IFAD

PROJECT EVALUATION

Federal Democratic Republic of Ethiopia

Special Country Programme Phase II

Interim Evaluation

April 2005

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The Federal Democratic Republic of Ethiopia
Special Country Programme Phase II (SCP II)
Interim Evaluation

April 2005
Report Nº 1643-ET

Photo on cover page:
The Federal Democratic Republic of Ethiopia
Canal and minor structures in the Irza irrigation scheme (Amhara Region)
Source : IFAD
Photo by: R.C. Carter

The Federal Democratic Republic of Ethiopia
Special Country Programme, Phase II (SCP II), Loan Nº 438-ET
Interim Evaluation

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* All annexes are available from IFAD's Office of Evaluation (evaluation@ifad.org)

Exchange Rate

Local Currency	=	Ethiopian Birr (EB)
USD 1,00 (At time of Appraisal, 1997)	=	EB 6.30
USD 1.00 (At time of Int. Evaluation, 2004)		EB 8.63

Abbreviations and Acronyms

ACP	Agreement at Completion Point
ADLI	Agricultural Development Led Industrialisation
AR	Appraisal Report
BoA	Bureau of Agriculture
COSAERAR	Commission for Sustainable Agric Development and Env Rehabilitation Amhara
COSOP	Country Strategic Opportunities Paper (IFAD)
CPO	Cooperatives Promotion Office
DA	Development Agent
DCI	Development Cooperation Ireland
ERR	Economic Rate of Return
ESRDF	Ethiopian Social Rehabilitation Development Fund
FDRE	Federal Democratic Republic of Ethiopia
GoE	Government of Ethiopia
hh	household
IDD	Irrigation and Drainage Department
IE	Interim Evaluation
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
LWF	Lutheran World Federation
M&E	Monitoring and Evaluation
MDG	Millenium Development Goal
MFE	Methodological Framework for Project Evaluation
MoA	Ministry of Agriculture and Rural Development
MOFED	Ministry of Finance and Economic Development
MoWR	Ministry of Water Resources
MTR	Mid Term Review
NGO	Non Governmental Organisation
O&M	Operation and Maintenance
OE	Office of Evaluation of IFAD
OIDA	Oromiya Irrigation Development Authority
PA	Peasants' Association
PCU	Programme Coordination Unit
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
RPCU	Regional Programme Coordination Unit
SCP	Special Country Programme
SCP II	Special Country Programme Phase II
SIDA	Southern Irrigation Development Authority
SNNPR	Southern Nations, Nationalities and Peoples' Region
SSI	Small-scale Irrigation
UNOPS	United Nations Office for Project Services
Woreda	District
WUA(s)	Water Users' Association(s)

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
SPECIAL COUNTRY PROGRAMME - PHASE II
INTERIM EVALUATION
Map 1 - Project Area

Source: *IFAD*
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FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

SPECIAL COUNTRY PROGRAMME - PHASE II

INTERIM EVALUATION

Map 2 - Administrative Weredas of Southern Oromiya Region

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FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

SPECIAL COUNTRY PROGRAMME - PHASE II

INTERIM EVALUATION

Map 3 - Administrative Weredas of Southern Region

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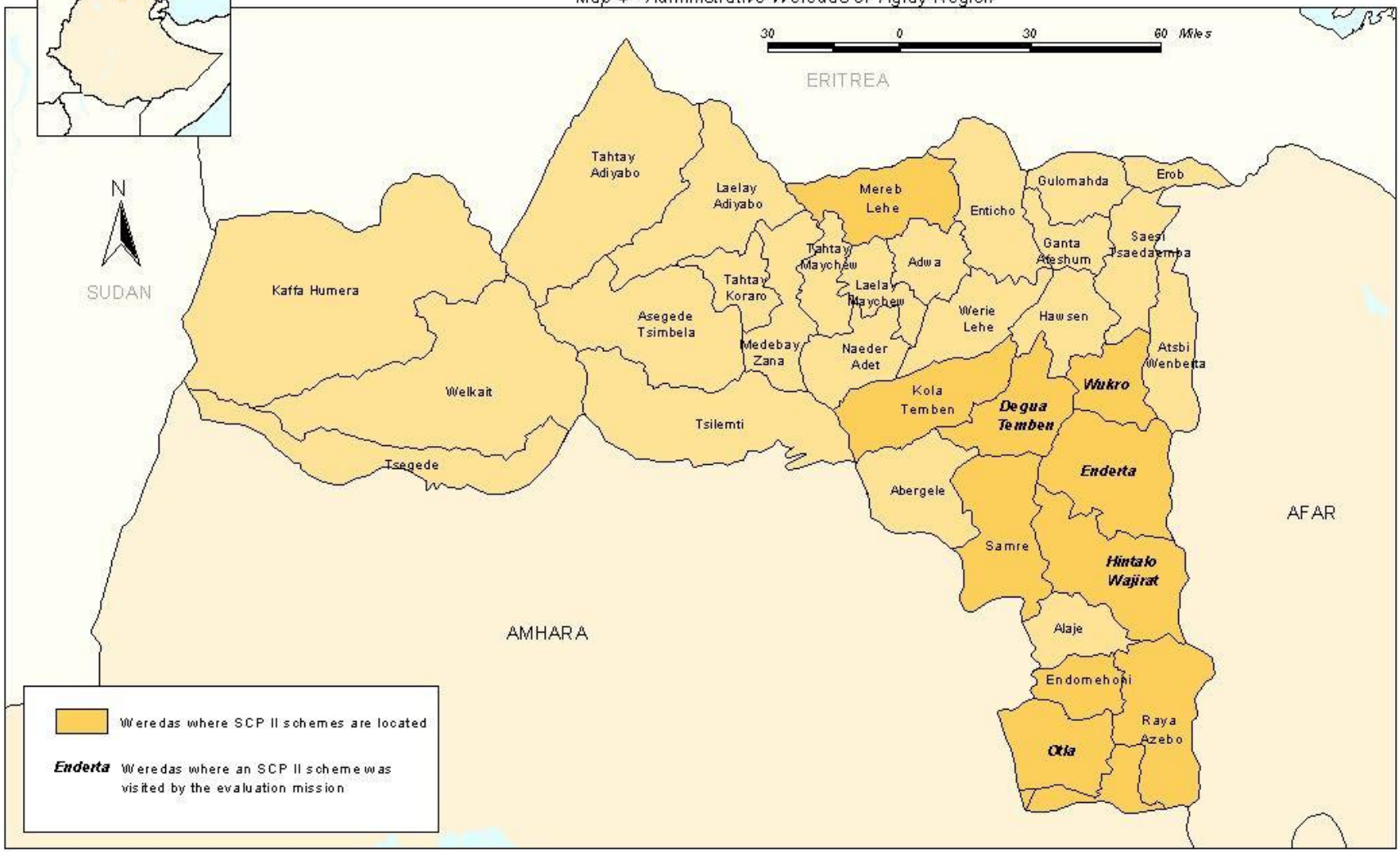
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

SPECIAL COUNTRY PROGRAMME - PHASE II

INTERIM EVALUATION

Map 4 - Administrative Weredas of Tigray Region



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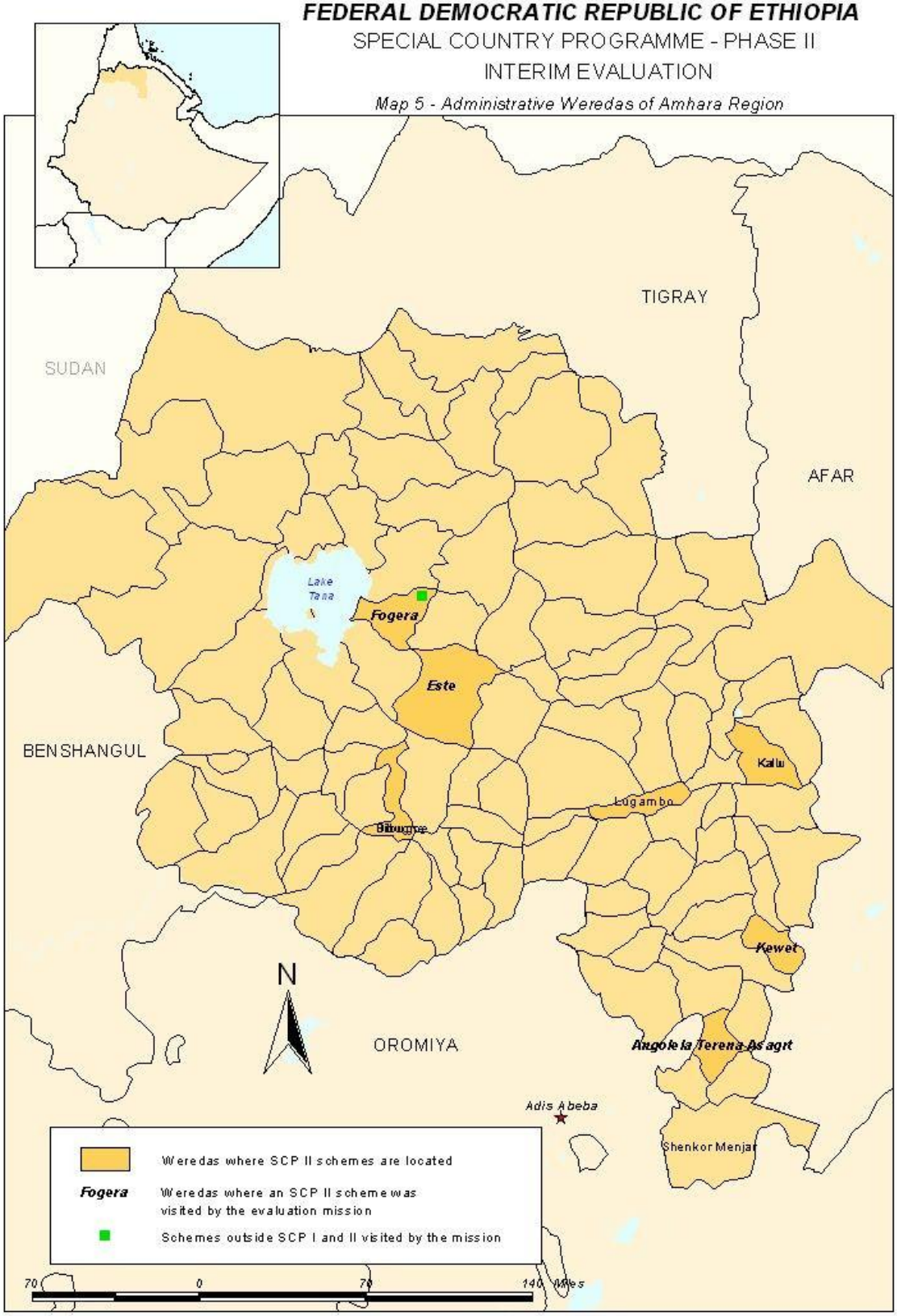
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

SPECIAL COUNTRY PROGRAMME - PHASE II

INTERIM EVALUATION

Map 5 - Administrative Weredas of Amhara Region



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The Federal Democratic Republic of Ethiopia
Special Country Programme, Phase II (SCP II)
Interim evaluation

Agreement at Completion Point[1]

I. The Core Learning Partnership and the Users of the Evaluation

1. In 2004 the Office of Evaluation of IFAD conducted an Interim Evaluation of the Special Country Programme Phase II (SCP II) in Ethiopia. An approach paper was discussed with partners in Ethiopia in May 2004, and a pre-mission socio-economic survey was fielded between June and August of the same year. A *core learning partnership* was formed comprising representatives of the Ministry of Water Resources, the Ministry of Finance and Economic Development, the SCP II PCU, UNOPS and the IFAD Region for Eastern and Southern Africa (PF). The main evaluation mission took place 13th September-14th October 2004. A draft evaluation report was distributed in December 2004. A final evaluation workshop was organised on 24th February 2005 in Addis Ababa (Ethiopia) to take stock of the evaluation findings and prepare this Agreement at Completion Point (ACP). The workshop was attended by the members of the core learning partnership and other stakeholders. The ACP illustrates the stakeholders' understanding of the evaluation, findings and recommendations, their proposal to implement them, and their commitment to act upon them.

II. The Main Evaluation Findings

2. **Quantitative Achievements**. According to the UNOPS 2004 report[2], 31 out of 55 small-scale irrigation schemes had been completed by April 2004. Discussions held by the evaluation mission in the field suggest that 49 out of 58 schemes were complete by September 2004. The water management component (introduced after MTR) is reported by UNOPS 2004 to be substantially complete, with the exception of registration and legalisation work in relation to WUAs, and several elements of local training. The development of WUAs has been less than satisfactory because of the way in which traditional water management structures have been ignored during implementation, and because of the failure to reconcile the aims and legal status of WUAs and cooperatives. The UNOPS 2004 report paints the general picture of very limited project achievements in the agriculture component, the most alarming single area being that of soil conservation.[3] This is an area of real concern: limited transfer of knowledge through the present extension system has prevented farmers from achieving higher yields. In addition, as the rate of cropping intensity of land increases, it

[1] This agreement reflects an understanding among the key partners to adopt and implement recommendations stemming from the evaluation. The agreement was formulated in consultation with the members of the Core Learning Partnership (CLP). The CLP members that attended the workshop were: H.E. Mesfin Tegene, Hon. Vice Minister, Ministry of Water Resources; Mr. Adugna Jebessa, Head, Irrigation & Drainage Development Studies Department (MoWR); Mr. Dejene Demissie, Head, International Finance and Development Institutions Division, Multilateral Cooperation Department (Ministry of finance and Economic Development); Ms. Yeworkwha Abate (MoFED); Mr. Ayalew Abate, Coordinator SCP II; Mr. Dele Ilebani and Mr. Robson Mutandi (UNOPS, Nairobi); and Mr. John Gicharu (CPM, IFAD/PF). The workshop was also attended by Mr. Fabrizio Felloni, Lead Evaluator, OE and Prof. Richard C.Carter, consultant, Evaluation Mission Leader, who presented the main evaluation findings and recommendations. A complete list of the participants is provided in the appendices to the main report.

[2] In the absence of a sound monitoring system, the supervision reports constitute the best source of quantitative data on project achievements.

[3] Undoubtedly the UNOPS estimate of 6% of target achieved is an under-estimate (if only because of the omission of Amhara in these data), but discussions in the field confirm that this is an important area of under-achievement. The fact that agricultural interventions normally follow the completion of irrigation schemes is not an adequate explanation. Some interventions, such as soil protection, can and should be started before the construction of a scheme.

becomes crucial to compensate for the extraction of soil nutrients and prevent a decline in soil fertility and, eventually, soil erosion. The final component, Capacity Building/Coordination, is reported by UNOPS to be well-progressed (achievement of target varying from 66% to 83% across the various sub-components). In financial terms, up to July 2004, Regional disbursement of funds varied from 40% to 70% of totals budgeted.

3. **Major strengths (i) relevance**. The project is relevant to the needs of farmers in traditional irrigation schemes which are located near to markets, and to those farmers who are able to benefit from expansions to these schemes. The project has been well targeted in the sense of working mainly in woredas defined as highly or very highly vulnerable to drought and food insecurity. The project fits well with government policies on water resources development and food security. It is also highly relevant to IFAD's principles and strategic thrusts in East and Southern Africa.

4. **Major strengths (ii) integrated design**. Successful irrigation does not simply consist of the application of water to land for the production of crops. In rural Ethiopia a set of complementary activities is essential to the achievement of beneficial and sustainable impacts. While 70% of the SCP II budget is devoted to the improvement and expansion of small-scale irrigation schemes, the remaining 30% is for soil conservation, the development of women's vegetable gardens, agricultural support services, and capacity building. Each of these complementary activities, and those added since the initial project design (such as the strengthening of credit services and market access), is either essential to the successful performance of the irrigation schemes, or adds significantly to the overall impact and likelihood of that impact being sustained over time.

5. **Major strengths (iii) impact**. The evaluation (see main report) provided some evidence of crop diversification, yield and production increases, and corresponding increases in agricultural income. It also concluded that, in the limited number of cases where women's gardens have been developed, this has had a very significant impact on the women and families who have directly benefited. In some cases physical assets other than the irrigation schemes and soil conservation works – roads - have been improved.

6. **Major strengths (iv) sustainability**. During the evaluation many examples of the strong commitment to the project by Federal Government, the Regions and the Project Coordination Unit were evident. This has resulted in a willingness to learn, and to modify procedures on the basis of that learning. Particularly impressive has been the honest awareness, in some Regions more than others, of the existence of design and operation and maintenance challenges, and the willingness to find ways to solve these problems. In the best cases, co-ownership of schemes with farmers and provision of post-construction support have more than compensated for the naivety of the scheme designers who believed that schemes could be "*fully demand-led*", "*self-sustaining*", "*self-managed*" and "*self-directed*".

7. **Major weaknesses (i) in design**. Weaknesses in project **design** are set out in the evaluation report, and only four points are highlighted here since they have particular relevance to the future. **First**, many assumptions have been made about the weaknesses of traditional irrigation systems, without the foundation of detailed investigation and diagnosis. It may be that less capital-intensive interventions to improve traditional systems could spread benefits more widely. **Second**, a significant number of economic assumptions made at appraisal were clearly optimistic. In particular the high yields, high producer prices, low post-harvest losses, no water scarcity, and no maintenance costs assumed at appraisal. It would be unfortunate if actual project performance were to be judged against measures which were themselves grossly unrealistic. **Third**, little was said at appraisal about the importance of realistically assessing market potential, and selecting sites within close proximity of existing or potential markets. **Fourth**, the notion, already highlighted, that modern small-scale irrigation schemes can be designed and constructed using specialist skills, equipment and materials, then handed over to farmers with no post-construction support or back-stopping, is unrealistic and unworkable.

8. **Major weaknesses (ii) in implementation and impact**. Six areas are highlighted here. **First**, the success of commercialised small-scale irrigation schemes depends crucially on access to credit and input and output markets. Promotion of cooperative membership has only partially achieved this access, and only for some farmers. **Second**, traditional water management structures have not been exploited effectively in the establishment of 'modern' WUAs and cooperatives. This threatens the viability of the modern structures, and is disempowering of the traditional organisations. **Third**, despite some real impact of the development of women's vegetable gardens, too little of this project component has been undertaken. Much more remains to be done in this important area of empowerment and household-level impact. **Fourth**, much more attention needs to be paid to soil management issues, both within and outside the irrigation schemes. Agricultural services in general, especially generalist extension advice, trials and demonstrations, and seed availability, need to be enhanced. **Fifth**, the issue of competition, and in some cases conflict, between upstream and downstream water users is of major concern. **Sixth**, the evaluation found a significant number of cases where farmers are worse off than they were without the project. Not all 'modern' irrigation development has benefited all of the target farmers. Mistakes have been made in particular when engineers have ignored the knowledge or wishes of farmers, when hydrological assessments have been flawed, or where upstream developments have deprived schemes of water.

9. **Major weaknesses (iii) in project management.** Three specific weaknesses in overall project management are emphasised here. **First**, there is no agreed project logical framework or equivalent, setting out the hierarchy of project objectives and activities, together with indicators of achievement, means of verification, and risks and assumptions. Because of this, there is no general agreement on what to monitor and how to do so. Consequently no-one knows exactly what the project has achieved. The supervision process has not been an appropriate vehicle for putting an agreed monitoring system in place, and nor has short-term TA. Only a long-term substantive partnership could have solved this problem, by allowing IFAD to engage in a participative process with the key stakeholders[4]. **Second**, too short a time-horizon has been taken by the project partners. Long term commitment is needed. A six year project is too short to achieve significant impacts. It has taken until PY5 to reach a peak in irrigation scheme construction, and longer in the agriculture component. Benefits to farmers will take another 6-10 years to realise. **Third**, there has been too little sharing of institutional knowledge[5]. This applies at two levels, (i) between Regions and woredas, and (ii) between the project, Federal Government and other donors. The first of these would allow the spread of good practice from the best-performing Regions to others, while the second would allow forward movement in policy, strategy and donor coordination.

10. **Main weaknesses (iv) in partner performance**. The evaluation has highlighted here two important weaknesses. **First**, Federal Government commitment has not always been as constructive as at present, and even now stronger adherence to the spirit and letter of agreed responsibilities would enhance project performance considerably. Consistency and strength of commitment are needed. **Second**, the evaluation expressed concerns about the institutional processes involved in the 'partnership' between IFAD, UNOPS (the supervising organisation) and GoE. Specifically, too little time was invested in the supervision function, and the technical assistance provided on occasions failed to develop a partnership characterised by trust, support and constructive engagement. These weaknesses are not unique to this project and these external organisations, but they nevertheless should be taken seriously.

[4] Short missions, with little stakeholder participation, producing different sets of prescriptions, are of very limited value. Long term partnership, using consultants who are trusted and respected by both partners, or through more substantial direct involvement, would have been more effective.

[5] The main exception being the Project Workshop in Adama (Nazaret) in August 2004.

III. Recommendations Agreed upon by All Partners

Strategic Issues

11. Assuming the mutual desire to continue and consolidate the successes of the project, while moderating its weaknesses, a number of key strategic issues need to be addressed. The emphasis here is to build on the good practices and internal learning already developed, while mitigating those factors which reduce the effectiveness of the project.

12. The process of internal learning was fostered through the project workshop held in Adama (Nazaret) in August 2004. This was agreed by all to be a very positive experience. However, the valuable and detailed sector experience which has been developed now over many years has not significantly contributed to debate and dialogue on Government policies and strategies, nor been shared widely with other donors.

13. Although GoE has displayed a good deal of commitment to the project, frequent restructuring of Government has impacted negatively on project performance. There is concern even now that transfer of responsibility for SSI from MoWR to MoA may compromise the effectiveness of SCP Phase III, at least in the short term.

14. The evaluation team was concerned about the very limited time allocated to supervision from the cooperating institution (UNOPS) by IFAD. It also criticised the TA process, by which foreign consultants advise the project and the donor, through limited time inputs and correspondingly limited in-depth dialogue with the partner.

Summary Recommendations

- Continue the start which has already been made in sharing good practice and experience between Regions and woredas, with regular workshops; include also WUAs, donors and invited guests;
- Extend the project experience more widely by developing policy dialogue with GoE and donors on topics such as water resource management at catchment level; adaptation of national water resource policies and legislation to regional level; marketing and price regulations; policies on water users' associations and irrigation cooperatives; policies and practice relating to land title; and understandings and practices in relation to post-construction maintenance and rehabilitation;
- Work to minimise the impact on the project of organisational re-structuring in Government;
- Develop a partnership between donor, cooperating institution and Government which is characterised by trust, constructive support and continuity of relationships. In addition to external supervision the project needs continuity of constructive support from IFAD or UNOPS, together with national consultants, to assist in overcoming challenges identified by project stakeholders.

Suggested timing: immediate, and throughout future GoE involvement in small-scale irrigation development.

Partners involved: MoWR, MoARD, CPO, IFAD, UNOPS, PCU, Regions, woredas, WUAs, other donors.

The Process of Formulation of Phase III

15. The emphasis here is on both the **process** and the **outcomes** of project formulation, assuming a third phase is to be developed. The concerns of the evaluation team as they examined phase II were the domination of the formulation process by outsiders; the lack of clarity in regard to precise project

aims and objectives (and consequently in regard to relevant indicators too); the inaccessibility of the outputs of the process; and, in some key respects, the unrealism of the project design.

16. If the project is to move into a third phase involving construction of more SSI schemes, then its duration needs to reflect the significant time taken (a) to reach a peak of construction activity, and (b) for the full benefits of the project to be realised by the target farmers. The impact of the project will only be fully realised if there is continuity of project activities over a minimum of 10-12 years. Given this requirement, then the project design needs to be sufficiently flexible to allow for changes in the external environment and the learning developed by project staff.. Joint responsibility for maintenance by farmers and irrigation authorities is essential to bring about sustainability. It is essential that the project goals, activities, indicators of achievement, means of verification of those indicators, and assumptions are set out very clearly. A logical framework is the most convenient form of expression of these elements. The present project includes an excessive amount of detailed documentation, which, because of its quantity is inaccessible to most project stakeholders.

Summary Recommendations

- Carry out project formulation in a fully participative manner, drawing on the lessons of experience learned by the stakeholders at all levels, and particularly those with detailed knowledge of field and farmer;
- Develop a project which is long-term, to reflect the time needed to achieve full impact, and flexible, to allow for future learning and future change;
- Develop a project which fits well with other GoE and donor projects in the small-scale irrigation sector, in recognition of the fact that the Regions and woredas are engaged in more programmes of SSI development than simply this one;
- Recognise the importance of shared responsibility for maintenance between farmers and irrigation authorities. The distinctions between minor maintenance which can be carried out by farmers, major maintenance which is beyond the capacity of farmers but within the mandate of Regional authorities, and rehabilitation of physical and social infrastructure which requires significant external funding, need to be defined.
- Agree a full and detailed logical framework or equivalent expression of the hierarchy of goals and activities, together with indicators of achievement, means of verification, and risks and assumptions. This should be the basis of a simple monitoring system; which should be developed prior to the implementation of Phase III.
- Work to produce clear, concise and a very limited volume of project documentation, which is accessible to all stakeholders. All significant new project documentation should be explained and presented to relevant stakeholders in a National or Regional workshop.

Suggested timing: formulation process to start as soon as practicable.

Partners involved: IFAD, MoWR, MoARD, PCU, Regions, other donors

Studies and reviews of operational issues

17. A number of aspects of the project have been highlighted in the evaluation report as subjects which require more detailed study or review, leading to detailed recommendations for implementation or management, or acting as input to future project formulation work. In some cases there is a wide range of experience and informed judgment within the Regions and woredas which, if brought together, can lead to sound outcomes. In other cases some specialist external support would be of value, to supplement the experience of the National stakeholders. In both cases, the process of debate and dialogue would benefit from assistance by a skilled facilitator. Each of the areas of study listed below is a key area of direct relevance to project design, implementation or management. Each

study/review should be conducted in a manner which encourages the participation of all stakeholders with relevant knowledge and experience.

Catchment level planning and targeting

18. Although in some cases there is a real attempt to manage water in an integrated manner at the catchment level, in others water is simply taken on a first-come-first-served basis. Conflict will inevitably increase, and it will be particularly bad in dry years. There is relevant existing legislation, but it appears that it is not implemented.

19. Although most of the SSI schemes selected for development were targeted in vulnerable or food-insecure woredas, not all were sufficiently close to markets to assure their sustainability in commercial terms. It is important that schemes are selected according to a realistic balance between need and viability.

Summary Recommendations

Conduct participative stakeholder reviews of:

- Good practices developed within the Regions for the integrated management of catchment water resources, with a view to minimising conflict between upstream and downstream water users; this study to include review of existing legal instruments and their enforcement;
- Selection processes for SSI schemes to be improved and extended, with a view to sound targeting in relation to vulnerability and adequate proximity to markets;
- Ways in which input and output markets and market access can be developed for SSI schemes.

Suggested timing: as soon as possible, if SCP is to enter third phase.

Partners involved: farmers (WUAs), woredas, Regions, PCU, MoWR, CPO, IFAD, other donors

Traditional water management associations and low-cost intervention strategy

20. Water management structures existed in most traditional irrigation schemes even before the project provided assistance. Modern Water Users Associations tend to be introduced without reference to these traditional structures. The stakeholder charged with responsibility for strengthening WUAs is only interested in promoting cooperatives. Although cooperative membership is in principle voluntary, farmers are put in an invidious position when they choose not to join. Although many would prefer not to join, if they do not, then they may be seriously disadvantaged, and excluded from some of the benefits which they would expect to receive as members of a Water Users' Association. In many cases WUAs are seen by the authorities as temporary transition arrangements which should evolve into "irrigation cooperatives". Neither WUAs nor cooperatives fully represent the water users farming within irrigation command areas. This confusion in social organisation between traditional structures and 'modern' WUAs and cooperatives needs urgent resolution.

21. More needs to be known about the weaknesses and strengths of traditional irrigation systems, in order to target assistance according to need. It may be that lower-cost, better-targeted interventions could enable project funds to be spread more widely, with greater overall impact.

Summary Recommendations

Conduct participative stakeholder reviews of:

- Social organisation of farmers within SSI schemes, paying due attention to traditional water management organisations, Water Users' Associations and Cooperatives;
- The performance, strengths and weaknesses of unassisted traditional irrigation schemes, in order to better focus improvements delivered by the project;
- The full range of technologies suitable for community-level farmer-managed irrigation.

Suggested timing: as soon as possible, if SCP is to enter third phase.

Partners involved: farmers (WUAs), woredas, Regions, PCU, MoWR, CPO, IFAD, other donors

Agricultural Support and Soil Management

22. The present evaluation has highlighted serious limitations in two main areas: (i)) trial and demonstration sites have been used with a limited range of crop combinations and at unrealistically high input investments; and (ii) Development Agents often have limited experience and their deployment in three specialisms (livestock, crops and natural resources) seems impractical.

Summary Recommendations

Conduct participative stakeholder reviews of:

- o Current extension methodologies and practices, to emphasise the use of non-traditional methods, such as farmers' field visits, local fairs and competitions; the benefits of carrying out trials and demonstrations on farmers' fields should be taken into account.

- o Review the curriculum of DAs, reconsider the usefulness of proposed three-pronged specialisation, review and replicate the experience of the "hirsha kadres" in Tigray

Suggested timing: as soon as possible, if SCP is to enter third phase.

Partners involved: farmers (WUAs), woredas, Regions, PCU, MoWR, IFAD, other donors

Financial Issues

23. Concerns were expressed by many informants to the evaluation team that the cumbersome nature of some of the financial procedures creates significant obstacles to efficient project management.

24. It is very difficult to arrive at true capital and recurrent costs of the SSI schemes, accounting for real overheads and 'hidden' costs of maintenance. In particular the distinctions between completion costs, and costs of maintenance and rehabilitation need to be established, as do the true share of maintenance costs borne by farmers and irrigation authorities.

Summary Recommendations

Conduct a participative stakeholder review of:

- Financial procedures at woreda, Regional, PCU, MoWR, and donor levels, with a view to simplification and acceleration without loss of accountability and transparency. The emphasis on financial management capacity building should lie particularly at woreda level. Regional financial accountants and others should work more closely with their woreda counterparts to develop their capacity in reporting and financial accounting.
- The true capital and recurrent costs of SSI schemes, with particular emphasis on identification of real maintenance and rehabilitation costs;

Suggested timing: as soon as possible, if SCP is to enter third phase.

Partners involved: woredas, Regions, PCU, MoWR, IFAD, UNOPS, other donors

Immediate tasks

25. SCP II will continue to run through 2005 (or longer if the first recommendation below is accepted). A significant amount of work remains to be done, and it is not the intention of these recommendations to add unnecessarily to the burden of work at PCU, Region and woreda levels. However, a minimum set of actions is necessary to achieve a satisfactory closure to SCP II.

26. A significant amount of the project funds remain unspent, and the evaluation team is concerned that in the haste to disburse this money the quality of both 'hardware' and 'software' aspects may suffer. The evaluation team expressed concern about the limited expenditure so far on agricultural support services, including women's vegetable gardens, and encourages a re-dressing of the balance between engineering and agricultural support.

27. The weaknesses in project monitoring have been widely referred to. Because of this, end-of-project reporting will be challenging. Steps have been taken to address this problem, and the evaluation team urges the completion of this work to a high standard. Further measures should be taken to ensure consistent and accurate reporting from the Regions in the final months of the project

28. Soil erosion is a major environmental threat to the irrigation schemes and in the catchments more generally, and SCP II could have a major beneficial impact in this area. Soil erosion threatens the viability of both rainfed and irrigated farming. SCP II includes a significant component of soil conservation work, but very little has been achieved so far. Intensive multiple cropping in irrigation command areas will lead to soil degradation. Without specific measures to manage soil fertility, such as rotation including legumes, and use of fertiliser and manure, soil nutrients will be rapidly depleted.

Summary Recommendations

- In order to complete the remaining project activities without undue haste and corresponding loss of quality, and in light of the accelerated AWPB in place as at February 2005, consideration should be given to requesting an extension to the project duration.
- The scheme audit which is already under way should be completed to a high standard, the data validated, and the findings collated and analysed;
- Simple consistent progress report and final report formats should be agreed between the PCU and the Regions, and implemented, with the immediate purpose of fulfilling the requirements of end-of-project reporting;
- In the final months of the project every effort should be made to re-dress the balance between activities in the engineering and agricultural support arenas. In particular significantly more work should be carried out in relation to soil conservation, women's vegetable gardens and agricultural support services;
- The start that was made in 2004 to share organisational learning through project workshops and other relevant means should be continued.
- Specialist expertise in monitoring and evaluation (either through a retained consultant or full time specialist) should be put in place at PCU level, to facilitate the development of Regional and woreda level skills in M&E, and to coordinate overall project monitoring.

Suggested timing: immediate.

Partners involved: PCU, Regions, MoARD, MoWR, CPO, Woredas, other donors.

The Federal Democratic Republic of Ethiopia
Special Country Programme, Phase II (SCP II)
Interim Evaluation

Executive Summary[1]

I. INTRODUCTION

1. The aim of the Special Country Programme (SCP) Phase II, building on that of Phase I which was conducted in Oromia and Southern Nations, Nationalities and People's Region (SNNPR) between 1987 and 1996, is to "*improve food security and incomes amongst poor rural households by enhancing their resilience to drought, through intensification, diversification and commercialisation of smallholder agriculture*." SCP II has operated in Tigray, Oromia, Amhara, and SNNPR since 1999. The objectives of the project are to improve and expand traditional small-scale irrigation schemes, enhance agricultural support services, and strengthen the government and community institutions responsible for project implementation. The project is complex**,** in terms of its aims, components and institutional arrangements. The natural environment and socio-economic and political contexts are very challenging, and this must be taken into account in the assessment of project performance and impacts, as well as the formulation of a future phase of the project.

2. This interim evaluation (IE), taking place in the final full year of the project, was composed of a pre-mission socio-economic survey carried out in depth in three irrigation schemes and their adjacent communities, together with a four-week mission by four independent consultants, in which 22 irrigation schemes, 14 woredas and all four project regions were visited. The methodology of the evaluation combined surveys of individual farmers (mainly gathering quantitative data) with semi-structured interviews with farmers and farmer groups, woreda officials, and regional and federal personnel, and observations on site. The IFAD Methodological Framework for Evaluation (MFE) is adopted. The latter includes rating for project performance, impact and performance of project partners (provided in the main text). The evaluation mission was preceded by a survey, comprising both qualitative (focus group) and quantitative (randomised administration of questionnaires) techniques. The evaluation timing was not ideal, falling as it did in the rainy season and around the Meskel public holiday.

II. MAIN DESIGN FEATURES

3. **Project components**. The project set out to improve irrigation infrastructure on 800ha of traditional irrigation schemes, and expand command areas by a further 4 500ha. Dry season irrigation of a range of vegetable crops, the majority of which were to be sold into local markets, was to provide the justification for the investment of 70% of the total project funds. The agriculture component would consist of enhanced extension services, soil conservation measures in the catchments where the irrigation schemes are located, development of seed multiplication activities, and promotion of vegetable plots for women, in or near to irrigation command areas. A range of institutional strengthening measures would be implemented through technical assistance, training and provision of basic resources such as vehicles and equipment.

4. **The target groups** of the project would include 23 400 households farming approximately 0.25ha each in small-scale irrigation schemes; 10 000 farmers on rainfed land who would benefit from

[1] The evaluation was led by Professor Richard Carter (Water Sector Specialist, Cranfield University, UK), with Ato Ayele Gebre-Mariam (Socio-economist), Dr Kerstin Danert (Independent Water Sector Researcher and Consultant, Uganda), Dr Tilahun Amede (Consultant Agronomist, Ethiopia) and Ato Merkorewos Hiwet (Consultant, Marketing and Economics, Ethiopia). Mr Fabrizio Felloni, Lead Evaluator, designed the evaluation methodology, conducted a preparatory mission in May 2004 and accompanied the evaluation team during its first and last week.

soil conservation measures; 2 400 women vegetable gardeners each cultivating a 200m^2 plot; the community level, woreda, Regional and Federal institutions which would be supported directly or indirectly; and, supposedly, 2 million people in the wider community who would benefit from the availability of vegetables in local markets. The last figure lacks credibility since the population involved is composed of very poor households in the most food-insecure woredas of Ethiopia whose purchasing power is extremely limited.

5. **Implementing partners and funding**. The project is coordinated by a Project Coordination Unit (PCU) within the Federal Ministry of Water Resources, which liaises with the relevant organs of Regional Government in the four regions of Tigray, Amhara, Oromia, and SNNPR. Funding amounting to USD32.4m (including physical and price contingencies) has been made available by a loan from IFAD (USD 22.5m), GoE (USD 6.2m), farming communities (USD 3.1m, in kind), and an Irish Government grant (USD 1.34m). Supervision is provided by UNOPS from its base in Nairobi.

6. **Changes at Mid Term Review (MTR)**. The main formal changes to the project design appeared at MTR in 2002. The MTR envisaged a final total of 40 Small-scale Irrigation (SSI) schemes, covering 5 190ha and benefiting approximately 21 000 households, being completed by end of project. The MTR also introduced limited provisions for the rehabilitation of schemes developed under SCP I. A new component of Water Management was added, which absorbed the activity of Water Users Associations (WUAs) establishment and added several new activities. The agricultural component was significantly restructured, with a more detailed breakdown of activities. The MTR proposed several changes to the project period, targets and costs. The MTR noted that the project had not commenced until February 1999, and so the six-year implementation period envisaged at Appraisal would run until February 2005. The MTR recommended completion at the end of the 2004-05 fiscal year, i.e. 6th July 2005, and a project closing date of 31st December 2005.

III. SUMMARY IMPLEMENTATION RESULTS

7. **Monitoring** of project achievements has been very poor. This evaluation concludes that, due to the weak M&E system, neither IFAD, nor UNOPS, nor the PCU, nor GoE more widely has more than a very general impression (from disbursements and expenditures) of the achievements to date of this project. Probably the most reliable information concerns the number of irrigation schemes completed (46 out of 58 by September 2004). There appear to have been very limited achievements in the agriculture component of the project, the most alarming single area being that of soil conservation. Achievements in relation to institutional strengthening have been mixed.

8. **Expenditure.** Overall, to July 2004, 55% of the IFAD funds had been spent, the level of expenditure across the regions varying from 30 to 60%. Only 7% of the Irish Government grant had been spent, but the main reason for this appeared to be due to misunderstandings in the Ministry of Water Resources.

IV. PERFORMANCE OF THE PROJECT

9. **Relevance**. The project is very relevant to its target communities, to national policies and to IFAD principles and strategic thrusts. However, little analysis appears to exist of the traditional irrigation schemes which SCP II sets out to improve. It may be that lower (capital) input options could effectively and efficiently spread project benefits to a wider target group than under the present project design. Also, while a key element of the project is the commercialisation of irrigated farming, the challenges of linking farmers in remote areas to markets which can absorb their production are very great. Difficulties of physical access, the domination of the market by traders who dictate price to farmers who have no bargaining power, and the small overall size of the market, are major hindrances to the achievement of the goal of commercialisation.

10. **Effectiveness**. In a project of this type, it is very early to be attempting to measure impact and effectiveness. In relation to irrigation development, the peak year of construction will turn out to be

2003/04, with the expectation of full realisation of benefits by farmers only after a minimum of six years (according to the assumptions at Appraisal, which tend to be optimistic) from then. The limited expenditure and achievements in the agriculture component have already been mentioned.

11. **Targeting**. The project has been well targeted at woreda level, with 70% of irrigation schemes being located in woredas defined by an international consensus to be highly or very highly vulnerable. The evaluation found that significant efforts had been made to reach vulnerable areas. Some landless individuals and households may benefit from the project through providing labour, usually through share-cropping arrangements in the developed irrigation schemes.

12. **Efficiency**. The unit (per ha) costs of small-scale irrigation development in SCP II lie between USD1 100 and 6 500 (EB9 800 and 56 700), depending on whether only direct construction costs, or full project costs, or something in-between, are included. These are commensurate with norms for this type of infrastructure in sub-Saharan Africa. It is too early to observe the full benefits, but a critique of the benefits assumed at appraisal shows that many of these assumptions (yields, percentage of crop sold, prices, need for maintenance) were optimistic. Economic rate of return is almost certainly substantially less than proposed at appraisal (15%), but it is difficult to identify interventions with demonstrably higher rates of return, as well as attractiveness to farmers and Government stakeholders.

V. RURAL POVERTY IMPACT

13. Physical and financial assets of target irrigation farmers have started to improve. There are instances in which 'modernisation' of irrigation has made matters worse for farmers, but overall these are few in number. Impact on financial assets has been limited by low producer prices when middlemen are involved, poor roads, gluts, and consequently farmers' preference to retain for consumption crops which otherwise might be sold.

14. Impact on human assets, in the form of skills and knowledge, has been limited by the generally poor quality of extension work, unimaginative use of trials and demonstrations, and limited institutional support provided so far by the project. Concerning the impact on social capital, the establishment, strengthening and empowerment of local organisations for water management has generated confusion. Traditional water user groups have not been exploited effectively in the move toward 'modern' organisational forms (WUAs and cooperatives). The stakeholder mandated to strengthen WUAs is focused on the promotion of cooperatives, which are unattractive to some (perhaps many) farmers because of associations with the former Government (the Derg). The situation remains confused, and a resolution to this issue is urgently needed.

15. **Food security**, in the sense of increased and more reliable production and increased income, is improving, for irrigation farmers.[2] The range of dietary intake is also widening due to crop diversification. The cash generated from selling vegetables and other produce is commonly used to buy food to cover the household food demand during the food deficit months. Some farmers spoke of a reduction in hungry months from about six to two (July and August).

16. A positive impact on the environment**,** through soil conservation, is crucial to the sustainability of the physical irrigation assets, as well as to the wider spread of benefits beyond the command areas. So far very little has been achieved in this respect, although funds are available for this purpose. There is a danger of soil degradation within the command areas, if soil nutrients are not managed carefully through inclusion of legumes within crop rotation and use of fertiliser and manure. Waterlogging and salinity risks need to be regularly assessed.

17. The institutional context – especially government re-organisations and decentralisation – has limited the impacts of the project. Coordination among the various federal and regional stakeholders is weak and participation in planning at the woreda level is not encouraged. Conversely the project has had little demonstrable impact on institutions (in the sense of '*rules of the game'*), policies and

[2] In the main text we argue that this is a narrow definition in view of more recent findings on nutrition security.

regulatory framework. The potential for policy dialogue between donor, project stakeholders and higher levels of government is significant, and initiatives need to be taken to engage in such dialogue.

18. The project's impact on women through the promotion of women's vegetable gardens has been small in numerical terms (only 3.2% of available funds spent), but significant in terms of depth. This is an area of real and demonstrable importance to family life, nutrition, and women's empowerment, and should be given the importance it merits.

19. **Sustainability** of SCP II irrigation schemes depends particularly on careful site selection (especially in relation to markets and other irrigation abstractions); proper attention to social structures; respect and recognition of indigenous knowledge in the study and design process; and formal recognition of the need for post-construction support to irrigation communities. There are weaknesses in all these areas, which threaten sustainability. Two important physical threats to the irrigation schemes concern the damage caused by catchment soil erosion, and limited dry season water resources. These both highlight the importance of an integrated approach to catchment planning and management which takes account of all relevant land and water uses and users.

20. The project is innovative in its particular combination of components and target farmers, but its replication in the same form will remain dependent on donor funds for the foreseeable future. Some non-target farmers have been observed to imitate the technology which they see, but mostly using local materials in what amount to contemporary 'traditional' schemes.

21. In many cases visited in this evaluation we have observed competition and conflict between upstream and downstream water users. At least one region takes a whole-catchment approach to the study and design of potential new schemes, cataloguing existing abstractions and computing a water balance for the site under study. This should be standard practice, and indeed Ethiopian law provides for the "Supervising body" to issue permits for water abstractions (not for traditional irrigation schemes, but presumably for 'modern' schemes of the type included in SCP II).

22. The sense of ownership of irrigation schemes by the regions is an important plus-point in regard to sustained impact. The fact that the regions take responsibility for post-construction maintenance and repair, when this lies beyond the capacity of the farmers, is a recognition of reality, and an important contributor to sustainability.

VI. PERFORMANCE OF PARTNERS

23. **Partner performance.** IFAD has been strong in terms of direct support to GoE, but weak in the management of supervision and technical assistance. Opportunities to initiate policy dialogue and donor coordination in some key areas relevant to SCP have not been exploited, although it is not too late to initiate this.[3] The Cooperating Institution (UNOPS) has performed conscientiously within severe time constraints. The supervision process however has major shortcomings. GoE has demonstrated strong commitment at the level of policy; less delivery in terms of ensuring adequate human resources at all times; poor monitoring of activities; and weak coordination among government stakeholders.

VII. OVERALL ASSESSMENT

24. **Overall assessment.** As would be expected in a project as complex as SCP II, the overall assessment is mixed, with some areas of significant strength and others of weaknesses which are great enough to undermine sustained impact. Apart from those aspects already mentioned, the evaluation would particularly highlight as strengths of the project the high degree of commitment and the positive attitudes of many individuals at the level of the PCU, the Regional Programme Coordination

[3] On the matter of policy dialogue, IFAD has been engaged in the preparation of two recent programmes in Ethiopia: the Agricultural Marketing Improvement Programme, and the Rural Finance Intermediation Programme. These areas do not fully coincide with those referred to in this paragraph but are relevant to rural poverty alleviation.

Unit (RPCU), within the various regional government agencies involved, at woreda level, and among the many farming communities involved. Significant weaknesses exist in the processes of disbursement of funds; in the degree of joint (consultant-GoE) participation possible within the processes of appraisal, MTR, technical assistance, supervision and evaluation; and in the priority given to non-engineering aspects of the project. There are also several aspects of the original project design (especially its optimism about sustainability, crop yields, and the possibilities of commercialisation) which the present evaluation challenges.

VIII. INSIGHTS AND RECOMMENDATIONS

25. **Part 1 - Extension of SCP II**. Expenditure of available funds, especially from the Irish grant and in the agriculture component, has been limited. Monitoring of project achievements has been weak. The project is due to be completed in July 2005, with a closing date of 31st December 2005. It is unlikely that full expenditure and complete and accurate reporting can realistically take place by these dates. An extension of these dates by at least 12 months is recommended. If this is accepted, then a number of issues can be addressed even before taking any decision on future interventions.

26. **Participative processes for the formulation of next phase**. We recommend that planning begin as a matter of urgency, to define a third phase of the SCP, in full consultation with those responsible for implementing Phase II. The general and more detailed recommendations which follow Table 14 relate to the content of the formulation activity. We urge that every attempt should be made in future project formulation to make project design a fully participative process. The knowledge and experience which exists at federal and regional level of all aspects of project implementation should be utilised to the fullest extent possible. We recommend that a joint team of SCP II personnel, Ethiopian consultants, international consultants and IFAD personnel be assembled for the purpose. It is likely that formulation in this fashion will take longer than under present procedures, but the benefits in terms of realism of design and ownership of the outcome will be significant.

27. **Formulation – producing limited but necessary paperwork**. Large quantities of detailed prescriptive documentation of variable quality and usefulness, simply gather dust and fails to fulfil a useful function. We recommend the production of the minimum amount of paperwork, in formats which are agreed by all stakeholders to be necessary and useful for project management at various levels. Concise formats such as logframes which fulfil multiple necessary functions are to be encouraged.

28. **Formulation – produce a flexible project design and recognise the need for long-term programming.** The project design should be sufficiently flexible to allow variation in approach from region to region, and evolution of approach over time, as better procedures are learnt by those implementing the project. Any future project addressing food security in Ethiopia through a package of small-scale irrigation and agricultural support components should recognise the long-term nature of such an intervention. The full adoption of the project by government, and the full realisation of the benefits by target groups of farmers may take as 10-12 years or more. Continuity of effort is needed to achieve expected outcomes.

29. **Formulation – producing procedures of sector-wide applicability**. Regions and woredas in food-insecure parts of Ethiopia have their own, and other donor-supported, programmes of assistance to small-scale irrigation. Any future project focusing on SSI should endeavour to the greatest extent possible to integrate with regional, woreda and donor programmes, in order to simplify and strengthen programmes in this sector and move toward a sector wide approach. Approaches vary, but the common goal of household and national food security is shared. We recommend a joint donor-stakeholder forum to share experiences across donor programmes, broaden the menu of options with a view to the possible development of a common approach within the sector.

30. **Part 2 - Insights – summary of conclusions from the Main Report**. Table ES1 sets out in summary form the main points made at the relevant places in the IE (2004) Main Report.

Table ES1 Interim Evaluation (2004) Insights

Project achievements are not adequately monitored. Identifying and quantifying the project achievements has proved extremely difficult. None of the stakeholders has accurate overall knowledge of project achievements to date. This information is needed for effective project management by regions, PCU and IFAD.
Limited achievements in the agriculture component. The agriculture component of the project is severely under-spent. The limited activities in soil conservation, women's vegetable gardens, seed production, and extension services threaten to undermine impact on key target groups.
Little is known about traditional irrigation systems. It appears that many assumptions have been made about the weaknesses of traditional irrigation systems, without the foundation of detailed investigation and diagnosis. It may be that less capital-intensive interventions to improve traditional systems could have significant benefits, potentially spreading benefits more widely.
Market for vegetables is limited. The assumption that there is a large accessible market for vegetables is questionable. Physical access to markets is challenging. Prices given by traders are very low. Purchasing capacity of rural populations in food-insecure woredas are extremely limited. High transaction costs limit the possibilities for exporting produce. Producer prices can be very low, unless farmers sell directly into the market (without middle-men).
There is a great deal of institutional learning to share. The experience gained by GoE and IFAD in SCP I and II puts both stakeholders in a very strong position to engage in dialogue over the outworking of policies in the areas of: food security, land and water management, coordination of Government agencies, cost recovery, and on-going support to communities. Little has been done in this area to date.
The logframe is not used. An agreed, detailed and up-to-date logical framework (logframe) is an extremely useful management tool. SCP II's logframe is weak, incomplete, and not used.
Long term commitment is needed. The impact of SCP II will only be fully realised if there is continuity of project activities over a minimum of 10-12 years. A six year project is too short to achieve significant impacts. It has taken until PY5 to reach a peak in irrigation scheme construction, and longer in the agriculture component. Benefits to farmers will take another 6-10 years to realise.
Targeting at woreda level is good. The project is well targeted at woreda level, with 70% of SCP II irrigation schemes being located in food-insecure woredas.
The appraisal assumptions were optimistic. Many optimistic assumptions were made in the economic analysis of the project at appraisal. In particular we highlight the high yields, high producer prices, low post-harvest losses, no water scarcity, and no maintenance costs assumed at appraisal.
Modern irrigation development is sometimes flawed. Not all 'modern' irrigation development has benefitted all of the target farmers. Mistakes have been made in particular when engineers have ignored the knowledge or wishes of farmers, when hydrological assessments have been flawed, or where upstream developments have deprived schemes of water.
SCP II may have reduced grazing areas. SSI development, combined with area enclosures and re-afforestation, may have reduced grazing areas and livestock numbers in some cases. The impact of this on the environment, on financial assets, and on diet needs further investigation.
Insecurity of land tenure remains a matter of concern. Insecurity of land tenure, both within SSI schemes and outside, continues to be a widespread problem, of perception, and in reality.
Financial assets are increasing. Financial assets of irrigation farmers are rising, but slowly, because of the market problems raised earlier.
Access to credit is mixed. Access to credit by SCP II farmers is mixed. But low levels of usage of bought inputs (seed, fertiliser, pesticides, herbicides) limit the perception of this as a significant issue by farmers.
Extension services are of poor quality. The quality of extension work is low, and specific SCP II interventions such as demonstration plots and trial sites have limited impact.
Social organisation for water management needs to be resolved. Traditional water management organisations tend to be ignored in the establishment of 'modern' WUAs and cooperatives. This threatens the viability of the modern structures, and is disempowering. The stakeholder charged with responsibility for strengthening WUAs is only interested in promoting cooperatives. WUAs do not have legal status to enable them to operate a bank account and access credit. Neither WUAs nor cooperatives fully represent the water users farming within irrigation command areas.
Limited impacts on women farmers are nevertheless encouraging. Where the project has facilitated home agents at woreda level, and women within irrgation schemes, the initial results have been very encouraging. Much more remains to be done in this key area of impact.
Attitudes to commercial farming are changing. Irrigation farmer attitudes to commercialisation of crop production appear to be changing, and some of this change is attributable to the efforts of SCP II. Whether these changes will persist in the face of marketing difficulties faced by farmers, remains to be seen.
Crop diversification is taking place; yields are mixed. Crop diversification within SCP II schemes is occurring, but yields are variable from scheme to scheme. Some vegetable yields are still well below those assumed at appraisal, even for year one of production.
Irrigation households are eating more vegetables. Significant dietary intakes of vegetables appear to be taking place.
Soil erosion is a major environmental threat, and SCP II could have a major impact. Soil erosion threatens the viability of both rainfed and irrigated farming. SCP II includes a significant component of soil conservation work, but very little has been achieved so far.
Intensive multiple cropping in irrigation command areas will lead to soil degradation. Without specific measures to

manage soil fertility, such as rotation including legumes, and use of fertiliser and manure, soil nutrients will be rapidly depleted.
There is limited evidence of the beneficial effects of area enclosures on natural vegetation.
Government re-organisation and decentralisation have limited the impact of the project. At woreda level, under-staffing, under-resourcing, and rapid turnover of staff are major issues.
Impact of the project on women is more likely to be achieved through targeted activities such as women's vegetable gardens, than through women's membership of WUA executives.
Vegetable cultivation increases labour requirements significantly.
The achievement of sustainability depends on site selection in relation to markets; establishing or strengthening sound social structures; study and design which takes account of local knowledge; and formal recognition of the need for post-construction support.
The project is innovative in its combination of irrigation, soil conservation, female-focused and institutional support activities. At the present level of capital-intensity, it is not directly **replicable** without continuing donor support. However, non-target farmers are already copying what they see, and developing new 'traditional' irrigation systems.
Downstream developments compete for water with those upstream, and already there is significant competition and sometimes conflict over limited water resources. We stress the importance of an approach based on integrated catchment planning, in order to limit and manage such conflicts.
The performance of IFAD and UNOPS has been limited by the shortcomings of brief foreign 'expert' inputs which place more emphasis on outputs than on process. The system prevents effective development of partnership, inter-dependence and joint ownership.
The performance of Government has been mixed. Commitment at policy level has been high, while maintenance of staffing levels, monitoring and coordination have been weak
Performance of community social organisations has been limited by the confusion over traditional water management structures, WUAs and cooperatives.

Part 3 – Recommendations applicable to project implementation and content

31. **Policy dialogue.** Areas in which the project's experience on the ground could make a valuable contribution to national policies and institutional frameworks include at least the following: water resource management at catchment level (including use of permits and the application of legislation such as Proclamations 92/1994 and 197/2000); adaptation of national water resource policies and legislation to regional level; marketing and price regulations (protecting farmers from unscrupulous merchants); policies on WUAs and so-called irrigation cooperatives; policies and practice relating to land title; and understandings and practices in relation to post-construction maintenance and rehabilitation. The project could take a highly constructive lead in future in facilitating debate and movement on these issues, all of which strongly affect the impact and sustainability of small-scale irrigation schemes.

32. **Institutional arrangements**. This project has experienced complex, and too frequently changing institutional arrangements. In light of the many organisational changes which have taken place, it is remarkable what the project has been able to achieve – despite, rather than because of, the location of organisational authority and the linkages and coordination between stakeholders. We now have major concerns about organisational changes in process at regional and federal level, and recommend that a careful and thorough internal review of the implications of these changes be set in train. Ways need to be found to avoid the loss of institutional learning and experience built up now over many years, and incorporate it into future project implementation.

33. **Social organisation**. The wide variety of approaches taken in this project toward traditional water management structures, WUAs and cooperatives speaks as much of the variety of perceptions of these organisations as of the site specific needs. Within the project as a whole there is a great deal of confusion, created by lack of respect for farmers' traditional structures, the 'modern' belief in a standardised WUA, and the dogmatic promotion of cooperatives. We do not promote a single solution to this complex situation, but our recommendation is for regional and national debate and experience-sharing on the subject, and a high degree of flexibility in the solutions developed in different places and at different times.

34. **Catchment planning and development**. It is essential that any individual irrigation scheme is appreciated in the context of the entire catchment in which it lies. This is important from the point of view of water resource evaluation, of the assessment of soil and water conservation requirements and of the prevention and resolution of conflicts between user groups. At least one of the SCP II regions sets its scheme study and design (feasibility study) process in the context of a database of water

developments in the entire catchment. This good practice should be extended to those which at present treat each scheme as an isolated entity.

35. **Consolidation and component balance**. In the early days of water sector infrastructure projects, it is common for more emphasis to be placed on physical construction than on supportive actions to extend impact and ensure sustainability. SCP II is no exception to this general rule. It has been more convenient for funds to be focused on construction expenditure by the regional irrigation authorities than to disburse money to other stakeholders such as the Bureaux of Agriculture and Cooperatives, and the woredas. We recommend that this imbalance be re-dressed in any third phase, with greater expenditure on agricultural support activities, soil conservation, women's gardens, and woreda level institutional support. We also recommend consideration of a higher level of expenditure on market access roads.

36. **Financial aspects**. The project can only move as fast as its cash flow. Some regions find the revolving fund ceiling very low, especially during peak construction periods. The system of settling accounts after disbursement is also found to be cumbersome, time consuming and inefficient. Individual receipts have to be collected from remote woredas and carried to the regions, from which in turn they are taken by an accountant in person to Addis Ababa after consolidation. Accountants who take receipts to regional offices for settlement go back to their centers many kilometers away to do their accounting work all over again in cases where errors are observed in filling forms. Informants in the regions feel that the IFAD system has to be improved, perhaps in line with the simpler procedures of some other donors. We recommend a detailed analysis of present procedures, with the aim of simplification. The pool system of accounting at regional and woreda level creates unnecessary difficulties. The new AfD system[4] has much to recommend it, and IFAD should explore this further.

37. **Personnel and learning**. There is significant turnover of staff at regional and woreda levels, resulting in a need for frequent staff orientations. Recognising this reality, the project should conduct orientation workshops for new staff, perhaps as often as every six months. More generally, there is great value in shared learning, such as that which took place at the August 2004 workshop in Adama (Nazaret). Such workshops should become regular annual events. Further learning at regional and national levels could be brought about by the establishment of policy fora in which key issues of policy and strategy could be discussed.

38. **Scheme audit**. Few consolidated data exist on the SCP II schemes constructed to date, and even less on the phase I schemes. All regions made an undertaking at the Adama workshop to compile profiles for their SCP II schemes. One region (Amhara) already undertakes a biennial review of a sample of schemes (non-IFAD) under its care. We recommend that all IFAD Phase I and II schemes be properly catalogued, and that these profiles be regularly updated. If such an exercise could be extended to non-IFAD schemes, to provide regional databases, this would greatly extend the baseline and monitoring data on which future decision-making rests.

39. **Participative planning process**. The criteria by which scheme locations are selected are not fully clear, and not necessarily the best to ensure impact and sustainability. We recommend the establishment of a participative process, involving all relevant Regional and woreda level stakeholders, to develop clear scheme selection criteria based on need, institutional capacity, and likely viability. Woredas appear to have little or no involvement in scheme study and design. We therefore further recommend the full involvement of woreda personnel in the study and design process, with more flexibility than at present in the balance of project components at any particular site. Farmer involvement in scheme planning and design is still limited, and so we press for the adoption of more fully participative processes of planning and design, in which all professional disciplines are trained and to which they are committed. One thrust of such approaches could focus on minor (low-cost) improvements to traditional irrigation which are able to significantly improve performance for water users.

[4] Which uses payment certificates rather than receipts.

40. **Construction, maintenance and rehabilitation**. We are aware of several cases in which initial construction budgets have been insufficient to complete schemes. In most regions, scheme repairs and maintenance (which are beyond the capacity of farmers, but are relatively minor for the irrigation authorities) are carried out routinely by the regional authorities. In other cases, true rehabilitation (major reconstruction/repair, often with social re-organisation) is carried out. In all these instances, funds may be obtained from SCP II surplus construction funds, from non-IFAD regional sources, from NGOs, or from funds specifically designated for "rehabilitation". While this situation demonstrates the commitment and the flexibility of the regional authorities, it gives rise to two areas of confusion: first, in establishing what is the true investment cost in a particular scheme; and second, in classifying as "rehabilitation" activities which really constitute minor maintenance. In particular we urge the realistic recognition by both IFAD and regional authorities that regular (annual) minor maintenance is needed, and that this should have clear and transparent planning procedures and an adequate (and increasing) budget line. Long-term support is a necessity, not an option.

41. **Reporting, M&E, information flow and documentation**. Quarterly reports from the regions are not presented in a consistent manner, and lack rigorous analysis and reflection. In order to ensure transparent information flows, the reporting structure and content require review. A number of implementation documents exist (including Appraisal, Project Implementation Manual, Operating Manual, Financial Manual, Supervision Reports, Mid-Term Review). Given the sheer volume of material, it is unsurprising if these documents are not fully internalised or extensively used for project management. This problem is exacerbated by staff turnover. We recommend that the Project Coordinator and Regional Coordinators meet to design a simple progress reporting structure, especially to fulfil the requirements for imminent end-of-project reporting.

The Federal Democratic Republic of Ethiopia
Special Country Programme, Phase II (SCP II)
Interim Evaluation

Main Report

I. INTRODUCTION

A. Background of the Evaluation

1. **Special Country Programme Phase II**. The Government of Ethiopia (GoE), with support from the International Fund for Agricultural Development (IFAD) and Government of Ireland, has been implementing Phase II of the Special Country Programme (SCP II) since February 1999 (Gregorian calendar). The aim of SCP II, building on that of Phase I which was conducted in Oromia and Southern Nations, Nationalities and Peoples' Region (SNNPR) between 1987 and 1996[1], is to "*improve food security and incomes amongst poor rural households by enhancing their resilience to drought, through intensification, diversification and commercialisation of smallholder agriculture*" (Appraisal Report, 1997 and MTR, 2002). SCP II operates in Tigray, Oromia, Amhara, and SNNPR. The objectives of SCP II are being pursued through three components: (i) small-scale irrigation; (ii) agricultural support; and (iii) institutional support. Project funding was targeted at approximately 23 600 irrigation farmers and their families on 5 900ha of SSI schemes, a further 10 000 families who would benefit from soil conservation works outside of the irrigation scheme command areas, and 2 400 women through the development of vegetable gardens in or close to the command areas. SCP II is due to end in December 2005 (Figure 1). In anticipation that the project may move into a third phase, IFAD's procedures require an evaluation (referred to as an Interim Evaluation, IE). This is the Main Report of that evaluation[2].

2. **Macro-economic and poverty indicators**. Ethiopia's economic and poverty context is well reported elsewhere[3], so does not need repeating in detail here. In brief, The Federal Democratic Republic of Ethiopia (FDRE) is a land-locked country with a total area of 1.1m km^2, of which 29% is classified as agricultural land. Only 1.7% of the land defined as "arable and under permanent crop" is irrigated (FAO, 2001). The estimated population is 70.7m, of which 84% is rural, growing at an annual average rate of 2.3% (1990-2001). The large share of rural population is reflected in the comparatively large agricultural sector which accounts for 53.2% of GDP (World Bank, 2003). The landless population is significant, and growing. The country has been a theatre of civil war from 1975 to 1991. The end of the conflicts and the implementation of economic reforms marked an improvement in the growth of GDP while inflation has been progressively brought under control. With an average per capita income of USD 121, the country is

[1] With delays due to political events at the end of the Derg regime, and the change in Government in 1991.

[2] The evaluation was led by Professor Richard Carter (Water Sector Specialist, Cranfield University, UK), with Ato Ayele Gebre-Mariam (Socio-economist), Dr Kerstin Danert (Independent Water Sector Researcher and Consultant, Uganda), Dr Tilahun Amede (Consultant Agronomist, Ethiopia) and Ato Merkorewos Hiwet (Consultant, Marketing and Economics, Ethiopia). Mr Fabrizio Felloni, Lead Evaluator, designed the evaluation methodology, conducted a preparatory mission in May 2004 and accompanied the evaluation team during its first and last week..

[3] For instance the annual Economist Intelligence Unit's Country Profiles, and World Bank and Human Development Report statistics.

classified as one of the poorest in the world.[4] Taking into account life expectancy, GDP per capita and the status of education, Ethiopia was ranked 169th out of 175, according to the 2003 UNDP Human Development Report. Ethiopia's poverty is extreme, even in the African context.

3. **The natural environment poses major challenges too**. The challenges of the natural and physical environment are often under-estimated. Ethiopia is approximately the size of France and Spain combined, very poorly served by road and communications infrastructure, experiencing extremes of climate and altitude, and losing its natural resources (soils, vegetation) extremely rapidly. Significant droughts occur as often as every 3-5 years. Over 95% of agricultural production depends on rainfall. In some areas visited in this evaluation (for example in East Harerghe), farmers reported failure of the rains for the last three consecutive years. In 2003 over 11 million people needed food aid, and the average number in need of food aid over the last ten years (1994-2003) was almost 6 million[5]. Grain import, most of which is food aid, has become a continuous phenomenon over many years. Grain imports in 2001/02 and 2002/03 were 6.9 and 6.2 million quintals respectively. From 1993 to 2002, the country's small farmers supplied only about 70% of the country's annual food requirement. According to a recent study[6], nutritional deficiencies account for 7.8% of all deaths. The crops produced by many Ethiopian farmers feed their households for only 6-9 months annually.

4. **Political context**. It is the political context which goes least-reported, and which arguably has the most influence on the success or otherwise of development interventions. The reach, power and control of the state and party, and policies and practices concerning land tenure, ethnic division, private sector participation, and promotion of cooperatives leave the rural poor with very limited influence over their own prospects.

5. **The complexity of small-scale irrigation**. Addressing rural poverty in Ethiopia through small-scale irrigation and the associated components of the SCP is far from straightforward. In addition to the economic, political and natural context just described, two factors make this a particularly complex and challenging project. First, the attempt to move subsistence farmers into a form of agriculture which is intensive (involving multiple cropping, modern farmer organisations and the use of purchased inputs), diversified (through the introduction of unfamiliar crops) and commercialised (necessitating access to input and output markets) involves many different changes of mind-set, infrastructure and practice. And second, because of the disaggregation of professional expertise and services among several Government Ministries and Bureaux[7], the project is institutionally complex, requiring a high level of coordination.

6. **Evaluation timing**. The timing of this evaluation was determined primarily in relation to IFAD's project cycle and the need to schedule a formulation mission prior to a third phase. However, the dates presented considerable difficulties, falling as they did immediately after new year, during the rainy season, and during the Meskel public holiday. The evaluation team owes a debt of gratitude to the many individuals who willingly gave their time even during national holidays and weekends, enabled us to reach remote sites despite rain and mud, and patiently answered our numerous questions.

[4] Estimates of poverty rates (headcount) according to monetary indicators are respectively 82% (based on USD 1 per day) and 44.2 (based on a national poverty line, UNDP 2003, Human Development Report, New York, USA). This is also reflected by low nutrition security, as measured by anthropometric indicators: the prevalence of stunting (low height-for-age in children 0-5 years) is estimated at 51.5% (WHO Global Database on Child Growth and Malnutrition, available online at http://www.who.int/nutgrowthdb/registration_form/welcome.html. The latest data available for Ethiopia are for the year 2000.

[5] Source: Disaster Prevention and Preparedness Commission (DPPC)

[6] FDRE (1997) Social Sector Review/PER III. Centre for the Study of African Economies, Oxford University, REP/97-1. March 1997. http://www.csae.ox.ac.uk/reports/Rep9701/main.html .

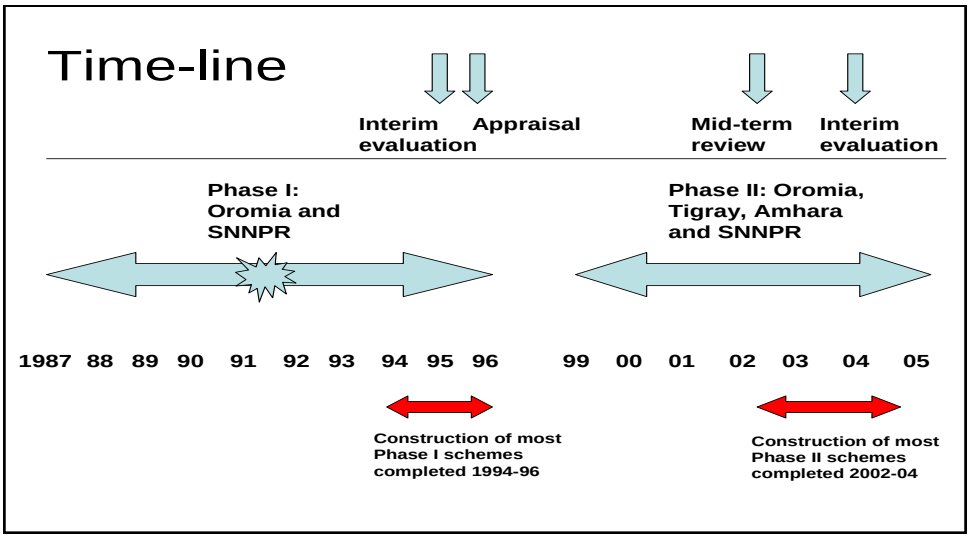
[7] Water Resources, Agriculture, Cooperatives and Food Security.

B. Approach and Methodology

7. **Considerations**. The approach taken was guided by three considerations: (a) the scope and structure given by the Approach Paper[8] and IFAD's Methodological Framework for Evaluation[9]; (b) the timing of the evaluation, when there had been relatively little farmer experience of project outputs (Figure 1); and (c) the need to combine in-depth quantitative and qualitative investigation made possible by a pre-mission survey with rapid, more qualitative, work of the main mission.

8. **Pre-mission socio-economic survey**. The pre-mission socio-economic survey consisted of community and household surveys (qualitative and quantitative) conducted in three scheme areas. The schemes were selected through a two-stage procedure. First a list was compiled of schemes constructed under SCP II and operated for at least three years (i.e. the more "mature" sites for impact assessment). Next one scheme in each of SNNPR, Oromiya and Tigray was extracted by simple random sampling. No scheme in Amhara met the criterion of "maturity". Interviewing techniques included qualitative focus groups and quantitative household interviews. Household interviewing was carried out by random walks from homestead to homestead, interviews taking place with adult heads of household with irrigated land. Discussions were also held with adjacent upstream and downstream communities, in order to establish the nature of the interactions between communities of water users.

Figure 1. Schematic time-line of key events in SCP I and II
(Note change of Government in 1991)



9. **Main mission**. The main mission took place between 13th September and 14th October 2004. The evaluation team was accompanied in the field by members of the Project Coordination Unit[10] (PCU), as well as by regional and woreda staff, as appropriate. Since time did not permit visits to all 58 Phase II schemes, a sampling approach was taken: a variety of scheme characteristics was identified (including distance from roads/markets; age; perceived performance), but nevertheless some compromises had to be made due to weather (rainy season) and accessibility[11]. During the main mission field work a total of 16

[8] IFAD (2004) Approach Paper for the Interim Evaluation of SCP Phase II - Appendix II of this Report.
[9] A Methodological Framework for Project Evaluation. Main Criteria and Key Questions for Project Evaluation. IFAD, EC 2003/34/W.P.3. Document §340322.
[10] Project Coordinator Ato Minas Tadesse, and Sociologist Ato Tesfaye Fichala.
[11] In SNNPR for instance, the one scheme in South Omo was omitted from consideration, due to its 640km distance from the regional headquarters of Awassa. In Oromia and SNNPR the opportunity was taken to visit (older) Phase I schemes as well as Phase II schemes. In Tigray schemes were selected covering a range of remoteness

of the IFAD SCP II irrigation schemes were visited[12], in most cases holding discussions with farmers (male and female), woreda officials of the Bureaux of Agriculture and Rural Development, and regional personnel. The site of one planned IFAD scheme, two non-IFAD schemes, and in the case of Oromia and SNNPR, three Phase I SSI schemes were also visited[13]. Discussions were held in all four project regions and with a total of 14 project woredas (Appendix VII). The IE main mission presented an Aide Memoire to GoE at a Wrap-up Meeting in Addis Ababa on Friday, 8 October 2004, in the presence of 32 invited participants from federal government, the regions and the donors. This Main Report is the comprehensive output of the IE. It is supported by four Working Papers prepared by the individual team members.

10. **Mission field methods**. On site, the information gathering techniques included structured questionnaires and semi-structured interviews, with both individuals and groups, and observations combined with discussions. Samples of farmers were usually self-selecting (and therefore potentially biased). However, by splitting team members and conducting multiple interviews, both individually and in groups, attempts were always made to triangulate or verify information given.

II. MAIN DESIGN FEATURES

A. Project Rationale and Strategy

11. **SCP Phase I**. The first phase of the SCP ran from 1987 to 1996, including two extensions due to political upheavals (the defeat of the Derg in 1991) and government re-structuring. The Interim Evaluation of SCP, carried out in November-December 1995 and dated December 1996, laid out a set of recommendations (Table 1, Appendix XI) for the continuation and consolidation of the programme into a second phase. The Appraisal (carried out in December 1996, report dated April 1997) and Post-Appraisal (carried out in March 1997) Missions of SCP II built on many of the findings of that evaluation. The IE of the 1995-96 SCP I recommended: a much greater degree of farmer participation than previously; a demand-led approach; development at the pace of the farmers; greater use of the private sector; the development of clear scheme selection criteria; more substantial project supervision; and overhaul to the M&E system. Much still remains to be done in all these areas, and consequently they arise again in the recommendations of this report.

12. **SCP II approach**. The overall project approach and the main project components described in the SCP II Appraisal Report are set out in detail in Table 2 of Appendix XI. The salient points are summarised here. The project approach was to be "*fully demand-led*", "*self-sustaining*", "*self-managed*" and "*self-directed*". In our view this was unrealistic and naïve. While this was probably close to the truth for the traditional irrigation systems, it could never be so for a government/donor-led project involving capital and recurrent costs of a much higher order than the farmers had experienced previously, and which depended crucially on linking farmers efficiently to distant markets.

13. **Upgrading of traditional irrigation**. The development of small-scale irrigation was to focus on traditional schemes, with development of new schemes "*only when all demand on existing schemes has been satisfied…*". In reality, this has been largely true, although "traditional" irrigation practice refers in some cases to very small numbers of individuals who have irrigated for a very short time.

14. **The Appraisal Report (AR) was over-optimistic**. The lack of consideration at Appraisal of the political context within which the project was designed is also striking. Despite government rhetoric, and policy statements which talk of economic and market liberalisation, many commentators paint a very

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from Mekelle. In Amhara late persistence of heavy rain prevented access to some schemes, while presenting some challenges in accessing even those near to main roads.

[12] Six in Amhara, six in Tigray, two in Oromia, and two in SNNPR.

[13] SCP I schemes were visited in order to assess the longevity and functionality of a few schemes which are significantly older than the SCP II irrigation schemes and to infer longer-term impact patterns.

different picture of the reality for rural farmers. The AR was highly optimistic in talking of *"…a vastly improved environment for development projects…",* and that *"…decontrol of prices and transport of most commodities will allow the farmer all production incentives normally provided by the market…*". In reality there is a long way to go before farmers in Ethiopia truly have free access to inputs and to output markets, and freedom of control by the State and party.

15. **SCP II strategy and Logframe**. The project package at Appraisal included three components: Irrigation, Agriculture and Institutional Support. The logframe (from the AR) is included as Appendix VII of this report. Changes to project design during implementation are set out in section II.F.

B. Project Area and Target Group

16. **SCP I achievements**. The first phase of the IFAD SCP consisted of a total of 42 schemes[14], mostly in Oromia, but four in SNNPR, totalling just under 3200ha. A full listing of the SCP (Phase I) schemes, drawn up by IFAD's Office of Evaluation in May 2004, and modified during this evaluation, is set out in Appendix IX, with a summary below as Table 1.

17. **SCP II achievements**. In SCP II, the project expanded to cover Tigray and Amhara as well as Oromia and SNNPR. By the time the SCP II Mid-Term Review took place in 2002, only six new schemes had been completed. Construction accelerated in the following years, as Table 2 shows.

Table 1. Summary list of SCP (Phase I) Irrigation Schemes

Region	Annual number of completed schemes								Total number	Total command area (ha)
	1991	1992	1993	1994	1995	1996	1997	1998		
Oromia	1	0	0	10	9	15	1	2	38	2820
SNNPR	2	1	0	1	0	0	0	0	4	320
TOTALS	3	1	0	11	9	15	1	2	42	3140

(Source: IFAD OE, May 2004; Regional Authorities, September 2004)

Table 2. Summary list of SCP II Irrigation Schemes

Region	Annual number of completed schemes				To be completed in 2005	Total number	Total command area (ha) to Sept 2004
	2001	2002	2003	2004			
Amhara	none	none	6	10	1	17	1416
Oromia	none	2	3	1	2	8	729
SNNPR	none	1	3	1	1	6	590
Tigray	none	3	5	11	8	27	1369
TOTALS	0	6	17	23	12	58	4104

(Source: IFAD OE, May 2004; Regional Authorities, September 2004)

18. **SCP II target population**. The SCP II target population at Appraisal consisted of five distinct groups: (a) farming households within existing traditional irrigation schemes; (b) households adjacent to traditional schemes, which can be brought into command; (c) women farmers, within or very close to irrigation command areas; (d) households in the catchments utilised by the irrigation schemes; and (e) a wider, ill-defined group who would benefit from "*greater food supply, improved diet, and lower prices…*". At Appraisal, groups (a) and (b) were estimated to total 21 000 farm families, or 100 000 people. Group (c), women farmers, would total 1 200. Group (d) would total 10 000 households. Group

[14] Although some share the same headworks and/or the same water source, so the true number of schemes is debatable.

(e) was incautiously put at two million people (AR, p. ix). The inclusion of the Irish grant (USD1.34 million) would increase the first and third of these figures.

19. **Targeting**. As far as scheme/site targeting is concerned, the SCP IE called for clarity over irrigation scheme selection criteria, describing these as "*of paramount importance*" (SCP IE, §181). It specifically recommended that schemes be selected which lie in drought-susceptible areas, *"…*defined *typically as areas falling between the 400mm and 800mm isohyets of annual rainfall at 80% probability of exceedance.*" The same report noted that maps showing such areas, while available to the SCP II Appraisal Mission, were *"…not available at any level, national, regional, or zonal, of the programme*." The AR (§91) noted that some irrigation schemes in SCP II would be constructed in higher rainfall areas. We raise the issue of targeting again in the present evaluation, as it is central to effectiveness, impact on food security, and sustainability.

C. Goals, Objectives and Components

20. **SCP II rationale**. The logic of the project is that the rural poor in "*food-insecure*", "*vulnerable*" or "*drought-prone*" woredas need secure access to a reliable food supply. Given the limitations of rainfed agriculture in these areas[15], a promising solution is to intensify farming in places where water resources permit the development of irrigation. This is especially the case where farmers have already demonstrated both demand and viability, through developing "*traditional*" irrigation systems. Once having decided on the improvement and expansion of traditional irrigation systems, however, the logic continues that to: (a) pay for the inputs (especially fertiliser) which are necessary to maintain soil fertility; (b) pay for repairs to concrete, masonry and steel work; and (c) to justify scheme investments, the irrigators must cultivate high-value cash crops for market. To support the irrigation schemes, seed production, extension, social organisation, and market linkages become essential components. A complex project rapidly develops, to intensify, diversify and commercialise farming. Outside the irrigation command areas, soil conservation becomes an essential component – both to protect the irrigation assets, and to spread the project benefits more widely than to the relatively few beneficiary irrigation households. The women's garden component is an opportunity to make a small but significant impact on the least privileged and most hard-working half of society, through enhancing women's incomes and family nutrition.

21. **Strengths and weaknesses of traditional irrigation schemes**. Traditional irrigation systems suffer from limitations. Although the detailed diagnosis and analysis of these limitations is conspicuous by its absence from earlier reports, it is clear in discussions with farmers, that such schemes involve large amounts of labour and risk of injury or even death (rebuilding river diversion headworks, gully crossings and canals annually or more often), very low conveyance efficiencies (because canals leak badly), engineering limitations (e.g. inability to cross wide gullies), and consequently small command areas. There are however three major advantages of traditional systems: (a) community ownership of physical infrastructure and social organisation; (b) independence of external organisations; and (c) no pressure on farmers to grow anything other than the crops they choose, whether for sale or consumption.

22. **SCP II aims and strategy**. Once the high level goal of agricultural intensification is accepted – and it is hard to avoid this imperative in Ethiopia – and once irrigation is adopted as a solution, then SCP II's broad objectives and specific components are entirely logical and necessary. Questions remain however about some of the details of the project design. We have reservations about the limited range of irrigation technologies proposed in SCP II ("*the majority based on…diversion of run-of-river flows into a conveyance and distribution system consisting of unlined canals*.")[16]. We also question whether lower-

[15] Such as unreliable rainfall, land fragmentation, soil fertility decline, high rates of soil erosion, rapidly growing population, limited knowledge of other than subsistence cropping, and rudimentary farming technologies.

[16] Alternative technology options include various methods of gravity supply using weirs or small dams; numerous methods of pumped irrigation; and water application by surface, sprinkler or drip techniques.

cost investments to selectively improve traditional irrigation schemes (with less emphasis on bringing new land under irrigation), would have extended project benefits more effectively.

D. Implementation Partners and Arrangements

23. **Implementing partners**. SCP II is coordinated by a PCU in the Federal Ministry of Water Resources (MoWR), which liaises with appropriate regional institutions in the water resource, agriculture and food security sectors. At the time of writing (October 2004) the RPCUs consist of a focal point (in the case of Amhara, the Food Security Bureau; in all other cases the regional water resource or irrigation authorities[17]) linking to the Regional Ministries or Bureaux of Agriculture and of Cooperatives and the corresponding specialists at woreda level. The institutional structure is in a state of flux, as three of the irrigation authorities (COSAERAR, SIDA and OIDA) are re-organising, and a decision has recently been taken to move the mandate for small-scale irrigation from the Federal MoWR to the Ministry of Agriculture and Rural Development (where it lay, incidentally some years ago before the re-organisation of the Irrigation and Drainage Department, IDD).

24. **Funding partners**. Initial project funding, with base costs totalling approximately USD31.8m, was through a partnership of GoE (USD6.2m), IFAD loan (USD22.5m), and farming communities (USD3.1). An additional grant of USD1.34million from the Irish Government (Development Cooperation Ireland, DCI) was provided in 1998 (MTR, §25-27). With physical and price contingencies, the current project budget amounts to USD33.1m. UNOPS provides project supervision from its office in Nairobi.

The Chuhot Scheme under construction at Chuhot (Tigray). Zebu cattle are visible on the left side. Cattle may damage the irrigation infrastructure and feed sources often reduce after the introduction of irrigation and the consequent reduction of grazing land. Another scheme has been constructed downstream: this may cause "externalities" if the two communities compete for water. ***IFAD photo by F. Felloni.***

E. Major Changes in Policy and Institutions during Implementation

25. **Economic and political optimism at the time of design**. At the time of the Appraisal of SCP II the macro-economic and policy reforms of the Transitional Government of Ethiopia, through the Emergency Recovery and Reconstruction Programme were lauded (SCP II AR §10-19). Economic stability and deregulation, devaluation, low inflation, tax reforms, reduced fiscal deficits, removal of price controls, liberalisation of commodity distribution and transport, and a freer exchange regime were particularly highlighted as positive aspects.

[17] COSAERAR in the case of Amhara; SIDA in the case of SNNPR; OIDA in Oromia's case; and the Bureau of Water Resources in Tigray.

26. **Decentralisation**. At Appraisal, attention was also focused on the implications of devolution of many federal government responsibilities to the regions. Nevertheless, although the IE of SCP I had recommended that the second phase project work only in one region, the Appraisal, only ten months later, saw the project extending to *"..all those regions in the country where the recent socio-politico-economic liberalisation has created an atmosphere congenial to small-scale irrigation and agricultural development, and where there is a potential for such development*" (AR §79). In the end, by the time of the commencement of SCP II in February 1999, the project focused on the four Regions of Tigray, Amhara, Oromia and SNNPR.

27. **GoE Policy Documents**. The major changes in policy since 1999 (expressed in terms of documentary output) include the publication of the Water Resources Management Policy[18], the Water Sector Strategy[19], the Water Sector Development Programme[20], the Food Security Strategy[21], and the PRSP[22]. The thrust of these publications, in relation to SCP II, are to further emphasise GoE's commitment to: (a) small-scale irrigation; (b) environmental rehabilitation; and (c) gender mainstreaming. Without elaborating the detail of the GoE policies which have emerged since SCP II began in 1999, it is sufficient to say that the project is a very close fit to Government's vision of agricultural and rural development and household food security. The only concern in this regard is that GoE may think of SSI development as a panacea. Experience within and beyond Ethiopia clearly demonstrates that this is rarely, if ever, the case.

28. **SSI and national irrigation potential: ambitious targets**. The targets for SSI Development within the Water Sector Development Programme are as set out in Table 3. The implied costs are based on the current average per ha development costs in SCP II (as estimated in this IE) of USD 6 574 (different per ha costs scenarios are illustrated in Table 6)[23]. The "potential" irrigable area is taken as 1.8m ha, the lower limit of the generally accepted range (1.8m ha to 3.7m ha). The table shows clearly the investment challenge facing government and donors in the development of Ethiopia's irrigation. Even with the planned development of medium- and large-scale schemes, the total area developed by the year 2016 is only 26% of potential, and this will depend on a steeply increasing investment by foreign donors.

Table 3. GoE SSI Targets, Implied Costs, and Reach

Time period	Land area to be developed (ha)	Approximate costs (USD)	Percentage of Total Irrigation Potential
[Up to 2002	Existing SSI: 98,625ha		5.48]
2002-06	40,319	265m	2.24
2007-2012	40,348	265m	2.24
2012-2016	46,471	305m	2.58
SCP II [1999-2005	4,928	32.4m	0.27]

Sources: GoE Water Sector Development Programme; SCP II statistics.

29. **Attitudes are slow to change**. The organisational changes which have affected SCP II are addressed in section VI.C below. IFAD defines "*institutions*" as "*the rules of the game, namely laws, statutes and*

[18] Ethiopian Water Resources Management Policy. FDRE, Ministry of Water Resources. Undated.
[19] Ethiopian Water Sector Strategy. FDRE, Ministry of Water Resources. 2001.
[20] Water Sector Development Programme 2002-2016. FDRE, Ministry of Water Resources. 2002.
[21] Food Security Strategy. FDRE. March 2002.
[22] Ethiopia: Sustainable Development and Poverty Reduction Program. FDRE, MOFED. July 2002.
[23] Based on the total budget of USD 32.4m resulting in completion of 4928ha. It is recognised that a significant part of this total budget has been invested in capital equipment and human resources which will still have value at the end of SCP II. There are other reasons too why this figure may be a significant over-estimate. However, this will have been the actual per hectare cost to the project stakeholders of achieving the targeted outcomes.

regulations…" (MFE §51-52) which affect economic and social activity. We discuss some of the overt "*rules*" affecting land rights, access to credit and to markets, establishment of WUAs and cooperatives in chapter IV of this report. Arguably more fundamental than all of these are the attitudes, practices and realities which prevail in the lives of individual rural people. There is plenty of evidence from interviews with farmers and key informants, as well as in documentary form, that such attitudes and realities can take a very long time to change[24]. The main implications of all this for SCP II are threefold: first, GoE stated policies and strategies in the areas of food security and water resource development are even more strongly in support of SSI than previously; second, some of the overt "rules of the game" (such as land policy, and the dogmatic promotion of cooperatives) are widely considered to present obstacles to the maximisation of sustainable impact; and third, there is still a long way to go to achieve widespread changes in mindset which will liberate rural people from those exercising power over them.

F. Design Changes during Implementation

30. **SCP II design documents**. The project design appears in two forms. On paper, it is represented in a mass of documents[25], many of which are not readily available to those responsible for project implementation. We show below that there is not always consistency between the findings and recommendations of each of these reports. This is hardly surprising, given their number, length, multiple authorship, and speed of preparation. The second form in which the project design appears is as the reality of what is actually done at scheme, catchment, woreda, region and federal levels. We reflect this below in chapters IV, V and VI.

31. **Changes at MTR**. The main formal changes to the project design appeared at MTR in 2002. The MTR envisaged a final total of 40 SSI schemes, covering 5 190ha and benefiting approximately 21 000 households, being completed by end of project (MTR §122). The MTR also introduced limited provisions for the rehabilitation of schemes developed under SCP I (MTR §123, something explicitly forbidden at Appraisal §210a). A new component of water management was added, which absorbed the activity of WUA establishment and added several new activities. The agricultural component was significantly restructured, with a more detailed breakdown of activities.[26] The MTR noted (§120) that the project had not commenced until February 1999, and so the six-year implementation period envisaged at Appraisal would run until February 2005. The MTR recommended completion in July 2005, and a project closing date of 31st December 2005 (MTR Annex II).

III. SUMMARY IMPLEMENTATION RESULTS

32. **Difficulty of accessing quantitative data on achievements**. In the expectation that the quantitative achievements of the project would be accurately reported in supporting documentation, this evaluation focused in the field more on the qualitative and developmental achievements to date than on raw numerical data collection. It was our expectation that the supervision process would have informed IFAD

[24] Such evidence is rarely quotable, as informants and documents generally prefer confidentiality. However DFID (Ethiopia Country Assistance Plan, 2003) can say "*…a culture of centralised, unrepresentative government is deeply rooted in Ethiopian history, and has been too often accompanied by systematic abuse of human rights at all levels of government and society…worrying incidents of abuse of human rights continue to occur including violent handling of political protest.*"

[25] Including the Appraisal Report (1997), the Post-Appraisal Mission Report (not seen by this evaluation), the Programme Implementation Manual (not seen), the Operational Manual, the Financial Manual (not seen), the Implementation Follow-up and Gender Needs Assessment mission report (2001), the Mid-Term Review (2002), the Implementation Support Mission on Monitoring and Evaluation report (2003), and the UNOPS Supervision Reports for 2000, 2001, 2003, 2004.

[26] Appendix I includes the physical targets set out in the Appraisal Report, the Mid-Term Review and the UNOPS supervision reports. The MTR proposed several changes to the project period, targets and costs.

of the progress against targets as a pre-condition of release of funding. Consequently we did not expect to have to resort to the project progress reports to carry out such an analysis. Weaknesses in monitoring at Regional and federal PCU level have been highlighted in several supervision reports and other project documents, and as yet unsuccessful attempts have been made to correct these shortcomings. It is the view of this evaluation team that without an up-to-date and agreed logframe, containing simple indicators at all levels, and without adequate M&E support, it is unlikely that a straightforward monitoring system can be developed.

33. **Questions about data reliability**. The AR (1997), the UNOPS supervision reports (for 2000, 2001, 2003 and 2004) and the Mid-Term Review (2002) comprise our sources of consolidated data on quantitative targets and achievements. Our detailed analysis of these reports revealed a number of disturbing facts:

- the achievements reported two years ago in the MTR were put down at a time when (according to the report's own data) only three irrigation schemes had been completed; broader conclusions drawn in that report were therefore based primarily on the performance of SCP I schemes. Achievements are only reported for (a) progress of SSI schemes, (b) formation of WUAs, and (c) training of WUAs;
- neither the AR nor the MTR contain the targets set out in the same form as that presented by the UNOPS reports, and there are differences between the targets as presented in the AR and MTR and the UNOPS reports;
- there are errors in the achievements reported in the UNOPS reports for 2000 and 2001, in at least 12 of the 24 activities listed; there are blanks and omissions in the target quantities included in the UNOPS reports for 2003 and 2004; and there are at least 20 numerical errors in the cumulative project achievements in the UNOPS 2004 report;
- the agriculture component as reported in Annex 1-D of the UNOPS 2004 report does not include Amhara Region, and parts of it only reflect SNNPR;
- the basis for calculating percentage achievements changed from the UNOPS 2000 and 2001 reports (in which it was based on AWPB achievement) to the UNOPS 2003 and subsequent reports (in which it referred to cumulative achievements against target); no explanation was given.

34. The full evidence of the errors and discrepancies summarised above is set out in Appendix I. It is clear that neither the UNOPS reports nor the MTR provide a reliable record of project achievements. Turning to documentation held at the PCU, the evaluation team found it impossible to determine with any reliability the precise quantitative achievements of the project. Regional progress reports present their outputs in percentage terms, without specifying clearly the basis for these calculations. Units of output are also confused or unspecified. This evaluation concludes that neither IFAD, nor UNOPS, nor the PCU, nor GoE more widely has more than a very general impression (from disbursements and expenditures) of the achievements to date of this project. Because of this, we present here our best judgment of the likely progress to date, based on three sources of information: (a) the latest UNOPS report (March 2004); (b) the records of disbursement and expenditure made available to the evaluation team; and (c) field discussions.

35. **Achievements**. According to the UNOPS 2004 report, 31 out of 55 SSI schemes had been completed by April 2004. Our discussions in the field suggest that 49 out of 58 schemes were complete by September 2004. The water management component (introduced after MTR) is reported by UNOPS 2004 to be substantially complete, with the exception of registration and legalisation work in relation to WUAs, and several elements of local training. Our own experience of this is reported elsewhere in this report. Essentially, the development of WUAs has been less than satisfactory because traditional water management structures have not been exploited effectively during implementation, and because of the failure to reconcile the aims and legal status of WUAs and cooperatives. The UNOPS 2004 report paints the general picture of very limited project achievements in the agriculture component, the most alarming

single area being that of soil conservation. Undoubtedly the UNOPS estimate of 6% of target achieved is an under-estimate (if only because of the omission of Amhara in these data), but discussions in the field confirm that this is an important area of under-achievement. This is an area of real concern. The final component, Capacity Building/Coordination, is reported by UNOPS to be well-progressed (achievement of target varying from 66% to 83% across the various sub-components). Table 4 sets out the position on financial expenditure, as understood by MoWR's Finance Officer, up to July 2004. At the time of the IE wrap-up meeting, the Minister himself intervened to press hard for the utilization of unspent SCP II funds.

Table 4. SCP II financial expenditure to July 2004

Donor	**Expenditure (USDm, %)**	**Balance (USDm)**
IFAD	12.251 (55%)	9.347
DCI	0.095 (7.1%)	1.273
Regional Expenditure of IFAD funds	**%**	**%**
Amhara	59.1%	40.9%
Oromia	61%	39%
SNNPR	70%	30%
Tigray	40%	60%

Source: MoWR Finance Division

IV. PERFORMANCE OF THE PROJECT

A. Relevance of Objectives

36. **Relevance to rural communities**. The project is relevant to the needs of traditional irrigation communities which are well aware of the engineering and management limitations of existing irrigation systems. In most cases[27], the 'modern' technology has saved the time and energy otherwise expended in annual reconstruction and permitted the expansion of irrigation command areas. The inclusion of seed multiplication, soil conservation and women's gardens has significantly added to its relevance. On the other hand, the project can only benefit limited numbers of farmers. Those outside the command areas benefit from soil conservation measures, but not from the direct benefits of irrigation and income generation.

37. **But the shortcomings of traditional irrigation need analysis**. The project design at appraisal envisaged SCP II implementing improvements to 800ha of traditional irrigation, and expanding command areas by a further 4 500ha (benefiting approximately 21 000 irrigation households in total). The evaluation team has not seen any analysis of the performance of traditional irrigation systems, on which to base such a project approach. It may be that lower-cost, very selective, improvements to traditional irrigation schemes, based on individual scheme diagnoses, could have been more relevant to a larger number of water users, while also helping to ensure long-term sustainability.

38. **Relevance to the nation**. Drought coupled with serious environmental degradation has increased in frequency, magnitude and geographic coverage, spreading to formerly non-food deficit areas of the country. According to a recent survey[28], about 55% of the rural households reported that their current year's crop production would only last them up to six months. Only 2% reported that their current year's crop production feeds their households for more than a year.

39. **Irrigation fits with policy, but market access is challenging**. The project fits closely with GoE policies on water resource development and national food security. Given the difficulties that remote rural communities have accessing input and output markets and credit, the national desire to generate

[27] We have observed a small number of cases in which 'modern' technology made matters worse for farmers. These are described in chapter V. They include the Zatta scheme in Tigray.

[28] "Report on the year 2000 Welfare Monitoring Survey" Vol. II, Central Statistical Authority, 2001, Addis Ababa.

marketable (and in some cases exportable) products must take into account the constraints and priorities of food-insecure rural communities served by the programme. A few crops (coffee, chat[29]) contribute to exports.

40. **Relevance to IFAD**. IFAD's principles in East and Southern Africa[30] are to: (a) target medium to high potential areas; (b) strengthen participation; and (c) build capacity in decentralised institutions and civil society. The project is relevant to all of these, although much remains to be done in the area of participative processes of development. IFAD's strategic thrusts focus on: (a) improving market linkages; (b) strengthening rural financial systems; (c) better management of land and water; and (d) improving knowledge and information transfer. The project is potentially relevant to all of these, although it has focused almost exclusively on the third.

41. **IFAD could have an important role in policy dialogue**. A key area for increased IFAD focus in future should be in policy dialogue over issues such as food security; land and water resources management; national, regional, and woreda coordination; cost recovery; and on-going support of farming communities by regional institutions. The relevance of the project overall is rated high (4).

B. Effectiveness

42. **Effectiveness** is defined as "*the extent to which the project's major objectives, as understood and documented at the time of evaluation, were achieved at project completion, or are expected to be achieved*" (MFE §36). The project has been designed to impact significantly upon several aspects of rural poverty (Table 5) In support of these areas of impact on farming households, the project also set out to strengthen a range of public organisations, including those directly responsible for implementation of the project, and woreda level stakeholders providing support services to farmers. Sustainability was to be achieved primarily through the establishment of autonomous WUAs which would take full responsibility for every aspects of irrigation scheme maintenance.

Table 5. Major Expected Impact Areas of SCP II

The physical and financial assets of (especially) irrigation farmers, including women, but also farmers within the wider water catchments – particularly in the form of physical irrigation infrastructure and increased cash incomes.
Human assets, especially in the form of better knowledge of irrigation practices and crop management.
Social capital and empowerment, through participation in Water Users' Associations, and through "strengthening communities' abilities to mobilise social and economic resources" (AR §94).
Food security, mainly but not exclusively of male and female irrigation farmers, through supplementary irrigation in the rainy season and total irrigation in the dry season, leading to increased production and increased cash incomes.
Environment and natural resources, mainly through the conservation of soils and natural vegetation within the catchments surrounding SSI schemes.

43. **Logframe**. The higher level objectives (that is, above "output" level) in the project logframe (Appendix VII) are incomplete - making no reference, for example, to food security, environmental goods, and sustainability – although all of these were explicit in the text of the AR.

44. **It is too soon to measure effectiveness**. The main difficulty in quantifying effectiveness at this stage is that few significant project interventions took place on the ground before 2002. Even the AR

[29] The negative social aspects of chat production and use should not be accepted unquestioningly.
[30] Reference IFAD Strategy for Rural Poverty Reduction in Eastern and Southern Africa, 2002.

(which was characterised by a high degree of optimism) recognised that the full benefits of commercialised, diversified, irrigation farming would not be felt by farmers until after six years of irrigation (AR §196). Consequently this evaluation suffers from the same limitation as the corresponding evaluation carried out towards the end of Phase I (Figure 1), namely being several years premature. This evaluation expresses judgments as to the extent to which the higher level objectives of the project *are expected* to be achieved, and provides interim evidence for those judgments. Our observations of SCP II activities are supplemented with limited observation of SCP I schemes, in order to strengthen the evidence base of those judgments.

45. **Duration and continuity enhance effectiveness**. An important conclusion of this evaluation is that project duration and continuity are essential to achieve the full impacts of a project of this type in Ethiopia. It has taken several years for the relevant Government organisations to develop reasonably effective working practices and procedures, and so the stream of benefits (centred on completion of SSI schemes) only began at around PY4 (2002/03), peaking in PY5 (2003/04), and declining in PY6 (2004/05). If, as the AR assumed, it takes 6 years for irrigation farmers to experience the full benefits of irrigation[31], then this should not be expected until around 2009/10. Without continuity of institutional support to woreda level organisations (extension, cooperatives promotion, specialist support), the effectiveness of the project will be weakened and/or the length of time required to reach full impact is likely to be increased.

46. **Context determines effectiveness**. The effectiveness of the project is heavily determined by the context (extreme poverty, very long distances and remoteness, highly challenging natural environment, complex political framework, and very limited markets) within which it operates. Interventions which are very effective elsewhere may be far less so in this operating context. Furthermore, a project as small as this can realistically hope to have little impact on that context. In chapter VIII we explore a number of ways in which the project could be enabled to "*punch above its weight*", but to date, in terms of impact at a national scale, it has been merely (but nevertheless importantly) a drop in the ocean.

47. **Effectiveness in terms of Targeting**. Although the AR did not explicitly discuss this issue in the terms used nowadays by organisations such as the DPPC and WPF – chronic food insecurity, chronic vulnerability – it assumed that the project would address the needs of chronically poor, drought-affected, food insecure people. In the subsequent implementation of the project, GoE has increasingly urged the Regions to target those woredas which are now generally agreed to be food insecure. Figure 2 shows the classification of woredas according to their degree of food insecurity or vulnerability. The pink and red shades indicate areas of high and very high chronic food insecurity, based on a multi-agency[32] analysis which selected and weighted a set of nine indicators[33]. Table 3 in Appendix I, which is extracted from this map and the Regional woreda maps, lists the main regions, zones and woredas in which SCP II schemes are located, together with the vulnerability classification of the woredas.

48. **SCP II is well targeted at woreda level[34]**. The map and table (Appendix I, Table 3) show that approximately 70% of SCP II irrigation schemes are located in woredas defined by an international consensus to be highly or very highly vulnerable (classes 4 or 5). A further 25% are located in slightly to moderately vulnerable woredas (classes 2 and 3). The remaining 5% are in only very slightly vulnerable woredas (class 1).

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[31] Other work suggests it can take significantly longer, maybe 10-12 years [Carter R C and Danert K (2004) Small-scale Irrigation in Ethiopia: experiences, issues, guidelines and strategic options for FARM Africa].

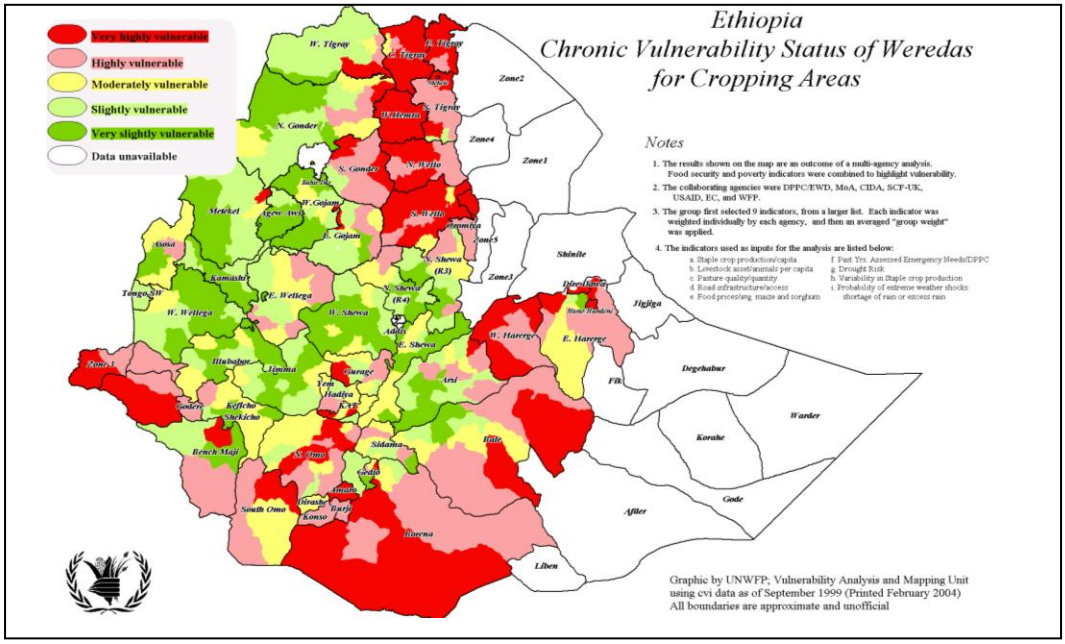
[32] DPPC, MoA, CIDA, SCF-UK, USAID, EC and WFP.

[33] Staple crop production per capita, livestock asset per capita, pasture quality and quantity, road accessibility, average price of maize and sorghum, past years' assessed needs, drought risk, variability in staple crop production, probability of rainfall shocks.

[34] Ethiopia is composed of 556 woredas (as at 2003 – this number is set to increase), so the average area and population of each woreda are nearly 2000km^2 about 127,000 respectively. There can be significant variation of food security within woreda.

49. **Rating**. The evaluation found that significant efforts had been made to reach vulnerable areas. Considering the above points, and the qualitative arguments made below, the overall rating of project effectiveness is put at "substantial" (3).

Figure 2. Ethiopia: chronic vulnerability/food insecurity



C. Efficiency

50. **Definition and approach**. In IFAD's evaluation methodology efficiency is defined (MFE §38) as "*the extent to which the project achieved, or is expected to achieve, benefits commensurate with inputs, based on economic and financial analysis or unit costs compared with alternative options and good practices (how economically resources have been converted into results)*." In this section, first we refer to the project results and the numbers of people actually enjoying the benefit of those results. Second, we approach the question of cost, by discussing what the expenditure figures really mean. Third, we consider the analysis of costs and benefits. And finally we consider whether the project funds could have been spent more efficiently. In the absence of fully spent budgets (see chapter III) and with benefits not yet fully experienced by farmers, cost/benefit, cost-effectiveness, and economic rate of return analyses become speculative (as at Appraisal). Qualitative arguments are more relevant and meaningful.

51. **The benefits have not yet been fully felt…**. The full benefits of the project are transferred to the target farmers in a lengthy and imperfect way. After funds were first made available in 1999, it has taken several years for the government agencies involved to fully "*adopt*" the project concept and reporting and accounting procedures, and to develop their own technical procedures (e.g. in study and design, and scheme selection). This process is still developing and evolving. The main early output of that "*adoption*" has been the construction of a large number (46 up to September 2004) of small-scale irrigation schemes, and a limited amount of agricultural support work and female-focused activity. 2004 will have been the peak year for construction, at least in terms of the SSI schemes. Again, these project outputs are still in process, and much remains to be done. Farmers take time (perhaps 6-10 years) to fully realise the benefits of the facilities which they now have, and to adapt their farming practices accordingly. This process is in its very early stages, and the full impacts will not be felt until at least 2010, and that is assuming that continuing support is provided from woredas and regions.

52. **…and they vary for different target groups.** The identified target groups benefit from the project results in different ways. It is convenient to focus attention on the 23,400 irrigation farmers as "*primary*" beneficiaries, the others (the 10,000 benefiting from soil conservation works, the 2,400 women farmers, and the unquantifiable numbers in the wider community) being seen as secondary to the objectives of the project. But this is a simplistic distinction. The project components focusing on soil conservation, women's vegetable gardens, support of woreda level service providers, and seed multiplication are all central to an integrated project design. Although it is difficult to quantify and monetise the benefits to those groups other than the irrigation farmers, the benefits which they will enjoy (if the project delivers the full range of outputs envisaged at appraisal) are no less real.

53. **Expenditure and unit costs**. Notwithstanding the comments in the previous paragraph, one way of presenting the likely project expenditures is in terms of the total number of hectares irrigated. Assuming the project disburses the full allocated funds (USD32.4m) by the time it closes, a total of 4928ha will be under irrigation (Appendix IX). A crude calculation therefore is that the project will have cost USD6 574 per hectare of 'modern' small-scale irrigation. A total of 70% of the funds will have been 'directly' allocated to SSI (including procurement of construction equipment and vehicles, capital costs for office set-up, and so on) and 30% of the funds will have been spent on activities in support of effective irrigation practice and a wider spread of benefits (soil conservation, seed production, women's gardens, and institutional support). An alternative approach to the estimation of unit costs is to take the construction costs attributable to SSI on a per hectare basis. These figures are around USD1100-1600/ha, and are more in line with the commonly quoted figures for this sort of infrastructure development. However, such figures do not include an allowance for capital depreciation of construction plant, nor organisational overheads, nor vehicle and plant running costs (other than fuel and lubricants), nor interventions such as soil conservation, which are not simply an 'optional extra' but a necessity to protect the irrigation schemes from flood damage and invasion by silt. Table 6 summarises these unit cost estimates.

Table 6. Summary of unit cost estimates for SCP II SSI schemes

Basis for unit cost calculation	Cost per ha		Comments
	USD	EB	
Total project expenditure spread over total area brought under 'modern' irrigation.	6,574	56,734	Includes complementary investments in soil conservation, seed production, women's vegetable gardens, and institutional strengthening, as well as purchase of vehicles and construction plant. Includes recurrent costs, but not full organisational overheads.
70% of project funds, over the total area brought under 'modern' irrigation.	4,602	39,715	Excludes soil conservation, seed production, women's vegetable gardens & institutional strengthening. Includes procurement of construction plant & vehicles. Includes recurrent costs, not full organisational overheads.
Direct budgeted construction costs only, over total area brought under 'modern' irrigation.	1,633	14,093	Includes only direct costs of materials, plant operating costs, and labour. No overheads or complementary activities. Based on budget figures for Oromia and SNNPR.
Direct actual construction costs only, spread over total area brought under 'modern' irrigation.	1,135	9,795	Includes only direct costs of materials, plant operating costs, and labour. No overheads or complementary activities. Based on reported figures for Oromia.

Source: SCP II project data.

54. **Financial and economic analysis at appraisal**. At Appraisal, a number of bold assumptions were made. These are presented in Table 4 in Appendix I, together with comments from the present evaluation. Despite some optimistic assumptions at appraisal about yields; percentage of irrigated crop sold; cereal prices, 'farm gate' prices when farmers are obliged to sell through middle-men; and need or otherwise for maintenance of physical assets; gross margins to farmers are not much different to those calculated in 1997 – except that these gross margins are only achievable by farming at least as much rainfed land as irrigated land, and by valuing food consumed at current market prices.

55. **Economic rate of return (ERR)**. At Appraisal the ERR estimated for SSI activities, soil conservation, and women's vegetable gardens were 19%, 8% and 7% respectively. The overall

programme ERR was put at 15%.[35] Given the very optimistic assumptions about cereal prices and vegetable yields in relation to soil conservation and women's gardens, it is unlikely that the true ERR for these components is as high as the figures just given. The true ERR of the SSI component alone is almost certainly lower than estimated too, because of low vegetable yields, high post-harvest losses, water shortages, less than 200% cropping intensities, and maintenance costs which at present are 'hidden' in other Regional budgets.

56. **Inefficient disbursement of funds**. The major inefficiency, or rather under-performance, of SCP II to date has been in the disbursement and expenditure of allocated funds, especially to those activities lying outside the remit of the Regional irrigation authorities (i.e. agriculture and cooperatives). Channelling all funds to woredas through a single account made financial tracking a particularly challenging task. On the basis of the discussion above, and especially the last point, the project efficiency is classed as "moderate" (2).

V. IMPACT ON RURAL POVERTY

A. Impact on Physical and Financial Assets

57. **Physical infrastructure**. The main physical assets delivered by the project consist of the irrigation infrastructure (concrete weirs and diversion structures, canal systems) which usually replaces traditional (boulder, clay and brushwood) structures. In some cases irrigation infrastructure is entirely new to the communities involved. Since nearly all the SCP II schemes rely on dry season run-of-river, with only a proportion including night storage, the extent of increased access to water as a physical asset is limited to efficiency gains from improved canals. Wet season flows are utilised in some cases, to provide supplementary irrigation, but there are no major water storage structures. In many cases access roads to the irrigation schemes have been constructed, repaired or upgraded, although the investment in these roads has been limited, and farmers frequently highlight poor physical market linkage as a key issue.

58. **Modern irrigation benefited most users, but not all.** In a few cases, defective design or implementation has reduced rather than improved the benefits which farmers formerly enjoyed through traditional irrigation. Farmers in Hizaeti Afras claim that their household assets have worsened through SCP II (IE preliminary survey), and this situation is not unique. The longevity of these negative effects depends to a large extent on the future action taken by the Regional Authorities. Farmers in Zatta, Tigray told the evaluation team that the uppermost head-works have covered the eyes of the springs which used to feed their traditional irrigation. With the disappearance of the water downstream, the farmers claim that only 77 households can now irrigate, compared to 200 who could irrigate before. Farmers informed us that for the past two years, these 123 households can now only grow rain fed crops. At Dobena (SNNPR), only 6% of the planned command area is irrigated. In some cases, the construction of the modern scheme worsened the situation for the farmers temporarily. In Maze (SNNPR) for example, the new design has meant that several traditional irrigators cannot irrigate until the construction of night storage has been completed.

59. **Natural resource management: cases of livestock reduction observed**. Soil conservation measures taken to protect irrigation infrastructure and catchments add to the physical assets of beneficiary communities, albeit on a small-scale so far. There is some evidence (although this is mixed) from farmer interviews of area enclosures and re-afforestation in catchments reducing the availability of livestock feed

[35] An ERR of this value is only obtained by using market prices instead of farm gate prices in the analysis. Given farmers' isolation from markets and the power of the traders, this choice is questionable. An idea of the sensitivity of ERR to the choice of prices can be given by the fact that, when ERR simulations are run with prices in line with farm gate prices from available studies (Table 10), ERR may easily drop to 5% or 2%.

and possibly livestock numbers.[36] This was also emphasised by the pre-mission survey, due to the reduced availability of grazing land for livestock after scheme construction.

60. **Hand tools**. Small tools such as watering cans add to community assets, especially in the case of women's gardens, although not all women have received the tools envisaged.

61. **Security of land tenure**. IFAD's concept of physical assets refers to 'legally secure entitlement' (MFE §46). In the case of land, such legal entitlement is yet to be achieved, and this fundamental issue of national and regional policy continues to provoke much discussion, but little movement. Recent Ethiopian research[37] leaves little doubt as to the level of insecurity perceived by many farmers. On at least two schemes visited in this evaluation, land re-distribution has taken place within the last year.

62. **Financial assets**. Farmers' financial assets are starting to increase as a direct result of SCP II irrigation interventions. The general picture is of low yields of vegetable crops (in the early days of diversification – see section D, Food Security), very low farm gate prices (dictated by traders and brokers), but nevertheless significant net incomes to some farmers. When irrigation farmers were asked about the changes to their lives brought about by SCP II, relatively small numbers highlighted income or income-related aspects, compared to those who spoke of either increased food availability, or no change (Table 7).

Table 7. Changes in farmers' lives as a consequence of SCP II

Change since construction of irrigation scheme	Irrigation site						Total	
	Dobena (SNNPR)		Nadi Galan Sedi (Oromia)		Hizaeti Afras (Tigray)			
	Sample	%	Sample	%	Sample	%	Sample	%
More food available	30	35.7	35	29.2	44	37.9	109	34.1
Pay school fee	3	3.6	5	4.2	6	5.2	14	4.4
Increased Income	19	22.6	11	9.2	20	17.2	50	15.6
No change	13	15.5	49	40.8	22	19.0	84	26.3
More food + pay school fee	11	13.1	7	5.8	1	0.9	19	5.9
More food + more income	8	9.5	3	2.5	14	12.1	25	7.8
More food, income, school fee			8	6.7	9	7.8	17	5.3
School fee & income			2	1.7			2	0.6

Source: IFAD IE pre-mission survey, 2004.

[36] It has been pointed out by the PCU that, in cases associated with cut and carry livestock feeding systems, irrigation may have increased the availability of residue of vegetable and sugar cane for animal feed. Although no such case has been directly observed during the preliminary survey or mission, the evaluation team agrees that this is a possibility.

[37] Ethiopian Economic Association/Ethiopian Economic Policy Research Institute (October 2002) A Research Report on Land Tenure and Agricultural Development in Ethiopia.

Men with unsold onions (Kobo, Amhara). Linkages with markets are weak and marketing costs are high due to poor infrastructure, limited storage facilities and lack of information on markets. This often results in very low farm-gate prices, when the nearest markets are saturated.
IFAD photo by R. C. Carter.

63. **Varied access to credit**. Interviews with 347 farmers in three SCP II irrigation schemes showed that fewer than half had access to formal credit facilities, despite the efforts of the Cooperatives Promotion Office (Table 8). Further questioning on the main problems faced by irrigation farmers did not however highlight lack of access to credit as a major issue for them. Either farmers have access to informal lines of credit, or the matter is of lower priority to them.

Table 8. Access to Credit

Access to formal credit	Irrigation scheme						Totals	
	Dobena (SNNPR)		Nadi Galan Sedi (Oromia)		Hizaeti Afras (Tigray)			
	Count	%	Count	%	Count	%	Count	%
Yes	34	45.3	9	6.4	119	90.2	162	46.7
No	41	54.7	131	93.6	13	9.8	185	53.3

Source: IFAD IE pre-mission survey (2004). Access means availability, as perceived by the farmers.

64. **Volatile and varied prices and incomes**. Table 9 contains comparisons of producer and market prices for a number of irrigation schemes visited in this evaluation, and their markets. The third column is the price as reported to us by the farmers interviewed at each location. In some cases this is the same as the average market price as reported by the Central Statistical Authority for that market (column four); in others it shows marked divergence from that market price, demonstrating the large differences which can occur between a price paid by a trader and the price in the open market. Column 5 is included in order to indicate something of the variation in price which can occur over a longer period of time. Box 1 contains some examples of farmer experiences with price volatility and new-found incomes.

Table 9. Comparison of farmer and market prices

Crop/location (irrigation scheme)	Market	Price to farmer (EB/qt) 2004	Market price 2002-03	Market price 1999
Tomato/Kobo	Shoa Robit	100	167	N/A
Onion/Sawer	Shoa Robit	29	166	176
Onion/Were	Sawla	160	200	199
Tomato/Tekacha	Welaita Soda	120	218	106
Banana/Tekacha	Welaita Soda	20	101	56
Orange/Tekacha	Welaita Soda	20	410	27
Mango/Tekacha	Welaita Soda	30	154	172

Sources: col 3 this evaluation, farmer interviews; col 4 Central Statistical Authority; col 5, Annex (2002)

Box 1 Experiences of volatile prices
Farmers at Lalay Agulae complained of reduced prices over the last two years as more farmers try to sell irrigated vegetable crops in the markets of Wukro and Agulae. Some farmers have resorted to throwing away their produce. One farmer at Zatta was unable to sell his 7,000 cabbages, and farmers of Shayna and Fala schemes (Tigray) complained of market problems. Farmers at Gereb Kokhi complained of price fluctuations. However, women vegetable gardeners at Were (SNNPR) have increased their incomes as a result of SCP II. A group of 38 women at Were sold (in total) EB6,800 worth of produce over 12 months preceding the evaluation. Several women have bought dairy cows with the profits.

B. Impact on Human Assets

65. **Extension and training - as planned**. At Appraisal, it was envisaged that the project would provide for 100 crop trial sites each of 1ha, and 300 agricultural demonstrations of $20m^2$. One trial and three demonstrations would be established at each irrigation scheme. The trial sites would conduct experiments for a three year period in aspects of irrigation agronomy and water management. The demonstrations would be simpler, covering fertiliser dosages and varietal trials. Fencing, inputs, materials and labour costs (the latter for the trials only) would be provided. The project was to provide motorcycles for all the woreda irrigation agronomists. It was expected that one Development Agent (DA – the field level extension worker) would be assigned per one or two irrigation schemes (depending on their proximity), and these individuals would conduct trials and demonstrations under the technical guidance of irrigation agronomists at higher level. Conservation-based agronomic trials would be carried out on six sites, and demonstrations of promising biological soil conservation measures would be set up on 100 sites. All equipment and specialist training would be provided for these trials too. Training was to be provided for 4000 Home Agents and 8000 rural women (in vegetable production and nutrition). Vehicles and motorcycles would be provided in support of the women's vegetable garden component.

66. **Extension and training – in practice**. All of the activities just described fall under the Agriculture component of SCP II, in which disbursement of available funds up to April 2004 was estimated (UNOPS 2004 §25) to amount to only 5%. It is not surprising therefore that the reach and impact of this component has been very small so far. Where trial sites have been constructed and utilised, they have been found (This report, Annex 2) to have conducted experiments with only a narrow range of crops, and used unrealistically high input investments. Demonstration plots are too small to capture field variability and display the benefits and performance of the treatments selected. Consequently neither the trials nor demonstrations, as commonly utilised, facilitate effective technology dissemination and adoption. DAs tend to be very inexperienced and have limited practical knowledge. Their deployment through the new initiative for extension, the Technical Vocational Education and Training (TVET) system, in three specialisms (livestock, crops and natural resources) is unlikely to lead to greater effectiveness, since they need both breadth and depth of knowledge to respond to farmers' needs. Where specialist water management training has been given, interviews with farmers revealed a tendency for the few same individuals to receive repeated training, rather than for a wider group to receive the benefits of increased knowledge and expertise[38].

67. **Impact of extension**. Not all beneficial changes in farming practice can be attributed directly to SCP II, since the GoE extension service is undergoing a period of significant change and strengthening at present, independently of the project. Nevertheless, in response to the question "*how have your farming practices changed since scheme construction?*" the following data were obtained in the three irrigation

[38] In Hizaeti Afras, the WUA executive committee was given 6 days training on water management in 2001 and receive 7 days per year training on water management and cooperative issues by the Woreda Cooperative Office. In Dobena the WUA members received water management training once and the WUA executive committee received two training sessions on water and property management. In Nadhi Gelan Sadi the executive committee and 22 WUA members received 3 days training on water management and vegetable farming.

schemes studied prior to the main evaluation mission (Table 10). Discussions with farmers on some older schemes (e.g. Hasen Usuman and Gedemso, both in Oromia) revealed increasing skills in water management and scheme operation, purely as a consequence of length of experience and **learning by doing**. Without significant extension support, this is a long learning curve however. Some farmers have improved their construction skills through their involvement in building the scheme itself (e.g. Gereb Kokhi, Tigray).

Table 10. Change in farming practice since construction of SSI schemes

Change in farming practice	Irrigation scheme					
	Dobena (SNNPR)		Nadi Galan Sedi (Oromia)		Hizaeti Afras (Tigray)	
	sample	% users	sample	% users	sample	% users
Crop rotation	51	61.4	109	70.3	135	99.3
Mulching			68	43.9	7	5.1
Intercropping	52	62.7	106	68.4		
Contour farming			46	29.7	12	8.8
Physical soil cons	16	19.3	84	54.2	29	21.3
Biological soil cons			9	5.8	5	3.7
Other change	2	2.4	5	3.2	1	0.7

Source: IE Pre-mission survey, 2004. 374 valid cases; 1 missing case

68. **Enhancing extension**. The extension service could be enhanced by promoting the knowledge base of traders, elite farmers and young educated farmers in technical interventions and community negotiation skills. This is likely to be effective not only because they will be willing to take the risk to try new interventions but also will be trusted by the community to promote improved land management skills. The experience from *Hirsha Kadres*[39] in Tigray is a good case in point. Each DA trains about 34 Hirsha Kadres who help him disseminate technologies and mobilize farmers. Technology promotion should also be accompanied by farmers' field schools and farmers' exchange visits to successful sites where farmer groups could test and modify technologies before adoption. These approaches would also give farmers better opportunities to innovate and share ideas, minimize risks and promote collective thinking.

69. **More emphasis was put on construction, less on extension and training**. The extent of project impact on human assets has been limited by the high emphasis on construction rather than farmer extension and training, as indicated by the relatively low disbursements for the latter. In some cases, beneficiaries of SSI schemes have received no training in agriculture through the IFAD programme at all (e.g. Zatta in Tigray).

70. **Education and Health**. Some farmers report that they are beginning to use their increased incomes to send their children to school (e.g. Burka Woldiya, Oromia). There was no evidence of changes to human health brought about by the project. In several schemes malaria was reported as a major issue, although there was little evidence or reason to believe that this is related to irrigation development. Goitre was also reported.

[39] Master farmers (volunteers) singled out and facilitated by the Development Agents.

Demonstration plots with groundnuts and maize at Tekecha scheme (SNNP Region). Different combinations of inputs are applied to test and show crop yield responsiveness. Unfortunately, the management of these plots has been led by extension staff rather than farmers. Inorganic inputs have been applied at unrealistic levels and limited combinations of cropping patterns have been explored.
IFAD photo by F. Felloni.

C. Impact on Social Capital and Empowerment

71. **Three Types of Scheme Management Organisations** were observed: (i) traditional organisations, WUAs[40] set up by the project and (iii) cooperatives of water users.[41] When they co-existed on the same site, they tended to generate a good deal of confusion. In SCP II it was always envisaged that the WUAs would fully manage the irrigation schemes, with complete responsibility for maintenance and operation.

72. **WUAs and Cooperatives: the special factor in Ethiopia**. In Ethiopia, WUAs have been established and supported in both Phase I and SCP II schemes. However, cooperatives have been promoted simultaneously, and by the very organisation brought on board to provide support to the WUAs. The Cooperatives Promotion Office understandably has a stronger interest in promoting what it now often refers to as "irrigation cooperatives". Compared to WUAs, cooperatives have wider objectives relating to input supply and marketing of produce, and membership of cooperatives is said to be voluntary. The irony of the present position is that WUAs, which are supposed to be inclusive of all water users actually only include a proportion of the irrigation farmers, and irrigation cooperatives, also having a partial membership at present, are the vehicle of choice (by government if not the people) for effective management of irrigated farming.

73. **Traditional organisation, WUAs and Cooperatives**. Social organisation within irrigation schemes includes traditional water management structures (e.g. ababishane, korebishane and malaka) which include a water master (Box 2); 'modern' WUAs; and cooperatives. These different organisations often exist side by side. Water masters and WUAs both operate in Chuhot, Adi Edaga, Falla, Zatta and Hizaeti Afras (all in Tigray), Nadi Gelan Sadi (Oromia) and Maze (SNNPR).

74. **Modernisation**. Traditional water masters have generally been ignored by the authorities in the move to WUAs and cooperatives. The 'modern' WUA tends not to explicitly incorporate existing social

[40] IFAD defines a WUA as "…*an organised group of farmers who use water with some involvement in irrigation management*." (IFAD Them. Eval. on WUAs, 2001). The involvement in irrigation management may be minimal, when a (Government or other) agency manages water distribution, to complete, when the WUA has legal ownership of the scheme, in this case the agency role being only a regulatory one.

[41] Differences between WUAs and cooperatives have been highlighted in the MTR.

structures, instead being established alongside them. Water masters have not benefited from water management training unless they were members of the WUA executive committee.

Box 2 Varied perceptions of traditional water management organisations and their role alongside WUAs
Stakeholder and community perceptions of the water master role vary. Some consider them as one person controlling the water distribution while others consider them to follow more consensual processes. The regional authorities in Tigray emphasised that the water master is merely a caretaker whereas farmers interviewed in Tigray, Oromia and SNNPR described his responsibilities as including management of water rotation, resolution of water conflicts within the community and negotiation with neighbouring communities. In all cases, farmers explained that the water master is elected or selected by the water users, usually for a period of one to two years, and that he can be dismissed if they are not satisfied. Water masters appear to be chosen for their trustworthiness or hardworking nature but not all water masters are impartial. One Tabia (kebele) official in Tigray explained that the water master is accountable to the people whereas the WUA committee is accountable to the Woreda. In Nadhi Gelan Sadi (Oromia), the Kebele administration dissolved the WUA amid accusations that it was selling water to beneficiaries. One farmer stated that the community can instruct the water master to dissolve the WUA committee. Other informants claimed that in many cases the WUA simply comprises the village leaders.

75. **Disempowerment of traditional organisations**. The divergence of opinion on water masters indicates that there is considerable variation in roles between different communities, and suggests that some Government officials assume that they know how things work traditionally rather than finding out on a case by case basis. However, the key finding from the evaluation is that establishment of the 'modern' WUA does not exploit effectively existing water management social structures, with a consequence disempowering rather than reinforcing and strengthening social capital.

76. **WUA membership is not fully representative**. Government officials, the AR and other project documents assume that all scheme beneficiaries must and will be members of the WUA. Although WUAs have been established in all of the schemes visited, all scheme beneficiaries are not always members. In Dobena (SNNPR), Nadhi Gelan Sadi (Oromia), Hizaeti Afras (Tigray) and Lalay Agulae (Tigray) only 46%, 47%, 25% and 72% of the beneficiaries were members of the WUA respectively[42]. Some water users in Dobena refused to join the WUA. In Dobena, the WUA committee chair does not have access to water (but is the kebele chief). Scheme maintenance and enforcement of by-laws is likely to be difficult unless all beneficiaries are members of the WUA.

77. **Legal recognition of WUAs**. Legalisation of WUAs is not possible under current Government policy with the result that registration of any scheme-related organisation must be done in the form of a cooperative. Lack of legal recognition means that WUAs are not able to operate a bank account and obtain credit.

78. **Irrigation cooperatives**. In many schemes, WUAs exist alongside irrigation cooperatives, whose membership comprises only some of the water users. In Zatta and Falla (both Tigray) 64% and 75% of the beneficiaries are members of the irrigation cooperative while in Nadhi Gelan Sadi (Oromia) the cooperative primarily comprised the WUA executive committee who were selling grain to the other farmers at a profit (IE preliminary survey) . In some schemes (e.g. Falla and Zatta in Tigray), the strategy is for WUAs to operate up to the completion of construction, and then for 'irrigation cooperatives' to gradually take over. Where both WUA and cooperative exist, there is significant room for confusion. Cooperatives are not fully inclusive, nor fully supportive: the dogmatic promotion of cooperatives often denies the unwillingness (because of the association of cooperatives with the previous regime) or inability (for financial reasons) on the part of a significant number of farmers to join. In some cases the promises (of linkages to credit suppliers and to markets) made by the Cooperative Promotion Office fail to materialise, and farmers' hopes are disappointed.

[42] Source: IFAD (2004) IE Pre-mission survey.

79. **Evaluation concerns**. In general the tendency to ignore traditional social structures and the ubiquitous imposition of cooperatives is a cause for concern. In a few cases where WUAs have been allowed to manage themselves, in the absence of the promotion of cooperatives, lack of legal status does not appear to have posed any significant constraint to scheme operation and maintenance. Peer pressure and community enforcement has held water users to the observation of the by-laws (e.g. at Hasen Usuman, a phase I scheme in Oromia). However, in Nadhi Gelan Sadi (Oromia), Dobena (SNNPR) and Hizaeti Afras (Tigray) damaging canals and water theft are reported to be common practices.

D. Impact on Food Security

80. **SCP II concept of food security**. The project aims primarily to improve food security at the household level, in woredas which are generally recognised to be "*vulnerable*", "*drought-prone*" or "*food-insecure*". Household food security is to be achieved by a combination of increased production, reduced vulnerability to drought and increased income (by enabling poor farmers to purchase food when their own production falls short). Recent studies on child malnutrition have highlighted the importance of micro-nutrients, health, and awareness of mothers and communities as highly significant factors in determining nutritional outcomes of children.[43] Therefore the concept of food security adopted at appraisal is somewhat narrow in the light of more recent findings. There is no baseline available for nutrition security outcomes (e.g. anthropometric surveys). For these reasons, our analysis can only be confined to tentative inferences from data on yields derived from interviews with farmers.

81. **Production increases**. Our evidence of crop production increases is anecdotal but significant (although observed yields are below the expectations at appraisal). Crop diversification is evident, in some cases from only three crops before the construction of the scheme up to 15 crop species encompassing various vegetable and high value crops (e.g. Gedemso, Oromia). With access to irrigation, intercropping and relay cropping are becoming common practices even in monocropping-dominated systems of Arsi (e.g. Hasen Usuman, Oromia). Table 11 sets out farmer-reported yields in three SCP II irrigation schemes.

Table 11. Reported yields (qt/ha) of irrigated crops in three SCP II irrigation schemes

	Crops	Dobena (SNNPR)	Nadhi Galan Sedi (Oromia)	Hizaeti Afras (Tigray)
Vegetables	Tomato	102.25	34.79	55.12
	Potatoes	93.95	37.34	47.79
	Cabbage	81.87	24.06	56.34
	Onion	44.78	37.56	39.00
	Pepper	25.89	21.54	40.17
	Carrot	76.73	25.72	39.96
	Beetroot	137.94	17.80	161.29
Fruits	Sugar cane		109.94	
	Papaya		14.55	
	Avocado		80.00	
	Mango		12.23	
	Banana		20.55	
Cash crops	Chat	24.06	23.22	
	Coffee	32.26	13.59	

Source: IFAD (2004) IE Pre-mission survey.

[43] For example Christiaensen L. and Alderman H. (2004) Child Malnutrition in Ethiopia: Can Maternal Knowledge Augment the Role of Income?; *Economic Development and Cultural Change*, 52, 2. Smith Lisa C. et al (2003) The importance of women's status for child nutrition in developing countries (Research Report) Washington, D.C.: IFPRI 164. Smith Lisa C.; Haddad Lawrence James. (2000). Explaining child malnutrition in developing countries : a cross-country analysis. (Research Report) Washington, D.C.: IFPRI.

82. **Cash income, diet diversification**. The cash generated from selling vegetables and other produce is commonly used to buy food to cover the household food demand during the food deficit months. Some farmers spoke of a reduction in hungry months from about 6 to 2 (July and August). The increase in diversity of crops across the schemes, and the shift from cereal-livestock systems to cereal-vegetable-livestock systems is starting to improve the diversity of household nutrition, through making vegetables part of the daily diet. There is evidence of significant changes in diet as a consequence of local consumption of part of the crop (vegetables, fruits) produced for market.[44] But not all of the dietary changes are entirely attributable to the IFAD project. Diversification of crops and increased vegetable production in Were, Lalay Agulae and Gereb Kokhi (all in Tigray) took place several years before SCP II, and considerable diversification has already taken place at Adi Edaga (Tigray) prior to SCP II construction. From the changes in diet, we tentatively infer that positive changes in family nutrition are beginning to occur[45].

E. Impact on the Environment and Communal Resource Base

83. **Environmental issues**. The major environmental issues identified by the communities in the irrigation scheme catchments were drought, decline in land productivity, fuel wood shortage, prevalence of new pests and diseases in the system and washing away of seeds and fertilizers by erosion.

84. **Soil conservation**. The project's main beneficial impact on the natural environment lies in the area of soil conservation. By the inclusion of this explicit component the project provides a much-needed focus for natural resource conservation efforts in the catchments where the irrigation schemes lie. The extent of such efforts directly as a result of SCP II however is very limited[46] compared to the need, with only a few cases resulting in visibly reduced erosion, runoff and siltation. In catchments where soil conservation activities are an integral part of the local farming system (e.g. Mumicha in Oromia), the irrigation schemes are at a significant advantage, having very limited negative impact on the environment. In catchments where this is not the case (e.g. Gumera in Amhara), soil erosion is a major issue, threatening the viability of the scheme itself. The impact of construction of soil bunds is likely to be longer-term than other conservation measures which can have very rapid impacts on fodder and fuel wood resources. Such short-term measures should be integrated with long-term measures for maximum impact. Farmers expressed some concern that soil bunds act as rodent harbouring places, affecting nearby crop fields especially in places where there is limited biomass in the system.

85. **Impact on water resources**. As run-of-river systems, the irrigation schemes abstract very little of the total water resources of their river catchments. However, due to the sediment load of many of the rivers involved, and the erodibility of the soils close to and within the command areas, siltation of canals and night storage reservoirs is an issue in some schemes. In some cases, construction works have created new gullies and spoil heaps. There is evidence in some cases (e.g. Burka Woldiya, Oromia) that the shift from cereal based systems or those involving coffee and chat, to vegetables, requires more frequent irrigation and greater water use. This has implications for downstream users, and it emphasises once more the need for integrated catchment management.

86. **Soil degradation in command areas**. A key area of environmental impact to be observed carefully in the future is that of soil degradation within the command areas themselves. If land is double or triple

[44] Women interviewed in Chuhot, Tigray, for example spoke of only recently consuming vegetables that they used to sell. However, it was not clear whether this is an explicit choice or as a result of marketing difficulties. Other farmers at the nearby scheme of Lalay Agulae complained of falling prices over the last two years as more farmers are trying to sell irrigated vegetables in the nearby markets of Wukro and Agulae.

[45] There is anecdotal evidence (albeit mixed) of the project's adverse effects on livestock numbers. If confirmed, this might also affect human diet. At present, irrigation households are certainly consuming more vegetables.

[46] UNOPS estimated in 2003 that only 356km of bund construction and stabilisation had been carried out, out of a planned 6000km (6%). These estimates were repeated again in the 2004 UNOPS report.

cropped (few schemes yet appear to achieve even 200% cropping intensity, but in some areas this is a future possibility), with little use of organic manures or inorganic fertiliser (the evidence of increased use is limited as yet), then over time a decline in soil fertility may be expected. Some farmers already express this concern (e.g. at Gedemso, Oromia). In all irrigation systems there is a potential risk of waterlogging and/or salinity build-up[47]. The limited evidence to date that this risk is real must be monitored in the future, to avoid negative environmental impact.

Stone bunds to prevent soil erosion at Irza scheme (Amhara Region). Including this long-term soil conservation component is an essential element of the project. Other short-term measures, such as crop rotation and application of organic and some inorganic fertilizers are also needed. ***IFAD photo by F. Felloni.***

87. **Area enclosures**. There has been limited but encouraging experience with area enclosures (e.g. at Chuhot, Tigray), the impact being the restoration of vegetation, including indigenous species such as *Donaea viscose* and *Olea africana*, and increase of available fodder. Farmers also value such areas for honey production.

88. **Crop rotation**. In the rain-fed systems cereals and legumes are often grown in rotation while in the irrigated fields there appears to be almost no legume component. Moreover vegetables are grown under irrigation on the same land year after year. This is partly because of the small irrigated land holdings (typically 0.25ha per household, but sometimes significantly less), partly due to market preference for vegetables, and partly due to the package promoted by the Government. In these situations the risk of depleting the soil in a very short time and the possibility of pest incidence are apparent. For example, growing potato and tomato on the same land, without a break crop, may create favourable conditions for pests like potato late blight that could also destroy tomato. Consequently crop rotation as a component of integrated pest and soil fertility management should be promoted.

89. **Organic approaches to soil fertility management**. As the price of chemical fertilizers is increasing and credit support has been diminishing, there has been a shift towards the use and management of organic fertilizers, namely manure, compost and crop residue incorporated to irrigated fields. For instance in Burka Woldiya (Oromiya) six out of seven interviewed farmers practised composting for the last two years. A young farmer in Nazre (Tigray) presented the results of his on-farm trials on maize indicating that on a 200m^2 plot he obtained grain yields of 5, 4 and 1qt for organic fertilizer, inorganic fertilizer and no fertilizer, respectively. He consequently values organic fertilizers highly. In most cases, the crop residues from vegetable crops (e.g. onions, tomato, pepper) were not a favoured feed for animals. Consequently farmers used it as a biomass source for composting in open pits, leaving the residue to decompose for at least 8 months, and applying it to the soil at a rate of 5 to 20 qt/ha, depending on the amount of compost available and the fertility status of the soil. This practice helped to kill weed seeds and

[47] As already observed in one scheme and reported in the MTR, and in one further scheme in this evaluation.

also to improve the productivity of the land. On the other hand, composting for a very long time may cause nutrient losses though volatilization, leaching and denitrification. Moreover, the total amount of organic biomass in the system is insufficient to reverse soil nutrient depletion.

F. Impact on Institutions, Policies and the Regulatory Framework

90. **The challenge of decentralisation**. The impact of the project on the strength of Government institutions (in the sense of agencies and organisations), has been challenged by the processes of re-organisation and decentralisation[48], and the knock-on effects these have had on institutional competence and memory, particularly at woreda level. The project's support of institutions has largely focused on capacity-building. Consequently the focus has been on training and equipping of woreda bureaux of agriculture and rural development, although the project has significantly under spent on this component in comparison to construction, thus limiting impact.

91. **Little impact on the enabling environment**. When the concept of "institutions" is taken more broadly to mean the "rules of the game" (i.e. the policies, rules, regulations) which constitute the enabling environment for economic and social activity, then the project, and especially the donors, have had little visible impact. Significant opportunities have not been fully exploited so far. The possibilities for policy dialogue are explored further, later in this report.[49] The project's impact on the regulatory framework – especially the rules governing water abstraction, and the legal framework for water users' associations and cooperatives – has been negligible. Both these areas are central to the sustained impact of the irrigation schemes, and a more proactive stance on the part of the project stakeholders could bring about significant change.

G. Impacts on Gender

92. **Targeting men and women**. The AR acknowledges that in the Ethiopian agricultural sector, "*Women's Affairs Agents [and Home Agents] need to work alongside Subject Matter Specialists and Development Agents to develop systems and methods at field level to enable rural women to participate fully in mainstream agricultural development"*[50]. As men head households (unless deceased), and women do not have direct access to land[51], men form the majority of direct beneficiaries of the SSI component of SCP II. As the household head becomes the member of the WUA, the only women members are from female-headed households. A wife will not be eligible to represent her family if her husband is alive. The MTR highlighted that female-headed households are usually among the poorer households and that if they engage in share-cropping they reap little benefit from the SSI intervention.

93. **Differentiated targeting.** From the project's inception, gender differentiated participation in the programme has been limited to WUA membership and women's vegetable gardens. The MTR[52] recommended that gender considerations be integrated into the reconnaissance and study/design stages of irrigation scheme identification, and that more gender sensitive approaches be adopted in order to distinguish between the interests and priorities of men and women. The main suggestion of the MTR was that women should be encouraged onto WUA committees as a means of empowerment.

[48] These are addressed in detail in IFAD's 2004 thematic evaluation of decentralisation.

[49] IFAD has been recently engaged in the preparation of two recent programmes in Ethiopia: the Agricultural Marketing Improvement Programme, and the Rural Finance Intermediation Programme, with consultation and policy dialogue in the related areas.

[50] Appraisal Report §29

[51] Appraisal Report §36. IFAD (2004) IE Pre-mission socio-economic survey (Annex 1 of this Report).

[52] Mid-Term Review §118, 119.

94. **Women's participation in WUA executives**. Out of 14 WUAs[53] in which farmers were questioned in this evaluation, only four (Chuhot, Adi Edaga, Gereb Khoki and Hizaeti Afras, all in Tigray) include women on the WUA executive committee, and the extent of active participation by these women in decision making is not known. Reasons given by both men and women for their exclusion are that the women are too busy, they have to stay at home and nurse children, or that the beneficiaries were not aware that the inclusion of women on the committee was a requirement. No women traditional water masters were found. A woman at Adi Edaga (a planned SSI scheme in Tigray) explained that the men would never think to consider them for this position.

95. **Women's vegetable gardens**. The project set out to target women "*through the provision of an input package of vegetable seeds, fertiliser, pesticide, and hand tools, free of charge for two seasons for two consecutive years, to women heads of households and poor women in selected zones of the programme regions*". 2 400 women were supposed to benefit from women's vegetable gardens of average size 200$m^{2,}$ established either within or very close to the command areas of the irrigation schemes. Thus only a small proportion of women on each site were to benefit from the vegetable gardens (10% of the target SSI beneficiaries). Support was also to be given to Home Agents at woreda level (training of 4 000 individuals, and provision of motorcycles) and 8 000 women farmers in cultivation techniques of vegetables and nutrition. The women's vegetable garden sub-component has not been undertaken to the extent envisaged at programme design. Only 3.2% of the funds for women's vegetable gardens had been spent as at July 2004. Due to lack of records of physical progress, the number of women who have benefited from SCP II vegetable gardens is not known.

96. **Impacts of a focus on women**. The women vegetable gardeners were generally very positive about the impact of the initiative on family nutrition. In some cases produce is sold, although this depends on market access, surplus production and attitudes. Women at Lalay Agulae explained that it is sometimes the husband who sells the produce, particularly if it is a large quantity as he is usually able to command a better price. In Tekecha (Tigray), one woman vegetable gardener explained that she now grows, rather than purchases, her vegetables. Complaints were made by women (in Chuhot and Gereb Kokhi, Tigray; Maze and Were in SNNPR) about lack of inputs and shortage of farm tools, including watering cans and lack of knowledge about the preparation of nutritious foods. The women vegetable gardeners at Tekecha and Were SSI schemes (SNNPR) have a committee to encourage and motivate the members. The women at Were claimed that their committee tries to negotiate with the WUA committee if they are not able to get water in a timely manner. The effectiveness of this collective action for women's empowerment requires further exploration.

97. **Women's labour requirements**. Tending the vegetable gardens increases the labour requirement of the women. The labour requirements of irrigated vegetable production are about four times those needed for cereals. Women and children tend to be responsible for carrying the water from the canal to the garden if it is outside the SSI command area. Husbands usually help to harvest the crop. Women at Were (SNNPR) rise early in the morning to attend to the vegetable garden. Men in Gereb Khoki (Tigray) commented that the women were not able to attend to all of their other tasks because of their work in the vegetable gardens.

98. **Home Agents**. The Home Agent at Gofa Zuria Woreda (SNNPR) informed the evaluation team that she visited the women gardeners at Were (5km from the Woreda Office) three times a week for a year in order to encourage the women to sow, weed and harvest their crops. The women required considerable encouragement and follow-up to take on this new initiative. The concept of women's vegetable gardens has been particularly appreciated by the Woreda Home Agents of Gofa Zuria and Sodo Zuria (both SNNPR). Plans are in place to scale up the initiative from the original 50 to another 200 women in Sodo Zuria.

[53] Gereb Khoki, Laelay Agulae, Chuhot, Falla, Zatta, Shayna, Hizaeti Afras, Adi Edaga (all in Tigray), Nadhi Galan Sedi in Oromia ande Maze (two schemes), Were, Ella and Dobena in SNNPR.

A women's garden in Were scheme (SNNP Region). In spite of receiving limited focus, women's gardens have tremendous potentials for improving household food security and diet diversifications and, in the best cases, household income. Tending gardens is labour intensive and gardens should be set close to canals.
IFAD photo by K. Danert.

99. **Future focus**. Given the success of the women's gardens initiatives in diversifying food intake and, in some cases, increasing incomes, this sub-component deserves a much higher profile and increased resources in future.

H. Sustainability

100. **Sustained impact** of SCP II depends on the successful implementation of a chain of processes by a number of stakeholders (Figure 3). Schemes need to be appropriately located, or efforts made to improve the locations (e.g. by improving market access, ensuring long term input supplies, protecting the catchment). Careful attention needs to be given to existing social structures so that they can be built upon and respond to the challenges of managing modern schemes. Study and design mechanisms need to acknowledge local knowledge and consider building upwards from farmer practices rather than merely downwards from text book designs. On-going external support for maintenance needs to be recognised as an inherent aspect of the process, well beyond the scheme construction phase. If any of these parts of the chain are weak, sustainability is threatened. Although there is hope for sustainability (based in particular on the longevity and condition of many Phase I irrigation schemes, and the positive attitudes of many professional staff), we found many of the links in the chain weak.

101. **Site selection was found to be considerably less demand-driven** than anticipated in the AR. Schemes tend to be selected based on location of potential sites from maps and geographic information systems rather than explicit demand from communities. WUAs are not registered prior to scheme selection, although the IE does not consider this in itself to adversely affect sustainable impact. Most schemes are located where there has been traditional irrigation, although experience ranges from 2 to 200 years. Some schemes (Dobena and Shoshuma – both SNNPR) have been located where there has been no previous experience of traditional irrigation. In the case of Shoshuma (SNNPR) adoption of irrigation is slow (five ha irrigated out of a command area of 45 ha in the first year) and the woreda staff complain that they lack skills and experience to share with the water users.

102. **Market access**. Lack of markets, due to their saturation or access difficulties, is a serious problem for SCP II.[54] Intensified cropping requires fertiliser and diversification requires new seeds. If farmers

[54] It should be noted that a new IFAD programme, the Agricultural Marketing Improvement Programme, approved by the IFAD Executive Board in December 2004, is expected to intervene in this area in the future years.

cannot afford to buy, or are not able to access these inputs, impact cannot be sustained. Although some Government nurseries have been set up, a detailed analysis of their viability beyond SCP II was beyond the scope of this evaluation. Farmer experience of markets was found to vary considerably with some farmers selling to traders from Addis Ababa, and others throwing away their produce due to oversupply. In the three irrigation schemes studied in the pre-mission survey, 53% regard prices as unattractive (sample size 299), and 69% of farmers consider that "no buyers" or "excess supply" are the reasons for price changes in the last three years (sample size 244).

103. **Insufficient water resources.** In many cases, decisions regarding site locations are made on the basis of one surface flow measurement taken on one day, or based on rainfall data from a distant weather station. Water shortages have been reported in Dobena (SNNPR), Nadi Gelan Sadi (Oromia), Hizaeti Afras, Chuhot and Laelay Agulae (all Tigray). There have been cases of negotiation between upstream and downstream users (Chuhot – Tigray) as well as fighting in Nadi Gelan Sedi (Oromia). As neighbours tend to copy irrigation practices, conflict regarding water rights is likely to increase in the future. This could provide a serious threat to sustained impact.

104. **Catchment management** (preventing extensive land degradation and over-exploitation of vegetative cover in the watershed) requires careful consideration during site selection. Several cases have been observed in which floods and debris from the catchment have severely damaged the modern irrigation schemes (e.g. Gumera - Amhara, Maze – SNNPR, Chuhot - Tigray). It is worth considering catchment management as a prerequisite to scheme selection, rather than as sub-component. Gereb Kokhi is an example of this, where extensive catchment treatment was undertaken by the NGO Mekhani Yesus 10 years prior to the construction of the SCP II irrigation scheme.

105. **Social Structures.** Lack of full understanding and consideration of existing social structures threatens to undermine sustainability. Traditional Water Masters, who exist in almost all of the schemes with a history of traditional irrigation, have not been exploited effectively. Lack of support for WUAs and a dogmatic focus on turning them into irrigation cooperatives threatens to undermine sustainability as they are not supported to operate and maintain the scheme and manage water distribution. Several WUAs were found to be non-vibrant, and in one case the WUA had been disbanded by the kebele administration. The fact that not all water users are automatically members of the WUA, and that irrigation cooperatives often comprise only part of the WUA is cause for concern with respect to sustainability.

106. **Study and Design**. Beneficiary participation in the study and design process is inadequate to develop a sense of ownership in the process and influence scheme design. In some cases (Hizaeti Afras and Zatta – both Tigray), this has resulted in poor design and a reduction of irrigated farmland. In other cases, deep canal incisions make maintenance more difficult for the farmer. Higher weirs could have prevented this, although clearly costs need to be taken into consideration. Lack of farmer participation, coupled with top down, text book designs means that opportunities for making low-cost but significant improvements to traditional schemes, such as lining very leaky canals or improving gulley crossings are being lost. Limited improvements could enable sustainable impact to be more likely, as the level and amount of technology which farmers would be expected to maintain would be considerably less than current designs.

107. **Maintenance and Rehabilitation.** Farmers interviewed considered themselves to be very effective at canal clearance. However, monetary contribution is low, and repairs which require use of 'foreign' materials (cement, steel) or unfamiliar skills (masonry and metalwork) are seen as the responsibility of the irrigation authorities. Fees are not even collected on an annual basis. Fees are not always considered to be for maintenance only. Funds collected in Laelay Agulae (Tigray) are intended for the construction of a store, farm tools and purchase of a vehicle. Unlike traditional irrigation schemes, which have been designed and built with farmer maintenance in mind, modern schemes commonly suffer from wear and

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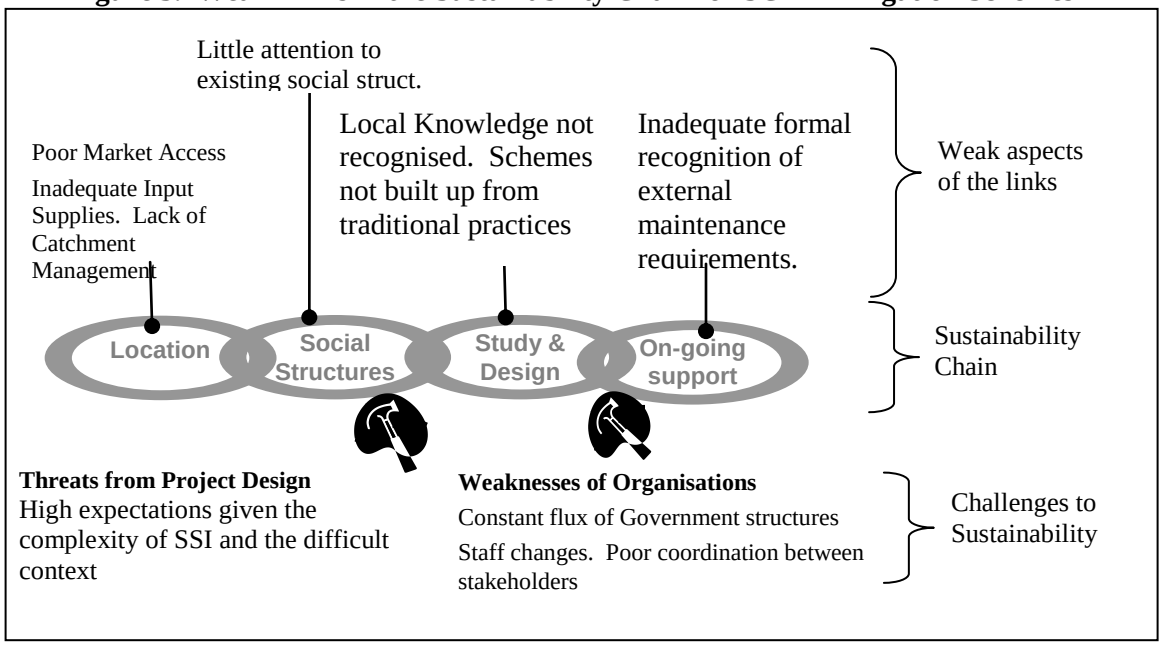
Another programme which is expected to have national relevance is the Rural Finance Intermediation Programme co-funded by IFAD and the World Bank, which became effective in January 2003.

damage which is beyond the means and skills of the community. Farmers at Maze (SNNPR) explained that they cannot open the primary canal inlet due to silt, stones and debris and that clearing the material is beyond their means.[55]

Figure 3. Weak Links in the Sustainability Chain for SCP II Irrigation Schemes



108. **External support**. However, in at least three of the four regions visited, recognition of the need for continued external financial input to the schemes is strong. Although much of the work required is routine maintenance, it is often classified as rehabilitation. Unfortunately, some Project officials deny the need for this support, failing to openly recognise the fact that structures decay over time and that some maintenance tasks are beyond the skills and resources of the communities. In conclusion, it can not be assumed that the modern SSI schemes constructed under SCP II will continue to function efficiently without ongoing external support in terms of financial and human resources. Sustained impact of SCP II can only be met with this external support. Clearly, this needs to be factored in to economic analysis of SCP II and other irrigation projects.

109. **Government Organisations.** Since the project began, there has been constant state of flux in terms Government organisational structures and high staff turnover. The likely effects of this on sustained impact are difficult to predict but they pose major challenges. Long term organisational ownership of SCP II schemes appears to currently lie firmly with the Irrigation Authorities (in Oromia, Amhara and SNNPR) rather than the Bureau of Agriculture. This ownership manifests itself in the limited but continuing support to schemes for major maintenance and rehabilitation. Given the proposed restructuring of the irrigation authorities and the move of SSI from MoWR to MoA, it is not clear who will take over this ownership in the future. In addition, as the numbers of modern schemes grow, it is likely to become increasingly difficult for authorities to provide on-going support unless budgets and human resources are increased accordingly.

110. **Weak coordination and participation**. Poor coordination between the different government stakeholders is openly recognised at all levels as a major weakness in project implementation. Woreda staff may participate to a very limited extent. Schemes are generally designed and built by the regional

[55] Farmers in Chuhot (Tigray) are not able to repair their flood damaged gully crossing. Farmers at Gumera (Amhara) were not able to repair the broken side wall on their scheme.

authorities and informally or formally handed over to the woredas and communities once complete. Woreda staff undertake the agricultural components of nursery development, women's gardens and extension but these components significantly lag behind the construction. Without the requisite improvements in farmer knowledge regarding irrigated agriculture, and without continued input supplies, the anticipated benefits of SSI will be difficult to realise in the long term.

111. **Woreda level ownership**. Major scheme maintenance is beyond the ability and resources of the woredas. The sustainability of seed supply and nursery development without continued external financial support is not known. Criticisms by farmers about lack of timely inputs during the project life does not bode well for the future. Lack of institutional ownership at woreda level coupled with insufficient resources at that level[56], poses a threat to sustained impact.

112. **Construction quality**. In a few cases, poor construction threatens sustained impact. If a scheme is poorly built to start with, it is likely to deteriorate rapidly, making community maintenance even more difficult than it already is. Cases were observed where workmanship was poor. Debris from canal digging had been left as spoil heaps on the banks on the canal (Zatta - Tigray, Tekecha – SNNPR, Gumera - Amhara). Cases were observed of leaky canals (Zatta – Tigray), poor plastering (Zatta - Tigray), extremely narrow canals (Zatta - Tigray) and very deep canal incisions (Zatta – Tigray, Gumera – Amhara, Irza – Amhara). At Gereb Kokhi, farmers asked the evaluation team how they were supposed to clear the long culverts.

113. **Older schemes**. A small number of Phase I irrigation schemes in Oromia and SNNPR were visited during the evaluation. All were in good condition, in use, and under the care of the relevant irrigation authorities. On the test of longevity, these clearly pass. There is little doubt that 50-75% of Phase 1 schemes continue to perform satisfactorily or better.

A well-maintained scheme constructed under the first phase of SCP (Hasen Usuman, Oromia). Notwithstanding the need of external support for major maintenance work, a number of schemes constructed a decade or more ago were found to be functioning, thus passing the "longevity" test.
IFAD photo by R.C. Carter.

I. Innovation and Replicability/Scaling Up

114. **Technological innovations for farmers.** The irrigation and soil conservation technologies used in SCP II are tried and tested within Ethiopia, but they represent highly valued innovations for the beneficiaries involved. In many cases they constitute improvements to traditional irrigation practices. The combination of project technologies with other agricultural support services and the development of women's gardens make a package of actions which is innovative for the nation.

[56] Neither of these are surprising, given the findings of the recent decentralisation study (IFAD, 2004)

115. **Farmer adaptation and innovation**. It is usual for farmers to adapt the engineering and agronomic technologies provided by the project, and combine them with their own traditional practices. We have experienced the unwillingness of professional staff to accept such realities, and this attitude may discourage farmers from experimenting. Nevertheless, there is evidence of farmers' willingness to maintain access roads, re-open abandoned land, and make other investments (such as bee-keeping) as a consequence of improvements made by the project.

116. **Changes in crop management**. Some farmers have changed their crop management practices considerably. They shifted from broadcasting to row planting particularly for maize and vegetable crops, but with much narrower spacing than the recommended. For instance, farmers in Gedemso, Oromia, indicated that they planted a higher population density of maize which was then thinned to feed animals and also harvested as green cobs over a period of 45 days. Box 3 gives an example of one particular farmer-innovator in Tigray.

Box 3 A farmer-innovator in Tigray

Wzo Romas Haile Selassie is a widow, 67, without family labour. She did not have land previously, but inherited a plot when her daughter died, a few years ago. Her land was far away from the traditional command area, and during the construction of the headworks and canals, her farm was almost completely destroyed and covered by stones, sand and silt. Yet she was happy that the canal was crossing her farm. She decided to remove tonnes of debris from her farm alone, for at least 3 months. She replaced her wheat and barley field with a vegetable garden, of about 1800 m^2. She is currently producing vegetables including tomatoes, cabbages and pepper, and fruit trees including mangoes, avocadoes, citrons, oranges, papaya and kazmir, irrigating the field using a bucket. Her net income for the last two years was about EB2000 per annum. She intends to improve the productivity of her farm using better management of on-farm organic residues.

117. **Trials and demonstrations have little impact**. The demonstration/trial sites which form part of each irrigation scheme, if established at the size set out in the AR ($20m^2$), are too small to capture field variability and to demonstrate the benefits of treatments applied. Development Agents on most sites expressed this concern. In many cases demonstration plots included only a few crops, mainly maize, onions, potato and pepper, while there are no demonstration plots for other high value crops such as fruit trees. Hence there is a need for the inclusion of other high value crops in the future. Trial packages typically involve unrealistically high levels of inorganic fertiliser and weed control, and short irrigation intervals. Demonstration sites should better reflect the conditions under which farmers actually manage land, water and crops. More effective extension modalities may include farmers' field visits to other farmers, local fairs and competitions and the training of local village auxiliaries.

118. **Replicability**. The development of SSI schemes of the type promoted by the SCP is only replicable with GoE or donor funding. The per hectare and per household costs of this form of development put it a long way outside the financial investment capacity of rural communities. Nevertheless, during the evaluation we were made aware on several sites that the irrigation schemes acted as catalysts to other local communities, upstream and downstream, encouraging them to imitate aspects of the technology which they observed. In some cases this has led to new 'traditional' schemes, while in others farmers have started to invest in irrigation pumps. This may entail potentially detrimental effect when communities compete for scarce water flow. The above highlights three areas for future attention: (a) the need for integrated catchment management (rather than scheme-by-scheme approach); (b) the possibilities of experimentation with lower-cost interventions to selectively improve traditional irrigation systems; and (c) the need for more flexible approaches to extension, moving away from an exclusive focus on packages.

119. **IFAD could have a future strategic role**. As one of the main donors associated with small-scale irrigation in Ethiopia, IFAD is in a key position to incorporate a far-reaching body of institutional learning and experience which can form a resource for, and influence on, other donors. IFAD is in a good position, not only to initiate a multi-donor forum for the sharing of experience and best practice for SSI in Ethiopia, but also through such a forum to engage in constructive dialogue with Government. That such an

initiative would be welcomed by GoE, was indicated in the opening discussions with the Vice-Minister of Water Resources during this evaluation.

J. Other Poverty Impact

120. **Upstream-downstream issues**. The development of a single irrigation scheme within a catchment has no special implications for the management of water resources beyond the command area of the scheme. However, when other schemes or abstractions already exist upstream or downstream, or when the development of one scheme acts as a catalyst for other farmers to copy what they have seen, the implications are extensive. It is then that competition develops over a scarce resource (dry season water), and competition can easily turn to conflict. If conflict is not managed through careful negotiation, then there is a danger that it can turn to outright hostility. In the three irrigation schemes studied in depth in this evaluation (with particular attention to wider catchment-scale issues), the proportion of irrigation farmers (out of a sample of 304) reporting water scarcity averaged 83%. In all these cases, and in many others visited in the course of this evaluation, farmers reported that upstream users were depriving them of water. In many cases SCP II schemes are also depriving downstream users of water.

121. **A proper response: catchment based water resource planning**. In at least one Regional division of one irrigation authority (Central Division of Oromia), it has become routine practice to take account of upstream and downstream abstractors in the study and design process. A register is maintained of all abstractions within the smaller catchments where SSI schemes tend to be located, and catchment water balance studies are undertaken to determine whether the water resources are sufficient for existing and planned developments.

122. **Water law**. Despite the existence of federal legislation on the subject of water resources management (e.g. the Ethiopian Water Resources Management Proclamation No. 197/2000), abstraction is not tightly controlled or enforced. There would appear to be a lack of political will both at federal and regional levels to enforce a law which requires "the Supervising body" (defined as the Ministry of Water Resources or any other "appropriate body") to keep an inventory of water resources and register of actions with respect to applications; issue permits for water abstraction and other purposes; and collect water charges from users. It may be significant that the use of water for traditional irrigation explicitly does not require a permit. Since SCP II schemes are usually based on traditional schemes their definition under the law may be ambiguous.

K. Overall Impact Assessment

123. **Positive impacts**. There is evidence that SCP II is beginning to have a positive impact on poverty and household food security, for the farmer-irrigators who are fortunate enough to have access to land within the irrigation command areas. Small increases in crop yields, production, and incomes were reported to us, and irrigation farmers are not only beginning to diversify, but also to commercialise their farming operations. Some women have benefited from the vegetable garden component of the project, where it has been implemented. As yet these changes are small, both in magnitude and in number of households affected, but they show promise for the future. The full impact should not be expected before about 2010.

124. **Negative impacts**. In a few cases seen in this evaluation, impact on traditional irrigation farmers has been negative. Where Regional engineers are willing to re-visit their designs, and take full account of the views of farmers, this may be seen as a short-term matter which is likely to be resolved; in the few cases where the professionals involved display attitudes of denial and arrogance, this is cause for concern.

125. **Impact on social and human capital**. Impact on human capital and social assets has been less satisfactory, because of the limited expenditure on farmer training, and the continuing confusion between various forms of water management structure (traditional organisation, modern WUAs, and cooperatives).

126. **Impact on the environment**. Impact on the management of the natural environment has so far been alarmingly limited. The reason for concern in this area is that without a focus on soil conservation in particular, the irrigation schemes themselves will often be at risk. Moreover, without a wider emphasis on catchment management, the benefits of the project will be limited to the relatively small numbers who can farm within scheme command areas.

127. **Impact limited by weak coordination but enhanced by regions' sense of ownership**. An important factor limiting overall impact on rural poverty appears to be the unwillingness of MoWR and the Regional irrigation authorities to share project ownership fully with the other main GoE stakeholders, namely MoA and the Cooperatives Promotion Office. Ironically it is the strong sense of ownership of the small-scale irrigation schemes by the Regional irrigation authorities which provides the greatest prospect of sustainability, at least in terms of the continuing functioning of physical capital. Without the on-going support which these authorities provide to the farming communities, it is likely that the physical infrastructure provided through the project would deteriorate, in some cases quite rapidly.

128. **Limitations due to context.** Many other limitations are imposed by the economic, social, natural and political context. The markets for irrigated produce, even on the scale produced by SCP II SSI schemes, are very small; farmers are unused to negotiating with traders and brokers, and their bargaining position is one of weakness; the remoteness of many of the irrigation schemes from markets adds excessively to transaction costs; and the unrelenting instinct of Government to control and micro-manage right down to the level of the farmers' plots is an obstacle to independence. The overall impact of the project, bearing in mind that the majority of the impact on the poor remains yet to be experienced, is rated by the evaluation team as substantial (3).

VI. PERFORMANCE OF PARTNERS

A. Performance of IFAD

129. **Sources of evidence and overview**. IFAD's performance can only be evaluated indirectly through documentation provided to the team, and through comments invited from project partners in Ethiopia. The evaluation team recognises the potential of the project concept and positive views of the interventions of IFAD during the project implementation were made by project staff. However, the mission is more critical about aspects of the process by which the initial design was made and by which subsequent changes have been brought about.

130. **Weaknesses in project design**. Our criticisms of the project design (as presented in the AR) for its naivety and lack of realism concerning issues of demand, "self-sustainability", participation, and political and gender issues have already been touched upon. Concerning demand, and the concept of a "fully demand-led" project, a more realistic approach would recognise that (a) communities can only demand something of which they have had some experience or exposure, and (b) communities are highly unlikely to demand a package of interventions in its entirety. Even in the case of traditional irrigators, although they may express demand for technical upgrading of their systems, they are unlikely to demand catchment-scale soil conservation measures and water management, or the inclusion of women's vegetable gardens. In reality, demand is expressed through a process of dialogue with the external bodies which promote the project, and the conduct of that dialogue demands great skill on the part of the implementing organisation. IFAD should have been more realistic about these realities at the time of appraisal.

131. **Sustainability: self-sufficiency or inter-dependence?** No "modern" infrastructure project is "self-sustaining". Such an idea is akin to that of perpetual motion. If foreign materials (such as cement masonry or concrete work), foreign techniques (the skills and tools required to construct in cement work and concrete), and foreign crops, crop production methods and organisational linkages are introduced, then support is required in all these aspects, until farmers have a level of skills and resources sufficient to take over full ownership. This can take a very long time, closer to 10 years than to two or three. Again great skill is needed to avoid encouraging an attitude of dependence. The present evaluation is of the opinion that the regional governments understand this better than those who prepared the AR.

132. **Participation**. The project design required a high degree of participation within the implementing organisations, and of farmers, including women. Such attitudes of participation – of professionals in the determination of the policies and strategies of their organisations, and of farmers in their futures – have not been characteristic of Ethiopia for many years, if not generations. To expect fundamental attitudes to change quickly, as the AR did, was naïve. The design process itself, according to those in Government who were involved at the time, involved limited ownership and participation by those who would have to implement the project. It is ironic that a project design which called for a high degree of participation, and the re-orientation of professional staff in demand-led approaches, itself appears to have put more emphasis on the output of the appraisal than on the process by which it was achieved. Both matter.

133. **Weak project logframe**. The project logframe[57] is weak – five out of seven outputs are expressed in relative terms – and therefore fail the SMART[58] criterion. The indicators are unspecific – in other words, no amounts or times are attached. The assumptions are trivial. There is no evidence of an agreed revised logframe having been put in place since 1997[59]. It appears that IFAD attaches little significance to the quality, updating and use of the logframe. This may account in part for the lack of clarity over project targets, and the consequent difficulties with monitoring. IFAD should either fully adopt the logframe as a project planning and management tool, or drop it in favour of something else.

134. **Confusion over project targets and achievements**. Appendix I includes a comparison of some of the inconsistencies in project targets as described by the MTR and subsequent (2003, 2004) supervision missions. Since these changes were not reflected in updated versions of the logframe, and there appears to be no other management tool proposed in place of a logframe, there is substantial possibility of confusion over project targets. The arithmetical errors in the UNOPS reports in calculations of percentage target achieved also create confusion. In our view, IFAD should have exercised tighter management of the Cooperating Institution (UNOPS), in order to fulfil the AR's recommendation to "*place emphasis on quality of development rather than disbursement targets*."

135. **M&E**. M&E of SCP II has become a troubled and contentious issue. Report after report[60] has called for ever more comprehensive M&E systems, to be implemented by specialised staff, but little has yet transpired. The difficulty this evaluation had in quantifying project achievements is a reflection of the limited monitoring and related reporting taking place in SCP II. In our view, this matter should have been dealt with a long time ago. The supervision process has not been an appropriate vehicle for achieving this, and nor has short-term TA. Only a long-term substantive partnership could have solved this problem, by allowing IFAD to engage in a participative process with the key stakeholders.[61] For instance a joint

[57] Appraisal Report, Appendix 19, and Appendix VI of this report.
[58] Specific, Measurable, Agreed, Realistic and Time-bound.
[59] The UNOPS Report of 2000 contained a draft logframe, and an Implementation Support Mission on the subject of M&E, carried out in September 2003, included another Draft Revised Logframe, but with the footnote "This logframe, which was prepared independently by the consultant, requires sharing and consultation with SCP II stakeholders in order for it to be elaborated fully and agreed upon."
[60] UNOPS Reports 2000, 2001, 2003, 2004; MTR (2002).
[61] Short missions, with little stakeholder participation, producing different sets of prescriptions, are of very limited value. Long term partnership, using consultants who are trusted and respected by both Partners, or through more substantial direct involvement, would have been more effective.

workshop could have been facilitated by IFAD, in which targets were ratified, realistic indicators developed, a logframe agreed, and procedures for monitoring within each stakeholder organisation drawn up. It appears that this has not been possible using the management and supervision arrangements available to IFAD.

136. **Partnership and policy dialogue**. The quality of the partnership between IFAD and GoE during implementation has, according to informants in Government, been good. However, issues such as that of M&E in SCP II require a far greater amount of such partnership than has been possible to date. A key area for increased IFAD focus in future should be in policy dialogue over issues such as food security; land and water resources management; national, regional, and woreda coordination; cost recovery; and on-going support of farming communities by regional institutions. A pro-active approach could have been taken by IFAD, for instance to establish a network of GoE agencies, donor organisations and NGOs, all involved in SSI and catchment management projects.[62] The shared learning would have enhanced the performance of all the organisations involved, and provided a forum for debate and dialogue over relevant policy issues. The potential opportunities created by SCP I and II for such policy dialogue have not been exploited to date, although it is not too late to initiate this. Our overall rating of IFAD's performance (modest, or 2, on a scale of 1 – low - to 4 - high) is intended to reflect, not on the individuals involved, but on the institutional processes and procedures (especially sub-contracting of supervision and key elements of the project cycle – appraisal, MTR, technical assistance, and evaluation, and limited time inputs) by which IFAD's oversight of the project has been constrained.

B. Performance of the Cooperating Institution

137. **Thorough supervision**. UNOPS is to be commended on the detail and thoroughness of its reports[63], given the very limited time inputs available to it[64]. Its insights have been appreciated by regional and federal stakeholders. UNOPS has dispatched its contract supervision role conscientiously.

138. **Limited impact of UNOPS**. However, we have been concerned about the quality of the relationship between UNOPS and IFAD, and UNOPS and the national stakeholders. Since it was not possible for the evaluation team to meet with the UNOPS Portfolio Manager (who is based in Nairobi), an emailed questionnaire was sent to him on 25th September (about one third of the time through the evaluation mission). A reply was received on 5th October. Key phrases in that reply include: "*no political will to implement in most cases*", "*inability of GoE to assign competent staff*", "*if the Government will not be committed to the implementation of the programme as designed, there is no point*", "*no serious support from IFAD*", "*half of the energy devoted to supervision in SCP II is working in similar programmes in other countries…*". There appear to have been only limited attempts by UNOPS to understand the underlying reasons for apparent failures on the part of the PCU and RPCUs, no doubt largely because of the limited time inputs allowed by UNOPS' contract with IFAD. Our main criticism therefore, is not so much of the Cooperating Institution itself, but of the framework within which it works. Given the limited time input, and given the limited brief of the CI, it is hardly surprising if the supervision process has failed to provide as much constructive support to the stakeholder partnership as was envisaged at appraisal. Our rating of the Cooperating Institution (3, on a scale of 1 – low – to 4 – high) is a reflection of the

[62] On the matter of policy dialogue, IFAD has been engaged in the preparation of two recent programmes in Ethiopia: the Agricultural Marketing Improvement Programme, and the Rural Finance Intermediation Programme. These areas are different to those referred to in paragraphs 135 but still relevant to rural poverty alleviation.

[63] The most recent of which (2004) for example contains 22 recommendations. In all supervision missions all four regions were visited, and numerous irrigation schemes inspected.

[64] One two-week visit annually 1999-2004, with the omission of 2002, and approximately two further weeks of desk work from Nairobi per year.

constraints within which the supervision process takes place. Our rating of the supervision process itself is 2.

C. Government and Its Agencies

139. **Government commitment**. There is a growing commitment by GoE to the development of water resources for irrigation purposes in order to increase agricultural productivity and to minimize the negative impact of recurring droughts on the country's food security. Irrigation schemes are highly regarded by the Government and they receive especial attention at all levels of its administrative structure. There is even an intention in some regions (e.g. SNNPR) to assign one dedicated Development Agent (extension worker) to each scheme to attend to and resolve development issues and to give extension services. The "Technical Vocational Education Training" (TVET) system which has a plan of assigning three development agents (agronomy, livestock and natural resources experts) in each kebele also demonstrates the emphasis that the Government is placing on agriculture as the foundation for the country's economic development[65].

140. **Constant re-organisation and absence of detailed regional strategies limit impact**. However, frequent changes in staff and organizational structure, delays in detailing appropriate regional policies and strategies on land and water issues are highlighted as problem areas that need attention. We are particularly concerned about the impending change of coordination at the centre from the MoWR to the Ministry of Agriculture and Rural Development, and the restructuring of the regional irrigation authorities. Our concern is that the extensive body of institutional learning which has been built up over recent years may be lost in these changes.

141. **PCU staffing**. The PCU has not always been able to provide the necessary guidance and support to the regions, either because of inadequate resourcing or inadequate staffing. The present Project Coordinator took up his post in October 2003, after an inter-regnum of about six months during which the PCU was not staffed. For the first few months of the present Coordinator's assignment, he was managing the project in the absence of any other staff with detailed knowledge of the project, and with no significant period of induction. The other professional staff members of the PCU (Agronomist, Social Scientist and M&E Specialist) have been in post since September 2003, May 2004, and January 2004, respectively. Some anomalies in resourcing still exist[66], which require urgent resolution.

142. **Decentralisation, staff shortages and staff turnover**. The staffing changes and staff shortages associated with Government reorganisation and decentralisation impose significant constraints on project effectiveness. A recent IFAD study of decentralisation[67] found that staffing levels in the three woredas studied[68] represented only 44%, 20% and 44% of those needed. In this evaluation, significant staff turnover was found at all levels of Government organisation, although with many significant exceptions too. The decentralisation study also noted that skill levels of some woreda and kebele staff were low, and that transport facilities were often inadequate.

143. **WUAs and cooperatives – the confusion continues**. WUAs are usually set up initially to mobilise the community to participate in construction. Once construction has been completed, the responsibility for the WUA lies with the Cooperatives Promotion Office (CPO). However, the CPOs are focused on encouraging the communities to form cooperatives rather than supporting WUAs. It is not clear whether setting up an 'irrigation cooperative' should be the only way in which farmers are supported by the state to

[65] We question elsewhere the usefulness of training specialists as front-line extension workers, when what is needed is good generalists who can integrate across disciplines. The commitment of GoE is not in question.
[66] For instance lack of direct access to email by the PCU staff, and inadequate fuel to allow staff to move freely.
[67] IFAD (2004) Thematic Evaluation: IFAD's performance in decentralising environments, experiences from Ethiopia, Tanzania and Uganda. Ethiopia Case Study. Draft. IFAD Office of Evaluation.
[68] Meskan (SNNPR), Deder (Oromia) and Hintalo Wajirat (Tigray).

manage their scheme. However, as the CPO is the only Government institution mandated to support social organisations in rural areas, there is currently no alternative. Continued support to WUAs, translates in practice to the promotion of irrigation cooperatives which many farmers do not wish to join. No alternatives exist for supporting WUAs to collect maintenance fees or obtain inputs.

144. **Government commitment to on-going technical support**. In at least three of four of the regions visited, recognition of the need for continued financial input to the schemes is strong. However, where major maintenance needs are recognised, the costs are often covered by savings from construction budgets or from rehabilitation funds. There are several cases in which initial construction budgets have been insufficient to complete schemes (e.g. for night storage in Maze (SNNPR), and for bank stabilisation and canal lining in Tekecha (SNNPR). In some cases, designs need to be modified in the light of experience (e.g. inadequate storm drainage at Were, poorly designed drop structures and diversion boxes at Maze, both in SNNPR). In most regions, scheme repairs and maintenance (beyond the capacity of farmers, but relatively straightforward for the regional authorities) are undertaken routinely by the regional authorities. True rehabilitation (major reconstruction/repair) is also undertaken (e.g. three month rehabilitation of Shoshuma - SNNPR after canals were destroyed by a landslide).

145. **Poor monitoring and weak coordination**. A significant criticism of GoE, but for which all stakeholders including IFAD and UNOPS must bear responsibility, is over poor monitoring of project progress. This is a point repeated at several points in this report, as it is so fundamental to the assessment of effectiveness. We are also concerned about examples of poor coordination between Regional stakeholders. In particular the Ministries of Agriculture, and Bureaux of Cooperatives tend to be sidelined by the more powerful Bureau of Water Resources (in Tigray) or irrigation authorities (in the other Regions).

146. **Government ownership and learning**. The most encouraging feature of Government as a project partner has been the numerous examples which show that, despite re-organisations and staff turnover, the responsible institutions not only have a strong sense of ownership of the schemes within their boundaries, but they have also learned and modified their practices significantly over time. This was especially evident in Amhara, where biennial evaluations are undertaken of irrigation schemes within the Region, and in Oromia, where the practices developed during SCP I have evolved and been modified as the project has gone through its second phase. An appropriate rating for GoE and its agencies is difficult to determine, since it has varied over time, it varies from region to region and woreda to woreda, and it is very strong in some aspects and weak in others. An overall rating of GoE and its agencies is therefore rather meaningless. In terms of commitment at policy level, both to the rural sector and to SSI in particular, we rate GoE at 4 (on the scale of 1 to 4, with 4 being the highest). In terms of practical commitment – provision of financial and human resources to the project – we rate GoE lower, at 3. And in terms of monitoring of project achievements and coordination across stakeholders, we rate GoE at 2.

D. Performance of Non-Governmental and Community Based-Organizations

147. **NGO activities**. NGOs such as the Lutheran World Federation (LWF), World Vision, SOS Sahel, and Mekhane Yesus are also active in small-scale irrigation and rural development, sometimes in the same woredas as SCP II. In some cases NGO and other schemes are located side by side and some farmers may be beneficiaries of both schemes (e.g. farmers of SCP II Maze (SNNPR) also irrigate from an LWF scheme). There is generally good coordination by the Government in creating harmony and facilitating exchange of experiences (e.g. SCP I scheme Ella in SNNPR was rehabilitated with World Vision funding; SIDA plans to undertake major maintenance of the LWF Goha scheme neighbouring Maze). Such coordination goes a long way to avoiding duplication of effort, bringing equitable distribution of benefits and creating synergy. SCP II has no direct stakeholder involvement from NGOs.

148. **Farmer participation**. Participation of farmers is limited to discussions with the regional staff during the study phase and the contribution of labour during construction. Farmer input into scheme

design is minimal. Beneficiary farmers in Maze (SNNPR) explained that they had perceived the design of a community scheme as the mandate of the experts and did not dare to make suggestions, despite their experience of traditional irrigation. Farmers at Dobena (SNNPR), Hizaeti Afras (Tigray) and Nadi Gelan Sadi (Oromia) claimed that they had no input into scheme design whatsoever. Although farmers vocally raised concerns about the proposed design in Zatta (Tigray), they were told that they could not influence the design as they were "*not experts*". The result is that the uppermost weir has covered the eyes of the springs and redirected water back underground. With the disappearance of the water downstream, the farmers claim that only 77 households can now irrigate, compared to 200 who could irrigate before.

149. **Consequences of limited participation**. In the case of Zatta, lack of farmer participation in design has led to inappropriate design, loss of irrigated land and rejection of the scheme by farmers. In some cases, lack of farmer participation in design may be the underlying cause for disagreements over whether a scheme has been completed or not. In Gereb Kokhi (Tigray), farmers complained that the scheme has not been completed as the primary canals had not all been lined. The Regional authorities are not of the same opinion.

150. **Farmer participation in maintenance**. The WUAs interviewed generally considered themselves to be very effective in ensuring canal clearance. Some farmers have undertaken other minor maintenance works (e.g. plastering of concrete canals in Zatta, re-alignment of a canal damaged by a landslide at Burka Woldiya, Oromia). Numerous examples of maintenance activities by farmers (mostly clearing canals of silt and weed) were observed during this evaluation, and in no case was this as a result of farmers' prior knowledge of the visit of the evaluation team.

151. **Cash contributions by WUAs**. Collection of cash contributions was found to vary considerably and funds collected for maintenance are low (Table 12). Fees are not always considered to be for maintenance only. Funds collected in Laelay Agulae are intended for the construction of a store, farm tools and purchase of a vehicle. This appears to be more in line with a farmer cooperative than with the needs of a WUA, as is the payment of shares, which was found in several cases. When the cash sums listed in Table 13 are compared to the estimated annual maintenance costs in the AR[69] of USD75/ha (approximately EB750/ha), it is clear that WUA fees come nowhere near the real financial cost of maintenance and repair. Even acknowledging that most of this sum was expected to be provided in terms of farmer labour, and that only a small (unspecified) percentage would be needed in cash for repair of concrete or steel structures, it remains the case that WUA contributions are insufficient to cover such repairs[70].

Table 12. Some Examples of WUA Fee Collection to Date

Scheme	WUA members	Fee (EB)	Total collected (EB)
Nadhi Gelan Sadi	58	120 (share) + 20 (registration)	6,960 (shares) + 1,160 (reg.)
Hizaeti Afras	50	2	100
Gereb Kokhi		0	0
Laelay Agulae	106	5 (share) + 1 (reg.)	530 (shares) + 106 (reg.)
Chuhot	50	12	6,000
Adi Edaga		0	0
Maze		0	0
Ella (SCP I) Coop.		10 (annual membership) + 5 (reg)	Not known

Source: observations made during this evaluation and IE preliminary survey.

152. **WUAs and Cooperatives**. The issues of only partial membership of WUAs by the scheme beneficiary community and the possible implications of this for scheme maintenance have been discussed.

[69] Appraisal Report §107

[70] If 10% of this figure were to be needed in cash, then the annual cash sum to be raised for repairs would amount to EB5,700 for a scheme of average size of 88ha.

In many schemes, WUAs exist alongside irrigation cooperatives, the membership of which also comprises only some of the water users. In Zatta and Falla (both Tigray) 64% and 75% of the beneficiaries are members of the irrigation cooperative while in Nadhi Gelan Sadi (Oromia) the cooperative primarily comprised the WUA executive committee who were selling grain to the other farmers at a profit. In some schemes and Regions (e.g. Falla and Zatta in Tigray, and in East Hareghe, Oromia), the strategy is for WUAs to operate up to the completion of construction, and then for 'irrigation cooperatives' to gradually take over. Where both WUA and cooperative exist, there is significant room for confusion. The CPO is very clear about the need to establish irrigation cooperatives although in some cases, the promises (of credit, market access) made fail to materialise and thus simply end up encourage dependence. In view of the above, our rating of the Community-based Organisations (WUAs and cooperatives with which SCP II has direct involvement) is 2 (on a scale of 1 – low – to 4 – high).

A lined irrigation canal with problems of siltation (Gumera, Amhara). Siltation is caused by upstream soil erosion and weak soil management practices. Desiltation works and costs are often beyond the capacity of water users associations but within the reach of resources available to woreda bureaux.
IFAD photo by R. C. Carter.

E. Performance of Cofinanciers

153. **Irish Government (Development Cooperation Ireland (DCI))**. Grant funding of USD1.34m from the Irish Government was agreed in November 1998. This funding was allocated to "rehabilitation" (MTR §27) of an additional 600ha of traditional irrigation and establishment of an additional 1 200 women's vegetable gardens. Up to the date of the most recent UNOPS supervision mission (April 2004) only 17% of this grant had been disbursed. The same mission reported that one of the reasons for this low level of disbursement was that eligible expenditures had been debited to the loan account "due to ignorance on the part of the Regions." During the course of this evaluation, the focal point in the Irish Embassy was out of country on long term medical treatment, although a short meeting was held with a DCI's consultant for east and southern Africa who has a small supervision role. Due to the limited opportunity to evaluate the performance of DCI, no rating is given.

VII. OVERALL ASSESSMENT AND CONCLUSIONS

154. **Achievements and Performance**. The project's achievements are not well documented, and all stakeholders must share responsibility for the inadequacy of monitoring to date. Nevertheless, it appears that substantial progress has been made in the construction of SSI schemes – 49 schemes completed out of 58 planned. The project's achievements in the activities which fall under the agriculture component have been very limited, while those under the institutional support component have been mixed. We are particularly concerned about the limited achievements to date in the crucial areas of soil conservation and the establishment of women's vegetable gardens. The project is highly relevant to Ethiopia's need for

enhanced food security. It is consistent with both GoE policy and IFAD's strategic thrust. It has the potential to be highly effective and moderately efficient, although the full impact is unlikely to be experienced by target farmers before about 2010. Probably the main challenge to the achievement of the project goal of commercialising farming is the limited market for the vegetable crops which form the main thrust of the diversification strategy. Less capital intensive and less institutionally complex project approaches deserve further investigation, in the search for greater effectiveness and efficiency. We explore these further below.

155. **Impact and Sustainability.** SCP II has only started to impact user households. In most cases the SSI schemes are likely to bring significant benefits (in terms of crop diversity, yields, and incomes) to traditional irrigators and those new to irrigation, including a small number (to date) of women farmers. Conflicts and competition over limited dry season water resources are however already in evidence, and the impact of the SSI schemes is limited by this factor as well as that of low farm gate prices and limited market access. The soil conservation component of the project has potential to limit further loss of soil resources and protect irrigation infrastructure, although very little has been achieved so far in this area. The confused situation in relation to traditional water management organisations and 'modern' water users' associations and cooperatives needs to be resolved in a way which empowers and strengthens irrigation communities. Sustainability of irrigation schemes depends on simultaneously addressing a chain of inter-linked issues. In particular, the careful selection of sites for irrigation development; the facilitation of strong community social structures; an approach to study and design which fully acknowledges indigenous knowledge and practice; and post-construction support to communities; all need to be in place. There are weaknesses in all these aspects, any of which could undermine project sustainability.

156. **Partner performance and Overall assessment.** IFAD has been strong in terms of direct support to GoE, but weak in the management of supervision and technical assistance. Opportunities to initiate policy dialogue and donor coordination have not been taken. UNOPS has performed conscientiously within severe time constraints; the supervision process however has been poor. GoE has demonstrated strong commitment at the level of policy; less delivery in terms of ensuring adequate human resources at all times; and poor monitoring of activities and weak coordination among government stakeholders. The overall assessment is mixed: we would particularly highlight as strengths of the project the high degree of commitment and the positive attitudes of many individuals at the level of the PCU, the RPCUs, within the various regional government agencies involved, at woreda level, and among the many farming communities involved. Significant weaknesses exist in the processes of disbursement of funds; in the degree of joint (consultant-GoE) participation possible within the processes of Appraisal, MTR, technical assistance, supervision and evaluation; and in the priority given to non-engineering aspects of the project. Finally, we challenge several aspects of the original project design (especially its optimism about sustainability, crop yields, and the possibilities of commercialisation).

VIII. INSIGHTS AND RECOMMENDATIONS

157. **Part 1 - Extension of SCP II**. Expenditure of available funds, especially from the Irish grant and in the agriculture component, has been limited. Monitoring of project achievements has been weak. The project is due to complete in July 2005, with a closing date of 31st December 2005. It is unlikely that full expenditure and complete and accurate reporting can realistically take place by these dates. An extension of these dates by at least 12 months is recommended. If this is accepted, then a number of the issues raised below can be addressed even before taking any decision on future interventions.

158. **Participative processes for the formulation of next phase**. We recommend that planning begin as a matter of urgency, to define a third phase of the special country programme, in full consultation with those responsible for implementing Phase II. The general and more detailed recommendations which follow Table 14 relate to the content of the formulation activity. We urge that every attempt should be

made in future project formulation to make project design a fully participative process. The knowledge and experience which exists at Federal and Regional level of all aspects of project implementation should be utilised to the fullest extent possible. We recommend that a joint team of SCP II personnel, Ethiopian consultants, international consultants and IFAD personnel be assembled for the purpose. It is likely that formulation in this fashion will take longer than under present procedures, but the benefits in terms of realism of design and ownership of the outcome will be significant.

159. **Formulation – producing limited but necessary paperwork**. Large quantities of detailed prescriptive documentation, of variable quality and usefulness, simply gathers dust and fails to fulfil a useful function. We recommend the production of the minimum amount of paperwork, in formats which are agreed by all stakeholders to be necessary and useful for project management at various levels. Concise formats such as logframes which fulfil multiple necessary functions are to be encouraged.

160. **Formulation – produce a flexible project design and recognise the need for long-term programming** The project design should be sufficiently flexible to allow variation in approach from region to region, and evolution of approach over time, as better procedures are learnt by those implementing the project. Any future project addressing food security in Ethiopia through a package of small-scale irrigation and agricultural support components should recognise the long-term nature of such an intervention. The full adoption of the project by government, and the full realisation of the benefits by target groups of farmers may take as 10-12 years or more. Continuity of effort is needed to achieve expected outcomes.

161. **Formulation – producing procedures of sector-wide applicability**. Regions and woredas in food-insecure parts of Ethiopia have their own, and other donor-supported, programmes of assistance to small-scale irrigation. Any future project focusing on SSI should endeavour to the greatest extent possible to integrate with Regional, woreda and donor programmes, in order to simplify and strengthen programmes in this sector and move toward a sector-wide approach. Approaches vary, but the common goal of household and national food security is shared. We recommend a joint donor-stakeholder forum to share experiences across donor programmes, broaden the menu of options with a view to the possible development of a common approach within the sector.

162. **Part 2 - Insights – summary of conclusions from the Main Report**. Table 13 sets out in summary form the main points made at the relevant places in the IE (2004) Main Report.

Table 13. Interim Evaluation (2004) Insights

Issue	Chapter & Section
Project achievements are not adequately monitored. Identifying and quantifying the project achievements has proved extremely difficult. None of the stakeholders has accurate overall knowledge of project achievements to date. This information is needed for effective project management by Regions, PCU and IFAD.	III
Limited achievements in the agriculture component. The agriculture component of the project is severely under-spent. The limited activities in soil conservation, women's vegetable gardens, seed production, and extension services threaten to undermine impact on key target groups.	III
Little is known about traditional irrigation systems. It appears that many assumptions have been made about the weaknesses of traditional irrigation systems, without the foundation of detailed investigation and diagnosis. It may be that less capital-intensive interventions to improve traditional systems could have significant benefits, potentially spreading benefits more widely.	IV.A
Market for vegetables is limited. The assumption that there is a large accessible market for vegetables is questionable. Physical access to markets is challenging. Prices given by traders are very low. Purchasing capacity of rural populations in food-insecure woredas are extremely limited. High transaction costs limit the possibilities for exporting produce. Producer prices can be very low, unless farmers sell directly into the market (without middle-men).	IV.A V.A
There is a great deal of institutional learning to share. The experience gained by GoE and IFAD in SCP I and II puts both stakeholders in a very strong position to engage in dialogue over the outworking of policies in the areas of: food security, land and water management, coordination of Government agencies, cost recovery, and on-going support to communities. Little has been done in this area to date.	IV.A V.F V.I

The logframe is not used. An agreed, detailed and up-to-date logical framework (logframe) is an extremely useful management tool. SCP II's logframe is weak, incomplete, and not used.	IV.B
Long term commitment is needed. The impact of SCP II will only be fully realised if there is continuity of project activities over a minimum of 10-12 years. A six year project is too short to achieve significant impacts. It has taken until PY5 to reach a peak in irrigation scheme construction, and longer in the agriculture component. Benefits to farmers will take another 6-10 years to realise.	IV.B IV.C
Targeting at woreda level is good. The project is well targeted at woreda level, with 70% of SCP II irrigation schemes being located in food-insecure woredas.	IV.B
The appraisal assumptions were optimistic. Many optimistic assumptions were made in the economic analysis of the project at appraisal. In particular we highlight the high yields, high producer prices, low post-harvest losses, no water scarcity, and no maintenance costs assumed at appraisal.	IV.C
Modern irrigation development is sometimes flawed. Not all 'modern' irrigation development has benefitted all of the target farmers. Mistakes have been made in particular when engineers have ignored the knowledge or wishes of farmers, when hydrological assessments have been flawed, or where upstream developments have deprived schemes of water.	V.A
SCP II may have reduced grazing areas. SSI development, combined with area enclosures and re-afforestation, may have reduced grazing areas and livestock numbers in some cases. The impact of this on the environment, on financial assets, and on diet needs further investigation.	V.A
Insecurity of land tenure remains a matter of concern. Insecurity of land tenure, both within SSI schemes and outside, continues to be a widespread problem, of perception, and in reality.	V.A
Financial assets are increasing. Financial assets of irrigation farmers are rising, but slowly, because of the market problems raised earlier.	V.A
Access to credit is mixed. Access to credit by SCP II farmers is mixed. But low levels of usage of bought inputs (seed, fertiliser, pesticides, herbicides) limit the perception of this as a significant issue by farmers.	V.A
Extension services are of poor quality. The quality of extension work is low, and specific SCP II interventions such as demonstration plots and trial sites have limited impact.	V.B
Social organisation for water management needs to be resolved. Traditional water management organisations tend to be ignored in the establishment of 'modern' WUAs and cooperatives. This threatens the viability of the modern structures, and is disempowering. The stakeholder charged with responsibility for strengthening WUAs is only interested in promoting cooperatives. WUAs do not have legal status to enable them to operate a bank account and access credit. Neither WUAs nor cooperatives fully represent the water users farming within irrigation command areas.	V.C
Limited impacts on women farmers are nevertheless encouraging. Where the project has facilitated home agents at woreda level, and women within irrgation schemes, the initial results have been very encouraging. Much more remains to be done in this key area of impact.	V.C
Attitudes to commercial farming are changing. Irrigation farmer attitudes to commercialisation of crop production appear to be changing, and some of this change is attributable to the efforts of SCP II. Whether these changes will persist in the face of marketing difficulties faced by farmers, remains to be seen.	V.D
Crop diversification is taking place; yields are mixed. Crop diversification within SCP II schemes is occurring, but yields are variable from scheme to scheme. Some vegetable yields are still well below those assumed at appraisal, even for year one of production.	V.D
Irrigation households are eating more vegetables. Significant dietary intakes of vegetables appear to be taking place.	V.D
Soil erosion is a major environmental threat, and SCP II could have a major impact. Soil erosion threatens the viability of both rainfed and irrigated farming. SCP II includes a significant component of soil conservation work, but very little has been achieved so far.	V.E
Intensive multiple cropping in irrigation command areas will lead to soil degradation. Without specific measures to manage soil fertility, such as rotation including legumes, and use of fertiliser and manure, soil nutrients will be rapidly depleted.	V.E
There is limited evidence of the beneficial effects of area enclosures on natural vegetation.	V.E
Government re-organisation and decentralisation have limited the impact of the project. At woreda level, under-staffing, under-resourcing, and rapid turnover of staff are major issues.	V.F
Impact of the project on women is more likely to be achieved through targeted activities such as women's vegetable gardens, than through women's membership of WUA executives.	V.G
Vegetable cultivation increases labour requirements significantly.	V.G
The achievement of sustainability depends on site selection in relation to markets; establishing or strengthening sound social structures; study and design which takes account of local knowledge; and formal recognition of the need for post-construction support.	V.H
The project is innovative in its combination of irrigation, soil conservation, female-focused and institutional support activities. At the present level of capital-intensity, it is not directly **replicable** without continuing donor support. However, non-target farmers are already copying what they see, and developing new 'traditional' irrigation systems.	V.I

Downstream developments compete for water with those upstream, and already there is significant competition and sometimes conflict over limited water resources. We stress the importance of an approach based on integrated catchment planning, in order to limit and manage such conflicts.	V.J
The performance of IFAD and UNOPS has been limited by the shortcomings of brief foreign 'expert' inputs which place more emphasis on outputs than on process. The system prevents effective development of partnership, inter-dependence and joint ownership.	VI.A VI.B
The performance of Government has been mixed. Commitment at policy level has been high, while maintenance of staffing levels, monitoring and coordination have been weak	VI.C
Performance of community social organisations has been limited by the confusion over traditional water management structures, WUAs and cooperatives.	VI.D

Part 3 – Recommendations applicable to project implementation and content

163. **Policy dialogue.** Areas in which the project's experience on the ground could make a valuable contribution to national policies and institutional frameworks include at least the following: water resource management at catchment level (including use of permits and the application of legislation such as Proclamations 92/1994 and 197/2000); adaptation of national water resource policies and legislation to regional level; marketing and price regulations (protecting farmers from unscrupulous merchants); policies on water users' associations and so-called irrigation cooperatives; policies and practice relating to land title; and understandings and practices in relation to post-construction maintenance and rehabilitation. The project could take a highly constructive lead in future in facilitating debate and movement on these issues, all of which strongly affect the impact and sustainability of small-scale irrigation schemes.

164. **Institutional arrangements**. This project has experienced complex, and too frequently changing institutional arrangements. In light of the many organisational changes which have taken place, it is remarkable what the project has been able to achieve – despite, rather than because of, the location of organisational authority and the linkages and coordination between stakeholders. We now have major concerns about organisational changes in process at regional and federal level, and recommend that a careful and thorough internal review of the implications of these changes be set in train. Ways need to be found to avoid the loss of institutional learning and experience built up now over many years, and incorporate it into future project implementation.

165. **Social organisation**. The wide variety of approaches taken in this project toward traditional water management structures, WUAs and cooperatives speaks as much of the variety of perceptions of these organisations as of the site specific needs. Within the project as a whole there is a great deal of confusion, created by lack of respect for farmers' traditional structures, the 'modern' belief in a standardised WUA, and the dogmatic promotion of cooperatives. We do not promote a single solution to this complex situation, but our recommendation is for regional and national debate and experience-sharing on the subject, and a high degree of flexibility in the solutions developed in different places and at different times.

166. **Catchment planning and development**. It is essential that any individual irrigation scheme is appreciated in the context of the entire catchment in which it lies. This is important from the point of view of water resource evaluation, of the assessment of soil and water conservation requirements and of the prevention and resolution of conflicts between user groups. At least one of the SCP II regions sets its scheme study and design (feasibility study) process in the context of a database of water developments in the entire catchment. This good practice should be extended to those which at present treat each scheme as an isolated entity.

167. **Consolidation and component balance**. In the early days of water sector infrastructure projects, it is common for more emphasis to be placed on physical construction than on supportive actions to extend impact and ensure sustainability. SCP II is no exception to this general rule. It has been more convenient for funds to be focused on construction expenditure by the regional irrigation authorities than to disburse money to other stakeholders such as the Bureaux of Agriculture and Cooperatives, and the woredas. We recommend that this imbalance be re-dressed in any third phase, with greater expenditure on agricultural

support activities, soil conservation, women's gardens, and woreda level institutional support. We also recommend consideration of a higher level of expenditure on market access roads.

168. **Financial aspects**. The project can only move as fast as its cash flow. Some regions find the revolving fund ceiling very low especially during peak construction periods. The system of settling accounts after disbursement is also found to be cumbersome, time consuming and inefficient. Individual receipts have to be collected from remote woredas and carried to the regions, from which in turn they are taken by an accountant in person to Addis Ababa after consolidation. Accountants who take receipts to regional offices for settlement go back to their centers many kilometers away to do their accounting work all over again in cases where errors are observed in filling forms. Informants in the regions feel that the IFAD system has to be improved, perhaps in line with the simpler procedures of some other donors. We recommend a detailed analysis of present procedures, with the aim of simplification. The pool system of accounting at regional and woreda level creates unnecessary difficulties. The new AfD system[71] has much to recommend it, and IFAD should explore this further.

169. **Personnel and learning**. There is significant turnover of staff at regional and woreda levels, resulting in a need for frequent staff orientations. Recognising this reality, the project should conduct orientation workshops for new staff, perhaps as often as every 6 months. More generally, there is great value in shared learning, such as that which took place at the August 2004 workshop in Adama (Nazaret). Such workshops should become regular annual events. Further learning at regional and national levels could be brought about by the establishment of policy fora in which key issues of policy and strategy could be discussed.

170. **Scheme audit**. Few consolidated data exist on the SCP II schemes constructed to date, and even less on the phase I schemes. All regions made an undertaking at the Adama workshop to compile profiles for their SCP II schemes. One region (Amhara) already undertakes a biennial review of a sample of schemes (non-IFAD) under its care. We recommend that all IFAD Phase I and II schemes be properly catalogued, and that these profiles be regularly updated. If such an exercise could be extended to non-IFAD schemes, to provide regional databases, this would greatly extend the baseline and monitoring data on which future decision-making rests.

171. **Participative planning process**. The criteria by which scheme locations are selected are not fully clear, and not necessarily the best to ensure impact and sustainability. We recommend the establishment of a participative process, involving all relevant Regional and woreda level stakeholders, to develop clear scheme selection criteria based on need, institutional capacity, and likely viability. Woredas appear to have little or no involvement in scheme study and design. We therefore further recommend the full involvement of woreda personnel in the study and design process, with more flexibility than at present in the balance of project components at any particular site. Farmer involvement in scheme planning and design is still limited, and so we press for the adoption of more fully participative processes of planning and design, in which all professional disciplines are trained and to which they are committed. One thrust of such approaches could focus on minor (low-cost) improvements to traditional irrigation which are able to significantly improve performance for water users.

172. **Construction, maintenance and rehabilitation**. We are aware of several cases in which initial construction budgets have been insufficient to complete schemes. In most regions, scheme repairs and maintenance (which are beyond the capacity of farmers, but are relatively minor for the irrigation authorities) are carried out routinely by the regional authorities. In other cases, true rehabilitation (major reconstruction/repair, often with social re-organisation) is carried out. In all these instances, funds may be obtained from SCP II surplus construction funds, from non-IFAD regional sources, from NGOs, or from funds specifically designated for "rehabilitation". While this situation demonstrates the commitment and the flexibility of the regional authorities, it gives rise to two areas of confusion: first, in establishing what is the true investment cost in a particular scheme; and second, in classifying as "rehabilitation" activities

[71] Which uses payment certificates rather than receipts.

which really constitute minor maintenance. In particular we urge the realistic recognition by both IFAD and regional authorities that regular (annual) minor maintenance is needed, and that this should have clear and transparent planning procedures and an adequate (and increasing) budget line. Long-term support is a necessity, not an option.

173. **Reporting, M&E, information flow and documentation**. Quarterly reports from the regions are not presented in a consistent manner, and lack rigorous analysis and reflection. In order to ensure transparent information flows, the reporting structure and content require review. A number of implementation documents exist (including Appraisal, Project Implementation Manual, Operating Manual, Financial Manual, Supervision Reports, Mid-Term Review). Given the sheer volume of material, it is unsurprising if these documents are not fully internalised or extensively used for project management. This problem is exacerbated by staff turnover. We recommend that the Project Coordinator and Regional Coordinators meet to design a simple progress reporting structure, especially to fulfil the requirements for imminent end-of-project reporting.

Federal Democratic Republic of Ethiopia
Special Country Programme, Phase II (SCP II)
Interim Evaluation
Appendices

Appendix I: Implementation Results

Table 1 Project targets as set out at Appraisal, MTR, and in UNOPS Reports

Project Components/Activities	**Appraisal**		**UNOPS 2000; 2001**		**MTR**		**UNOPS 2003; 2004**	
	Unit	**Target**	**Unit**	**Target**	**Unit**	**Target**	**Unit**	**Target**
Small-scale Irrigation (SSI)								
Reconnaissance study			Added in 2003				No	62
Construction of schemes (number)			No	62	No	40	No	55
Construction of schemes (area)	ha	5,300	Not included		ha	5,190	Not included	
Detail design and study work			No	62	No	40	No	55
Rehabilitation of SCP-I			Added in 2003		Added in 2003		No	17
Training								
Foreign long term	Included below		Added in 2003		Added in 2003		No target given	
Foreign short term	Included below		Added in 2003		Added in 2003		No target given	
Local long term	Included below		Added in 2003		Added in 2003		No target given	
Local short term	Included below		Added in 2003		Added in 2003		No target given	
Maintenance of existing irrigation projects			No	20	Added in 2003			
Canal Maintenance			km	124	Added in 2003			
Farmers Training			No	6,000	Reorganised to Water Mangt at MTR			
Training of Cooperative promoters			No	112	Added in 2003			
Water Management			This was added by MTR					
Establishment & Reg. of WUA for SCP II			No	62			No	55
Strengthening of WUA for SCP I			Added in 2003		Added in 2003		No	17
Training								
Local Training								
Staff/trainers			Added in 2003		Added in 2003		No	36
Staff Training			Added in 2003		Added in 2003		No	114
WUA leaders training			Added in 2003		Added in 2003		No	670
Farmer field visits			Added in 2003		Added in 2003		No	245

Irrigation agronomist			Added in 2003		Added in 2003		No	2,460
DAs			Added in 2003		Added in 2003		No	990
Irrigation farmers			Added in 2003		Added in 2003		No	13,797
Overseas training								
Long term training			Added in 2003		Added in 2003		No	no target
Overseas study tours			Added in 2003		Added in 2003		No	13
Agricultural Component								
Training of DAs			No	570			Reorganised in 2003	
a) agricultural support								
establishment of trials and operation	No	100					No	67
demonstration	No	300					No	201
training								
local training								
bureau and zonal agronomist	md	540	No	720			MD	810
training of irrigation agronomist			No	1800			Reorganised in 2003	
woreda agronomist	md	60					MD	7,140
DAs	md	30					MD	2,310
irrigation farmers	3 days per benef.		No	6721			MD	30,856
foreign training								
Long term irrigation agronomy	No	4					No	4
Short term	No target given						No	9
b) Soil Conservation								
Site Selection for soil conservation			No	40			Reorganised in 2003	
Alley cropping	1/2 ha	100	No	No target			Reorganised in 2004	
Nursery Site establishment and operation	1 per selected zone		No	62			No	11
bund construction	km	6,000	Km	6,000			km	6,000

bund stabilisation			No target given				km	6,000
check dam construction			Added in 2003				km	no target
0.5 ha demonstration			Added in 2003				No	55
conservation based trials	No	6	No	40			No	6
conservation based demonstration	No	100	No	62			No	99
construction of nursery store			Added in 2003				No	11
construction of treshing floor			Added in 2003				No	11
construction of fence			Added in 2003				No	11
Training								
MSc Local	No	4	Added in 2003				No	6
DAs	No target given		Added in 2003				Md	700
Farmers	No target given		Added in 2003				Md	2,775
c) vegetable seed production								
Construction of storage stores			No	62			Removed in 2003	
seed production								
government site			Added in 2003				Site	no target
farmers plot			Added in 2003				Site	no target
construction of diffused store			Added in 2003				No	no target
construction of fence			Added in 2003				No	no target
SSDP training			Added in 2003				mm	no target
d) rural women								
Site Selection for vegetable gardens			No	40			Removed in 2003	
vegetable production (garden)	No	1,200	Added in 2003				No	2,400
training								
home agent	women	4000	Not included				Wd	2,772

rural women	women	8000	Not included				Wd	4,604
Capacity Building/Co-ordination								
Consultant selection			No	12			No	12
Project steering committee meetings			No	12			No	12
PCU meetings			No	72			No	72
RTPCU meetings			No	72			No	72

Table 2 UNOPS 2004 Performance Report (Annex 1-D)

PROJECT COMPONENTS OR ACTIVITIES	UNIT	TARGETS		ACHIEVEMENTS			%	REMARKS
		TOTAL PROJECT	AWPB 2003/2004	AWPB 2003/2004	TOTAL PROJECT			
I. Small-scale Irrigation (SSI)								
Reconnaissance Survey	No	62	0	0	62	(62) **1**	100	
Detail design & Study	No	55	0	0	55	(55)	100	
Construction of new and traditional schemes	No	55	30	21	31	(10)	56	Construction work of the projects at different stages of completion
Rehabilitation of SCP-1 Projects	No	17	-	-		(-)	-	
Training								
Foreign Long Term	No	-	4	4	11	(7)	-	
Foreign Short Term	No	-	-	0	7	(7)	-	
Local Long Term	No	-	3	4	6	(6)	-	
Local Short Term	No	-	20	20	20	(-)	-	
II. Water Management								
Establishment and registration of WUA for SCP II Project	No	55	8	8	55	(47)	100	Registration and Legalization work not undertaken
Strengthening of WUA for SCP I Projects	No	17	6	6	17	(11)	100	
Training								
Local Training								
Staff/Trainers	No	36	5	5	36	(31)	100	
Staff Training	No	114	0	0	114	(114)	100	
WUA Leaders Training	No	670	363	241	325	(325)	49	
Farmer Field Visits	No	245	30	-	30	(-)	12	
Irrigation Agronomist	No	2460	-	-	-	(-)	-	
DAS	No	990	-	30	40	(20)	4	
Irrigation Farmers	No	13797	4000	595	2000	(1405)	14	
Overseas Training								
Overseas Study Tours	No	13	6	-	5	(3)	38	
III. Agriculture Component *								
a) Agriculture Support								
Establishment of trials and Operation	No	67	26	7	20	(13)	30	
Demonstrations	No	201	40	13	100	(87)	50	
Training								
Local Training								
Burean & Zonal Agronomist	MD	810	388	90	90	(90)	11	Only data from SNNPR,
Woreda Agronomist	MD	7140	2570	200	200	(200)	3	no data from 3 other
DAs	MD	2310	981	55	55	(55)	2	regions
Irrigation Farmers	MD	30856	14233	9100	10000	(914)	32	
Foreign								
Long Term Irrigation Agronomy	No	4	4	0	1	(1)	25	
Short term	No	9	-	0	10	(10)	100	
b) Soil Conservation								

PROJECT COMPONENTS OR ACTIVITIES	UNIT	TARGETS		ACHIEVEMENTS			%	REMARKS
		TOTAL PROJECT	AWPB 2003/2004 **2**	AWPB 2003/2004 **2**	TOTAL PROJECT			
Nursery sites establishment and operation	No	11	11	5	15	(15)	136	
Bund Construction	Km	6000	600	126	356	(356)	6	
Bund Stabilization	Km	6000	600	126	356	(356)	6	
Check Dam Construction	Km		8	38	38	(38)	-	
0.5 ha Demonstration	No	55	31	8	8	(8)	15	
Conservation based trials	No	6	6	1	1	(1)	16	
Conservation based demonstration	No	99	59	3	3	(3)	3	
Construction of nursery store	No	11	9	-	-	(-)	-	
Construction of threshing floor	No	11	9	-	-	(-)	-	
Construction of fence	No	11	9	1	1	(1)	9	
Training								
MSc Local	No	6	0	0	2	(2)	33	
DAS	MD	700		0	40	(40)	6	
Farmers	MD	2775	1079	0	75	(75)	3	
c) Vegetable seed production								
Seed Production								
Government Site	Sites	-	6	6	12	(6)		
Farmers Plot	Sites	-	-	0	15	(15)		
Construction of Diffused Store	No	-	6	0	1	(1)		
Construction of fence	No	-	6	0	6	(6)		
SSDP Training	mm							Information not available
d) Rural Women								
Vegetable Production (Garden)	No	2400	1000	372	455	(455)	19	
Training								
Home Agent	Wd	2772	675	410	495	(495)	18	
Rural Women	Wd	4604	1484	458	610	(610)	13	
IV. Capacity Building/co-ordination								
Consultant selection	No	12	2	2	8	(8)	66	
Project Steering Committee Meetings	No	12	2	2	10	(8)	83	
PCU Meetings	No	72	12	6	54	(48)	75	
RTPCU Meetings	No	72	12	12	60	(48)	83	

* The 2002/2003 achievement for agriculture doesn't include the Amhara region data

1. Figures in brackets are UNOPS reported cumulative totals in UNOPS 2003
2. Column heading in UNOPS 2004 is 2002/03 (corrected here)

Table 3. Targeting of SCP II irrigation schemes according to food insecurity

Region	Zone	Woreda	Vulnerability class (5 is most vulnerable, 1 is least)[81]	Number of SCP II irrigation schemes
Tigray	Central	Kola Temben	5	2
		Mereb Leke	5	1
	East	Wukro	4-5	3
	South	Hintalo Wajirat	4	7
		Enderta	4	1
		Alamata	2	4
		Endamehoni	4	2
		Ofla	5	3
		Raya Azebo	4	1
		Samre	4	1
		Degua Temben	5	1
Amhara	South Gonder	Este	4	2
		Fogera	4/5	3
	South Wollo	Legambo	4/5	2
		Kalu	5	1
	North Shoa	Angolela Terena	1	2
		Kewot	2	4
		Basona	?	1
	East Gojam	Libokemker	2	1
		Bibugne	2-3	1
Oromia	East Shoa	Fentale	1	1
	Bale	Mena Anget	3	1
		Barbare	3	2
	Borena	Adola & Wadera	4	1
	East Harerghe	Deder	5	2
		Jarso	4-5	1
SNNPR	North Omo	Kemba	4	1
		Sodo Zuria	5	1
		Gofa Zuria	5	1
	Gurage	Meskanena	4	1
	Hadiya	Konteb	2	1
	South Omo	Kuraz	4	1

Source: SCP II project data, analysed in this evaluation.

[81] There are likely to be a few innaccuracies in this table because of the difficulty in placing specific woredas precisely on the vulnerability map. However the overall conclusions drawn are thought to be reliable.

Table 4 Benefit assumptions at appraisal

Assumptions made at appraisal concerning benefits	Comments from this evaluation
Irrigated farm size 0.25ha; 80-90% of irrigated vegetable crops are sold.	Irrigated plot sizes vary, above and below 0.25ha. Average for ten SCP II farmers interviewed was 0.51ha. Interviews further revealed that 67% of their vegetable and fruit production was sold in 2003/04.
Labour requirement for vegetable production 304-364 days/ha including scheme operation and maintenance.	Interviews with 10 irrigation farmers gave a typical labour estimate of 170 days/ha, assuming oxen are available to rent.
Gross margin of irrigated production at mid altitude EB1,104 in year one, rising to EB2,140 in year six; gross margin at low altitude EB1,769 in year one rising to EB2,694 in year six.	Estimates of gross margin for combined rainfed and irrigated production, for ten SCP II farmers on mid and low altitude schemes, assuming 0.25ha irrigated land, averages EB1,177.
Yields of tomato, potato, onion respectively 100, 100, 120qt/ha in year one rising to 150, 150, 160qt/ha in year six.	Present yields reported by farmers interviewed in pre-mission survey are respectively 64, 60, 41qt/ha. All schemes around 3 years old.
100% of command area cropped in dry season.	Water shortages in many schemes prevent this.
20% post-harvest losses	Unlikely to be so low, especially given the marketing difficulties experienced.
Fertiliser usage (urea and DAP) 1.0-1.5qt/ha, varying with crop.	Ten farmers on 8 SCP II irrigation schemes use 0.8qt/ha on average for both their irrigated and rainfed plots.
Irrigation scheme construction peaks in project year 2.	Construction will have peaked in year 5.
All irrigation scheme maintenance is undertaken by farmer labour.	Some external support is needed (and provided) for maintenance tasks which are beyond the farmers' capacity.
Soil conservation bunds require no maintenance or rehabilitation after construction.	A very questionable assumption.
Cereal yield loss avoided by soil conservation measures amounts to 0.12t/ha; cereal prices EB450-800/t	Average long term monthly producer prices for cereals have varied EB100-200/t for teff, and EB50-150 for the others, according to FAO.
Vegetable yields in women's gardens are 50% above those assumed for larger (men's) farms	We have no evidence to support or challenge this (optimistic) assumption.
Women's vegetable gardens all lie outside of command areas, and yet labour requirement for irrigation is unchanged.	Many lie within scheme command. Those outside command necessitate carrying water by hand – a very labour-intensive operation.

Sources: farmer interviews in pre-mission survey and main mission.

Appendix II: Approach Paper

Approach Paper for the Interim Evaluation of the Special Country Programme Phase II, Loan no. 438 ET in the Federal Democratic Republic of Ethiopia

I. Rationale and Objectives of the Evaluation

1. In 2004 the Office of Evaluation (OE) of IFAD will conduct an *Interim Evaluation* of the Special Country Programme Phase II (SCP-II) in Ethiopia.[82] The programme is due to close in 2005 and both the Government of Ethiopia and IFAD have expressed interest for a third phase. The rationale for the evaluation is to assess project effectiveness and impact and derive insights and lessons from this experience to be taken into account in designing a third phase. More specifically, the objectives of the evaluation will be to:

(i) assess the relevance of project objectives to the rural poor, the extent to which these objectives were achieved and the efficiency of the intervention;
(ii) assess the intended and non-intended impact of the project on rural poverty and the prospects for sustainability of these impacts;
(iii) assess the implementation experience, identify successful approaches and the potential for replication / upscale, trace difficulties encountered and the means used to address them and draw lessons out of this experience;
(iv) assess the performance of partners involve in the project design and implementation.

II. Country and Project Background

The Country

2. The Federal Democratic Republic of Ethiopia is a land-locked country with a total area of km^2 1.1 million, of which 29% is classified as agricultural land. Only 1.7% of the land defined as "arable and under permanent crop" is irrigated (FAO 2001). The estimated population size is 70.7 million people, of which 84% rural, growing at an annual average of 2.3% (1990-2001). The large share of rural population is paralleled by a comparatively large agricultural sector which accounts for 53.2% of the GDP (WB 2003). The country has been a theatre of a civil war from 1975 to 1991. The end of the conflicts and the implementation of economic reforms have marked an improvement in the growth of the GDP while inflation has been progressively brought under control. With an average per capita income of USD 121, the country is classified as one of the poorest in the world.[83] Taking into account life expectancy, GDP per capita and the status of education, Ethiopia was ranked 169th out of 175, according to the 2003 UNDP Human Development Index.

IFAD's Interventions in the Ethiopia and Basic Programme Features

[82] According to the Evaluation Policy of IFAD, an *Interim Evaluation* is a mandatory exercise undertaken at the end of a given programme phase, before the approval of the next phase. The Evaluation Policy of IFAD can be freely downloaded at: http://www.ifad.org/evaluation/policy/index.htm

[83] Estimates of poverty rates (headcount) according to monetary indicators are respectively 82% (based on and $1 per day) and 44.2 (based on a national poverty line, UNDP 2003). This is also reflected by low nutrition security, as measured by anthropometric indicators: the prevalence of stunting (low height-for-age in children 0-5 years) is estimated at 51.5% (WHO 2000).

3. Since 1980, IFAD funded eleven projects and programmes in Ethiopia (of which five ongoing as of May 2004) with a total commitment of USD 159 million. The latest country strategy document, the Country Strategy Opportunities Paper (COSOP) was prepared in 1999.[84] The Special Country Programme II was approved by the Executive Board of IFAD in 1996, declared effective in 1999 and initially scheduled for completion in 2003 (changed to December 2005, as per the Mid-term Review).[85] The programme appraisal estimated the total programme costs at USD 31.9, to be funded by IFAD (USD 22.6m), the Government of Ethiopia (USD 6.2m) and the beneficiaries (USD 3.1m in labour contribution). UNOPS was selected as the Cooperating Institution, in charge of the programme Supervision. In 1998, the Government of Ireland provided a supplementary grant, equivalent to USD 1.3m to support the development of small-scale irrigation schemes and strengthen the role of women in irrigated agriculture.

4. The AR stated that the ultimate objective of the programme was to improve the magnitude and the reliability of incomes and food security of farming families in the programme regions by institutional capacity building, irrigation development and improved agricultural services. The programme comprises three main components: (i) the development of small-scale irrigation schemes (furrow and basin irrigation, with permanent diversion structures and gated head regulators to replace traditional diversions); (ii) agriculture and soil conservation interventions (stabilisation of bunds, women's vegetable gardens, seed multiplication); (iii) institutional support for the programme co-ordination unit at the central level, regional and sub-regional implementing bureaux and a community development fund to support marketing infrastructure. The programme was to reach about 21,000 farm households and to develop 5,300 ha of irrigated land (later increased to 6,090ha, with additional funding from the Government of Ireland). The development of irrigation schemes represented and still represents a priority for the Ethiopian Government which targeted the development of 275,000ha of irrigated area between 2002 and 2016, of which 127,000ha of small-scale schemes.[86]

III. Evaluation Approach and Methodology

Key Evaluation Questions

5. The evaluation will follow the IFAD Evaluation Policy and the IFAD Methodological Framework for Programme Evaluation.[87] The latter outlines the main questions and criteria for the evaluation of IFAD's programmes and provides a rating system. The main objectives of the Framework are to standardise evaluation criteria among programme evaluations, systematise impact assessment, and facilitate the consolidation of findings, insights and learning of several evaluation exercises. The framework is articulated in three main blocks: 1) the programme's impact on rural poverty, 2) the performance of the programme, and 3) the performance of programme partners.

6. The evaluation of the **impact on rural poverty** will encompass six domains of programme impact (when applicable to the programme): (i) household assets (physical and financial), (ii) human assets (education and health), (iii) social capital (people's organisations, social network and empowerment), (iv)

[84] The COSOP emphasised the priority to sector-wide development programmes, in line with national strategies (the Agricultural Development Led Industrialisation), in particular: (i) the development of efficient rural financial services, (ii) the rehabilitation and expansion of cost-effective farmer-owned and managed small-scale agricultural irrigation systems and (iii) agricultural diversification and the development of marketing opportunities. All these areas were also mentioned as priorities in the 2002 Poverty Reduction Strategy Paper.

[85] The former phase of the SCP (the SCP I) was closed in December 1996 and was evaluated by the Office of Evaluation of IFAD in 1995.

[86] See the Water Sector Development Programme Quoted in the References (p.9).

[87] IFAD Methodological Framework for Programme Evaluation (MFE p.2). The document can be freely downloaded at: http://www.ifad.org/gbdocs/eb/ec/e/34/EC-2003-34-WP-3.pdf

food security, (v) environment and natural resources and (vi) institutions and policies. Over-arching factors to be considered across these domains are: sustainability, innovation / replicability and scaling up, and gender and women empowerment. [88]

7. The above will require some analysis at the macro, meso (scheme / water users association) and micro (household) level. First, the evaluation will review the policies and the regulatory framework in the small-scale irrigation sub-sector at the national level, the extent to which they were providing "compatible incentives" to enhance the performance of the programme, the consistency of the programme design to the existing policies and strategies in the rural sector, and, conversely, the programme's contribution to the sub-sectoral policies (i.e. the changes that it induced at the national policy level and its coordination with programmes supported by other donors).

8. Second, the evaluation will focus on the organisations at the village level supported or created by the programme (meso-level), such as the water users associations (WUAs). The evaluation will assess to what extent the investment in "social capital" has been instrumental to improve equitable, efficient and sustainable access to water for irrigation and communities' increased awareness and capacity to address poverty and local scarcity of resources. In particular, concerning WUAs, the issues to be considered will comprise: (i) the effectiveness of their governance structure (motivation and legitimacy of management committees, their ability to diagnose and respond to needs and problems, conflict prevention and resolution) (ii) their outreach (breadth, poverty depth, women's participation), (iii) the services offered (and their relevance / acceptance to the members, (iv) their financial sustainability (capacity to cover recurrent and rehabilitation costs, through the collection of fees), (v) efficiency in the management of natural renewable resources (e.g. optimising the use of water, even in the absence of water prices).

9. The issue of economic "externalities" requires consideration. This issue relates to the (uncompensated) effects of water extraction on other users. In particular, this pertains to the extraction of water by upstream users, which can reduce the flow into the scheme, and to the lower availability of water for traditional users downstream due to extraction by members of the WUA. In both these cases, the use of water may be socially sub-optimal and raise potential conflicts. For these reasons and to the extent possible, impact and efficiency in water use should not be considered only within a given scheme but along the river basin.

10. Third, the evaluation will study the changes in households' welfare that can be attributed to the programme.[89] The methodological framework contains a set of impact questions. Some of them can be contextualised as follows:

- To what extent has the programme been effective in reaching very poor households? Issues of horizontal (i.e. relative poverty of targeted communities, vis-à-vis non-targeted ones) and vertical (relative poverty of households reached within the communities where small-scale irrigation schemes are located) may need to be considered.
- Did the process of identification of users' communities and households involve a sound participatory assessment of needs, existing social networks, so as to reduce intra and inter-household conflicts and strengthen the existing social capital?
- Did the programme promote the appropriate (low cost and risk and seasonally relevant) irrigation services and agricultural technology and extension services and did it propagate them in an effective

[88] A complete list of impact questions is provided in the MFE.

[89] With very few exceptions, the contribution from an individual programme is only partially separable from other changes generated by other interventions in adjacent areas or from other transient or structural changes in the local socio-economic context. In spite of this inevitable and universal limitation, it is expected that some "weight" could be attributed to the implementation of SCP-II.

manner? Did it build upon traditional / local knowledge and was it compatible with locally available resources (labour force, soil characteristics, manure etc.)?
- Did the programme contribute to improved access to additional ancillary services (financial services, storage facilities, information on markets and linkages to markets and traders)?
- Was the programme effective in enhancing the diversification of income sources and in improving risk management strategies and intra-annual consumption smoothing across seasons (e.g. expenditures, food security)?
- Did the programme initiate a process that was conducive to a better management and conservation of partially renewable resources?
- Are there any essential services (e.g. health / potable water) currently not provided by the programme, that could be added at limited costs?

11. Across these impact domains, the mission will examine how the programme contributed to women's empowerment and enhanced gender equity and intra-household resource distribution.

12. The evaluation of the **programme performance** will involve the assessment of (i) the relevance of the programme's objectives (i.e. were they consistent with the needs of the rural poor, did they focus the "right" priorities or did they adapt to changing priorities?), (ii) the effectiveness of the intervention (were the major objectives reached at the time of the evaluation?) and (iii) the efficiency (to what extent did the programme achieve, or is expected to achieve, benefits that are commensurate to inputs, based on costs of alternative options and good practices?) to be measured in terms of cost of service provision per household but also with some analysis of economic internal rates of return for a sample of schemes and (iv) the sustainability of the programme (the foreseen capacity to provide services to the intended users after its official closure).

13. The latter issue would comprises the following inter-related notions: (i) the technological dimension (e.g. the rate of obsolescence / depreciation of the irrigation infrastructure), (ii) the capacity of management committees of WUAs to maintain high level of motivation and enforce rules among members, (iii) the setting up of mechanism to negotiate and settle disputes over the use of water with other (upstream and downstream) communities of users, (iv) the capacity of WUAs to continue raising adequate financial resources to cover maintenance / rehabilitation costs, (v) the adoption of medium / long-term soil conservation practices to maintain fertility and control the risk of siltation and salinisation, (vi) the elaboration of an exit strategy to progressively reduce the reliance on public service for the provision of inputs and extension services and support to market access.

14. The evaluation of the **role of partners** will analyse to what extent IFAD, the programme implementation agencies ensured a sound programme design, facilitated stakeholder participation, effectively supported implementation, and provided for participatory evaluation, learning partnerships and adoption of lessons. Attention will be given to the assessment of the supervision provided by UNOPS in terms of: (i) timeliness and frequency of supervision missions, (ii) mix of expertise and analytical skills, (iii) balance in the attention devoted to the monitoring of procedural requirements (e.g. procurement and audit), of physical outputs and the assessment of impact achievements, (iv) adequacy of geographic coverage, (v) effectiveness in formulating and following up recommendations.

IV. Partnership Involved

The "Core Learning Partnership"

15. IFAD's Evaluation Policy, while underscoring the need for independence, recognises the importance of adequately involving the main stakeholders throughout the evaluation process. This is fundamental in order to ensure full understanding by the evaluators of the context, the opportunities and constraints faced

by the implementing organisations, fully engage the stakeholders in a fruitful collaboration and facilitate the discussion of the recommendation and their adoption by the concerned stakeholders. In order to do so, the evaluation will first identify the stakeholders to be involved in the evaluation process in order to form a "core evaluation partnership", the main users of the evaluation.[90]

16. It is proposed that the core evaluation partnership would include representatives of: (i) the Ministry of Water Resources (Vice-Minister), (ii) the Ministry of Finance (Multilateral Cooperation Department), (iii) the SCP-II Coordination Unit at the central level, (iv) the four regional Coordination Units, (v) Ireland-Aid Office at the Embassy of Ireland in Addis Ababa (Agriculture and Natural Resources Advisor), (vi) UNOPS-Nairobi, (vii) the IFAD Division for Eastern and Southern Africa, (viii) the Office of Evaluation of IFAD.[91]

17. A proposed time schedule of the evaluation process and interactions with the core learning partnership is presented below (Table 1). First, the Office of Evaluation will prepare and send a draft approach paper, outlining the main evaluation questions, the methodology and process, to the core and broader partnership members for their comments (June 2004). Second, an evaluation team will visit the country and interact with local stakeholders in the capital and in the field (September-October 2004). In particular, the team will hold a meeting with key partners to illustrate the evaluation's objectives. The implementing agencies and the programme management will be asked to present a self-assessment of the programme's performance, highlighting the implementation progress, the information available (and their sources) on the programme's impact, the constraints experienced during the implementation as well as future scenarios to ensure impact and sustainability.[92] The Office of Evaluation will provide in advance guidelines for the self-assessment to the implementing agencies and the programme management.

18. The evaluation mission will then visit SCP-II sites in the four Regions. At the end of the mission, the first findings from the field will be presented to the members of the core and broader partnership in a wrap-up meeting and a short written document summarising these findings (the "Aide Mémoire") will be circulated (October 2004). The mission will then prepare a draft main report and a set of technical annexes which will be distributed to the members of the core and broader partnership for their comments (December 2004).

19. As a final step, a one-day workshop will be organised in the Ethiopia to lay the ground for the preparation of the "Agreement at Completion Point" (February 2005). The latter illustrates the core partnership members' understanding of the evaluation findings and recommendations, their proposal to implement them and their commitment to act upon them.[93]

V. The Process

20. The evaluation's analysis will be based on:

a. desk review of the available programme documents and socio-economic literature;

b. the review of the self-assessment exercise conducted by the programme

c. the collection of primary data (quantitative and qualitative).

[90] See the IFAD Evaluation Policy, p.9, paragraph 33.

[91] Other actors, such as organisation with experience in support to small irrigation technology (for example the International Water Management Institute) will be kept informed of the evaluation process and results.

[92] It is expected that the self-assessment prepared under the Thematic Evaluation on Decentralisation (aligned to the MFE), perhaps with some adjustments, would be used for the purpose.

[93] IFAD Evaluation Policy, p.11.

21. In particular, the Office of Evaluation of IFAD is planning to field a mini-survey in three to four schemes which have been operated for at least three consecutive years. The choice of the "maturity" of the schemes is justified by the need to better assess impact and capture the improving knowledge of water management issues within the communities. The survey will comprise a qualitative "beneficiary self assessment" component (focusing on the functioning of the local WUAs and their relationships with upstream and downstream users) and a quantitative one (household level questionnaire with a sample size of 50 – 70 households per scheme), to better assess household-level impact on WUA members and water users in adjacent communities. The exercise will be carried out by a local rural sociologist and quantitative data will be analysed through standard descriptive and inferential analysis by a local statistician. The exercise is expected to lead to a more accurate rating of the project's impact.

22. As a next step in the process, IFAD will be fielding an evaluation mission, with national and international specialists, comprising: (i) a mission leader (water management and irrigation specialist), (ii) a community water management and WUA specialist, (iii) an agricultural systems and soil conservation specialist, (iv) an agricultural economist and marketing specialist (with experience in M&E systems and rural finance). The mission members will be assisted by the rural sociologist in charge of the preliminary survey. The mission will also interact with local irrigation engineers during the field visits. The Lead Evaluation Officer will join the mission during part of the field visits to provide guidance in the implementation of programme evaluation methodology and ensure OE's full understanding of the evaluation's findings.

The Main Expected Outcomes and Communication of Results

23. The evaluation will produce a short (30-40 pages) and yet analytically rigorous report and a set of technical annexes, whose drafts will be submitted to the partners in due course. At the end of the evaluation process, following the organisation of a one-day country workshop, the agreement at completion point will be prepared. Members of the core learning partnership will be providing their endorsement to the agreement in writing. The agreement and its endorsements will be published with the main report.

24. In order to facilitate the dissemination of lessons learned, in addition to the printing of the report and annexes, the Office of Evaluation and Studies of IFAD will also produce a "profile": a two-page document summarising the key conclusions from the evaluation in a reader-friendly format, with the objective of providing a 'taste' of the evaluation and thereby encouraging a broader audience to read the report. The main report, the annexes and the profile will also be available and freely downloadable from the IFAD internet website (www.ifad.org/evaluation/list_eval.asp).

25. At the end of the process, the evaluation team may also consider other supplementary communication tools, to be explored in consultation with partners, such as: (i) targeting specific segments of the readership by publishing customised evaluation-related material in periodical and electronic journals, (ii) organising feed-back sessions in the field for the programme beneficiaries. However, these additional tools, if adopted, might require the collaboration and further funding from the interested partners.

Table 1. Proposed Time Plan

Period	Activity
12 – 26 May 2004	*Reconnaissance Mission of OE to Ethiopia*
21 June 2004	*Official Evaluation Communication (fax) and Draft Approach Paper sent for Comments to stakeholders in Ethiopia*
15 July to 15 Aug	*Preliminary mini-survey carried out in 3 to 4 "mature" schemes*
12 September – 12 October 2004	*Evaluation Mission visits the country* - *13 Sep 2004, Presentation of programme self assessment* - *Meetings in the capital* - *Field visits* - *11 Oct 2004, Wrap-up meeting (Aide Mémoire distributed, PF invited to participate)*
Mid December 2004	*Draft Report distributed for comments*
24 February 2005	*One-day country workshop (Addis Ababa) to prepare the "agreement at completion point" (to be attended, inter alios, Government, SCP-II, PF and OE representatives, other donors and international agencies)*
15 March 2005	*Agreement at completion point finalised.*

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Appendix III: Impact and Effectiveness Matrices

Introduction to Impact and Effectiveness Matrices

As required by IFAD's Methodological Framework for Evaluation (MFE), two matrices are presented, for impact and effectiveness respectively. In presenting these matrices, the evaluation team has a number of important reservations. First, SCP II is a complex project, working in nearly 60 communities stretching from far north to far south, and west to east of Ethiopia. Consequently, it is unrealistic to generalise across the project in a number of impact areas. Second, in the absence of a project-wide monitoring system, it is impossible in a short evaluation to effectively quantify impact. For this reason we enter N/A in the "How much" column under "extent of change". Third, most of the implementation (construction of irrgation schemes and associated works) under SCP II has taken place in the last two years. As a result, and because of the considerable time it takes farmers to adopt the full benefits of this kind of project, it is too early to assess impact other than through informed professional judgment as to likely future change. Fourth, the timing of the evaluation (at the end of the rainy season) severely limited the sites which could be visited, because of access problems, and prevented the team, in all but a few cases, from observing irrigation practices.

In the column headed "how many (households and people)", distinction is made between the irrigation scheme water users farming within the command areas, and those farming in the adjoining uplands. For estimates of numbers see the main text.

In the "M/F" column, M signifies male dominated, F signifies female dominated, and M/F signifies that both benefit

The entries to the matrices include the following abbreviations: N/A – not applicable (either irrelevant to this project, or to this evaluation; blank – no data; A, B – refer to footnotes.

IMPACT MATRIX

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of Change (1)				Reach of Change (3)				Dynamic Processes ** (4)	Sus. Pot. *** (5)
		Presence and direction of change	What has changed	Extent of Change		How many (households and people)	Who (1) (Poor/ poorest/ better off)	Who (2)	Project contri-bution		
		(+) (0) (-)	(Indicators)	How much	(Rating)* 4/3/2/1			M/F	4/3/2/1	4/3/2/1	4/3/2/1
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	+	irrigation infrastructure; construction camps; tools	N/A	3	Command area: water users	Poor	M	3	N/A	3
	1.2 Did other household assets change (houses, bicycles, radios, etc.)	+	rooves, houses	N/A	3		Poor	M/F	3	N/A	3
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	+	roads	N/A	2		Poor	M/F	3	N/A	3
	1.4 Did households' financial assets change? (savings etc)	+	cash income	N/A	2	Command area	Poor	M	3	N/A	3
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	+	access to credit	N/A	2	Cooperative members, water users	Poor	M	2	2	
II. Human assets	2.1 Did people access to potable water change?	A									
	2.2 Did access to basic health and disease prevention services change?	N/A									

	2.3 Did the incidence of HIV infection change?	N/A									
	2.4 Did maternal mortality change?	N/A									
	2.5 Did access to primary education change?	N/A									
	2.6 Did primary school enrolment for girls change?	N/A									
	2.7 Did women and children workload change?	+	Dry season labour	N/A	3	Command area	Poor	F/M	3	N/A	N/A
	2.8 Did adult literacy rate and/or access to information change?	+	Extension and training	N/A	3	Command area (B)	Poor	M	2	2	2/3
III. Social capital and people empowerment	3.1 Did rural people organisations and institutions change?	+	WUAs & Coops	N/A	3	Command area	Poor	M	3	N/A	3
	3.2 Did social cohesion and local self–help capacity of rural communities change?	Very complex and varied – see main report									
	3.3 Did gender equity and/or womens' conditions change?	+	Income	See 1.4							
	3.4 Did rural people feel empowered vis a vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	Farmers feel free to express their needs and grievances, but this does not always result in effective action from public authorities									
	3.5 Did rural producers feel empowered vis a vis the market place? Are they in better control of inputs supply and marketing of their products?	0	Greater contact with market through cooperative structure, but no control over markets								
IV. Food Security (Production, Income and Consumption)	4.1 Did children nutritional status change?	Children not specifically disaggregated in this evaluation, but there is evidence of improvements in household nutrition									
	4.2 Did household food security change?	+	Income, production	N/A	3	Command area	Poor	M/F	3	N/A	3
	4.3 Did farming technology and practices change?	+	Irrigated agriculture, cropping intensity	N/A	3	Command area	Poor	M/F	3	N/A	3
	4.4 Did the frequency of food shortage change?	Too early to judge									
	4.5 Did agricultural production change (area, yield, production mix, etc.)?	+	All	N/A	3	Command area	Poor	M/F	3	N/A	3
V. Envt & common resources	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks…)?	+	Complex and varied – see main report								
	5.2 Did exposure to environmental risks change?	+/-	command area up; catchment area down								
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	N/A	Extension and training – see 2.8								
	6.2 Did local public institutions and service provision change?	+									
	6.3 Did national/sectoral policies affecting the rural poor change?	N/A									
	6.4 Did the regulatory framework affecting the rural poor change?	N/A									

* Rating: 4= High; 3= Substantial; 2= Modest; 1= Negligible. The rating here is based on the rural poor (and their partners) perspective in relation to the situation in the base year. *** Rating: 4= Highly likely, 3= Likely; 2= Unlikely; 1= Highly Unlikely.** This refers to cases where even though impact achievement is modest or negligible, the project in question has set in motion dynamic positive processes that will eventually lead to substantial impact achievement. The identification of the existence of these processes is left to the evaluators judgement on a case by case basis.

Note A: Open irrigation canals convey untreated water closer to the homes of some project beneficiaries. To this extent, access to domestic water, of a quality no worse than that used by the majority of rural Ethiopians, is improved. The supply of potable water is not an objective of the project.
Note B: Impact in this area is relevant in the relatively few cases where the agricultural support component of the project has been undertaken fully.

PROJECT EFFECTIVENESS MATRIX

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation of Impact (Project Stated Objectives)				Effectiveness Rating (Achievement Against Stated Objectives) 4/3/2/1			
		Reach Who?	Change What?	Change How Much?	Reach how Many?	Reach Who?	Change What?	Change How Much?	Reach how Many?
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	(a) Irrigators (b) Women (c) Farmers in catchments, (d) Population at large	(a) and (b) crop yields, income, nutrition, (d) access to food – through intensification, diversification, commercialisation, (c) soil conservation	4	(a) 23400 hh (b) 2400 women (c) 10000 hh (d) 2 million people	3	3	(a) 4 (b) 3 (c) 2 (d) 2	(a) 4 (b) 2 (c) 2 (d) 1
	1.2 Did other household assets change (houses, bicycles, radios other durables, etc.)	Same groups	Not specified	4	Same groups	3	N/A	N/A	irrigation households 4
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	Male and female irrigation farmers	Access to markets	4	Groups (a) and (b)	3	3	3	(a) 4 (b) 2
	1.4 Did households' financial assets change? (savings etc)	Male and female irrigation farmers	Incomes from cash cropping	4	Groups (a) and (b)	4	3	3	(a) 4 (b) 2
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	Male and female irrigation farmers	Access to credit	4	Groups (a) and (b)	3	2	2	3
II. Human assets	2.1 Did people access to potable water change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.2 Did access to basic health and disease prevention services change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.3 Did the incidence of HIV infection change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.4 Did maternal mortality change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5 Did access to primary education change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.6 Did primary school enrolment for girls change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.7 Did women and children workload change?	Women farmers	Women would grow vegetables. Change in workload not explicitly discussed at Appraisal.	Not specified	2400 women farmers	3	3	3	2
	2.8 Did adult literacy rate and/or access to information and knowledge change?	Male and female irrigation farmers	Knowledge of irrigation and crop management	3	Groups (a) and (b)	3	3	3	2
III Social capital and people empowerment	3.1 Did rural people organisations and institutions change?	Irrigation farmers	Establishment of Water Users' Associations	4	23400 water users	4	3	3	4
	3.2 Did social cohesion and local self–help capacity of rural communities change?	Irrigation farmers	"Strengthening communities' abilities to mobilise social and economic resources…"	3	23400 water users	3	3	3	3
	3.3 Did gender equity and/or womens' conditions change?	Women farmers	Women's skills and incomes, family nutrition	3	2400 women	3	3	3	2

	3.4 Did rural people feel empowered vis a vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	Irrigation farmers	"Strengthening communities' abilities to mobilise social and economic resources…"	3	23400 water users	3	3	3	3
	3.5 Did rural producers feel empowered vis a vis the market place? Are they in better control of inputs supply and marketing of their products?	Irrigation farmers	Farming intensifies and commercialises	3	23400 water users	3	3	2	3
IV. Food Security (Production, Income and Consumption	4.1 Did children nutritional status change	Irrigation households	Greater consumption of vegetables	3	23400 households	3	3	3	3
	4.2 Did household food security change?	Irrigation households	Increased production, increased incomes	4	23400 households	3	3	2	3
	4.2 Did farming technology and practices change?	(a) Irrigators (b) Women (c) Farmers in catchments	(a) More efficient and more extensive irrigation (b) Vegetable production (c) NR conservation integrated with rainfed and livestock farming	(a) 4 (b) 4 (c) 3	(a) 23400 hh (b) 2400 women (c) 10000 hh	3	3	3	3
	4.3 Did the frequency of food shortage change?	(a) Irrigators (b) Women	Both groups – protection against drought	4	(a) 23400 hh (b) 2400 women	3	3	3	3
	4.4 Did agricultural production change (area, yield, production mix, etc.)?	(a) Irrigators (b) Women	Increased irrigation command area, yields, diversity of crops	4	5300ha irrigation Vegetable yields 6-18t/ha 5 vegetable crops	3	3	3	3
V. Envt and common resources	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks…)?	Farmers in catchment	Soil and natural vegetation conserved	3	10000 hh	3	3	1	1
	5.2 Did exposure to environmental risks change?	(a) Irrigators (b) Women (c) Farmers in catchments	(a) and (b) less susceptibility to drought (c) less susceptibility to intense rain/soil erosion	4	(a) 23400 hh (b) 2400 women (c) 10000 hh	3	3	3	3
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	6.2 Did local public institutions and service provision change?	(a) Irrigators (b) Women (c) Farmers in catchments	Extension services, linkages to markets and credit arrangements	3	(a) 23400 hh (b) 2400 women (c) 10000 hh	3	3	3	3
	6.3 Did national/sectoral policies affecting the rural poor change?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	6.4 Did the regulatory framework affecting the rural poor change?	Irrigators	WUA legalisation	3	23400 hh	3	3	3	3

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Appendix V: Itinerary and Persons Met

Date/Time	Description	Place	People met	PCU/RPCU
Interim Evaluation Planning and Introductory Meetings in Addis Ababa				
Mon 13th Sept	IE team planning meeting	Addis Ababa	N/A	-
Tue 14th Sept	IE team planning meeting & Introductory meeting with Ministry of Water Resources	Addis Ababa	1	-
Wed 15th Sept	Introductory meeting with Programme Coordination Unit (PCU) & interview of PCU staff	Addis Ababa	2	
Visit to Tigray Region (IE Team: Danert, Tilahun with PCU Tesfaye Fichala - Soliologist)				
Thu 16th Sept	Travel to Mekelle by air and introductory meeting with Tigray Bureau of Water Resources	Mekelle	T1	
Fri 17th Sept (am)	Focus group discussions Tigray Region stakeholders.		T2	
Fri 17th Sept (pm)	Scheme visit (viewing headworks and canals followed by 2 group discussions with >30 farmers per group- one group all men, one mixed). 3 hours on site	Mekelle	T3	Hadera (BBoWR), Aragawi (BoA)
Sat 18th Sept (am)	Visit to Lalae Algulae SSI Scheme (viewing headworks followed by 3 group discussions – two mixed, one only women).	Mekelle	T4	Hadera (BoWR), Aragaw (BoA)i
Sat 18th Sept (late am)	Visit to Chuhot SSI Scheme (one large group of >30 farmers; one small group of 4 women and Home Agent DA)	Mekelle	T5	Hadera (BoWR), Aragawi (BoA), Alem (Coop)
Sun 19th Sept	Visit to Adi Edaga planned SSI scheme (Danert)	Mekelle	T6	As Above plus Meta (Coop)
Mon 20th Sept	Travel to Ofla Woreda (Danert). Group discussion/interview with three WUA/Irrigation Cooperatives committees. Group discussion/interview with Woreda staff (Danert)	Alamata	T7	As above
Tue 21st Sept	Visit to Zatta SSI. Travel to Mekelle	Mekelle	T8	
Mon 20th Sept	Visit to Hizaeti Afras SSI. Visit to Nazer SSI	Mekelle	T9	
Tue 21st Sept	Visit to Chuhot SSI and discussions with Wukro Woreda	Mekelle	T10	
Wed 22nd Sept	Reading, writing and reviewing reports. Group discussion with Bureau of Cooperatives. Informal wrap-up with PRCU in evening	Mekelle/AA	T11	
Visit to Amhara Region (Carter, Merkorewos with PCU staff Minas - Coordinator)				
Thurs 16th Sept	Travel to Bahar Dar, introductory meeting with COSAERAR	Bahar Dar	A1	Minas
Fri 17th Sept	Discussions in Regional Food Security Office and COSAERAR, planning of field visits, followed by visit to Irza irrigation scheme and discussions at Fogera woreda.	Bahar Dar,	A2	Minas
Sat 18th Sept	Visit to Lomidur irrigation scheme (ORDA/ESRDF).	Bahar Dar	A3	Minas
Sun 19th Sept	Visit to Gumara irrigation scheme	Bahar Dar	A4	Minas
Mon 20th Sept	Discussions with Food Security Office, COSAERAR, Ministry of Agriculture and Bureau of Cooperatives. Wrap up meeting with FS Head and COSAERAR Head in evening.	Bahar Dar	A5	Minas
Tues 21st Sept	Travel to Addis by air, and by road to Debre Berhan. Meeting at Basona woreda office. Visit to Wsha Wushien irrigation scheme.	Debre Berhan	A6	Minas
Weds 22nd Sept	Visit to Ngwamask dam (AfD irrigation scheme). Drive via Debre Sina to Kewot woreda. Visit to Kobo irrigation scheme. Discussions with farmers and woreda staff on site. Visit to Sarew irrigation scheme.	Debre Berhan	A7	Minas
Thurs 23rd Sept	Visit to Chcha irrigation scheme with Angolela woreda staff. Further discussions in	Debre	A8	Minas

	woreda office. Travel by road back to Addis.	Berhan/AA		
Evaluation Team Re-Assembly in Addis Ababa (ALL)				
Fri 24th Sept to Sun 26th Sept	Evaluation team meeting in Addis. Sharing experiences. Highlighting key issues. Setting writing tasks. Writing. Rest.		N/A	
Visit to Oromia Region (Carter, Tilahun with PCU staff Minas - Coordinator)				
Mon 27th Sept	Travel to Harar by road		N/A	Hassan-Nur
Tues 28th Sept	Visit to Burka Waldiya irrigation scheme		O1	Hassan-Nur, Dereje
Weds 29th Sept	Visit to Mumicha irrigation scheme		O2	Hassan-Nur, Dereje
Thurs 30th Sept	Travel Harar to Nazaret, and meetings in Central Branch OIDA		O3	Hassan-Nur, Godana
Fri 1st Oct	Visit to Hasen Usuman irrigation scheme, and travel to Asela, via traditional scheme headworks		O4	Hassan-Nur, Fuad
Sat 2nd Oct	Visit to Gedemso irrigation scheme, via Ketar irrigation scheme headworks, and travel to Addis		O5	Hassan-Nur, Fuad
Visit to SNNP Region (Danert, Merkorewos with PCU Staff Tesfaye Fichala - Sociologist)				
Mon 27th Sept	Travel to Awasa by Road		N/A	
Tues 28th Sept	Introductory meeting with SIDA. Travel to Sodo.		S1	Damenu Bekelle
Tues 28th Sept	Visit Tekacha irrigation scheme.	Sodo	S2	Damenu Bekelle
Weds 29th Sept	Travel to Maze SSI. Spoke to farmers off-site due to access difficulties	Sauwla	S3	Damenu Bekelle
Thurs 30th Sept	Discussions with Gofa Zuria Woreda. Visit to Were SSI. Travel to Sodo.	Sodo	S4	Damenu Bekelle
Thurs 30th Sept	Visit to Ella SSI (SCP I)	Sodo	S5	Damenu Bekelle
Fri 1st Oct	Travel to Konta Woreda and return to Sodo. Meeting with Konta Woreda staff	Sodo	S6	
Sat 2nd Oct	Debriefing with SIDA in Awasa and return to Addis Ababa		S7	
Addis Ababa				
Mon 4th Oct	Team meeting and writing		N/A	
Tue 5th Oct	Writing		N/A	
Wed 6th Oct	Meeting with PCU		3	
Thu 7th Oct	Writing		N/A	
Fri 8th Oct	Presentation of Aide Memoire		4	

Addis Ababa			
1	Hon Mesfin Tegne (Vice Minister. MoWR) Adunya (Head of Irrigation and Drainage Department, MoWR) Minas (Programme Coordinator, PCU, IFAD SCPII) Ayelle (Programme Coordinator, AFD SSI Prog.)		
2	Minas **XXX**, Shiffero (M&E, PCU); Tesfaye Fichala (Sociologist, PCU); Awoka (Agronomist, PCU)		
Tigray		**Amhara**	
T1	Kidane Marian Negusse (Head, Irrigation Study and Design Department) Hadera (**XXXXX**)	A1	Tesfaye (Head of Construction) Yacob (Commissioner, COSAERAR)
		A2	Amlaku Asres (Head, Food Security Office) Getu (Construction Supervisor, COSAERAR) Tesfaye (Head of Construction) Chane Taye (Gatekeeper, Izra Irrigation Scheme) Meles (Vice Head, Irrig, Fogera Woreda Bureau of Agriculture and Rural Development) Tesfaye Haile Selassie (Expert in Watershed Management, Fogera Woreda) Worku Mulat (Head of Cooperative Department, Fogera Woreda) Wale Desse (Natural Resource Development Acting Head) Wzo Fasika Amare (Female Farmer, Irza Irrigation Scheme) Ato Chane Taye (Husband of Wzo Fasika Amare)
T2	Kidane Marian Negusse (Head, Irrigation Study and Design Department) Hailu Berhe (Irrigation Agronomist, Bureau of Agriculture and Natural Resources) Alem Kiros (Cooperatives Promotion Office) Assefa Anha (Cooperatives Promotion Office) G/Medhin Berhe (Agronomist, Bureau of Agriculture and Natural Resources) Aregawi K/Kidan (Soil and Water Conservationist, Bureau of Agriculture and Natural Resources) Hadera (**XXXXX**)	A3	Priest Gebre Alene (Treasurer, Lomidur Irrigation Scheme) Chilot Kafailo (Farmer, Lomidur Irrigation Scheme) Kes Gebre Alemu (Farmer, Lomidur Irrigation Scheme)

T3	Masegab Tesfaye Michai (Enderta Woreda Agronomist Team Leader); Kashai Gebremarium (Enderta Woreda, Head of Bureau of Agriculture) Ayeilew Hainte (Irrigation Agronomist, Enderta Woreda) Two groups of ~20 farmers
T4	Hadus Haille (Agronomist, Wukro Woreda) Tekkehaimanst Tadelle (Wukro Woreda) Hadush Hailu (Wukro Woreda) Aleka Berhe Teka (farmer & chief, Lalae Algulae SSI Scheme); Gebre Johannes Asefa (farmer, priest and Abomia/Water Master, Lalae Algulae SSI Scheme) Gebremedhun Wolde Gabriel (farmer, Lalae Algulae SSI Scheme); Teka Asheber (farmer, Lalae Algulae SSI Scheme) Group of 8 Women (Farmers, Lalae Algulae SSI Scheme) Group of 50 farmers, 10% women
T5	Group of >50 farmers (Chuhot SSI scheme) Ladies group: Ndahatt Lagosa (Farmer, Chuhot SSI Scheme) Zamada Gabragargus (Farmer, Chuhot SSI Scheme) Meherat Adhana (Home Agent DA) Berhan Hafto (Farmer, Chuhot SSI Scheme)
T6	Mahare Woldekiros (BoA, Degua Tembien Woreda) Asfa Desta (Water Resources Development, Adi Edaga) Alemayo Araya (Cooperatives, Adi Edaga) Mobrato Mbai (BoA/Natural Resources Office, Adi Edaga) Group of >40 farmert, Adi Edaga
T7	Motu Kureda (Chair, Ex Com, Falla WUA/Irrigation Coop)

A4	Trekegne Megistu (Secretary, WUA Gumara Irrgation Scheme) Getahun Asefa (Chairman, WUA Gumara Irrgation Scheme) Misganaw Amagu (Storekeeper, WUA Gumara Irrgation Scheme) Moges Mekonen (Rainfed farmer, WUA Gumara Irrgation Scheme) Mulaw Worku (Rainfed farmer, WUA Gumara Irrgation Scheme) Wale Behongen (Rainfed farmer, WUA Gumara Irrgation Scheme) Moges Akello (Team leader, irrigation block, WUA Gumara Irrgation Scheme) Minale Alemu (Farmer, Gumara Irrgation Scheme)
A5	Yacob (Commissioner, COSAERAR) Lakachew Emiru (Agronomist, COSAERAR) Zerihun Desaleghn (Socio-economist, COSAERAR) Tesfaye Yimer (Design/hydrologist, COSAERAR) Ayenew Belay (Head, Cooperative Promotion Bureau, Bahar Dar) Dagna Minalu (Focal Point, Cooperative Promotion Bureau, Bahar Dar) Said Mohammed (Focal Point, Bureau of Agriculture, Bahir Dar)
A6	Abebaw Gizaw (Ag. Bureau D/Head, Basona Worana Woreda) Selam Asefa (Soil and Water/Natural Resources Expert, Basona Worana Woreda) Alemu Beyene (Extension expert, Basona Worana Woreda)) Gurmesa Anisa (Wereda Agronomist, Basona Worana Woreda)) Mulualem Ashenafi (COSAERAR East Amhara Zone Construction Coordinator) Bayene Muteke (Cooperatives Promotion Expert, Basona Worana Woreda) Tariq Umar (Farmer, Wsa Wushien Irrigation Scheme) Dereje Teshome (Farmer)

	Tefer Tamai (Falla Ex Com, WUA/Irrigation Coop) Asigeden Focadu (Falla Ex Com, WUA/Irrigation Coop) Hagazi Debash (Falla Ex Com, WUA/Irrigation Coop) Girme Asefa (Falla Ex Com, WUA/Irrigation Coop) Arra Samuel (Shayna, Ex Com, WUA/Irrigation Coop) Kashi Jetau (Shayna, Ex Com, WUA/Irrigation Coop) Belai Fanta (Shayna, Ex Com, WUA/Irrigation Coop) Kasai Shibro (Shayna, Ex Com, WUA/Irrigation Coop) Aspoden Yallew (Shayna, Ex Com, WUA/Irrigation Coop) Aifare Arepaw (Shayna, Ex Com, WUA/Irrigation Coop) Terze Berhe (Shayna, Ex Com, WUA/Irrigation Coop) Tesfay Agezom (Chair,Zatta, Ex Com, WUA/Irrigation Coop) Niguse Fades (Zatta, Ex Com, WUA/Irrigation Coop) Haile Wendum (Zatta, Ex Com, WUA/Irrigation Coop) Derbu Tades (Zatta, Ex Com, WUA/Irrigation Coop) Asefa Kabedew (Zatta, Ex Com, WUA/Irrigation Coop) Yikuno Amlak (Office of Agriculture, Ofla Woreda) Haftu Welago (CPO, Ofla Woreda) Getahun Woldeselassi (Office of Water Resources, Ofla Woreda) Semere Balai (Office of Water Resources, Ofla Woreda) Getachow Ahmede (Office of Agriculture, Ofla Woreda) Haile Gebremade (Office of Agriculture, Ofla Woreda) Worknesh Belai (Office of Water Resources, Ofla Woreda)
T8	Tesfaye Agezom (Chair of Cooperative, farmer, Zatta SSI) Manayo Tilahun Tesfaye (Nursery Manager, Zatta SSI) Group of >20 farmers
T9	Ato Gebermedhin Berhe (Tigray BoA, Agronomist) Isac T/mariam (Head cooperatives, Hintalo Wajerat Woreda) Ferzegi Asgdom (Head BoA, Hintalo Wajerat Woreda) Mulu Araya: Agronomist (Hintalo Wajerat Woreda) About 69 farmers in a community meeting. 20% women (Nazer) About 69 farmers in a community meeting. 20% women (Hizaeti Afras)

A7	Afrasa Gulti (Crop Production Expert, Kewot Woreda) Kashahun Abat (/natural Reaources Expert, Kewot Woreda) Mulu Gebremariam (Deputy Head, Woreda Agriculture and Rural Development Office, Kewot Woreda) Dejenne (Kabele Chairman, farmer, Sarew irrigation scheme) Tadesse Ahelie (Cooperative Chairman, farmer, Sarew irrigation scheme) Nega Kabede (Cooperative Secretary, farmer, Sarew irrigation scheme) Zewdew Ayelew (Farmer, Sarew irrigation scheme) Mulatu Haile (Farmer, Sarew irrigation scheme) Hailu Weldermariam (Farmer, Kobo Irrigation Scheme)
A8	Iyob Agide (Cooperatives Expert, Angolela Woreda) Tsegaye Asefa (Vice Chair and Treasures of Cooperative, Chcha irrigation scheme) Tefera Muluneh (Executive member, Chcha irrigation scheme) Zenebe Tekalign (Cooperative member, Chcha irrigation scheme) Demis Mengesha (Cooperative member, Chcha irrigation scheme) Kassa Welda Berhan (Asst. Head, Ag. & Rur. Dev. Burea, Angolela Woreda))u) Askale Yifru (Horticulture Expert, Angolela Woreda) Yalemzewd Teshome (Ag. Extension Expert, Angolela Woreda

T10	Hailay Birhane (Head Woreda BoA, Wukro Woreda) Tsegaye Tesfaye (Agronomist, Wukro Woreda) Yonas Gebru (Agriculturist, Wukro Woreda) **About 69 farmers in a community meeting, and about 20% were women.**		
T11	Hadera (BoWR) Alem Kiros (Cooperatives Promotion Office)		
SNNPR		**Oromia**	
S1	Damenu Bekelle (Head, Planning, XXXX, SIDA) Tadesse Dendir Melese, Deputy Manager, SIDA	O1	Getu Gebrehiwoe (E. Hararghe Zonal Cooperatives Promotion Depatrment) Abrar Arabu (E. Hararghe Zonal Extension and Water Management Expert) Wakjra Guluma (Coordinator Jarso Woreda Bureau of Agriculture and Rural Development) Ayele Momu (Cooperatives promotion officer, Jarso Woreda Bureau of Agriculture and Rural Development) Kadare Ibrahim (Farmer, Burka Woldiya Irrigation Scheme) Zubeida Seraj (Kadare's wife, Burka Woldiya Irrigation Scheme) Umar Abdurrahman (Vice chair of Kebele, Farmer, Burka Woldiya Irrigation Scheme) Jamal Abdurrahman (Farmer, Burka Woldiya Irrigation Scheme) Mohammed Hassan (Farmer, Burka Woldiya Irrigation Scheme) Mohammed Jibro (Farmer, Burka Woldiya Irrigation Scheme) Sherif Shaiba (Farmer, Burka Woldiya Irrigation Scheme) Sherif Musa (Farmer, Burka Woldiya Irrigation Scheme) Ahmed Dibo (Farmer, Burka Woldiya Irrigation Scheme) Jasin Abdullah (Farmer, Burka Woldiya Irrigation Scheme) Ibrahim Mohammed (Farmer, Burka Woldiya Irrigation Scheme) Fatiya Mohammed (Farmer, Burka Woldiya Irrigation Scheme) **Tilahun has another group**
S2	Fakede Selassie Beza (Rural Development Office Head, Sodo Zuria Woreda) Berhanesh Tanga (Women's Unit Leader, Sodo Zuria Woreda) Matheus Maja (Soil and Water Conservation Expert, Sodo Zuria Woreda) Buzunesh (Women's garden beneficiary, Tekacha SSI) Aberra Minku (Buzunesh's husband) Ato Bobia Jalda (Farmer, Tekacha SSI) Ato Meskele Beremo (Farmer, Tekacha SSI) Ato Desalegn Babia (Farmer, Tekacha SSI)		
S3	Dawit Debanna (Storekeeper, Maze SSI) Tamene Munda (Farmer, Maze SSI) Petros Kantine (Farmer, Maze SSI) Petros Ashenafi (Farmer, Maze SSI)		
S4	Yemene Wonde Johannes (Crop Development Team Leader, Gofa Zurua Woreda) Asnagich Girma (Women's Rural Development Head, Gofa Zurua Woreda) Berouk Zeoude (IFAD Focal Point, Gofa Zurua Woreda) Panai Felaka (Women's garden beneficiary, Were SSI) Alushe Arega (Women's garden beneficiary, Were SSI) Hirut Muyto (Women's garden beneficiary, Were SSI) Workenesh Atsa (Women's garden beneficiary, Were SSI) Balote Bailamo (Women's garden beneficiary, Were SSI)	O2	Ermiass Tadesse (Cooperatives Promotion Officer, Deder Woreda) Mekdes Negash (Home Economist, Deder Woreda) Tadesse Gebremichael (Water Harveting Expert, Deder Woreda)

S5	Tadeus Malisu (Agronomist, Sodo Zuria Woreda) Kora Kolbai (Farmer, Ella SSI – SCPI) Emanual Joseph (Farmer, Ella SSI – SCPI)		Atene Kibebo (Head, Irrigation Department, Deder Woreda) Yawulala Mengistu (Vegetable Expert, Deder Woreda) Two large groups (Farmers, including ttwo Malakas[94] Mumicha irrigation scheme)
		O3	Godana Daba (Head of Central Branch, OIDA, Nazret) Johannes Ado (Head of Construction, OIDA, Nazret) Takelle Mingeshe Head of Planning and Information, OIDA, Nazret) Fuad Alan (Head of Study, Irrigation and Design Team, OIDA, Nazret) Hussain Ama (Irrigation Engineer, OIDA, Nazret)) Tadesse (Irrigation Agronomist, OIDA, Nazret) Girma (Irrigation Engineer, OIDA, Nazret) Delebe (Community Organiser, OIDA, Nazret)
S6	Ashinafi Kinfu (Plant Protection and Land Administration, Agriculture Development Office, Konta Woreda) Haille Dolongo (Head of Rural Development, Konta Woreda) Girmamamo Hailu (Savings and Credit Expert, Cooperatives Promotion Office, Konta Woreda) Elias Astatki (Irrigation expert, Agriculture Development Office, Konta Woreda) Addis Waldio (Horticulture expert, Agriculture Development Office, Konta Woreda)		
S7	Damenu Bekelle (Head, Planning, XXXX, SIDA) Tadesse Dendir Melese, Deputy Manager, SIDA Ato Daniel (Cooperative Promotion Office)	O4	Afework Simie (Head of Irrigation Sector, Xicho Woreda) Mekonnen Mekre (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Ayele Mekre (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Gitachu Sisay (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Mekonnen Shibru (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Tonkulu Bebebe (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Techoma Borisa (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Selamon Tefara (Farmer, Hasen Usuman Irrigation Scheme – SCP I) Mohammed Abdela (DA, Hasen Usuman) **Tilahun has another group**
		O5	Farmer Group **Tilahun** (Gedemso Irrigation Scheme)

[94] Traditional Water Masters

Appendix VI: SCP II Logframe at Appraisal

LOGICAL FRAMEWORK FOR SPECIAL COUNTRY PROGRAMME PHASE II

	Narrative Summary	**Objectively Verifiable Indicators**	**Means of Verification**	**Important Assumptions**
Overall objective	Improvement of the magnitude and reliability of 21000 farm families and 1200 women's' incomes' derived from irrigated agriculture and vegetable gardening.	Household food expenditure. Household incomes. Women's incomes.	Income/expenditure surveys.	Demand for horticultural produce increases. No major changes in macro-economic and/or political environment. Continued free market economic framework. Continued devolution of responsibility & authority to the regions. Maintenance or reduction of existing staffing levels in the implementing institutions. Timely provision of inputs & investment. Timely provision of government contribution. Improved & speedier customs clearance procedures on imported goods.
Immediate objective	1. Improved Agricultural productivity & output. 2. Improvement & expansion of 5300 ha of irrigated land. 3. Strengthening of communities' abilities to commit & mobilise social and economic resources for sustainable development.	1. Crop yields. 2. Number of schemes improved. 3. Number of registered and operating WUAs. 3. Number of registered WUAs with bank accounts. 3. WUAs' contribution to capital costs. 4. Volume & quality of inputs.	Income surveys. Annual project reports. Mid term reviews. Project completion report. Cost accounting by BWMERDs, BOADs and PCU.	
Outputs	1. Reliable & increased water availability. 2. Improved agricultural and horticultural production. 3. Increased crop intensities, yields together with crop diversification. 4. WUAs managing & maintaining their schemes. 5. Improved farmer & support staff farm management skills. 6. Communities' willing to mobilise and commit free labour and locally available material resources for construction and O&M. 7. Improved management in *woreda*, zonal and regional & technical capacity and financial management	1. Number of completed designs. 1. Volume of water received. 2&3. Cropping intensities. 2&3. Type of women's gardens. 2&3. Farm production. 4. Number of Functional WUAs. 5. Extent of erosion. 5. Area of protective vegetative cover. 5. Number of functional crop trial & demonstrations sites. 6. Labour, materials committed timely. 6. O&M undertaken timely. 6. Communities accepting full responsibility for O&M. 7. Management & reporting documentation produced.	Scheme & farm surveys. Contact beneficiary monitoring. Mid term review. *Woreda* zonal region & Prorgramme: AWOB. Quarterly & annual reports. Supervision reports. Cost accounting by BWMERD, BOAD and PCU.	

Activities	**1. Irrigation**: identification, studies, participatory design, construction, support & establishment of RTPCUs, Zonal Irrigation Subprogramme, Zonal Steering Committees & WUAs. **2. Agriculture**: support services, conservation based agronomic trials, soil conservation, vegetable seed production & women's vegetable gardens development. **3. Institutional Support**: Training of Bureau staff, Technical Assistance, training to WUAs in organisation, management and O&M. **4. Preparation of AWPB**. **5. Establishment of PCU**.	1. Activities undertaken according to Project Implementation Plan. 2. Activities undertaken according to Project Implementation Plan. 3. Activities undertaken according to Project Implementation Plan. 4. Timely submission of AWP&B. 5. PCU established and functioning.	Woreda & Project: AWP&B Quarterly & annual reports Supervision reports	No major address changes in legal framework governing property rights & WUA formation & operation. Government commitment to demand led development.
Inputs	1. Construction materials. 2. Construction 3. Vehicles & motorcycles. 4. Planting materials and seedlings for bund stabilisation. 5. Equipment (construction & office). 6. Technical Assistance. 7. Recurrent expenses. 8. Performance incentives & allowances. 9. Training of Bureau staff, training to WUAs in organisation, management and O&M. 10. Effective supervision by Co-operating Institution.	1. Quantities procured. 2. Quantities utilised. 3. Vehicles, motorcycles & equipment operational. 4. Planting materials and seedlings for bund stabilisation produced & distributed. 5. Equipment operational & functioning. 6. Man months completed, TA studies accepted. 7. Funds committed, released & reimbursed. 8. Funds committed & released. 9. Training courses completed. 10. Timely review/approval of procurement, timely processing of disbursement applications & timely submission of reports.	*Woreda*, regional & programme AWPB. Quarterly & annual reports. Supervision reports. Audit reports.	Demand signals are transmitted uninterruptedly by farmers & that they will respond accordingly.

Appendix VII: SCP I and SCP II Irrigation Schemes

Schemes constructed under SCP I

Region	Zone	Woreda	Scheme name	Command area (ha)	Beneficiaries (# hh)	Construction
Oromia	Arsi	Munessaa	Dalalle Simbirro	60	186	1993/94
Oromia	Arsi	Munessaa	Dagaga Simbirro	40	270	1994/95
Oromia	Arsi	Munessaa	Shoba Gennel	60	180	1993/94
Oromia	Arsi	Munessaa	Meti Mettana	40	180	1993/94
Oromia	Arsi	Munessaa	Sedi Sedi	60	100	1995/96
Oromia	Arsi	Munessaa	Lafa	80	208	1997/98
Oromia	Arsi	Munessaa	Legeden Shoba	100	440	1993/94
Oromia	Arsi	Tiyo	Hasen Usuman	230	690	1994/95
Oromia	Arsi	Tiyo	Bosha 01	100	36	1993/94
Oromia	Arsi	Tiyo	Bosha 02 (Chikilfatu)	60	220	1994/95
Oromia	Arsi	Tiyo	Katar 01	100	400	1990/91
Oromia	Arsi	Tiyo	Katar 02	200	600	1993/94
Oromia	Arsi	Tiyo	Katar 03	90	360	1995/96
Oromia	Arsi	Ziway Dugdaa	Shalad 01	50	200	1995/96
Oromia	Arsi	Ziway Dugdaa	Shalad 02	30	100	1995/96
Oromia	Arsi	Munessaa	Gedemso 01	80	250	1993/94
Oromia	Arsi	Munessaa	Gedemso 02	97	320	1993/94
Oromia	Arsi	Ziway Dugdaa	Arata Chufa	100	317	1994/95
Oromia	Bale	Mena Agetu	Chirri	50	105	1995/96
Oromia	Bale	Mena Agetu	Haya Oda	100	370	1995/96
Oromia	Bale	Ginnir	Arda Tarre	120	360	1995/96
Oromia	E. Hararge	Kersa	Water 01	30	130	1993/94
Oromia	E. Hararge	Kersa	Arara 01	56	276	1994/95
Oromia	E. Hararge	Kersa	Water 02	40	150	1994/95
Oromia	E. Hararge	Kersa	Water 03	40	160	1995/96
Oromia	E. Hararge	Kersa	Arara 02	16	100	1994/95
Oromia	E. Hararge	Deder	Babi Ali	40	400	1995/96
Oromia	E. Hararge	Deder	Seid Ali	45	200	1994/95
Oromia	E. Hararge	Deder	Harewa (Babi Ali 02)	48	150	1995/96
Oromia	E. Hararge	Deder	Gelan Sedi	100	360	1995/96
Oromia	E. Hararge	Goro Gutu	Erer Meda Talila	130.1	600	1995/96
Oromia	E. Hararge	Gurawa	Burqaa Birbirsa	35	130	1995/96
Oromia	E. Hararge	Malka Balo	Jarjatu	60	300	1996/97
Oromia	E. Hararge	Meta	Burka Hungani	20	80	1993/94
Oromia	W. Hararge	Tullo	Hirna	63	240	1994/95
Oromia	W. Hararge	Tullo	Aminur Dacho	40	160	1995/96
Oromia	W. Hararge	Tullo	Chaffee Guratti	100	300	1995/96
Oromia	W. Hararge	Badessa	Midegdu	110	250	1997/98
SNNPR	Sp Woreda	Derashe	Argoba	60	240	1990/91
SNNPR	Sp Woreda	Konso	Gewoda	80	320	1990/91
SNNPR	N. Omo	Humbo	Ella	80	320	1992
SNNPR	N. Omo	Bologo Sore	Weyibo	100	400	1993/94
			Sum	**3140**	**11158**	
			Average	75	266	

Schemes constructed and planned under SCP II						
Region	**Zone**	**Woreda**	**Scheme name**	**Command area (ha)**	**Beneficiaries (#hh)**	**Construction**
Oromia	E.Shewa	Fentale	Sara Weba	280	481	2004/05
Oromia	Bale	Mena Angetu	Dayu	124	210	2002/03
Oromia	Bale	Barbare	Gabe	200	400	2002/03
Oromia	Bale	Barbare	Hamballa	200	400	2003/04
Oromia	Borena	A. Wadara	Hila	40	100	2002/03
Oromia	E.Hararge	Deder	Nadhi Galan Sadi	75	375	2001/02
Oromia	E.Hararge	Jarso	Burka Waldiyaa	30	127	2001/02
Oromia	E.Hararge	Deder	Mumicha	59.7	596	2003/04
Total Oromia			Sum	1009	2689	
			Average	126	336	
SNNP	N. Omo	Kemba	Maze	200	800	2004
SNNP	Gurage	Meskanena Mareko	Dobena	150	600	2001/02
SNNP	N. Omo	Sodo Zuria	Tekecha	100	400	2002/03
SNNP	N. Omo	Gofa Zuria	Were	100	400	2002/03
SNNP	Hadiya	Konta	Shoshuma	40	160	2002/03
SNNP	S. Omo	Kuraz	Lobet2	100	400	2005
Total SNNP			Sum	690	2760	
			Average	115	460	
Tigray	Southern	Hintalo Wajerat	Nazer	45	243	2002
Tigray	Eastern	Wukro	Laelay Agulae	32	232	2003
Tigray	Southern	Hintalo Wajerat	Hizaeti Afras	54	197	2003
Tigray	Southern	Hintalo Wajerat	Bahire Woyera	44	175	2002
Tigray	Southern	Enderta	Gereb Kokhi	39	532	2003
Tigray	Southern	Alamata	Hara	400	558	2003
Tigray	Southern	Andamohoni	Gereb Merken			2003
Tigray	Southern	Ofla	Fala	20	448	2004
Tigray	Southern	Ofla	Zatta	15	120	2004
Tigray	Southern	Ofla	Shayna	50	108	2004
Tigray	Southern	Alamata	Harkisa	15	156	2004
Tigray	Southern	Alamata	Tirkie	380	251	2004
Tigray	Southern	Raya Azebo	Bala-2	40	56	2004
Tigray	Southern	Saharti Samre	Lemlem Arena	60		2004
Tigray	Southern	Hintalo Wajerat	Mitimak	20		2004
Tigray	Eastern	Wukro	Chuhot	30	340	2004
Tigray	Central	Kola Tembien	May Daero	40	183	2004
Tigray	Central	Kola Tembien	May Giday	35	340	2004
Tigray	Central	Mereb Leke	May Woyni	50	50	2004
Tigray	Southern	Hintalo Wajerat	Gereb Didik	36	131	planned

Tigray	Southern	Hintalo Wajerat	Hiwane	20	90	planned
Tigray	Southern	Hintalo Wajerat	Ayne Buzu	28	102	planned
Tigray	Eastern	Wukro	Tsigereda	20		planned
Tigray	Southern	Endamohoni	Gereb Quiha	25		planned
Tigray	Central	Degua Tembien	Adi Edaga	40		planned
Tigray	Southern	Alamata	Utu	250		planned
Total Tigray			Sum	1788	4312	
			Average	72	227	
Amhara	S. Wollo	Legambo	Barneb	60	252	2003
Amhara	S. Wollo	Legambo	Busso	60	340	2003
Amhara	S. Wollo	Kalu	Dirma	180	576	2003
Amhara	North Shoa	Angolela Tera	Dodoti	73	292	2003
Amhara	North Shoa	Angolela Tera	Chcha	160	640	2004
Amhara	North Shoa	Kewot	Gulnfeta	90	360	2004
Amhara	North Shoa	Kewot	Sawer	191	760	2004
Amhara	North Shoa	Kewot	Tikur Wuha	175	700	2003
Amhara	North Shoa	Kewot	Kobo	25	100	2003
Amhara	North Shoa	Basona Worana	Wsha Wushien	41	164	2004
Amhara	S. Gondar	Este	Gumera	64	256	204
Amhara	S. Gondar	Este	Gota	58	232	2004
Amhara	S. Gondar	Fogera	Chan	80	320	2004
Amhara	S. Gondar	Fogera	Irza	32	128	2004
Amhara	S. Gondar	Fogera	Bebeks	55.5	222	2004
Amhara	N. Gondar	Libokemkem	Shina	25	100	2004/05
Amhara	E. Gojiam	Bibugn	Zebit	72	288	2004
Total Amhara			Sum	1442	5730	
			Average	85	337	
OVERALL			**SUM**	**4928**	**15491**	
			AVERAGE	**88**	**310**	

Appendix VIII: List of Participants at the Final Evaluation Workshop (24 February 2005) and Mission Wrap-up Meeting, Addis Ababa, 8 October 2004

List of Participants in Final Evaluation Workshop, MoWR, Addis Ababa

(24 February 2005)

Name	Function and Organisation
Government Agencies / Federal Level	
H.E. Mesfin Tegene	Hon. Vice Minister, MoWR
Mr. Ayalew Abate	Coordinator, SCP II
Mr. Asegid Ayalew	MoARD
Mr. Aweke Nigatu	SCP II / PCU Agronomist
Dr. Dejene Demissie	MoFED
Mr. Tegene Alemu	MoWR Finance Division
Mr. Tesfaye Fichala	SCP II / PCU Sociologist
Mr. Tesfaye Tadesse	MoWR
Mr. Teshome Atnafia	MoWR
Ms. Yeworkwha Abate	MoFED
Government Agencies / Regional Level	
Mr. Assefe Shiferaw	Tigray Cooperative
Mr. Bethanu Weideke	Tigray Water R.
Mr. Damenu Bekele	SNNP, SIDA
Mr. Dejene Zewdi	CBHRD – South Cooperative Bureau
Mr. Dejen Zewdu	SNNPR Coop. Bureau
Mr. Girma Lenna	OADB Horticulturalist
Mr. Hadera Haile	TWRDC
Mr. Haile Berhe	Bureau of Agriculture and Irrigation
Mr. Hassan Nur	Coordinator, OADB
Mr. Lakachew Emiyu	BoWR, Amhara
Ms. Milike Abelissa	Rural Women Dep. OADB
Mr. Muluken Lakachew	AMNS – B.
Mr. Nadew Feleke	SNNPR Agronomist
Mr. Wondimiu Tekele	SNNP, SIDA
Worku Kassaya	Oromia Cooperative Promotion Office
International Organisations	
Richard Carter	IFAD Evaluation Team Leader
Sally Crafter	Country Director, Farm Africa - Ethiopia
Fabrizio Felloni	Evaluation Officer, IFAD-OE
John Gicharu	CPM for Ethiopia, IFAD-PF
Dele Ilebani	UNOPS
Robson Mutandi	UNOPS
Krishna Prasad	IWMI

SCP II Interim Evaluation Wrap-up Meeting, Friday, 8 October 2004 - List of Participants

Name	Function/Organisation	Phone/Email
Evaluation Team		
Fabrizio Felloni	Associate Evaluation Officer, IFAD	+39 06 54 59 21 58 f.felloni@ifad.org
Richard Carter	Evaluation Team Leader, Prof of International Water Development, Cranfield University UK	+44 1525 863297 r.c.carter@cranfield.ac.uk
Tilahun Amede	Evaluation Team Member, S/Research Fellow, Int[nl] Centre for Tropical Agriculture (CIAT)	+251 1 463215 t.amede@cgiar.org
Merkorewos Hiwet	Evaluation Team Member, Consultant	+251 9 40 30 85 merkorewos@telecom.net.et
Kerstin Danert	Evaluation Team Member, Independent Researcher and Consultant	+256 77 402304 kerstin@danert.com
Ayele Gebre Mariam	Evaluation Team Member, Consultant	+251 1 514477
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Appendix IX: Evaluation Insights and Recommendations Table

Table 1. Recommendations of the SCP (Phase I) Interim Evaluation

Recommendation	Source[95]	Comment from 2004 IE Team
AR should contain "step-by-step guidance…on all project activities that have to be undertaken to achieve the intended results of project components"	§145, 184	We favour a more participative approach, building the capacity of the relevant authorities to develop such procedures for themselves.
Future Technical Assistance (TA) should be based on "a rigorous analysis of manpower needs and skills gaps, and should only be put forward as a last resort. It should be geared strictly to capacity-building, with the full agreement of all…"	§150	We are in full agreement.
Future funding for foreign academic training should be carefully considered in the light of the opportunity cost and the real long-term benefits.	§151, 186	This recommendation was based on the observation that many such trained staff were subsequently lost to other employment.
All design prepared by zonal offices should be checked and approved by the regional bureaux	§153	Designs are now done at Regional level.
Planners (ie engineers) should be "reoriented to demand-driven development, and to consideration of the social, environmental and economic aspects of planning."	§156, 184	This wider awareness is still needed.
Any future project "should limit itself to a single operational region, to simplify as far as possible the arrangements for flow of funds…"	§156, 179	Clearly this has not happened. The argument was that only central Government could borrow from IFAD, but it was unable to coordinate the Regions effectively.
Scheme development should be truly demand-led; genuine participation should be sought; physical progress should take place at the speed of the farmers.	§159	This situation is still far from universal in SCP II, and it was perhaps over-optimistic.
WUAs should be formed "not by outsiders, but by [the farmers] themselves", and "must be formed and functional before an investment decision is taken." WUAs should have legal status under the Agric Cooperatives Societies Proclamation No. 85/1994. GoE should promote awareness of this legislation.	§161, 183	This is far from being the case, and it was somewhat unrealistic.
GoE should consider requiring farmers to be organised in a legally registered WUA, which would oblige them to contribute 25% to the capital costs and 100% of the O&M costs of their schemes.	§163-166, 182	Both these levels of contribution are beyond the capacity of most farmers.
Policy guidelines should be prepared at Regional level	§168	These are still needed.
Supervision should be "more frequent and of longer duration, aimed at keeping the project on track in qualitative as well as disbursement terms".	§169-171, 187	The IE's incisive criticisms of the supervision system still stand.
SCP donors should propose a new bund stabilisation project for East and West Harerge, using unspent project funds.	§174, 193, 194	This was to test the "conspiracy theory" that GoE was unwilling to spend loan funds on soil conservation works.
"Farmers should … be given the opportunity to organise their own social groups where appropriate, to facilitate their active participation in the decision-	§177, 188, 189	This was based on the view that organisations such as the PAs and Cooperatives failed to fully meet farmers'

[95] Within Ethiopia Special Country Programme (SRS 003-ET) Interim Evaluation, Main Report and Annexes. Report No. 707-ET, December 1996

making process."		(especially women's) interests.
The Regions should begin using private sector engineers and contractors.	§180, 190	This is still yet to happen.
Proper scheme selection criteria need to be developed by GoE.	§181	These are still needed.
All future scheme designs should be free-draining, to enable control of schistosomiasis.	§185	This is not thought to be an important issue.
The M&E system should be re-designed and resourced.	§191	An on-going area of repeated recommendation.
Unnecessary payment of import duties on equipment and vehicles should be avoided.	§192	Not thought to be a current issue.

Table 2. Project approach and project components

Key descriptors from the SCP II AR	**Source**[96]	**Comments from 2004 IE Team**
Rationale and overall approach		
Fully demand-led.	§90, 92, 97	This was naively optimistic, in our view.
Self-sustaining, farmer-initiated development.	§91	
Enhancing incomes and food security of rural households, particularly in food-deficit areas.	§91	It is not clear yet to what extent the focus on food-insecure areas has been pursued.
A national programme.	§91	Was carried out in four Regions.
Supplementary irrigation of perennial and cereal crops; dry season irrigation of vegetables.	§91	Limited supplementary irrigation, in practice.
Full participation, ownership and management by users.	§92, 93, 95	There is still some way to go in this area.
Emphasis on quality of development rather than disbursement targets	§92	A comment which is still pertinent.
Imitating the process by which traditional schemes originated.	§93, 97	This too appears naïve.
Promotion of "self-managed and self-directed registered WUAs".	§93	Over-optimistic.
Community capacity-building	§94	Politically naïve.
Women's access to resources and participation in WUAs.	§94	Always a small but significant part of the project.
Improved nutrition.	§94, 95	Some evidence of this is now emerging
Consolidation of Phase I.	§95	Not quite as seen by GoE.
Developing staff capacity in PRA.	§95	Little evidence of this.
Community development fund for grants to WUAs and women's groups for reduction of post-harvest losses, and improving marketing.	§95	Not implemented.
Reorienting and training staff in demand-led development.	§96	This is a slow process.
Focus on traditional systems; development of new schemes "only when all demand on existing schemes has been satisfied…"	§97	This guideline not fully adhered to.
Project components		
Irrigation: demand-led improvements and extensions to traditional systems; usually run-of-river diversions and unlined canals. No construction until WUA set up, and members accepted O&M costs.	§96-107	Most emphasis in reality has been on study and design, and construction. WUA responsibility for all O&M was always unrealistic.
Agricultural component: (a) agric support services –	§108-120	Various elements have been

[96] Within Special Country Programme Phase II Appraisal Report. Africa II Division, Programme Management Department. Report No. 0755-ET, 25 April 1997.

crop trials/demonstrations and DAs, (b) catchment soil conservation, (c) women's vegetable gardens, (d) vegetable seed production.		implemented, but much remains to be done.
Institutional support: TA for prep of OM and PIM; annual orientation workshops; workshops on market analysis, environmental screening and EIA, and action planning. Six-monthly WUA training. Training of irrigation agronomists, including overseas. Training of soil conservation staff. Training for home agents and women. Support of PCU. Establishment of Community Development Fund.	§103-105, 111-112, 116, 119, 121-123	Much remains to be done in this component.

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