Executive summary

1. **Background.** The Independent Office of Evaluation of IFAD undertook a project performance evaluation (PPE) of the Root and Tuber Improvement and Marketing Programme (RTIMP) in the Republic of Ghana. The objectives of the evaluation were to: (i) assess the results of the programme; (ii) generate findings and recommendations for the design and implementation of ongoing and future operations in Ghana; and (iii) provide project-level evidence that will feed into the corporate-level evaluation on value chain development. This PPE is based on a review of various project-related documents and a mission to Ghana in September 2017, which visited the project areas and held interviews and discussions with various key stakeholders, including beneficiaries.

2. **Programme context.** RTIMP was designed as a follow-up to the Root and Tuber Improvement Programme, which focused primarily on cassava research and development, was implemented from 1997 to 2005 at a total cost of US$10.1 million and reached 750,000 household beneficiaries. RTIMP was approved in September 2005 and completed in December 2014. By completion, it had reached 217,258 direct beneficiaries (against the appraisal target of 290,000).

3. The programme's development goal was to enhance the food security and incomes of poor rural households in Ghana, with a special emphasis on women and other vulnerable groups. Its specific objective was to build up competitive, market-based and inclusive commodity chains for roots and tubers (R&T), supported by relevant, effective and sustainable services that are accessible to the rural poor.

4. The five programme components were: (i) support to increased commodity chain linkages; (ii) support to R&T production; (iii) upgrading of R&T processing, business and marketing skills; (iv) promoting a value chain approach to climate change adaptation in agriculture in Ghana (PROVACCA), a three-year pilot project that was added in July 2012 as a component of RTIMP with a Global Environment Facility (GEF) grant); and (v) programme coordination, monitoring and evaluation.

5. Against the estimated project cost of US$27.7 million, the actual project cost was US$23.6 million, which included an IFAD loan of about US$19.0 million (80 per cent of the total cost), Government counterpart funding of US$2.32 million, beneficiary farmers' and processors' contribution of US$1.29 million, and contribution from the participating financial institutions of US$0.4 million (against US$4.0 million expected). At project completion, only 30 per cent of the available funds of the GEF grant had been utilized and the balance was "transferred" to co-finance another IFAD-financed programme, the Ghana Agriculture Sector Investment Programme.

6. **Relevance.** The objective of the programme was relevant to the country context and Government priorities. The elements of an inclusive value chain development approach were in place, and the design and initial arrangements displayed a relatively solid intervention logic with sufficient attention paid to collaboration with the private sector. The three main components in relation to production, processing and marketing were designed to be integrated to support value chain development across the areas of focus, and they were also appropriately resourced. Recognizing the Ministry of Food and Agriculture's (MoFA) lack of experience in R&T processing and commodity chain integration, the design envisaged partnership with the private sector (e.g. technical service provider in the original design, and supply chain facilitators after mid-term review) in leading the studies on value chain mapping and diagnostics, as well as proposing recommendations to address specific needs in each chain.

7. Given the long programme duration, it was designed to be flexible and responsive to emerging needs during implementation through the use of the two specific funds –the Initiative Fund and the Micro Enterprise Fund (MEF) –under the marketing and production components. Unfortunately, although the two funds were in high demand, they lacked technical and operational details in design. The MEF in particular was based

on unrealistic assumptions and overlooked liquidity constraints of the rural banks, resulting in low uptake. Even though there were some technical weaknesses in the original design, the programme implementation responded to lessons learned at mid-term review and worked to re-direct the design into some focused areas. Overall, this indicated a relatively well-designed programme, but with some weaknesses in sub-component design details.

8. **Effectiveness.** The main achievement of the programme has been in the change of farming practices at the farmer level. The use of the farmer field fora (FFF) was cited as a benefit for farmers across all levels of the programme. Through FFF and multiplication stations, the programme increased the availability and accessibility of healthy and high yielding R&T planting materials.

9. However, the objectives related to R&T value chain development, and processing and marketing skills upgrading, were underachieved. This is particularly related to slow implementation of the marketing and processing components before the mid-term. The mid-term review tried to re-focus the programme back to the original design with the participation of the supply chain facilitators (SCFs) who would assist producers and processors in identifying critical bottlenecks in the specific supply chain. The Initiative Fund was then expected to address those particular needs. Positive results were achieved, but little time was left to implement the recommendations proposed by SCFs. The PPE team also found that the farmer-based organizations were largely inactive and did not serve as an effective mechanism for helping farmers negotiate better prices and access markets, as expected in design. The effectiveness of district stakeholder forums (DSFs) in establishing market linkages among the R&T commodity chain actors was limited. But it is noted that good district leadership was essential for the forum to achieve its intended objective.

10. The good practice centres (GPCs) as processing centres are fully functioning in most of the cases, but they fall short of the objective as demonstration sites. The programme upgraded 26 GPCs. However, GPC as a main commercialization strategy did not provide a sufficient market mechanism to absorb the increased production, partly due to their limited geographical coverage. The focus of project attention on the GPCs as a main market avenue took attention away from other potential mechanisms. As mentioned earlier, though SCFs started to work on alternative mechanisms late in the project, little time was left to implement the proposed recommendations.

11. **Efficiency.** RTIMP experienced a number of issues with respect to programme efficiency: resources were not disbursed in a timely fashion; activities were not sequenced properly; high management costs were compounded by significant deficiencies in the programme’s financial management; and cost per beneficiary was relatively high. Additionally, the MEF was underutilized and failed to mobilize resources from participating financial institutions due to design weakness and capacity constraints. Most notably, the project completion report indicated very high programme management costs: US$11.5 million on coordination and the monitoring and evaluation component. After the PPE team's recalibration and correction of some errors, the management costs are estimated to be about US$5.8 million, which still almost doubles the allocated amount of US$2.9 million and represents 30 per cent of the IFAD loan. The increased management costs were mainly driven by the increase in vehicles and office equipment, and salaries and allowances, according to the expenditure category data. Staff turnover was high, which negatively affected the implementation efficiency and programme management.

12. **Rural Poverty Impact.** RTIMP significantly increased yields through improved varieties and better farming management skills. By changing land preparation from mounds to ridging, and by using improved varieties and better pest and soil management, farmers reported to have achieved an approximate doubling in yield for different R&T products (cassava, yam and cocoyam). Additionally, the improved planting

materials produced some varieties with longer shelf-lives, which allowed farmers to store and sell them at a better price after the harvest season.

13. Due to increased productivity, many programme participants did achieve overall improvement in household income at the beginning. However, while productivity increased, marketing was still a problem; oversupply and local market saturation were widely observed, resulting in lower prices and unsustainable income increases. The programme included various initiatives to improve food safety and nutrition, including improved production quality control processes and the production of protein and vitamin A-fortified gari, particularly in the GPCs.

14. Overall, the programme contributed modestly to household incomes, primarily through improvements in agricultural production. There were significant increases in crop productivity and a resultant contribution to household food security. The increase in gari production also improved the accessibility and affordability of processed foods in the local communities. However, the magnitude of the programme's contribution is difficult to estimate due to the general upward trend of rural development, poverty reduction, and food security improvement in Ghana. Little was achieved at the institutional and policy levels, which also negatively affected the sustainability of benefits.

Conclusions

15. In spite of a well-balanced design in which priority was given to building commodity chain linkages, the implementation focus was largely biased towards production with insufficient attention to the marketing aspects, which led to unfulfilled potential. This imbalance between production and marketing was mainly due to the reliance on the known approaches for production multiplication and lack of experience in the national agencies and their lack of focus on commercializing staple crops at programme commencement. The Programme Coordinating Office (PCO) was not adequately set up and equipped to coordinate the implementation of a programme of this nature. Progress was made after the mid-term review when supply chain facilitators were appointed and when the MoFA's focus towards agricultural commercialization intensified.

16. While the matching-grant mechanism has been used across IFAD’s portfolio in Ghana with some successful experience, in the case of RTIMP the MEF was less effective in mobilizing resources from participating financial institutions. Although the MEF can be an appropriate mechanism to leverage resources, it needed to be built upon realistic assumptions about both supply (rural bank liquidity, low risk aversion to agricultural loans) and demand sides (strong farmers’ groups, financial capacity).

17. The value chain approach for the R&T sector in Ghana is a good example of how subsistence farming can be commercialized with appropriate support, but a commercialization approach should be commenced early in implementation. The PPE found that there was both market demand and supply potential for R&T. If more knowledgeable and experienced staff had been secured for implementation at commencement, and the MoFA had had sufficient marketing and value chain development capacity, the programme would have had time to mature and generate greater results with correct commercial orientation.

Recommendations

18. **Recommendation 1. Future market-oriented projects should invest early in specialized skills on market development and pay close attention to demand fluctuations.** The experience of RTIMP shows that when market analysis and commercial planning were carried out, and where DSFs were successful, positive progress was achieved. For future interventions, investments in capacity building of concerned agencies and in orienting the MoFA toward a commercial approach and mindset are required early on to allow time for implementation. Additionally, future projects also need to better identify market constraints: type of markets (export, regional, domestic), end use of the commodity, characteristics of the commodity, quality attributes, and current and emerging market trends. Lastly, while working directly with key enterprises, other marketing approaches such as direct linkage, contract farming, direct sub-contract, or agency facilitation could be considered and supported to increase diversification and address market interests.

19. **Recommendation 2. Matching grant funds may be appropriate but alternative rural financing mechanisms should also be explored.** RTIMP reliance on the MEF for financing constrained implementation, and more intensive support was required to overcome the challenges faced by both financial institutions and the target group. Where there is demand for rural finance, a matching grant fund can be a good mechanism to mobilize resources and increase financial access by resource-poor farmers. However, its design should be based on careful assessment of the potential risks and constraints in both supply (financial service providers) and demand (borrowers) sides for such a mechanism to be effective in reaching the intended target group. At the same time, alternative approaches aimed at improving access to finance, for example through linkages with the IFAD-financed Rural Enterprises Programme, a line of credit or asset-based financing (leasing) may also be explored.

20. **Recommendation 3. Project management issues need to be addressed early and decisively to avoid dilution of the strategic intent and efficiency of the project.** RTIMP implementation was affected by financial and staff management concerns. These were identified at an early stage, but action was not taken until late in the project period. Specifically, for the future projects, IFAD and the Government should identify risks related to project management and risk mitigation measures in advance so that actions, where and when required, can be taken in a timely manner. Future projects should ensure an appropriate structure of the implementation unit (e.g. PCO) to enhance the MoFA's leverage on project supervision. There is also a need to keep a certain degree of human resource and institutional memory within the Government after project closure.