producer collectives.

Two legal forms are suitable for community owned businesses- co-operatives and producer companies. Given the complexity of legal compliances in companies, Nav Tejaswini will promote cooperatives at CMRC level (about 247) and commodity-based producer companies at higher level (about 30). An apex producer company will also be promoted at state level for forging market linkages and standardization of processes, products and packaging.

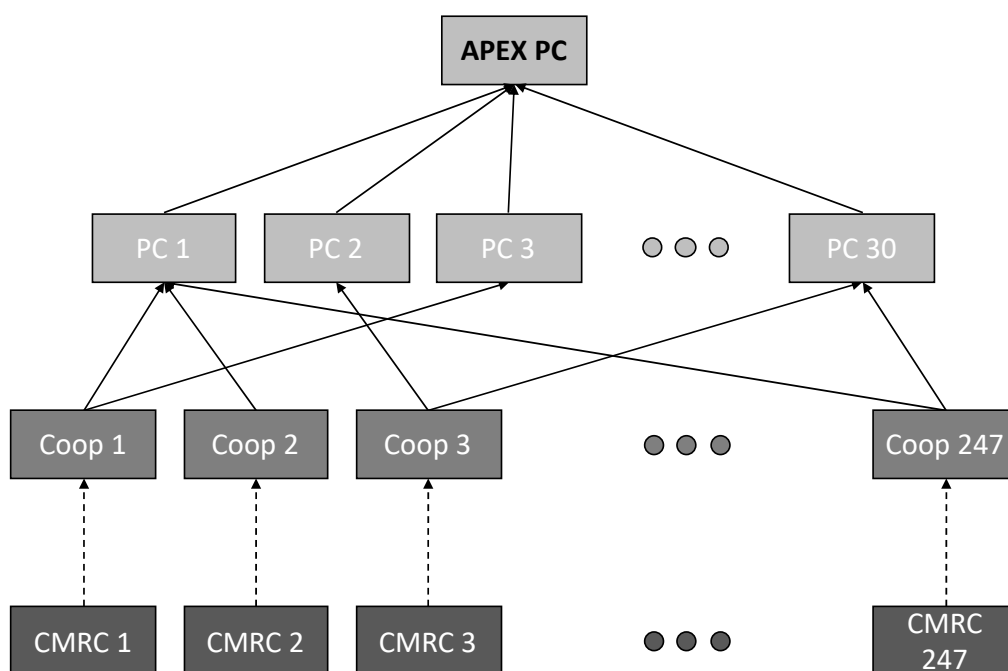


Fig: Recommended structure of Nav Tejaswini Producer Organizations

Ownership Structure

Cooperatives (Coop): All willing producer members of each CMRC will collectively promote one Cooperative per CMRC. These members will be shareholders of the Cooperative. Other than the present SHG members others in villages/neighbouring villages will be keen to participate in the value chain activities; Criteria for entry of any new shareholders should be properly defined so as to ensure that only like-minded individuals join. CMRCs can consider a condition that they should first join SHGs and thereafter join the co-operatives.

Producer Companies (PC): The cooperatives promoted by CMRC members come together to set up commodity / product-specific Producer Companies. The shareholding of these PCs should be restricted to only the Cooperatives promoted through MAVIM's support.

Apex Producer Company (Apex PC): The PCs promoted by Cooperatives shall together promote an Apex Producer Company. The shareholding of this Apex PC should be restricted to only the PCs promoted through MAVIM's support.

Roles of CMRCs and Producer Collectives

CMRCs:

- Monitor and support SHGs at all stages including promotion of new SHGs
- Spearhead the support services to standalone Micro Enterprises.
- Continue to provide necessary support to SHGs.
- MOUs with banks and insurance companies to ensure access to financial services including micro-enterprise loans and life, accident insurance.
- Work closely with the District Administration to access Government schemes through convergence and other partners (including CSR) for resource mobilisation
- Focus on health and nutrition initiatives for the SHG members & their families

- Execute Nav Tejaswini's Ultra-Poor programmes, skill development initiatives and innovations projects.
- Social enterprises other than value chain related.

Cooperatives (248 in number):

- Business driven; Inward looking i.e. mostly coordination with members
- Aggregate members' / other individuals' produce
- Value add to members' produce by sorting & grading / primary processing / packaging
- Identify or set up collection centres / warehouses / sorting & grading units / primary processing units
- Coordinate with relevant PCs to sell members' produce and ensure timely payments to members
- Aggregate members' / other individuals' demand for inputs & services including crop, livestock insurance & technical support
- Coordinate with relevant PCs to ensure timely availability of quality inputs & services
- Understanding market requirements with the support of relevant PCs and sharing with individual producers
- Coordinating with certification agencies to validate production / processing procedures for improving marketability

Producer Companies (30 companies):

- Outward looking i.e. mostly coordination with external stakeholders
- Engage with external business stakeholders especially institutional buyers and input / service providers relevant to the commodities / products being handled by the PC
- Understand requirements of buyers in terms of quality, quantity, finance and logistics while purchasing commodities / products from suppliers
- Track production quality and quantity of relevant commodities / products across various cooperatives
- Develop training modules and engage with cooperatives to standardize production quality including grading as per requirements of buyers
- Ensure availability of credit / value chain financing to Cooperatives to aggregate produce for inventory, value addition and / or sale to buyers
- Explore price-hedging mechanisms with the support of commodity exchanges
- Negotiate improved deals for inputs and services including insurance on behalf of cooperatives

Apex Producer Company (one at state level):

- Coordinate between the various PCs to ensure standardization of procedures and product quality
- Provide technical and legal assistance to all PCs
- Develop and manage a common brand and image for all member PCs, and ensure adherence to the norms by all PCs
- Engage with International Markets
- Engage with policy makers to support the Cooperative / PC landscape

Rationale for Structure and Roles

CMRC:

- Community ownership is high
- Well recognized structures across the state, and both government and private sector are comfortable engaging with these.
- Able to generate support from Govt. schemes as well as CSR
- Have existing MoUs with Financial Institutions to provide SHG support services which might be difficult to transfer to a new agency
- Some CMRCs are tax-exempt, and don't have to pay income tax or GST on revenues generated, thus leaving a larger amount for servicing SHGs / developmental activities
- Not allowed to engage in business activities, and certainly not allowed to redistribute profits severely limiting their ability to appropriately service members on the forward & backward linkages.

Cooperatives:

- To be registered under the Cooperatives Act since structure familiar to and well-understood by most CMRCs; Compliance requirements are not very exhaustive but at a cluster of village level it is easier to ensure discipline in the functioning.
- Democratic institution with each member having equal right and say in the functioning of the institution and selection of governance.
- Allowed to engage in business activities including sale & purchase of produce, setting up of infrastructure, and holding of inventory
- Able to redistribute profits amongst shareholders based on their shareholding / volume of business
- A Cooperative can become the shareholder of any of the Producer Companies dealing in products produced by their members to facilitate forward & backward linkages; All shareholder Cooperatives in a Producer Company should have equal number of shares.

Producer Companies:

- To be registered under the Companies Act as producer company which requires robust compliance and hiring of professionals
- Company like in operations where each shareholder can influence the decision making by selection of the Board of Directors, but all day-to-day operations are taken care of by professional management
- Allowed to engage in business activities, and redistribute profits based on the shareholding / volume of business
- Exempt from paying income tax for annual turnover under INR 10 million
- A second tier institution doesn't have to expend too much effort and resources in managing its shareholders since they shall be represented by their Cooperatives
- PCs should be formed based on the set of customers they are dealing with i.e. a PC dealing in grains deals with one set of customers while a PC dealing in dairy deals with a completely different set of customers; The different kind of PCs which shall be required are as follows:

S. No.	Product Type	Operational Area	Rationale
1	Seasonal & non-perishable i.e. grains, oilseeds, etc.	State-wide	<ul style="list-style-type: none"> Requires large volumes for better price negotiation Storable and hence not hypersensitive to logistical / decision-making delays Requires similar handling & financing expertise, and engages with similar customer types
2	Seasonal & perishable i.e. fruits	Division-wide	<ul style="list-style-type: none"> Produced in large volumes in a short time and hence requires larger markets for better price realization Moderately perishable and hence decision making has to be quick Generally similar crops are grown across multiple adjoining districts
3	Year-round & perishable i.e. vegetables	District-wide	<ul style="list-style-type: none"> Generally deals in smaller unit sizes but every day Highly perishable and hence decision making has to be quick and decentralized Mostly engages with local customers
4	Dairy	District-wide	<ul style="list-style-type: none"> Generally deals in smaller unit sizes but every day Highly perishable and hence processing & decision making has to be quick and decentralized Mostly engages with local customers
5	Meats i.e. poultry, goat, etc.	Division-wide	<ul style="list-style-type: none"> Generally deals with smaller unit sizes but every day Moderately perishable and hence decision making has to be quick Mostly engages with regional customers
6	Fish	District-wide	<ul style="list-style-type: none"> Generally deals in smaller unit sizes but every day Highly perishable and hence decision making has to be quick and decentralized Mostly engages with local customers
7	Non-Farm	Division-wide	<ul style="list-style-type: none"> Requires extensive customization and quality control Storable and hence not hypersensitive to logistical / decision-making delays Requires similar handling & financing expertise, and engages with similar customer types

Apex Producer Company:

- To be registered under the Companies Act as producer company which requires robust compliance and hiring of professionals
- Company like operations where each shareholder can influence the decision making by selection of the Board of Directors, but all day-to-day operations are taken care of by professional management

- Allowed to engage in business activities, and redistribute profits based on the shareholding / volume of business
- Exempt from paying income tax for annual turnover under INR 10 million
- All Producer Companies shall be equal shareholders of the Apex Producer Company
- Brand, image, co-ordination, etc. have to be managed at a centralized level and should be standardized.

Implementation steps before formation of co-operatives

- a) MAVIM needs to facilitate sub project identification under farm and nonfarm sectors. Have simple forecasts on number of members and volume of business both input and outputs under different sectors.
- b) Make a realistic assessment of work and activities under Nav Tejaswini for stand-alone micro enterprise promotion and also ultra poor interventions.
- c) Make a holistic assessment of the services needed by 3,000 members of CMRCs and which institution should provide what type of services.
- d) Facilitate discussions with CMRCs on role division between CMRCs and co-operatives; governance for both structures, staffing for both structures and how to create co ownership of both the structures.
- e) Make business plans for CMRCs and the cooperatives including resource mobilisation. Staff hired for sub project implementation will be initially working with CMRCs but move into co-operatives once they are formed.
- f) In case CMRCs decides on only co operative form to be continued, work out modalities for winding down especially transfer of business relationships and assets from CMRCs to Cooperatives.
- g) For cooperatives, mobilise additional resources from agriculture department/ATMA, horticulture department, NABARD etc.

Attachment 4: MANAGEMENT INFORMATION SYSTEM

Background

Nav Tejaswini requires MAVIM and CMRCs to transition into business enterprises with the ability to obtain information at the click of a button and take informed business decisions quickly. These organizations and their members need to be digitally connected amongst themselves and with the outside world to unlock the power of enterprise development.

The current SHE Software has enabled CMRCs to monitor SHG health and deliver great value to the SHGs on the financial linkages front. However with time this software has also become outdated with better technologies now available to track and deliver financial services to low-income households.

It is suggested that MAVIM invests in identifying / developing a technology solution to do the following:

1. Enable Financial Linkages including SHG and Micro-Enterprise Loans
2. Assist Micro-Enterprises and Farmer Producer Companies to take business decisions
3. Monitor the various sub-projects set up under Nav Tejaswini

Process

S. No.	Stage	Activities	Implementor
1	Stakeholder Identification	<ul style="list-style-type: none">List all potential stakeholders who will be required to be connected to the MIS	MAVIM
2	Requirement Gathering & Analysis	<ul style="list-style-type: none">Understand data requirements of every stakeholder and the potential value this MIS can create for them	Consultant + MAVIM
3	Architecture Design	<ul style="list-style-type: none">Use Case designDatabase designSecurity solutions and access controlUser Interface design	Consultant
4	Solutions Identification	<ul style="list-style-type: none">Survey existing solutions	Consultant
5	Development / Customization	<ul style="list-style-type: none">Procure solution / recruit developerDesign and integrate modules	Consultant + Developer / Solution Provider
6	Testing	<ul style="list-style-type: none">A/B TestingSecurity Testing	Developer / Solution Provider
7	Data Transfer + Deployment	<ul style="list-style-type: none">Transferring data from SHE SoftwareCreating user ids with appropriate access controlsTraining users on the new system	Developer / Solution Provider
8	Maintenance	<ul style="list-style-type: none">Regular security checks and system upgrades	As per recommendation of Consultant

Salient Features of the new MIS

- Always on, cloud-based preferably hosted on Amazon Web Services / Microsoft Azure / Any other secure cloud server
- Scalable
- Follows required data security protocols
- Database contains all required details about members, SHGs, enterprises, financial linkages, assets, inventory, etc.
- Clearly defined levels of data access to users

Additional Recommendation

Please learn from the system currently being used by IFAD-funded Integrated Livelihood Support Project in Uttarakhand.

TOR of Consultant

Pre-requisite

- At least 5 years of experience in IT Consulting / SaaS Product Development
- Prior experience of building organizational MIS especially in the social enterprise / development sector
- Exposure to latest web-based technologies and solutions

Expected Activities

- Identify all relevant stakeholders for the purpose of this MIS
- Identify expectations and requirements of each of the identified stakeholders from this MIS; Conduct interviews / surveys / FGDs if required
- Design use cases for each of the stakeholders
- Design the system architecture based on the use cases
- Identify appropriate solutions / technologies already existing in the market which can be used
- Identify developers / solutions providers to develop / customize solutions as per the requirements
- Ensure appropriate data security protocols are built into the system
- Ensure smooth transition from existing systems to the new MIS
- Develop training modules to onboard users on the new MIS
- Ensure all code is written cleanly and with proper documentation for future reference

Attachment 5: Terms of Reference for Specialists

A. Terms of reference for Rural Finance Manager

Educational Background: University post graduate degree in economics, business administration, finance, accounting, agri business etc.

Job Requirements & Experience:

The candidate should have following experience, skills and knowledge mix:

- Work experience in banking for 15 years out of which at least 7 years in rural banking, agri banking and small farmer and agri business credit, MSME financing.
- Experience on implementation of internationally financed projects would be an added advantage;
- Good knowledge of the different national banking and financial institutions, insurance companies, concerned with rural/agriculture finance and insurance strong ability and readiness to communicate, and work with them;
- Strong communication skills, especially written communications; group facilitation skills;
- Gender sensitivity in working with both men and women understanding and addressing their needs;
- Team player with ability to work with different stakeholders and programme team;
- Fluent written and spoken English;
- Creative and pragmatic approach to problem solving; well-organised and well oriented to details.

Duties and Responsibilities;

- To take overall responsibility and leadership on the planning, implementation and monitoring of the Rural Financial Services sub component. This involves the preparation and monitoring of Annual Work Plans and Budgets (AWPB), progress reports and analytical reports;
- Manage the sub component in accordance with the approved annual work plans, coordinate and ensure complementarities with Value Chain Development activities and support to stand alone businesses;
- Carry out due diligence, prepare the ToRs and develop partnership with banking and financial institutions, insurance companies, capacity developers of cooperatives and training institutions;
- Spearhead the pilot on Micro Enterprise loans including developing protocols, suggest modifications for products of financial institutions, monitor loan application sanction, disbursement and repayments and suggest modifications for scaling up

- Develop ToR, and selection criteria for contracting national and international consultants, for studies ensuring quality of their work and providing advisory support as required;
- Ensure an assessment of annual credit requirement plans for the SHGs, and stand alone businesses, Micro entrepreneurs, and facilitate integration of plans in bankers' credit plans and monitor flow of credit;
- Maintain close coordination with implementation partners (banking and financial institutions, insurance companies, private service providers, and other stakeholders) and ensure satisfactory results;
- Plan, supervise and monitor the trainings on business and advanced financial literacy trainings for effective results;
- Spearhead the financial innovations such as livestock insurance.
- Study financial innovations such as peer to peer lending, fintech solutions and forge appropriate partnerships where feasible.
- Ensure policy studies and policy workshops are conducted well and develop action plans for policy changes.
- Assume a lead responsibility for the organisation of sub component-related study tours, conferences and workshops;
- Provide support and guidance for the gathering of data and information needed to undertake an effective monitoring and evaluation of all the activities included in the sub component;
- Oversee the design and establishment of channels for regular information dissemination, sharing, and networking among stakeholders.

B. Terms of reference of Monitoring and Evaluation Officer

1. The Monitoring and Evaluation (M&E) system at the Project level has four objectives: (i) to monitor and evaluate results and impacts; (ii) to provide a basis for decision making on necessary amendments and improvements; (iii) to promote accountability for resource use; and (iv) to document, provide feedback on, and disseminate lessons learned.
2. Project monitoring and evaluation is conducted in accordance with established IFAD procedures and is undertaken by the Project management team at all levels. The Logical Framework matrix provides performance and impact indicators for Project implementation along with their corresponding means of verification. These, along with the objectives, procedures and tools described in the M&E plan would form the basis on which the Project's M&E system would be built.

General scope of the job

3. The M&E officer is responsible for guiding the overall M&E strategy and implementation of related activities within the Project and Vis a Vis partners and providing timely and relevant information to the Project Director, PMU and Project

stakeholders. This requires close coordination and communication with the Line Agencies, Project stakeholder groups, and field staff as well as consultants of external M&E-related missions.

4. Critical tasks for the M&E officer(s) include setting up the M&E system and ensuring it is implemented efficiently and effectively. The M&E system would be based on the Project log-frame and the Project M&E plan and would build as much as possible upon existing M&E mechanisms and systems.
5. The M&E officer would report directly to the Project Coordinator

Main tasks and responsibilities

6. *Setting up the M&E system.*
 - a) Develop the overall framework for Project M&E in accordance to the Project M&E plan;
 - b) Conduct a readiness assessment regarding M&E;
 - c) Guide and coordinate the review of the Project log-frame including:
 - i. Provide technical advice for the revision of performance indicators;
 - ii. Ensure realistic intermediate and end-of-Project targets are defined;
 - iii. Conduct a baseline study (situation at Project start);
 - iv. Identify sources of data, collection methods, who collects data, how often, cost of collection and who analyses it;
 - v. Ensure all critical risks are identified.
 - d) Identify the core information needs of PMU, the Project Steering Committee, IFAD and the Department of Women and Child Development, Planning and Development, Finance etc.,;
 - e) Identify the requirements for collecting baseline data, prepare terms-of-reference for and arrange the conduct of a baseline survey, as required;
 - f) Clarify M&E responsibilities of different Project personnel at state and district level.
 - g) Contribute to the development of the Annual Work Plan and Budget (AWPB), ensuring alignment with Project strategy, agreement on annual targets and inclusion of M&E activities in the work plan;
 - h) Prepare detailed M&E budget;
 - i) Prepare calendar of M&E activities;
 - j) Identify M&E technical assistance that the Project needs to contract and guide its recruitment.
 - k) Ensure complete operationalization of project management software.
7. Implementation of the M&E system
 - a) Oversee and execute M&E activities included in the AWPB, with particular focus on results and impacts as well as in lesson learning;
 - b) Based on the AWPB design the framework for the physical and process monitoring of Project activities;
 - c) Promote a results-based approach to monitoring and evaluation, emphasizing results and impacts;

- d) Coordinate the preparation of all Project reports. Guide staff and executing partners in preparing their progress reports in accordance with approved reporting formats and ensure their timely submission. This includes quarterly progress reports, annual Project report, inception report, and ad-hoc technical reports;
- e) Prepare consolidated progress reports for Project management including identification of problems, causes of potential bottlenecks in Project implementation, and providing specific recommendations;
- f) Check that monitoring data are discussed in the appropriate forum (such as the review meetings of PMU, the quarterly meeting of the Project Steering Committee) and in a timely fashion in terms of implications for future action. If necessary, create such discussion forums to fill any gaps;
- g) Undertake regular visits to the field to support implementation of M&E and to identify where consolidations might be needed;
- h) Foster participatory planning and monitoring by training and involving primary stakeholder groups including CMRC staff in the M&E of activities;
- i) Prepare M&E reports for annual supervision missions, mid-term review and final evaluation in accordance to IFAD guidance;
- j) Facilitate, act as resource person, and join if required any external supervision and evaluation missions;
- k) Monitor the follow up of evaluation recommendations;
- l) Identify the need and draw up the ToRs for specific Project studies. Recruit, guide and supervise consultants or organizations that are contracted to implement special surveys and studies required for evaluating Project outcomes and impacts;
- m) Organize (and provide) refresher training in M&E for Project and implementing partner staff, local organizations and primary stakeholders with view of developing local M&E capacity;

Qualifications and experience required

Suitable candidates should have a post graduation degree in a field related to development and/or management, experience in field research and statistics and at least fifteen years of proven experience with:

- a) The logical framework approach and other strategic planning approaches;
- b) M&E methods and approaches (including quantitative, qualitative and participatory);
- c) Planning, design and implementation of M&E systems;
- d) Training in M&E development and implementation and/or facilitating learning-oriented analysis sessions of M&E data with multiple stakeholders;
- e) Data and information analysis;
- f) Report writing.

S/He should also have:

- a) A solid understanding of public policies, development approaches with a focus on participatory processes, market economy management, and gender issues;
- b) Familiarity with and a supportive attitude towards processes of strengthening grass root institutions and building their capacities for self-management;
- c) Willingness to undertake regular field visits and interact with different stakeholders, especially primary stakeholders;
- d) Experience in data processing and with computers;

- e) Leadership qualities, personnel and team management (including mediation and conflict resolution);
- f) High English language skills .

Desirable:

- a) Understanding of IFAD procedures.

Attachment 6 – Format of IFRs

Quarterly Interim Unaudited Financial Reports		
Type of Report	The Focus/Scope of the report	Remarks
Quarterly/Semi annual Financial Reports	These reports are a formal requirement by IFAD and they are to be sent to IFAD and to be used by the management to monitor the project's medium term financial performance. The report must be submitted to IFAD within 45 after the end of the respective reporting period, The exact content and format is agreed between IFAD and the Borrower/ Recipient.	
1 Sources and Uses of Funds (all financiers)	This report discloses how much funds the project has received from different financiers how these funds have been spent by expenditure category during the reporting period as well as cumulative. This report also discloses the projects cash balances.	Part of Project financial statements. Does not separate project expenditures by financier.
2 Summary of Expenditures by Loan Categories and By Financiers (USD)	This report discloses how much funds the project has spent by expenditure category and by financier.	Variation of this report already part of the Project financial statements (sources and uses of funds)
3 Financial performance by financier by component	This report discloses how much funds the has project received from each financier and how these sources have been spent by project component during the reporting period and cumulatively. The report also compares these figures with the targets set in the Annual Workplan and Budget and the Project design report (PDR).	Variation of this report already part of the aide memoire (table 1b of annex 1)
4 Cash forecast by financier	This report discloses the breakdown of the project's cash forecast for the following two quarters by financier. The breakdown includes opening and closing balances of the different accounts as well as estimated income and from different financiers and estimated expenditures by category.	Required by IFAD only on adhoc basis. Should be part of the project's monthly internal reporting (for management use)
5 Progress report on Audit recommendations	This report summarises all the recommendations made by the external auditors of the project, the project management's action plan to address these recommendations and the current status of these planned actions.	Should be Part of the external audit report and management letter

Sources and Use of Funds by Category (all financiers)
Reporting period - for the Quarter from 01 April xx - 31 March xx

Quarterly IFR
Report #1

	Reporting period		Cumulative 20xx		Cumulative project life	
Sources of Funds						
Funds of IFAD Loan						
Funds of GOM						
Funds of Beneficiaries						
Total Sources of Funds						
Other Income						
Total Funds Available (A)						
Uses of Funds						
1 - Training						
2 - Consultancies						
3 - Goods Services and input						
4 - Grants and Subsidies						
5 - Salaries and allowances						
Uses of Funds (Project Expenditure)						
Advances						
Total Uses of Funds (B)						
Discrepancy						

Note: Total Sources of funds should match with total uses of funds

Summary of Expenditures by Loan Categories and by Financiers
Reporting period - for the Quarter from 01 April xx - 31 March xx

Category	Sources of Funds															Total Project Expenditure				
	IFAD Loan					GOM					IFAD Grant									
	Allocation as per financing agreement	Reporting period	Cumulative 20xx	Cumulative project life	Cash forecast for next reporting period-half year, 20xx	Allocation as per financing agreement	Reporting period	Cumulative 20xx	Cumulative project life	Cash forecast for next reporting period-half year, 20xx	Allocation as per financing agreement	Reporting period	Cumulative 20xx	Cumulative project life	Cash forecast for next reporting period-half year, 20xx	Allocation as per financing agreement	Reporting period	Cumulative 20xx	Cumulative project life	Cash forecast for next reporting period-half year, 20xx
1 - Works																				
2 - Training																				
3 - Consultancies																				
4 - Goods Services and input																				
5 - Grants and Subsidies																				
6 - Salaries and allowances																				
Sub-Total Project Expenditure																				
Total Project Expenditure																				

Summary of Expenditures by Loan Components and by Financiers
Reporting period - for the Quarter from 01 April xx - 31 March xx

Component	Reporting period			Cumulative the first half of 20xx			Cumulative project life		
	Planned (AWPB)	Actual	%	Planned (AWPB)	Actual	%	Planned (Design report)	Actual	%
IFAD Loan									
1. Market Driven Enterprise Development									
1.1 Farm sector enterprise development									
1.2 Manufacture and service sector enterprise development									
1.3 Capacity development of CMRCs									
1.4 Supporting Innovation									
2. Enabling Support Services									
2.1 Facilitating financial linkages									
2.2 New pathways for ultra poor households									
2.3 Enhancing nutritional status and gender relations									
2.4 Policy engagement									
3. Project Management									
3.1 Institutional strengthening									
3.2 Project management									
GOM									
1. Market Driven Enterprise Development									
1.1 Farm sector enterprise development									
1.2 Manufacture and service sector enterprise development									
1.3 Capacity development of CMRCs									
1.4 Supporting Innovation									
2. Enabling Support Services									
2.1 Facilitating financial linkages									
2.2 New pathways for ultra poor households									
2.3 Enhancing nutritional status and gender relations									
2.4 Policy engagement									
3. Project Management									
3.1 Institutional strengthening									
3.2 Project management									
IFAD Grant									
Beneficiaries									
Total Project Expenditure									

Statement Of Expenditures / Withdrawal Application Statement by financing source and Disbursement Method
Reporting period - for the Quarter from 01 April xx - 31 March xx

	Disbursement Method						Total			
	DA replenishments			Reimbursements						
	Date	USD at RBI	INR received	Date	INR at RBI	INR received	USD	INR	Rejected from IFAD	Net Reimbursed
WA submitted to IFAD during the reporting period										
IFAD Loan										
WA No 1										
WA No 2										
Sub-Total 20xx										
WA No 3										
WA No 4										
Sub-Total 20xx										
Sub-Total 20xx										
Sub-Total 20xx										
Total										
WA pending submission to IFAD										
Total										

DISBURSEMENT SUMMARY

As of December 31, 20xx

Expenditure Category	Initial Allocation (Schedule 2)	Disbursed Amount		Balance	Undisbursed
	USD	USD	INR	USD (if INR to be converted)	USD
Initial deposit	-				
1 - Training					
2 - Consultancies					
3 - Goods Services and input					
4 - Grants and Subsidies					
5 - Salaries and allowances					
Unallocated					
Total					

			Quarterly IFR
Reporting period:			Report #6
<u>Progress report on Audit recommendations</u>			
Progress report on Audit recommendations			
Recommendation	Date of the recommendation	Planned action to address the recommendation	Current Status of the planned action

Appendix 2

SAMPLE OF PROJECT AUDITED FINANCIAL STATEMENTS

Project Name.....
Implementing Agency.....
IFAD Loan/Grant Number.....

PROJECT FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 20XX

PROJECT NAME AND NUMBER
FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 20XX

CONTENTS	PAGE
Project Information and performance	3
Statement of project management responsibilities	4
Report of the independent auditor	5
Statement of cash receipts and payments (by category)	6
Statement of cash receipts and payments (by component)	7
Statement of comparative budget and actual amount	8
Statement of Special Account movements	9
SOE-Withdrawal Application Statement	10
Notes to the Financial Statements	12-15

PROJECT NAME AND NUMBER
PROJECT INFORMATION AND PERFORMANCE
PROJECT NAME AND NUMBER

- **Institutional Details/Information:** Implementing agency, status, location, names, account numbers and address of bankers (Special and Project accounts) name and address of independent auditors
- **Members of the Project Coordinating Unit:** Names and roles
- **Background Information on the Project:** Source of financing: size of Loan/Grant(s), effective and closing date(s)
- **Project Objectives:** As per Design Completion/Appraisal Report
- **Project Costs:** By component and category of expenditures as per Financing Agreement and Design Completion/Appraisal Report
- **Summary of Performance:** Physical progresses as per Progress/Supervision Reports

PROJECT NAME AND NUMBER

STATEMENT OF ACCOUNTING OFFICER AND PROJECT COORDINATOR'S RESPONSIBILITIES

(INDEPENDENT AUDITOR'S LETTERHEAD)

REPORT OF THE INDEPENDENT AUDITORS

(Consolidated auditors report on the Project Financial Statements, the Special Account and the
SOEs Opinion)

PROJECT NAME AND NUMBER
STATEMENT OF RECEIPTS AND PAYMENTS (BY CATEGORY OF EXPENDITURES)
FOR THE YEAR ENDED DECEMBER 31, 20XX

		Notes	20XX	20XX-1	Cumulative to date
			Local currency	Local currency	Local currency
Balance B/F		4	XXX	XXX	
FINANCING					
IFAD Credit ²²					
Initial Deposit					XXX
Replenishments to SA			XXX	XXX	XXX
IFAD Direct Payments		5	XXX	XXX	XXX
Government Funds		6	XXX	XXX	XXX
Other Donors		7			
Other Receipts		8			
TOTAL FINANCING			XXX	XXX	XXX
PROJECT EXPENDITURES: (BY CATEGORY OF EXPENDITURES)					
Cat	IFAD CREDIT				
1	AAA	9	XXX	XXX	XXX
2	BBB	9	XXX	XXX	XXX
3	CCC		XXX	XXX	XXX
4	DDD		XXX	XXX	XXX
5	EEE		XXX	XXX	XXX
6	GGG		XXX	XXX	XXX
7	HHH		XXX	XXX	XXX
8	LLL		XXX	XXX	XXX
			XXX	XXX	XXX
Government Funds					
1	AAA		XXX	XXX	XXX
2	BBB		XXX	XXX	XXX
TOTAL			XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES			XXX	XXX	XXX
BALANCE C/F		4	XXX	XXX	XXX

²² Separate analysis to be provided in case of different sources of IFAD funding (loan, component grant, supplementary grant) detailing financing , expenditures and balance for each source of funding

PROJECT NAME AND NUMBER
STATEMENT OF RECEIPTS AND PAYMENTS (BY COMPONENT)
FOR THE YEAR ENDED DECEMBER 31, 20XX

		Notes	20XX		20XX-1	Cumulative to date
			Local currency	Local currency	Local currency	
Balance B/F		4	XXX	XXX		
FINANCING						
IFAD Credit						
Initial Deposit					XXX	
Replenishments to SA			XXX	XXX	XXX	
IFAD Direct Payments		5	XXX	XXX	XXX	
Government Funds		6	XXX	XXX	XXX	
Other Donors		7				
Other Receipts		8				
TOTAL FINANCING			XXX	XXX	XXX	
PROJECT EXPENDITURES:						
(BY COMPONENT)						
Comp	IFAD CREDIT					
A	AAA		XXX	XXX	XXX	
B	BBB		XXX	XXX	XXX	
C	CCC		XXX	XXX	XXX	
			XXX	XXX	XXX	
Government Funds						
A	AAA		XXX	XXX	XXX	
B	BBB		XXX	XXX	XXX	
TOTAL			XXX	XXX	XXX	
TOTAL PROJECT EXPENDITURES			XXX	XXX	XXX	
BALANCE C/F		4	XXX	XXX	XXX	

PROJECT NAME AND NUMBER
STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS
FOR THE YEAR ENDED DECEMBER 31, 20XX

		20XX Budget	20XX Actual	Variance
		Local currency XXX	Local currency XXX	Local currency XXX
FINANCING				
IFAD Credit				
Replenishments to				
SA		XXX	XXX	XXX
IFAD Direct				
Payments		XXX	XXX	XXX
Government Funds		XXX	XXX	XXX
TOTAL FINANCING		XXX	XXX	XXX
PROJECT				
EXPENDITURES:				
(BY CATEGORY OF				
EXPENDITURES)				
Cat	IFAD CREDIT			
1	AAA	XXX	XXX	XXX
2	BBB	XXX	XXX	XXX
3	CCC	XXX	XXX	XXX
4	DDD	XXX	XXX	XXX
5	EEE	XXX	XXX	XXX
6	GGG	XXX	XXX	XXX
7	HHH	XXX	XXX	XXX
8	LLL	XXX	XXX	XXX
		XXX	XXX	XXX
Government Funds				
1	AAA	XXX	XXX	XXX
2	BBB	XXX	XXX	XXX
	TOTAL	XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES		XXX	XXX	XXX
Surplus/Deficit for the period		XXX	XXX	XXX

The excess/deficit of actual expenditures over the Budget of X% was due to....

PROJECT NAME AND NUMBER
STATEMENT OF SPECIAL ACCOUNT ACTIVITIES
FOR THE YEAR ENDED DECEMBER 31, 20XX

Account No: _____

Bank: _____

Address: _____

			USD (or as otherwise denominated)	Local Currency Equiv
Opening Balance	Notes		XXX	XXX
Add:				
IFAD Replenishments:				
Date	WA No	XXX		
Date	WA No	XXX		
		XXX	XXX	XXX
Bank Interests			XXX	XXX
Total			XXX	XXX
Deduct:				
Transfers to Operating Accounts:				
Date		XXX		
Date		XXX		
		XXX	XXX	XXX
Expenses directly paid fro the account				
			XXX	XXX
Bank Charges			XXX	XXX
Exchange Rate Difference				XXX
Closing Balance as at 31/12/200X (as per Bank Statement)			XXX	XXX

PROJECT NAME AND NUMBER
SOEs-WITHDRAWAL APPLICATION STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 20XX
by Category of Expenditures in Local Currency

Notes	Cat No WA No:	Category descriptio n	Category descriptio n	Total	In USD Equivale nt	Rejected from IFAD	Net Reimburse d
		1	2				
		XXX	XXX	XXX	XXX	XXX	XXX
		XXX	XXX	XXX	XXX	XXX	XXX
		XXX	XXX	XXX	XXX	XXX	XXX
		XXX	XXX	XXX	XXX	XXX	XXX
	Total						XXX
	WA Pending for Submission:						
	WA No:	XXX	XXX	XXX	XXX	XXX	XXX
		XXX	XXX	XXX	XXX	XXX	XXX
							XXX
	TOTAL						
	L	XXX	XXX	XXX	XXX	XXX	XXX

Withdrawal Applications are submitted for reimbursement to IFAD using the historical exchange rate of the transfers to the Operating Account
Expenditures partially or totally rejected by IFAD (if any) should be detailed here.
This statement should be reconciled with the Statement of Receipts and Payments.

PROJECT NAME AND NUMBER

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 200X

1. FINANCIAL REPORTING UNDER INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS (IPSAS)

In accordance with International Public Sector Accounting Standards (IPSAS), notes to the financial statements of an entity should:

- Present any information about the basis of preparation of the financial statements and the specific accounting policies selected and applied for significant transactions and other events, and
- Provide additional information **which is not presented on the face of the financial statements but is necessary for a fair presentation of the entity's cash receipts, cash payments, cash balances and other statements as statement of financial position**

2 SIGNIFICANT ACCOUNTING POLICIES

The principle accounting policies adopted in the preparation of these financial statements are set out below:

A Basis of Preparation

The financial statements have been prepared in accordance with International Public Sector Accounting Standards (IPSAS) with particular emphasis on Cash Basis Financial Reporting under the Cash Basis of Accounting

B Cash Basis of Accounting

The cash basis of accounting recognizes transactions and events only when cash is received or paid by the entity.

C Foreign Currency Transactions

Foreign currency translation for the income and expenditure account items are converted using the actual historic exchange rate at the conversion from special to local account. Where part of the expenditures has to be met from the proceeds of subsequent draw downs from special to local account, this is done on First in First out (FIFO) basis. All local expenditures paid from the local accounts/currency are translated back to the USD at the actual rate used for the transfer from special to local account. Cash balances held in foreign currency are reported using the closing rate. Gains/Losses on foreign currency transactions/balances are dealt within the Statement of Special Account Activities

3 BUDGET

The budget is developed on the same accounting basis (cash basis), same classification and for the same period as the financial statements. Material variances (above XXX) have been explained as notes to the financial statements

4 CASH/FUND BALANCES

Reconciliation

	20XX Loc currency	20XX-1 Loc currency
Cash Accounts	XXX	XXX
Advances	XXX	XXX
	XXX	XXX

Analyses of aging of advances to be included detailing and providing reasons for long outstanding advances

4-a CASH DETAILS

	20XX Loc currency	20XX-1 Loc currency
A/c No _____ Project Operating Account	XXX	XXX
A/c No _____ IFAD Special Account (as per SA Statement)	XXX	XXX
Petty cash	XXX	XXX

5 DIRECT PAYMENTS

These payments were made directly by IFAD from the Loan/Grant account to the specified supplier/service provider in accordance with the terms and conditions of the financing Agreement

Include here details of direct payments
WA, Date, currency and amount received, amount in local currency

6 GOVERNMENT COUNTERPART FUNDS

Details here. Cumulative contributions, yearly contributions (compared to budget). For information only Include details of tax treatment and counterpart contributions as tax exemption.

7 OTHER DONOR FUNDS

	20XX Loc currency	20XX-1 Loc currency
List of Donors	XXX	XXX
	XXX	XXX
	XXX	XXX
	XXX	XXX

Add details of cumulative and expected contributions

8 OTHER RECEIPTS

	20XX Loc currency	20XX-1 Loc currency
Interest Income	XXX	XXX
other income (specify)	XXX	XXX
	XXX	XXX
	XXX	XXX

9 NON-CURRENT ASSETS (for disclosure purposes only)

Financial Statement Currency

	Cat 1 - Infrastructure		Cat 2 Vehicles		Cat 3- Equipment	
	20XX	20XX-1	20XX	20XX-1	20XX	20XX-1
Opening Balance	XXX	XXX	XXX	XXX	XXX	XXX
Additions (Statement of Receipts and Payments)	XXX	XXX	XXX	XXX	XXX	XXX
Disposals	XXX	XXX	XXX	XXX	XXX	XXX
Closing Balance	XXX	XXX	XXX	XXX	XXX	XXX

This schedule includes all assets acquired from the commencement of the Project. These assets are stated at cost. Existence and beneficial ownership to be verified by the auditors. Apart of the summary schedule, details schedules for yearly changes to be included.

10 YEARLY PROCUREMENTS

Include here a list of the yearly procurements including methods

11 ALLOCATION AND USE OF THE FUNDS OF THE LOAN

Category	Allocated		Disbursed		Available Balance	
	Amount SDR	Equivalent USD (or otherwise)	Amount SDR	Equivalent USD (or otherwise)	Amount SDR	Equivalent USD (or otherwise)
AAA	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
BBB	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
CCC	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
DDD	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
EEE	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
FFF	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

12 RECONCILIATION OF FUNDS DISBURSED BY IFAD AND FUNDS RECEIVED BY THE PROGRAMME

Attachment 7: Procurement Formats

Annex A of Attachment 7

INDIVIDUAL CONTRACT MONITORING FORM

Procurement File No. _____
 Description of Contract: _____
 Component/ Category: _____

Name of Contractor/ Supplier: _____
 Address: _____

Contract Summary

Document	Number	Amount	Date
Original Contract			
Amendment No 1			
Amendment No 2			
Amendment No 3			
Total			

Monitoring of payments

Payment Schedule		Approved progress certificate		Payments issued				Balance due on contract
Milestone	Amount	Number	Date	Invoice No	Date	Amount	Cheque No	
Total								

Annex B of Attachment 7

Terms of Reference of Procurement Specialist

Position Purpose: Enable efficient procurement of goods and services for the project and adoption of good procurement practices.

1. Qualifications & Experience:

a. Formal Academic from recognized University or equivalent:

- Post graduate in commerce, business, finance or management

b. Relevant Training:

- Purchase management and procurement systems

c. Work Experience

Post qualification, minimum five (5) years of professional experience in national bidding procedure, procurement procedure, especially preparation of Expression of Interest, Notice Inviting Tender, Terms of Reference, Request for Proposal and bidding document for procurement of consultant services, goods and works. Preference will be given for experience in handling procurement procedures for multilateral institutions.

2. Desirable Qualification:

- (a) Post Graduate Diploma in Material/Supply Management
- (b) Thorough knowledge of procurement procedures of multilateral institutions.
- (c) Good procurement skill and should be proficient in English.
- (d) MBA from any recognised university or institute.

3. Preferred Skills:

- Good written and verbal communication skills
- Computer literacy general MS package
- Proficient in computer based spread sheets for data analysis
- Proactive, work with minimum supervision, and as a team builder

4. Job Responsibilities: The responsibilities of the Procurement Specialist will be as follows:

- i. With reference to the project design document, IFAD procurement guidelines and Procurement Handbook and GoM procurement systems, draw up draft project procurement manual for the project for approval by the Board and IFAD, and inclusion in the PIM. Prepare and include relevant Community Procurement Guidelines and formats and include in the PIM.
- ii. To prepare annual Procurement Plan in line with AWPB and Project Cost Tables and also ensure that the procurement under the project is conducted in accordance with the procedure and procurement plan agreed with IFAD
- iii. To liaise with IFAD procurement staff.
- iv. To co-ordinate with concerned subject matter specialist on procurement matters, especially preparation of TOR, technical specification etc.
- v. To collaborate closely with General Manager and others for preparing advertisements, short listing, bidding documents, evaluation, letters of awards, draft contracts etc. in the procurement of good and services including consultancies.
- vi. To co-ordinate with General Manager regarding submission of advertisements bidding documents, letters of invitation, evaluation reports, contracts, etc. to IFAD for those items subject to prior review.
- vii. To facilitate/assist in getting NOC from IFAD wherever required.
- viii. To co-ordinate with project team, organize and support evaluation committees for prompt evaluation.
- ix. To make necessary arrangement for contract signatures.
- x. To maintain Contract Management forms as per the formats of IFAD and prepare amendment letters to the contracts. As part of the contract management, in coordination with the concerned officials monitor the contractual provisions for compliance.
- xi. To keep progress of procurement activities against procurement timetables, highlight variations in progress, record reasons and identify remedial actions, if any.
- xii. To collect data on procurement from DCOs and contribute to periodic progress report.

- xiii. To co-ordinate with the GM for placement of various documents/papers before the Board of MAVIM for review and approval, all types of audits of procurement activities, post review of IFAD etc.
- xiv. To liaison with any other appropriate authority for any dispute among the parties relating to procurement.
- xv. To provide documentations and data to IFAD fielded Supervision Mission and Implementation Support Missions
- xvi. To perform any other relevant work related to the project assigned by the General Manager/ Project Director.

Annex C : Procurement plan of Attachment 7

Goods

Country/Organisation:																		
Project/Programme:																		
Loan #:				BASIC DATA					PROCUREMENT PLAN (GOODS)									
									Bid Documents		Bidding Period		Bid Evaluation		Contract Finalization			
Description*	Lot Number	Issue # of Invitation for Bids	Estimated Amount in US \$	Procurement Method	Pre-or Post Qualification	Prior or Post Review	Plan vs. Actual	Date Proposed	Date No-objection	Bid Invitation Date	Bid Closing-Opening	Bid Evaluation Report	No-objection	Contract Amount in US \$	Date Contract Award	Date Contract Signature		
							Plan											
							Actual											
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Attachment 8: Environment and Social Management Plan Matrix

A. Climate Risk Matrix

Target Groups	Threats	Climate triggers	Risk	Mitigation/Adaptation
Landless	Climate shocks	Heavy/excess rainfall days, Drought, Floods, Heat wave	Health, daily income loss (Flood), water availability	Support from the CMRCs to the landless and destitute households under Ultra-Poor related interventions of component 2 of the project.
Belonging to small and marginal land holding category	Climate shocks	Drought, Consecutive dry days, floods, Pest and diseases, High temperature	Forest fires, soil loss, loss of crop leading to income loss, livestock fodder shortage, malnutrition	CMRCs trained to support their members to access Government schemes promoting water harvesting and micro-irrigation, as well as access to crop insurance and other safety nets provided by State Govt. Promotion of good agricultural practices for climate resilient agriculture and quality inputs provided through CMRCs or partner private sector.
With special focus on women farming community including agriculture labourers and landless	Drudgery, health	Heat stress, drought, flood/malaria	Physical exhaustion, health hazards, loss of income due to flood,	For land related activities and non-farm enterprises, sub-projects will promote precision machinery that improve labour productivity and reduce drudgery; promote drought resilient farming based on crop diversification, low external input sustainable agriculture. For livestock related activities, the sub-projects will include intensive and semi-intensive livestock husbandry and appropriate sheds/ feed and water troughs.
Livestock with special focus on Goat rearing and backyard poultry	Water availability, methane emission	Temperature, Co2, Flood, drought, High temperature (Early mature, loss of yield), Pests and diseases	Yield loss, poor seed quality	To control methane emissions in livestock, the sub-projects will provide for feed mixes and livestock breeds that have better conversion of feed; recycling of manure into biogas and bio-slurry. To control methane emissions from rice cultivation, CMRCs will expand SRI (as already adopted by SHG members in rice producing areas). For water availability, the sub-projects will include water troughs for livestock. For crops, the sub-projects will include micro-irrigation. For non-farm activities, the sub-projects will include machinery that is water efficient, and where possible, water will be recycled.
Under rainfed conditions	Water availability,	Consecutive wet and dry days, low	Crop loss, nutrient loss, soil erosion	Project will promote water efficient/ high value crop production enterprises; CMRCs will disseminate micro-irrigation and protective

erratic rainfall distribution, early maturity	seasonal rainfall, shifting season (1 week to 10 days), extremely wet days	irrigation through agro-service centres managed by them; CMRCs trained to facilitate convergence with Govt schemes and help their members access soil and water conservation (watershed development schemes) and Jalyukt Shivar (water harvesting scheme).
---	--	--

B. Environmental Mitigation Plan

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Land and soil degradation (incl. agrochemicals)	Low	All Districts	The Government of Maharashtra is implementing a large scale soil and water conservation programme called Jalyukt Shivar which aims to develop integrated soil and water conservation works in 5000 villages/ year. Since its implementation in 2015, it created so far, an irrigation potential of 2,274,744 ha and a water storage capacity of 17,27,229 TMC (thousand million cubic feet) across 16,521 villages in 34 districts. Comparative data shows that in 2013-	Mitigation will be through convergence with the Jalyukt Shivar scheme were applicable.	MAVIM will be tracking the programs it converges with and the number of beneficiaries thereof.	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			14 when there was 124 per cent rainfall the agriculture production was 137.91 lakh metric tonnes (MT). However, in 2017-18, despite rainfall being 84.3 per cent of its total capacity, there was an agricultural production of 132.83 lakh MT. As a result the significance rating is assessed as low.			
Water pollution	Medium	All Districts	Minimize use of non-organic fertilizers and encourage use of organic (bio-degradable) manure in agriculture; and reduce use of agro-chemicals in processing and manufacturing processes.	MAVIM	Periodic assessment on how environmental safeguards are mainstreamed in business processes	Every two years
Forest and wetland removal	Low	All Districts	This is not applicable to the project. Enterprises will not be developed / expanded in such areas.	MAVIM	As above + Geotagging of enterprises to ensure they are not located in environmentally	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
					fragile or protected areas	
Erosion and gully	Medium	All Districts	Please see description of Jalyukt Shivar programme of Govt of Maharashtra	MAVIM	MAVIM will track convergence with Jalyukt Shivar and no of beneficiaries	Annual
Bush burning	Low	Districts with tribal population where shifting cultivation is practised	The project is not investing in bush burning and will be promoting good agronomic practices for soil nutrient management.	MAVIM	No of beneficiaries adopting environmental and climate smart production techniques	Annual
Loss of biodiversity	Low	All districts	The project will not be operating in ecologically sensitive areas	MAVIM	Periodic assessment of compliance with the environmental safeguards	Every two years
Waste proliferation	Medium	All districts	Train enterprise owners on sustainable waste management by simple and effective technologies and better hygiene to liquidate waste, including livestock effluents; Create enterprises around waste valorization where market opportunities exist.	MAVIM	Number of sub-projects that incorporate safe waste and effluent disposal.	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Pollution of water and crops due to use of agrochemicals	Medium	All districts	Minimize use of non-organic fertilizers and encourage use of organic (bio-degradable) manure in agriculture.	MAVIM	Convergence with Government schemes for sustainable agriculture	Annual
Flooding	Medium	7% of State area is prone to floods	Encourage regular and timely dissemination of hydro-meteorological information to agri-entrepreneurs; Link target group to crop and other insurance schemes areas; Discourage siting of livestock enterprises in flood prone areas	MAVIM	Convergence with Government schemes and no of beneficiaries	Annual
GHG emissions	Medium	All districts	Ensure energy efficiency and recycling of waste in business processes for the enterprises supported by Nav Tejaswini	MAVIM	Number of sub-projects including GHG emission measures (such as SRI, improved feed conversion ratio for livestock, and use of renewable energy in farm and non farm enterprises)	Annual
Lack of knowledge and awareness	Medium	All districts	Capacity building of MAVIM and CMRCs on mainstreaming environmental and	MAVIM and CMRC	No of trainees from MAVIM and CMRCs	Annual

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation Measures	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			climate safeguards in the business processes of small enterprises			

C. Environmental and Social Management Plan (ESMP)

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
Landless households, marginal farmers, female workers	Mentoring, coaching and skill development for the Ultra-Poor (under component 2 of project) and convergence with Government safety schemes	No of Ultra-Poor supported by the project	CMRCs	Year 1 to 5 for mentoring/coaching and year 2 to 6 for skill dev. In total, 50,000 HH covered.	4.4 million USD approx
High Temperature, Reduced Rainfall, variability, drought	Demonstration of Drought Proofing techniques / Conservation Agriculture (pilot projects) /change in cropping pattern/crop (livestock) insurance/ Identify existing/convergence with Government schemes for SWC, water harvesting, micro-irrigation, insurance and safety nets	No of sub-projects including climate smart agriculture and allied activities	MAVIM	Year 1 to 5	Provisions for climate resilient agriculture and animal husbandry provided in unit cost of sub-projects – 60,000 to 174,000 USD/ sub-project
Disaster Emergency Response (cyclone/flood/forest fire/earthquake)	CMRCs trained on disaster preparedness and recovery, under capacity building of CMRCs (component 1) , and incorporated in training on value chain project design and management.	Training module incorporates awareness about disaster preparedness and recovery for enterprises	MAVIM	Year 1 to 3	Total training cost is 48,000 USD
Sediment/siltation/water quality	Sub-projects incorporate measures to reduce water pollution and improve water use efficiency. Convergence with Govt schemes for soil and water conservation.	No of sub-projects incorporating water quality and use efficiency measures	MAVIM	Year 1 to 5	Unit cost of sub-project from 80,000 to 160,000 USD

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
Feed and Fodder/Loss of Common grazing land	Sub-projects incorporate semi-intensive and intensive animal husbandry practices	No of sub-projects that intensify livestock husbandry	MAVIM	Year 1 to 5	Unit cost for dairy is 174,000 USD approx.; and unit cost for goat/poultry/fisheries is 116,000 USD approx.
GHG Emissions	Sub-projects to include renewable energy (solar, biogas), breeds and feed that improve feed conversion ratio and SRI (component 1).	No of sub-projects that reduce GHG emissions	MAVIM	Year 1 to 5	See above for sub-project budget
	Support to innovation in renewable energy and waste management (component 1)	No of innovations that reduce GHG emissions		Year 2 to 5	Total budget for innovation in RE and waste mgt is 240,000 USD approx
Livestock and human health	No of sub-projects that promote livestock intensification with improved sheds, precision farming/machinery, drudgery reduction, protective gear for workers.	No of sub-projects incorporating measures for livestock and human health	MAVIM	Year 1 to 5	See above for sub-project budget
Chance finds of artefacts of cultural and historical significance	MAVIM develops and trains the CMRCs on procedures for chance finds in agri- and eco-tourism projects.	No CMRCs trained	MAVIM	Year 1 to 5	Total training under cap building of CMRC on value chain planning and management is 48,000 USD
Effective implementation of ESMP	Inclusion of ESMP indicators in monitoring plan ;	Project monitoring plan	MAVIM	Year 1 to 6	Total budget for project softwares is 918,000 USD

Key Requirements	Actions	Indicator	Responsibility	Time Frame	Budget Source
	<p>geotagging of all enterprises/ sub-projects;</p> <p>Establishing an environmental and social management system within MAVIM to screen, manage and monitor environment and social risks and impacts of the project including building capacity of MAVIM.</p>	incorporates all ESMP indicators			(includes project management software)

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 9: Integrated Project Risk Matrix (IPRM)

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Moderate	Low
<i>Political Commitment</i>		N/A
<i>Governance</i>		N/A
<i>Macroeconomic</i>	Moderate	Low
<i>Fragility and Security</i>		N/A
Sector Strategies and Policies	Moderate	Moderate
<i>Policy alignment</i>	Moderate	Moderate
<i>Policy Development and Implementation</i>		N/A
Environment and Climate Context	High	Moderate
<i>Project vulnerability to environmental conditions</i>	High	Moderate
<i>Project vulnerability to climate change impacts</i>	High	Moderate
Project Scope	Moderate	Low
<i>Project Relevance</i>		N/A
<i>Technical Soundness</i>	Moderate	Low
Institutional Capacity for Implementation and Sustainability	Moderate	Low
<i>Implementation Arrangements</i>	Moderate	Low
<i>Monitoring and Evaluation Arrangements</i>		N/A
Financial Management	Substantial	Moderate
<i>Organization and Staffing</i>	Moderate	Low
<i>Budgeting</i>	Substantial	Moderate
<i>Funds Flow/Disbursement Arrangements</i>	High	Substantial
<i>Internal Controls</i>	Substantial	Moderate
<i>Accounting and financial reporting</i>	Substantial	Moderate
<i>External Audit</i>	Moderate	Low
Project Procurement	Substantial	Moderate
<i>Legal and Regulatory Framework</i>	High	Substantial
<i>Accountability and Transparency</i>	Substantial	Moderate
<i>Capability in Public Procurement</i>	Moderate	Low
<i>Public Procurement Processes</i>	Moderate	Low
Environment, Social and Climate Impact	Low	Low
<i>Biodiversity Conservation</i>		N/A
<i>Resource Efficiency and Pollution Prevention</i>		N/A
<i>Cultural Heritage</i>	Low	Low
<i>Indigenous People</i>		N/A

Risk Category / Subcategory	Inherent risk	Residual risk
<i>Labour and Working Conditions</i>	<i>Low</i>	<i>Low</i>
<i>Community Health and Safety</i>	<i>Moderate</i>	<i>Low</i>
<i>Physical and Economic Resettlement</i>		<i>N/A</i>
<i>Greenhouse Gas Emissions</i>	<i>Low</i>	<i>Low</i>
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Moderate</i>	<i>Low</i>
Stakeholders	Moderate	Low
<i>Stakeholder Engagement/Coordination</i>	<i>Moderate</i>	<i>Low</i>
<i>Stakeholder Grievances</i>		<i>N/A</i>
Overall	Moderate	Low

Country Context	Moderate	Low
Macroeconomic	Moderate	Low
Risk: Higher inflation & changing import-export policies will have a direct impact on prices of commodities that might adversely impact the poor.	Moderate	Low
Mitigations: - The project is focused on diversification of income of the poor HHs to mitigate adverse impact of macroeconomic factors. - Crop insurance and other insurance solutions (for example for livestock) will be explored by the project - The project will promote Government crop insurance .		
Sector Strategies and Policies	Moderate	Moderate
Policy alignment	Moderate	Moderate
Risk: Currently Govt. schemes and programmes drive production decisions, which could risk commercial sustainability of enterprises.	Moderate	Moderate
Mitigations: (i) Improved market linkages and assurance of off-take, will encourage shift of decision making to entirely commercial parameters; (ii) the project's central focus will be to improve quality of products and establishing linkages with mainstream private market.		
Environment and Climate Context	High	Moderate
Project vulnerability to environmental conditions	High	Moderate
Risk: Extremely wet days precipitation is projected to increase for some of the project districts under both low and high emission scenarios. Wet weather may affect standing crops, cause floods and soil erosion, emergence of pest and diseases.	High	Moderate

Mitigations: <ul style="list-style-type: none"> - promotion of climate smart agricultural technologies, such as IPM, drip irrigation, bio-fertilizer, compost technologies for converting cow dung into fertilizer etc; - GGAP will also improve environment and reduce food safety risks; - project will promote diversification of sources of income including income from non-farm, service sector and wage employment; <p>Mitigation measures are detailed in Environment and Social Management Plan</p>		
Project vulnerability to climate change impacts	High	Moderate
Risk: <p>Projected future climatic changes suggest that the project areas will experience:</p> <ul style="list-style-type: none"> - fluctuations in temperatures and precipitation due to increased climate variability; - the possibility of increased dry spells, drought and delayed rains during the wet season. 	High	Moderate
Mitigations: <ul style="list-style-type: none"> - controlling of methane emission - promotion of water efficient/ high value crop production enterprises <p>Mitigation measures detailed in Environment and Social Management Plan</p>		
Project Scope	Moderate	Low
Technical Soundness	Moderate	Low
Risk: <p>While MAVIM has implemented successful livelihood interventions in farm sector, the adoption of value chain approach and experience in non-farm sector initiatives is nascent. Market linkages capacity is limited.</p>	Moderate	Low
Mitigations: <ul style="list-style-type: none"> - To mitigate the risks, the project has planned multiple trainings for MAVIM and CRMCS on enterprise development and value chain development; - The project will launch smaller and less risky value chains and after successful completion up-scaling into larger and complex value chains; - substantial budget allocated for technical assistance to MAVIM and CMRCs. 		
Risk: <p>Non-materializing of allocation to close IFAD's financing gap will prevent the project from being implemented as designed, and this may reduce its effectiveness.</p>	Low	Low
Mitigations: <ul style="list-style-type: none"> - The financing gap will be close either from IFAD12 PBAS resources or from resources made available from restructured problem projects. 		
Risk: <p>If private sector co-financing does not materialize, financial support activities will be affected.</p>	Moderate	Low

Mitigations: The project will undertake steps to mitigate risks and develop partnership with banks to: a) launch a pilot ME loan program with 2-3 banks to reach to 10,000 microenterprises in two years, in order to develop a successful ME loan program; b) train/orient bank officers at the branch level of partner banks on ME management and financing, and c) provide risk guarantee instruments in the pilot phase to reduce risks from bank's point of view.		
Institutional Capacity for Implementation and Sustainability	Moderate	Low
Implementation Arrangements	Moderate	Low
Risk: The key challenge for MAVIM relates to: - implementing several sub-sectoral value-chain interventions across sectors and across agro-ecological and economic zones, which requires diverse technical expertise; - implementing sustainable enterprise development and charging fee for services which requires intense networking and liaison with the government, and identifying the most relevant private sector actors.	Moderate	Low
Mitigations: To mitigate the risks: - MAVIM will have dedicated PMU and additional trained staff members in all districts; - MAVIM, through the project, will seek help of sectoral experts in designing value chain subprojects. - the project will enhance its institutional capacity through targeted trainings and exposures. - Management systems include microfinance, VCD project management system will be installed.		
Financial Management	Substantial	Moderate
Organization and Staffing	Moderate	Low
Risk: Staff may not be suitably qualified, staff turnover may be high, staff may be unfamiliar with working with donor financing requirements	Moderate	Low
Mitigations: MAVIM has implemented two IFAD-financed project previously and staff are adequately qualified and experienced. Additional staff will be recruited to handle the extra workload of the project. Clear job descriptions and accountability lines will be implemented with delegations of authority and segregation of duties. Several MAVIM staff attended a Dec 2019 IFAD financial management workshop and key staff will participate in the capacity-building grant-funded initiative with CIPFA. The PIM will outline key procedures.		
Budgeting	Substantial	Moderate
Risk: The risk that budgeted expenditures are not realistic, not prepared or revised on a timely basis, and not executed in an orderly and predictable manner, resulting in funds not being available when needed, ineligible costs and reallocation of project funds and slow implementation progress.	Substantial	Moderate

Mitigations: The budgeting system is well established and there are procedures for collecting information from the districts each month, however, the data collected needs to be verified to ensure proper process of preparation of AWPB using the bottom-up approach and regular review of the physical and financial progress		
Funds Flow/Disbursement Arrangements	High	Substantial
Risk: The risk that funds from multiple financiers disburse with delay due to cumbersome treasury arrangements or inability of project cost centers and service providers to justify prior advances, resulting in delayed implementation. In particular prior experience showed that slow release of funds by the Government of Maharashtra led to some delay in implementation.	High	Substantial
Mitigations: Ensure timely release of budget for project activities		
Internal Controls	Substantial	Moderate
Risk: The risk that controls over Project funds are not in place, leading to the inefficient or inappropriate use of project resources including the risk that internal audit arrangements are not present, independent or adequately resourced, leading to an inaccurate (or inexistent) assessment of the effectiveness of risk management, control and governance processes.	Substantial	Moderate
Mitigations: Segregation of duties exists at MAVIM but not at the districts due to limited number of staff: the bank reconciliations are prepared by the accounts officer who is also the person who makes payment and is a joint signatory for issue of payments. Periodic reconciliations. Restricting access to accounting files and documents. Periodic count of inventories and fixed assets. Internal audit does not currently exist and needs to be introduced with quarterly reporting.		
Accounting and financial reporting	Substantial	Moderate
Risk: The risk that accounting systems – including policies and standards – are not integrated and reliable, leading to inaccuracies in financial records lack of informed decision-making.	Substantial	Moderate

Mitigations: Tally software is used but needs customizing to include the reporting by categories and financiers as well which is currently done in Excel. Chart of accounts existed for the earlier project and does exist for MAVIM, for the new project will be prepared in accordance with the AWPB of the project. Accounting standards prescribed under the Companies Act, 2013 and the rules made thereunder which are nationally accepted accounting standards in India for accrual system of accounting are followed. MAVIM has Financial Regulations which was framed in 2004 but they need to be updated. MAVIM has a financial regulation manual which will be updated and included in PIM. Accountant will need to be proficient in the use of the accounting software. Back-up of accounting records. Use of registry of fixed assets. Bi-annual unaudited financial statements and annual audited financial statements were sent to IFAD for the earlier project and will be continued for the new project as well. Data is exported from Tally into Excel for detailed reporting. Project Implementation Manual (PIM) to detail reporting and monitoring requirements and rules. Use of financial statements templates consistent with IFAD reporting requirements		
External Audit	Moderate	Low
Risk: The risk that independent and competent oversight of the Project financial statements is not in place or performed timely leading to possible misrepresentation of the financial results and/or suspension or other remedies due to compliance breaches.	Moderate	Low
Mitigations: A Chartered Accountant firm does the external audit of MAVIM who is appointed by the office of the CAG. For the project a CA firm will be recruited to undertake the audit in accordance with the Indian Standards of Auditing as prescribed by the Companies Act, 2013. Besides the Auditor General's office (SAI) also conducts transaction audit. Ensure reporting as required by IFAD Guidelines. Prompt implementation of auditor's recommendations.		
Project Procurement	Substantial	Moderate
Legal and Regulatory Framework	High	Substantial
Risk: The risk that the Borrower's regulatory and institutional capacity and practices (including compliance with the laws) are inadequate to conduct the procurement in a manner that optimizes value for money with integrity.	High	Substantial
Mitigations: 1). Project Level Procurement Manual - modeled and customised based on IFAD Project Procurement Handbook version 2020 which would include standard bidding documents. 2). Oversight through the review of the Procurement plan that procurement method (competitive) is used and applied. LTB to include provision of the applicable method based on range (value). 3). Potentially establish or integrate procurement monitoring system within MAVIM 4). Potentially establish or integrate public access to procurement information within MAVIM		
Accountability and Transparency	Substantial	Moderate

Risk: The risk that accountability, transparency and oversight arrangements (including the handling of complaints regarding, for example, SH/SEA and fraud and corruption) are inadequate to safeguard the integrity of project procurement and contract execution, leading to the unintended use of funds, misprocurement, SH/SEA, and/or execution of project procurement outside of the required time, cost and quality requirements.	Substantial	Moderate
Mitigations: 1). Establish a mechanism and procedures and for complaints management within MAVIM and nodal Ministry in Govt of Maharashtra 2). Explore opportunities and potential for strengthening proposed single tier complaints management system with a two tier system. 3). Adopt procedures and implement the government rules on procurement sanctions 4). Explore opportunities of strengthening independent investigation of prohibitive practises at the at the level of Govt of Maharashtra.		
Capability in Public Procurement	Moderate	Low
Risk: The risk that the implementing agency does not have sound processes, procedures, systems and personnel in place for the administration, supervision and management of contracts resulting in adverse impacts to the development outcomes of the project.	Moderate	Low
Mitigations: 1). Set up a procurement unit with at least one procurement officer 2). Provide training and capacity building to the procurement staff, Project to develop a clear set of objective and results matrix for the procurement staff.		
Public Procurement Processes	Moderate	Low
Risk: The risk that procurement processes and market structures (methods, planning, bidding, contract award and contract management) are inefficient and/or anti-competitive, resulting in the misuse of project funds or sub-optimal implementation of the project and achievement of its objectives.	Moderate	Low
Mitigations: 1). Monitoring the adoption and implementation of Project Level Procurement Manual 2). Oversight through supervision mission and other ad-hoc offsite follow up.		
Environment, Social and Climate Impact	Low	Low
Cultural Heritage	Low	Low
Risk: Chance finds of artefacts of cultural and historical significance	Low	Low
Mitigations: MAVIM develops and trains the CMRCs on procedures for chance finds in agri- and eco-tourism projects.		
Labour and Working Conditions	Low	Low

Risk: No major risk is foreseen, given the nature of the project and that no infrastructure work is envisaged.	Low	Low
Mitigations: However, MAVIM will ensure much of the income earned by the women beneficiaries is spent on child education (we can refer to the endline surveys of Tejaswini Maharashtra).		
Community Health and Safety	Moderate	Low
Risk: With special focus on women farming community including agriculture labourers and landless, there could be the risk that activities will result in drudgery and physical exhaustion	Moderate	Low
Mitigations: - For land related activities and non farm enterprises, sub-projects will promote precision machinery that improve labour productivity and reduce drudgery; - promote drought resilient farming based on crop diversification, low external input sustainable agriculture; - For livestock related activities, the sub-projects will include intensive and semi-intensive livestock husbandry and appropriate sheds/ feed and water troughs.		
Greenhouse Gas Emissions	Low	Low
Risk: Methane emission	Low	Low
Mitigations: - the sub-projects will provide for feed mixes and livestock breeds that have better conversion of feed; - recycling of manure into biogas and bio-slurry; - To control methane emissions from rice cultivation, CMRCs will expand SRI (as already adopted by SHG members in rice producing areas).		
Vulnerability of target populations and ecosystems to climate variability and hazards	Moderate	Low
Risk: The target group of the area is substantially dependent on climate-sensitive natural resources especially rainwater-fed agricultural crops such as cotton, soybean, sugarcane and livestock production.	Moderate	Low
Mitigations: - Crop-based insurance and early warning systems are planned for development in collaboration with Govt of Maharashtra; - Minimize use of non-organic fertilizers and encourage use of organic (bio-degradable) manure in agriculture; and - reduce use of agro-chemicals in processing and manufacturing processes.		
Stakeholders	Moderate	Low
Stakeholder Engagement/Coordination	Moderate	Low

Risk: 1. The key risk perceived is banks are unwilling to provide individual micro enterprise loan of a larger size to SHG members. 2. Risk of poor performance by Technical Service Providers; 3. Risk of low mobilization of resources under convergence schemes.	Moderate	Low
Mitigations: 1. The design provides for risk sharing instrument during pilot phase; 2. The project will ensure proper due diligence before selecting partners and build risk mitigating mechanisms (financial / performance bank guarantees) into contracts; 3. The project will jointly develop action plans with the relevant departments. Similar programme implementation by MSRLM based on subsidies and grants is a risk that will be mitigated by agreements with Rural Development Department for collaboration for sharing of data, facilitating interest subvention scheme for SHG loans, implementing the skilling initiatives and also facilitating funds flow to CMRC.		

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 10: Exit Strategy

Mission Dates: 27 November to 8 December 2019
Document Date: 10/03/2020
Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Annex 10: Exit Strategy and Sustainability

Sustainability of the Nav Tejaswini benefits and results can be seen at three levels: the enterprises being strengthened, the CMRCs already functional and producer collectives being formed and nurtured and ability of MAVIM and CMRCs to facilitate/provide support services to the enterprises and collectives. The exit strategy and its success is closely linked to results achieved at all these three levels.

The exit strategy and sustainability of the project activities is presented component wise below;

Component/ component	Sub	Exit strategy
Component 1 Market led enterprise promotion		
Farm sector enterprise development (both cluster based and standalone)		<p>The component will enable farm and non/off farm producers and businesses in identified clusters to increase sales and profit through a combination of interventions in marketing, product development and quality improvement, productivity enhancement, and sustainable business relationships with other businesses thus paving way for sustainable enterprises.</p> <p>All activities in the promotion of support services are based on a sustainable private sector-based, market led approach with a clear plan to continue to function after the project support. Given the widespread lack of appropriate technical advice and follow-up available to many smallholders/small producers, the project will partner with technical agencies to provide technical services to farmers/producers against fees, without further project support. Under farm sector, the common project interventions would be training for farmers, introduction of improved farm practices, mechanization of production process, cost reducing farm practices, establishing linkages with buyers etc. both for crops as well as livestock. All the above activities will be carried out by CMRCs initially and once producer collectives are formed the market interface both for inputs and outputs will be carried out by the collectives. The others will continue with CMRCs. The project through CMRCs and village-based agricultural assistants (<i>Sakhis</i>) will provide/facilitate production to standalone farm/businesses on fee basis. Market related assistance to stand alone businesses will be through the producer collectives.</p> <p>Under non-farm sector initiatives, the key initiatives will address the current constraints and issues of design changes/improvement, quality improvement and standardisation, improve skilling and identify</p>
Off farm/Non-farm sector enterprise development		

	<p>subcontracting arrangement and establish linkage with mainstream marketing channels. Skilling women in Services sector and provision of quality services is another major segment that Nav Tejaswini will focus on. For standalone non-farm enterprises which are from different segments and activities, the business development needs vary. MAVIM will identify and shortlist the service providers whose services the enterprises will access on fee basis. CMRCs will facilitate such linkages. All these technical services will continue beyond the project period.</p> <p>Thus choosing the technical service providers, business development service providers, and linking the enterprises to these service providers on fee basis will ensure a clear exit for the project.</p> <p>The objective of producer collectives is that all producer collectives should graduate to being fully independent, financially robust and self-managing within three years of project engagement since these collectives are built on the solid social mobilisation and good governance built by Tejaswini. Moreover, engaging Samunnati agro solutions and Samunnati financial services for building businesses couple with innovative financing are expected to strengthen the producer collectives and push them strongly into growth trajectories. Therefore, well before Nav Tejaswini exits, the collectives would have reached a development level which ensures that the benefits gained from Nav Tejaswini support would continue after the projects closes.</p>
CMRC capacity building	Nav Tejaswini will be transformative for CMRCs as they move focus from livelihoods to enterprise development and market interventions. The project provides for intensive capacity development and also systems development for CMRCs. The revenue earning opportunities widen for CMRCs. CMRCs are likely to emerge much stronger institutionally as well as financially at the end of the project.
Innovations	Innovations funding is Nav Tejaswini specific. The proposals funded after thorough vetting by an expert committee are likely to be sustainable as long as they offer market based solutions. It is expected that more than 80% of the proposals will be successful and scalable.
Component 2 Enabling support services	
Facilitating Financial Linkages	The facilitation of financial services under Nav Tejaswini is based on institutional development approach with fully sustainable services. The

	<p>capacity building of CMRCs and FIs is to support linking the micro enterprises to these institutions and assisting the FIs to modify/develop appropriate products that meet the first time ME loan borrowers. Similarly by improving the savings and also credit planning capacities in SHGs, FIs will be encouraged to lend larger loans to support livelihoods and nano enterprises of SHG members. FIs will forge incentive based partnerships with CMRCs as business facilitators for loanee selection and monitoring of loan portfolio. Thus these services would be institutionalized in the FIs and CMRCs and these services would continue after Nav Tejaswini closes.</p> <p>The pilot on animal insurance cum health services will be scaled up based on results and the feasibility study will strongly focus on sustainability of the initiative.</p> <p>Policy dialogues are expected to continue beyond project period with capacity built in MAVIM and also partnerships forged with research institutions.</p>
Evolving new pathways for ultra-poor households	The aim is to graduate all ultra poor families By the end of the project. With sensitive support from SHGs and CMRCs these families with tailor made interventions are expected to continue to grow their incomes and stay above poverty line. Further, a majority of these households would have the skills and confidence to grow and face fewer social barriers to their development. CMRCs will continue to monitor the performance of these households.
Skill training	The three types of training offered are with external partnerships and CMRCs playing a facilitation role for appropriate selection of candidates. As long as training institutions value the partnerships with CMRCs in proper selection of candidates, vocational trainings will continue to be offered in partnership with CMRCs. Village community based trainings will continue to be conducted with CMRCs selecting the trainers and trainees paying for the training. Apprenticeships are likely to be continued if MAVIM and CMRCs raise resources for the same through Government/CSR etc.,
Enhancing nutritional status and gender relations at HH and community levels	These initiatives are embedded in the sustainable community institutions structure of Self Help groups, VOs and CMRCs. CMRCs with adequate capacity built will continue these initiatives, which involve low budgets and based on partnerships/convergence. The agenda of nutrition will be embedded in each SHG which are likely to continue awareness raising and monitoring of key health parameters. Similarly

	VOs will spearhead the gender related initiatives under the guidance of CMRCs.
Component 3: Institutional Strengthening and Project Management	
	<p>MAVIM's ability to build sustainable SHG federations is widely recognized. The institutional capability of MAVIM will be enhanced through various training and technical assistance to become an effective promoter of enterprise development for rural women, thus enabling a transition of MAVIM from livelihood promoter to enterprises developer. Government of Maharashtra is keen to support different models of community empowerment and enterprise development. GoM is providing MAVIM's operational expenses through budgetary allocations for the core staff. Project related additional business development staff recruited will be supported through the producer collectives at various levels. MAVIM is increasingly implementing/facilitating GoM/GoI schemes through convergence and is likely to get a budget allocation from Planning and Development Department for implementing women centric projects. MAVIM being a company, also has the opportunity to develop a platform for marketing of select products. The project is also supporting MAVIM to build a center of excellence through which MAVIM's experience, knowledge and learnings can be shared within the country and also other developing countries. The main challenge is to ensure the market led implementation for sustainability of enterprises.</p>

India

Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project Project Design Report

Annex 11: Mainstreaming themes – Eligibility criteria checklist

Mission Dates: 27 November to 8 December 2019
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Project No. 2000002980
Report No. 5309-IN

Asia and the Pacific Division
Programme Management Department

Mainstreaming themes – Eligibility criteria checklist

	<input checked="" type="checkbox"/> Gender transformational	<input type="checkbox"/> Youth sensitive	<input checked="" type="checkbox"/> Nutrition sensitive	<input checked="" type="checkbox"/> Climate finance
Situation analysis	<input checked="" type="checkbox"/> National gender policies, strategies and actors <input checked="" type="checkbox"/> Gender roles and exclusion/discrimination <input checked="" type="checkbox"/> Key livelihood problems and opportunities, by gender <input checked="" type="checkbox"/> Use (pro-WEAI) assessment for M&E baseline	<input type="checkbox"/> National youth policies, strategies and actors <input type="checkbox"/> Main youth groups <input type="checkbox"/> Challenges and opportunities by youth group	<input checked="" type="checkbox"/> National nutrition policies, strategies and actors <input checked="" type="checkbox"/> Key nutrition problems and underlying causes, by group <input checked="" type="checkbox"/> Nutritionally vulnerable beneficiaries, by group	
Theory of change	<input checked="" type="checkbox"/> Gender policy objectives (empowerment, voice, workload) <input checked="" type="checkbox"/> Gender transformative pathways <input checked="" type="checkbox"/> Policy engagement on GEWE	<input type="checkbox"/> Pathways to youth socioeconomic empowerment <input type="checkbox"/> Youth employment included in project objectives/activities	<input checked="" type="checkbox"/> Nutrition pathways <input checked="" type="checkbox"/> Causal linkage between problems, outcomes and impacts	
Logframe indicators	<input checked="" type="checkbox"/> Outreach disaggregated by gender <input checked="" type="checkbox"/> Women are > 40% of outreach beneficiaries <ul style="list-style-type: none"> • Pro-WEAI indicator 	<input type="checkbox"/> Outreach disaggregated by age	<input checked="" type="checkbox"/> Outreach disaggregated by gender <ul style="list-style-type: none"> • Further details to be confirmed 	
Human and financial resources	<input checked="" type="checkbox"/> Staff with gender TORs <input checked="" type="checkbox"/> Funds for gender activities <input checked="" type="checkbox"/> Funds for Pro-WEAI surveys in M&E budget	<input type="checkbox"/> Staff with youth TORs <input type="checkbox"/> Funds for youth activities	<input checked="" type="checkbox"/> Staff or partner with nutrition TORs <input checked="" type="checkbox"/> Funds for nutrition activities	IFAD Adaptation Finance N/A IFAD Mitigation Finance N/A Total IFAD Climate-focused Finance \$0
ECG Remarks	Gender Nutrition Youth <input type="checkbox"/> No social inclusion themes			