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IFAD12 Impact Assessment Report

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Action: The Evaluation Committee is invited to review the IFAD12 Impact

Assessment Report.

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Executive Board

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IFAD12 Impact Assessment Report

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External review of the IA approach

Executive summary

- 1. This report synthesizes evidence from 16 projects evaluated under the Twelfth Replenishment of IFAD's Resources (IFAD12) covering the period 2022–2024, and 34 value chain impact assessments (IAs) conducted between 2016 and 2024. IAs are key for generating evidence and lessons to enhance operational performance. This report aims to identify what works in rural development by examining impacts of IFAD's projects on income, production and market access.
- 2. An innovation in this report is the distinction between average and transformational impacts, focusing on the depth of impacts (transformation is defined as impact above 50 per cent) relative to the breadth (scale of outreach). A core finding is that IFAD-supported investments have been effective in delivering deep improvements in the lives of rural people, providing lessons to optimize future programming.
- 3. Eight lessons emerge from this analysis:

1. Transformational impacts are achievable when multiple constraints are addressed simultaneously

Projects that simultaneously address strategic constraints – such as liquidity, information and market connectivity, through a bundled approach – deliver synergistic and scalable results across the whole value chain.

2. Midstream investments are crucial in value chain projects

Yield improvements are not sufficient. Successful value chain projects convert productivity into profitability through midstream investments and downstream market integration.

3. Achieving resilience requires intentional designs and longer timeframes

Building resilience requires deliberate interventions in project design that integrate climate adaptation, diversification, access to finance and livelihood support informed by context-specific vulnerability assessments.

4. Improving food security and nutritional outcomes requires distinct, targeted approaches

Increases in food production or income gains are not sufficient to improve nutrition. Improving nutritional outcomes requires dietary change delivered through targeting of nutritionally vulnerable households, embedding nutrition-sensitive components and behavioural nudges. A shift towards multisectoral approaches and better alignment between nutrition objectives, impact pathways and monitoring indicators will be critical to achieving stronger impacts.

5. Gender-specific targeting and inclusive delivery mechanisms promote empowerment

Explicit targeting and inclusive delivery mechanisms are essential for women's empowerment outcomes. Empowerment means not only benefiting women in terms of income but also enhancing their agency and decision-making over production, income and sales.

6. Bundles such as vocational training, personalized coaching, input provision and start-up finance are impactful for youth empowerment

Bundled support enhances youth outcomes. Future designs should also build capacities for value addition, entrepreneurship and upgrading along the value chain.

7. Balancing depth versus breadth: understanding the trade-off between impact and outreach

Future designs must consider the trade-off between depth and breadth, as investments cannot typically deliver both scale and intensity simultaneously. Understanding this balance ex ante is critical for cost-effectiveness and maximizing development impact.

8. IFAD13 will mark a strategic shift towards learning-oriented IA

IFAD's IA strategy will emphasize strategic learning and deployment of IAs more selectively – focusing on areas where evidence gaps persist, while leveraging the growing stock of existing evidence. This shift will balance ex post IA with an ex ante learning agenda earlier in the project cycle to generate real-time insights along the way. This forward-looking approach enhances the value of evaluations for adaptive management, course correction and institutional learning.

IFAD12 Impact Assessment Report

I. Introduction

- 1. This report presents key findings and lessons from 16 impact assessments (IAs) conducted for projects under the Twelfth Replenishment of IFAD's Resources (IFAD12) covering the period 2022–2024, henceforth referred to as the IFAD12 impact assessments (IFAD12 IAs). An innovation of this report is its focus on transformational impacts looking beyond average effects, to learn from instances where projects have delivered substantial improvements in people's lives.
- 2. Particularly striking are the potentially transformational income gains¹ observed in 7 out of 16 projects assessed most of which focused on value chain development.
- 3. These findings on value chain projects, together with the centrality of value chain development in IFAD's strategy and operations, motivated a broader analysis of all 34 value-chain-related IAs conducted over the past decade, to identify key pathways and design features of high-performing value chain projects.
- 4. This report places emphasis on identifying where IFAD's investments delivered deep and transformational changes, while also considering how widely these benefits reached different populations. Grasping this balance is key to informing future investment decisions and optimizing development impact.

II. Background

- 5. **IFAD** is a results-based organization that has institutionalized **IAs** as a core component of its development effectiveness efforts. Under IFAD9 (2013–2015), a rigorous methodology that would allow for credible estimates of attributable impact was developed. This methodological foundation was consolidated and scaled during IFAD10 (2016–2018) and IFAD11 (2019–2021).
- 6. Over time, the IA approach placed increasing emphasis on learning, to generate insights on what works and why. Under the Development
 Effectiveness Framework, the protocol for the selection of projects followed a purposive rather than a random approach, which may limit the generalizability of results to the wider IFAD portfolio. This highlighted a trade-off between accountability and learning (i.e. selecting projects with the highest potential to yield lessons).
- 7. During IFAD12, a regionally stratified random sampling approach was adopted to select 15 per cent of projects (16 in total) for ex post IAs. This ensured regional balance, but not necessarily by project typology, mainstreaming theme or Results Management Framework (RMF) indicator (e.g. nutrition, resilience).
- 8. As a result, the IA sample included limited representation of projects with interventions targeting nutrition. Consequently, any observed nutrition result was unintended and not driven by explicit design features.
- 9. Resilience-related interventions were present in more than half of the 16 projects evaluated. Interpretation of impacts should consider the following. First, resilience outcomes are inherently long term and may not be fully observable at the time of assessment. Second, the indicator used is perception-based, which may reflect individual beliefs rather than objectively defined resilience outcomes. Third, IFAD12 projects overlapped with the COVID-19 pandemic, which caused severe disruptions.

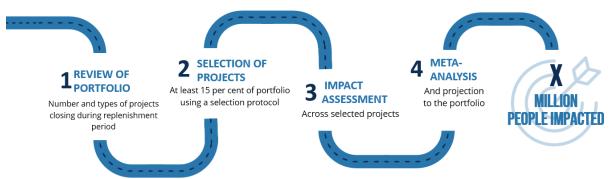
¹ An income increase is considered transformative when it leads to a significant and sustainable shift in an individual's or a group's well-being, not just a temporary increase in consumption. This means the increase must facilitate broader changes in behaviour, opportunities and access to resources, potentially altering the trajectory of their lives.

10. There is growing recognition of the limitations of relying on ex post, representative IAs that focus on a narrow set of aggregate indicators. As IFAD's portfolio shifts towards larger, multi-component investments that aim to deepen the impact across multiple dimensions, repositioning to a more purposeful-driven IA model is warranted. Future IAs should unpack how and why results were achieved, by testing impact pathways, identifying cost-effective delivery mechanisms and analysing which forms of stakeholder engagement yield the highest returns. This approach will allow IFAD to sharpen the learning value of future assessments and better inform the design of rural development interventions.

III. What were the objectives of IFAD12 impact assessments?

11. The IFAD12 IAs aimed to generate rigorous evidence and actionable learning on IFAD-financed investments by evaluating 16 projects that closed during the IFAD12 cycle. The IA methodology consists of two core components (figure 1): the project-level IAs, which provide context-specific insights and lessons learned from individual investments; and an aggregate-level analysis, which involves aggregating project-level impacts via meta-analysis across Tier II indicators and projecting them onto 64.5 million beneficiaries from 102 projects that closed between 2022 and 2024 (see annex I for methodology). This approach enables credible reporting of IFAD's overall corporate impact on the livelihoods of its target population. Further, the analysis of the 16 project-level IAs helps uncover what worked, for whom, and under what conditions, supporting evidence-based improvements to enhance the effectiveness and transformative potential of future IFAD operations.

Figure 1 **IFAD12 IA approach**



IV. Project-level results: What difference did IFAD12 make?

12. Projects evaluated entailed varied interventions such as investments in infrastructure, access to finance, training and extension to connect value chain actors with a view to boost production, market access, income and resilience. Infrastructure included roads, water, irrigation and climate-resilient systems, while financial support was provided through credit and grants. The typical household reached had 4.5 members, was predominantly male-headed with an average age of 50 years and 7 years of schooling on average. They earned about 27 per cent of their income from crops, 24 per cent from livestock and 16 per cent from self-employment, with significant variation across projects. Annex I, table 1 summarizes key interventions and target groups across the 16 projects.

- A. Results across income (economic goal), productive capacity (strategic objective 1), and market access (strategic objective 2)
- IFAD delivered transformational impacts defined as income gains above 13. 50 per cent - in 7 of the 16 projects assessed, far exceeding the average impact of 34 per cent² (Leveraging synergies across interventions that combine rural finance or infrastructure with other types of contextspecific, tailored interventions proved highly impactful. Finance coupled with targeted training unlocked interlinked constraints of capacity and liquidity and drove high impact on income, production and market access in Uzbekistan under the Dairy Value Chains Development Project (DVCDP) and in Cameroon under the Youth Agropastoral Entrepreneurship Promotion Programme (PEA-Youth). External evidence supports these findings - in Bangladesh, where a project integrating financial and technical support at various nodes of selected value chains, and in Malawi where a project combining agricultural input subsidies with cash transfers led to synergistic gains, with incremental impacts on production beyond each intervention alone. In addition, bundling infrastructure with extension services and training proved particularly effective across China under the Sustaining Poverty Reduction through Agribusiness Development in South Shaanxi Project (SPRAD-SS), Cambodia under ASPIRE, Uganda under the Project for Restoration of Livelihoods in the Northern Region (PRELNOR) and in Madagascar under the Vocational Training and Agricultural Productivity Improvement Programme (FORMAPROD). Under the Rural Socioeconomic Opportunities Programme (POSER) in Cabo Verde, investments in water infrastructure and irrigation alongside training promoting the use of organic fertilizer allowed farmers to increase their production by 64 per cent and market sales by 161 per cent, translating into significant crop income gains. These results are corroborated in the literature, where combining infrastructure and extension services has shown positive results in Nepal and Ethiopia. Across these successful projects, a manageable set of complementary interventions in the form of training, assistance, extension and access to finance enabled farmers to purchase necessary inputs (credit, cattle, machinery, equipment, seeds, irrigation, skills etc.), adopt tailored agricultural and livestock rearing practices and thereby increase their productive capacity. Meanwhile, investments in infrastructure improved physical access to markets, while those providing value chain linkages – facilitating aggregation, processing and storage – reduced transaction costs and increased commercialization.). Several of these top performers in income also achieved highly impactful results in production and market access, highlighting that impacts across multiple livelihood dimensions have significant transformational potential for IFAD's target groups. Overall, of the 16 projects assessed, IFAD-supported interventions led to increases in production in 8 projects and improved market sales in 6 projects, and converted those gains into income growth in 10 projects.

² Average impact of 34 per cent, derived through meta-analysis of IFAD12 IA projects, is equivalent to an increase in annual household income by nearly US\$3,400 in 2015 purchasing power parity (PPP) terms (over and above the average income of a comparative non-beneficiary household in IFAD12 IA projects, which stood at US\$10,200). These values are approximate.

Figure 2 Impacts by RMF indicator

Country	Economic goal: Income	S01: Productive capacity	S02: Improved market access
Cabo Verde - POSER	147	64	161
Uzbekistan - DVCDP	84	54	213
Montenegro - RCTP	84	83	92
Madagascar - FORMAPROD	84	79	
China - SPRAD-SS	70		
Honduras - PROLENCA	56	72	39
Cambodia - ASPIRE	56	18	49
Cameroon - PEA-Youth	45	152	112
Uganda - PRELNOR	38		
Colombia - TOP	34		
Eswatini - SMLP		44	
Overall	34	35	34

14. Bundling complementary interventions – aimed strategically at unlocking key context-specific constraints faced by farmers – proved transformative.

These bundles included a manageable set of interventions that worked synergistically to overcome multiple constraints or tackled a single barrier through reinforcing actions – challenges rarely resolved by stand-alone interventions. Importantly, these intervention bundles were designed to be focused only on a few sets of constraints faced by farmers and did not necessarily entail many components. Out of the 10 projects with positive impacts on income, 7 projects were anchored in value chain strategies and enabled income gains through interventions that simultaneously addressed context-specific barriers related to production (liquidity, information), market access and retail (Leveraging synergies across interventions that combine rural finance or infrastructure with other types of context-specific, tailored interventions proved highly **impactful.** Finance coupled with targeted training unlocked interlinked constraints of capacity and liquidity and drove high impact on income, production and market access in Uzbekistan under the Dairy Value Chains Development Project (DVCDP) and in Cameroon under the Youth Agropastoral Entrepreneurship Promotion Programme (PEA-Youth). External evidence supports these findings - in Bangladesh, where a project integrating financial and technical support at various nodes of selected value chains, and in Malawi where a project combining agricultural input subsidies with cash transfers led to synergistic gains, with incremental impacts on production beyond each intervention alone. In addition, bundling infrastructure with extension services and training proved particularly effective across China under the Sustaining Poverty Reduction through Agribusiness Development in South Shaanxi Project (SPRAD-SS), Cambodia under ASPIRE, Uganda under the Project for Restoration of Livelihoods in the Northern Region (PRELNOR) and in Madagascar under the Vocational Training and Agricultural Productivity Improvement Programme (FORMAPROD). Under the Rural

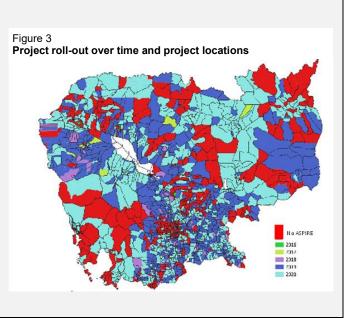
Socioeconomic Opportunities Programme (POSER) in Cabo Verde, investments in water infrastructure and irrigation alongside training promoting the use of organic fertilizer allowed farmers to increase their production by 64 per cent and market sales by 161 per cent, translating into significant crop income gains. These results are corroborated in the literature, where combining infrastructure and extension services has shown positive results in Nepal and Ethiopia. Across these successful projects, a manageable set of complementary interventions in the form of training, assistance, extension and access to finance enabled farmers to purchase necessary inputs (credit, cattle, machinery, equipment, seeds, irrigation, skills etc.), adopt tailored agricultural and livestock rearing practices and thereby increase their productive capacity. Meanwhile, investments in infrastructure improved physical access to markets, while those providing value chain linkages - facilitating aggregation, processing and storage - reduced transaction costs and increased commercialization.). For instance, in Montenegro, the Rural Clustering and Transformation Project (RCTP) bundled credit - through matching grants - with training, and promoted improved cattle breeds and feed systems, which boosted productivity by 83 per cent. At the same time, multiple stakeholder platforms coupled with rehabilitation of roads provided crucial links to the market, increasing livestock sales by 92 per cent. Similarly, in Honduras under the Project for Competitiveness and Sustainable Development in the South-Western Border Region (PRO-LENCA), tailored assistance to high-potential commodities such as coffee, potatoes and livestock coupled with water infrastructure investments increased production by 72 per cent, while rural road upgrades improved market connectivity by 39 per cent. These examples align with previous evidence generated at IFAD and the literature, which suggests that isolated interventions may be insufficient to help poor households escape low-productivity traps and that <u>bundled packages</u> are more likely to generate significant impacts.

Box 1

Advancing resilient and profitable farm businesses in rural Cambodia by addressing interconnected barriers

The Agriculture Services Programme for Innovation, Resilience and Extension (ASPIRE) combined training, demonstrations and incentive packages with support from community extension workers and led farmers to strengthen financial inclusion and access to modern farming knowledge and inputs, such as high-quality seeds, fertilizers and equipment. At the same time, climate-resilient infrastructure boosted access to irrigation by 23 percentage points and erosion control facilities by 10 percentage points, contributing to better farm management. By promoting market integration, ASPIRE enabled smallholder farmers to benefit more fully from technology adoption and improved practices.

Resilience to climate and other shocks also improved by 7 percentage points, underscoring the programme's role in stabilizing livelihoods. Together, these integrated interventions drove an 18 per cent increase in crop yields, a 51 per cent rise in crop revenues and ultimately a 56 per cent increase in overall income, reflecting a critical role played by the programme in advancing Cambodia's agricultural modernization and poverty reduction.



15. Leveraging synergies across interventions that combine rural finance or infrastructure with other types of context-specific, tailored interventions proved highly impactful. Finance coupled with targeted training unlocked interlinked constraints of capacity and liquidity and drove high impact on income, production and market access in Uzbekistan under the Dairy Value Chains Development Project (DVCDP) and in Cameroon under the Youth Agropastoral

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- training, personalized coaching, input provision and start-up finance. In Madagascar (FORMAPROD), agricultural skills training adapted to the education level, coupled with hands-on practice, provision of basic inputs and mentorship, equipped youth with skills that allowed them to translate their improved productive capacity into higher sales and income by 84 per cent. In Cameroon (AEP-Youth), agropastoral support packages successfully improved production, while linkages with traders and processors led to sales increases of 112 per cent and subsequent income gains by 45 per cent. The notable sales of unprocessed livestock and fish without value addition by the targeted youth highlight a promising potential direction for future projects in Cameroon. An Organisation for Economic Cooperation and Development review assessing the future of rural youth in 24 developing countries also emphasizes the importance of similar comprehensive interventions and policies.
- 17. While several projects delivered strong gains in production, their transformative potential was not fully realized due to limited investments in processing or market linkages. In Cabo Verde (POSER), despite notable increases in crop income, there was no corresponding overall income growth because income from agriculture constituted less than 20 per cent of the total income. Additionally, farmers faced challenges in accessing markets to commercialize their produce. The Smallholder Market-led Project (SMLP) in Eswatini generated increases in production of 44 per cent, leading to higher household consumption rather than market participation as farmers faced challenges obtaining fair prices for their crops due to the dominance of state-owned enterprises in price setting. In countries with challenging geographic conditions and limited infrastructure, such as Eswatini, Mongolia and Nepal, commercialization was similarly constrained despite improvements in production. These cases align with https://limiterature and underscore the importance of addressing the

right missing links – especially post-harvest value chain barriers – to convert production gains into income improvements.

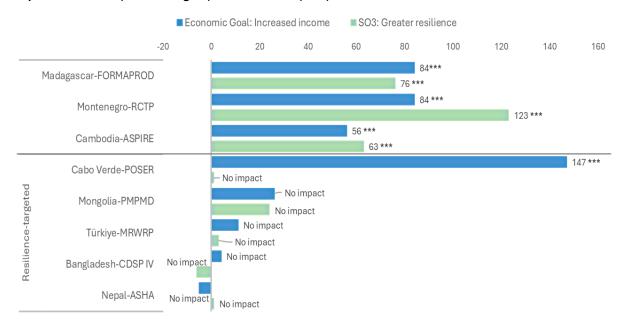
18. Understanding the trade-off between depth of impact and breadth is critical for cost-effectiveness and maximizing development impact.

Outreach – defined as the number of people reached – is largely determined by country demographics and the size of IFAD's target group, i.e. poor and vulnerable people in rural areas. In contrast, depth of impact refers to the magnitude of impact – projects offering deep, tailored support to vulnerable populations may reach fewer people but generate more significant outcomes as has been observed for IFAD12 IA projects. Conversely, broader-reaching interventions may achieve smaller average gains. Strategically, IFAD needs to consider this trade-off to balance depth and breadth.

B. Greater resilience (strategic objective 3)

19. Income increases alone are insufficient to build resilience without tailored, context-specific interventions that address vulnerability, adaptive capacity and recovery ability over the short and long term (figure 4). In IFAD's IA, resilience was measured as the self-reported ability to recover from climatic and non-climatic shocks. On average, projects in the sample improved resilience by 5 percentage points, a result driven by 3 of the 16 projects evaluated. In addition to Cambodia's ASPIRE experience discussed in box 1 above, in Madagascar (FORMAPROD), recovery from non-climatic shocks improved alongside significant increases in agricultural production and stronger market engagement. In Montenegro, resilience improved by 123 per cent, largely due to RCTP's clustering approach that promoted income diversification, enabling farmers to adopt ex ante risk management strategies. In Eswatini, promotion of horticulture and legume value chains led to an increase in crop diversification by 67 percentage points and income diversification, yet these changes did not enhance resilience – consistent with evidence that notes the importance of enabling factors such as market development and social safety nets. Other evidence also shows that climate-smart agriculture, access to credit and insurance, strong community networks, investments in human capital and infrastructure all enhance resilience.





Note: CDSP = Char Development and Settlement Project.

Targeted interventions steered the adoption of climate-resilient agricultural practices but did not consistently enhance self-reported recovery capacity or income (figure 4). For example, Nepal's Adaptation for Smallholders in Hilly Areas Project (ASHA) led to increased adoption of improved livestock shedding, stall feeding, erosion control and mulching without boosting income or resilience, partly due to a limited focus on market linkages. In Türkiye under the Murat River Watershed Rehabilitation Project (MRWRP), while irrigation and terracing helped diversify income sources, there was no significant effect on income or resilience, likely due to limited protection against shocks. In Mongolia, pasture management improved, but inadequate market access and logistical challenges and geographical remoteness constrained economic gains. In Cabo Verde, POSER had a positive impact on farmers' adoption of irrigation leading to greater production and income, but limited uptake of drought-resilient crops constrained recovery ability. These findings align with other evidence showing that climate adaptation alone will not boost resilience unless paired with broader strategies that address income stability and risk management. It also reflects both the long-term, dynamic nature of resilience and the fact that evaluation timing may have captured only outputs or intermediate outcomes, such as the adoption of sustainable and climate-resilient practices. At the same time, these limited impacts on resilience may have been driven partly by multiple concurrent global shocks that intensified vulnerabilities and overshadowed any localized positive effects from resilience-enhancing interventions. Another important consideration is how resilience is measured. Recognizing the multidimensional nature of resilience, studies emphasize measurement approaches that combine indicators from economic, social, environmental, institutional and health sectors. Thus, future IAs should integrate more objective, multilevel and time-sensitive indicators to better capture the dynamic and context-specific nature of resilience.

Box 2 Measuring social capital in post-conflict Colombia

The IFAD12 IA of the Building Rural Entrepreneurial Capacities Project: Trust and Opportunity (TOP) took place in Colombia's post-conflict zones, targeting areas heavily affected by Revolutionary Armed Forces of Colombia-related violence. The assessment confirmed effective targeting, with over half of the treatment group reporting conflict-related violence. Despite the fragile context, the project achieved strong results on income, resilience, dietary diversity and women's empowerment. Given the post-conflict setting, an innovative module was added to measure social capital, focusing on trust and altruism. While initial findings suggested declines in trust, further analysis using geospatial data revealed that these declines were concentrated in areas with low organizational presence, private land tenure, and no coca cultivation. This suggests that the project's influence on social capital was shaped by the community's pre-existing social fabric and land governance, highlighting the need for tailored approaches in conflict-affected areas.

C. Nutrition and women's empowerment

IFAD12 IAs showed improvements in food security, but dietary diversity remained limited, reflecting the absence of nutrition-specific design in the sample of evaluated projects. IFAD12 IAs showed an average 8 per cent improvement in food security (as measured by the Food Insecurity Experience Scale), driven by six projects. The projects in Cabo Verde and Uzbekistan with the most transformative income impacts also led to gains in food security of 26 per cent and 9 per cent, respectively. In Eswatini (SMLP), food security gains were spurred from higher consumption of targeted crops and support for subsistence-level "food deficit" producers. However, improvements in nutritional outcomes such as dietary diversity (as measured by the Household Dietary Diversity Score) were limited even when income increased, particularly due to lack of nutrition-specific design in most of the IFAD12 IA projects as they were designed before nutrition was mainstreamed in IFAD. Finally, IFAD12 IA data suggest that diets were already relatively diverse to begin with, making further improvements in dietary diversity more difficult to achieve and detect. These findings underscore the importance of sharpening project targeting towards areas and population groups

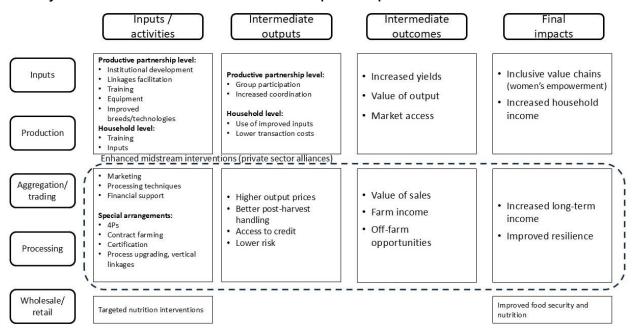
- with low dietary diversity and the need to revisit indicators used to capture nutrition.
- 22. Systematic evidence on nutrition-sensitive approaches shows that integrated, multisectoral interventions - addressing economic access, women's empowerment and enabling health environments - are most effective for tackling the systemic causes of malnutrition. The Independent Office of Evaluation of IFAD (IOE) conducted a thematic evaluation of IFAD's support to nutrition and noted the need for systematic application of a food systems lens and more responsiveness to context-specific nutrition needs. It called for a shift towards more comprehensive, multisectoral approaches that integrate behavioural change communication, nutrition education, food fortification, support for homestead gardens, food safety, water access and climate-nutrition linkages, alongside stronger gender mainstreaming and better alignment between nutrition objectives, impact pathways and monitoring indicators. Strengthening partnerships, improving staff capacity, more effective knowledge-sharing and embedding nutrition earlier in the project cycle were also identified as critical to increasing impact. IFAD projects and strategies are well positioned to contribute to underexplored but strategic areas for enhancing nutritional outcomes through agricultural interventions, including food supply chains, food safety regulations, midstream value chain activities and public-private partnerships.
- Gender-specific targeting and inclusive delivery mechanisms are more likely to promote women's empowerment. Women's empowerment improved by 10 per cent on average, driven by an increase in the number of income sources over which women had decision-making power either solely or jointly with men. Three livestock-oriented projects – the Project for Market and Pasture Management Development (PMPMD) in Mongolia, DVCDP in Uzbekistan and RCTP in Montenegro - showed promising impacts as women became engaged in feeding and care of animals, thereby increasing their role in decision-making in production and the use of earnings. Mongolia (PMPMD) included gender-sensitive training, adapted financial instruments, capacity-building tailored to women and formation of women's groups. In Montenegro (RCTP), a gender-sensitive scoring system for allocating matching grants awarded additional points to applications from womenheaded households. In Eswatini (SMLP) and Uganda (PRELNOR), participation of women in training and mentoring steered their involvement in producers' groups. Across these projects, these delivery mechanisms ensured women's active engagement throughout the project cycle, skills development and confidence to take on more active roles, thereby improving women's empowerment. Value chain projects, in particular, must intentionally include marginalized groups to avoid reinforcing inequalities. While improved market access can support empowerment, evidence shows that it may also exacerbate intra-household or community disparities. While a third of the IFAD12 IA projects show progress on this dimension, there is greater scope for future interventions to enhance women's decision-making power and control over assets.

V. What did IFAD learn from its value chain projects?

24. Value chain development is central to IFAD's strategy, with over three quarters of projects designed to connect small-scale producers to markets. IFAD's value chain stocktake in 2023 found that 76 per cent of IFAD projects approved since 2010 explicitly integrated a value chain approach, emphasizing stronger links between producers, processors and buyers. This marks a significant evolution from IFAD's early focus in the 1980s and 1990s on boosting productivity with limited attention to post-production processes. As a result, since the 2000s, IFAD has increasingly recognized that improving productivity alone is insufficient and begun to adopt a more market-oriented logic.

- 25. This section presents the findings of a deep dive into the 34 IAs conducted over the past decade on value chain interventions. Of the 58 IAs conducted across the IFAD10 to IFAD12 cycles (between 2016 and 2024), 34 were categorized as value chain projects based on the value chain stocktake, providing a comprehensive view of IFAD's evolving value chain approach. It is worth noting that it is quite unique to have this critical mass of IAs available on the topic, allowing for robust conclusions about the overall impact of these interventions on key livelihood outcomes. This analysis is further enriched by synthesizing key project-level lessons to understand what worked, why, and how IFAD can refine its approach for deeper income gains and transformative rural change.
- IFAD's value chain projects exhibited considerable variation in the scope, level and depth of private sector engagement. The value chain stocktake classified projects as value chain interventions if they included explicit strategies to upgrade production at the design stage. These included process and product upgrading (e.g. improved input or quality standards), functional and vertical linkages (e.g. between producers and buyers), and the creation of supportive infrastructure, institutions or policies. Projects were further categorized by the intensity of private sector engagement, using a scale from 0 for none to 3 for in-depth public-private-producer partnerships (4Ps). Projects vary widely in scope: some concentrate on the production stage, supporting farmers with training, inputs and strengthening of producers' groups to enhance coordination and market access, and aiming to increase yields, income and women's participation when designed inclusively. Others extend beyond production to support aggregation, processing, marketing, access to finance, certification and contract farming, aiming to increase price realization, reduce post-harvest losses, improve credit access and mitigate income risks. These more integrated approaches are particularly promising for achieving sustained income growth and building resilience. These pathways are summarized in figure 5.

Figure 5
Pathways for IFAD's value chain interventions: From inputs to impacts



A. What the evidence from the IAs reveals

27. Value chain projects consistently delivered strong productivity gains as nearly all of them addressed key constraints at the production stage. From cocoa in the Pacific to rice in West Africa, IFAD's investments in value chain development helped farmers increase yields with markets in mind. Meta-analysis of

the 34 value chain project evaluations found that agricultural productivity improved by an average of 43 per cent, confirming production-stage interventions as reliable drivers of success (figure 6). These gains were achieved through improved input use, better agronomic practices, and extension services aligned with market needs. In Uzbekistan, crop production per hectare rose by 77 per cent under DVCDP; in Montenegro's RCTP, by 68 per cent. In Nigeria's Value Chain Development Programme, rice production increased by 63 per cent, and in the Marketing Infrastructure, Value Addition and Rural Finance Support Programme (MIVARF) in the United Republic of Tanzania, rice and maize yields rose by 64 per cent and 35 per cent, respectively. Projects in the Pacific Islands also saw major improvements in high-value crops: cocoa and coffee yields nearly doubled in Papua New Guinea's Productive Partnerships in Agriculture Project (PPAP), and cocoa and coconut production increased by 62 per cent in Solomon Islands' Rural Development Programme (RDP) II. Whether focused on staple or cash crops, these projects succeeded by strengthening farm productivity foundations aligned with commercial and market-oriented goals.

Figure 6 Impacts of IFAD10 to IFAD12 value chain projects by RMF indicator³



28. The strongest gains in sales and income were observed in projects that anchored private sector engagement through structured 4Ps and multistakeholder platforms. On average, IFAD's value chain projects increased market access by 48 per cent and household income by 49 per cent (figure 6), equivalent to annual gains of US\$3,251 in sales and US\$4,585 in income (2015 PPP). The most significant results came from projects with strong private sector partnerships, such as Rwanda's Project for Rural Income through Exports (PRICE), which worked across the coffee and horticulture value chains, engaging financial institutions, market actors and coffee cooperatives. This approach led to a 34 per cent income increase for coffee farmers and over 500 per cent for horticulture producers, though mostly benefiting larger, more competitive farmers. The success of these farmers may indirectly benefit smaller producers, but such effects are not

³ PAPAC = Smallholder Commercial Agriculture Project; ASDP = Agricultural Sector Development Programme; HVAP = High-Value Agriculture Project in Hill and Mountain Areas; CCDP = Coastal Community Development Project; PROSUL = Pro-Poor Value Chain Development Project in the Maputo and Limpopo Corridors; LMDP = Livestock and Market Development Programme; LPDP = Livestock and Pasture Development Project; SPPAP = Southern Punjab Poverty Alleviation Project; AD2M = Project to Support Development in the Menabe and Melaky Regions; REP = Rural Enterprises Programme; S3P = Smallholder Productivity Promotion Programme; SAPP = Sustainable Agricultural Production Programme; PRODERI = Inclusive Rural Development Programme; GIADP = Guangxi Integrated Agricultural Development Project.

⁴ Over and above the average income and sales of a comparable non-beneficiary household, which stood at US\$9,400 and US\$6,800 respectively. These monetary values are approximate and were calculated by applying the estimated average impact from the meta-analysis of IFAD10–IFAD12 value chain projects. Data from IFAD10 were excluded from the calculation of these control group averages, as they are not standardized.

guaranteed and require deliberate, inclusive project design. Tools like ex ante economic analysis entailing microsimulations under various scenarios can help understand the distributional impacts at design. In contrast, Montenegro's RCTP achieved more inclusive outcomes, with livestock sales rising by 92 per cent and milk sales by 67 per cent among smallholders through inclusive multi-stakeholder platforms and public-private partnerships (see box 3).

Box 3

From Clusters to Customers: How Montenegro's RCTP Boosted Sales and Incomes through Strategic Public-Private Partnerships

Montenegro's RCTP, a full 4Ps intervention, stands out for its in-depth value chain strategy combining production support, infrastructure investment and strong partnerships with agribusinesses, financial institutions and market actors. Through its value chain clustering, the project built inclusive partnerships and commercial linkages, using multi-stakeholder platforms to connect over 4,000 small-scale farmers with processors, input suppliers, advisory services and buyers. This collective model strengthened farmers' market position, attracted investment and improved commercial partnerships. Investments in roads and water infrastructure further reduced market access barriers. As a result, participants increased their number of buyers by 94 per cent, expanded supermarket sales by 8 percentage points and achieved significant sales growth in livestock (+92 per cent) and milk (+67 per cent), leading to a 34 per cent increase in per capita income.

29. Boosting production and sales is not enough - without investment in the "missing middle" of the value chain, income gains often fail to materialize. Several projects increased productivity and sales but struggled to translate these into higher incomes due to downstream bottlenecks. In Solomon Islands' RDP II, cocoa farmers benefited from agribusiness partnerships and higher prices, while coconut farmers saw no gains because low global prices discouraged harvesting despite investments in processing equipment. Similarly, in Papua New Guinea's PPAP, cocoa farmers achieved strong results through rejuvenating old cocoa trees and road rehabilitation, but coffee farmers, despite adopting improved practices, faced poor yields, weak market links and low prices, leading many to abandon coffee production. These examples show that income growth requires comprehensive value chain strengthening, especially in post-harvesting, transport and marketing. Even where these gaps are addressed, external factors such as global price volatility can suppress returns, underscoring the importance of carefully assessing risk mitigation mechanisms at the project design stage.

B. What these lessons mean for project design

- 30. The aim of this section is to distil lessons for designing value chain projects to maximize their potential for significant and sustainable improvements in participants' well-being.
- 31. **Go beyond production: invest in the crucial "midstream" of the value chain.** Successful IFAD projects consistently show that investing in storage, processing and marketing (the "midstream" parts of the chain) helps smallholders capture more value and earn steadier incomes. These services, as <u>evidence</u> shows, often provided by small and medium-sized enterprises, are key connectors between farmers and markets and can also offer business services like credit and training and support the sustainability of the value chain post project. Strong private sector partnerships, better infrastructure and platforms like 4Ps, as seen in Rwanda's PRICE and Montenegro's RCTP, were especially effective at linking farmers to more profitable markets.
- 32. Specialization can increase returns but also heightens vulnerability. Resilience-building interventions must be explicitly integrated into project designs. Value chain development projects often boost incomes by encouraging specialization in high-value products, but this can also increase exposure to climate and market shocks. The most resilient outcomes emerged when productivity gains were paired with climate adaptation and risk management, as seen in Ethiopia's Participatory Small-scale Irrigation Development Programme (PASIDP) irrigation

- investments. Financial services, savings and insurance are also essential to help farmers withstand shocks and strengthen long-term security.
- 33. **Evaluating value chain interventions requires more than measuring average effects.** Understanding value chain impact means going beyond averages to assess where value is created and which interventions are most cost-effective. Montenegro's RCTP, for example, combined sampling and remote sensing to pinpoint which components had the greatest impact. Future evaluations should use multi-arm designs and assess broader spillovers on labour, land and markets to capture indirect effects and job creation potential.
- 34. Value chain development remains a powerful entry point for inclusive and sustainable rural transformation. However, turning productivity and market gains into lasting livelihood improvements is not automatic. To achieve sustained impact, future projects must refine targeting, strengthen private sector engagement, invest in midstream functions, and fully integrate resilience and nutrition objectives in projects' theories of change. Addressing these dimensions together will unlock the transformative potential of value chain approaches.

VI. Conclusions and next steps

- 35. This report sets out to identify the conditions under which IFAD-supported projects achieve transformational impacts defined as impact magnitudes exceeding 50 per cent. Drawing on 16 IAs conducted during IFAD12, and a broader review of 34 value chain IAs, the report identifies the types of interventions, delivery mechanisms and project designs that lead to transformational impacts. These findings serve as a robust evidence base to inform IFAD's future investments and strategic direction.
- 36. **Bundling complementary interventions unlocks transformation**. Projects that achieved transformational impacts bundled interconnected, complementary interventions. Multi-component projects that addressed liquidity, information and connectivity constraints simultaneously performed best. Bundling proved synergistic when interventions are tailored to address interlinked constraints.
- 37. **Midstream investments are essential in value chain projects**. Production gains alone are insufficient. Embedding midstream investments such as aggregation, storage, post-harvest handling and value addition supports productivity gains to yield higher incomes and profitability. Private sector partnerships such as 4Ps and multi-stakeholder platforms enabled the strongest gains for farmers in terms of sales and income.
- 38. **Resilience-building interventions must be planned at design** and integrate climate-smart infrastructure, diversified income sources, risk mitigation tools and livelihood components that address short- and long-term vulnerability.
- 39. **Inclusive delivery mechanisms** are necessary to achieve impacts and must explicitly target food-insecure households, women, youth and marginalized groups. This support needs to reflect local capacities, constraints and aspirations.
- 40. **Towards a learning-oriented impact strategy.** The future of IFAD's IA strategy will go beyond estimating average effects and move towards an approach that is learning-oriented, real-time, and supports decision-making. Repositioning IAs as tools for learning will strengthen IFAD's agility and effectiveness in delivering on its rural transformation mandate. Under IFAD13, IAs will be more strategically selected and designed to generate evidence where knowledge gaps remain, such as nutrition interventions, delivery mechanisms, stakeholders' engagement models and returns on investment. Adopting an ex ante learning agenda, including IAs designed to provide insights along the way, will enable real-time learning, course corrections and adaptive management.

- 41. **Towards a smarter measurement system: IFAD14 and beyond.** Greater attention will be given to ensuring that measurement frameworks, indicators and IAs remain fit-for-purpose. Indicators must be relevant to capture transformational impacts across themes (e.g. resilience, nutrition).
- 42. **Balancing depth versus breadth of impact**. Future designs must explicitly consider the trade-off between depth and breadth, as not all investments can deliver both scale and intensity simultaneously.

IFAD12 IA approach and methodology

1. The IFAD12 IA methodology is a consolidated and rigorously developed approach focused on both accountability and learning. Originally pioneered during IFAD9, finalized under IFAD10 and fully institutionalized in IFAD11, this methodology has been documented in multiple academic outlets and reviewed by an external advisory panel. In the IFAD12 cycle, a regionally stratified random sampling method was used to select projects to undergo an IA, ensuring geographical diversity, followed by the implementation of project-level IAs. For each Tier II RMF indicator, project impact estimates are then aggregated and projected to the overall outreach of the entire portfolio of projects closing in IFAD12, to estimate corporate-level achievements against Tier II development indicator targets. Each of these four distinct steps is described in turn.

2. IFAD13 will mark a strategic shift towards learning-oriented IAs. Looking ahead, IFAD will recalibrate its IA strategy to place a stronger emphasis on strategic learning. Impact assessments will be more selectively deployed to generate evidence in areas where knowledge gaps persist, while leveraging the growing body of existing evidence in domains where impacts are already well understood. This shift implies a move towards a more ex ante learning agenda, where evaluations are designed and embedded early in the project cycle to generate real-time insights, rather than relying solely on ex post assessments. This proactive approach aims to enhance the utility of IAs for adaptive management, course correction and learning – both within projects and across IFAD's global portfolio.

A. Sample selection

- 3. **The sample for the IFAD12 IA is composed of 16 projects** (see Table 1), corresponding to 15.7 per cent of the universe of 102 projects that closed between 2022 and 2024. This was done by employing regionally stratified random sampling and using exclusion criteria.⁵
- 4. Efforts have been made to ensure that the IA sample is representative of the regional portfolio and to minimize potential selection bias. In an attempt to address the recommendations made at the 127th session of the Executive Board held in September 2019 and the 106th and 109th sessions of the Evaluation Committee held in September 2019 and June 2020 respectively,⁶ a regionally stratified random sampling (with defined exclusion criteria) was followed for projects that closed during the IFAD12 cycle. Further, as in the IFAD11 IA cycle, an effort has been made to undertake the due diligence recommended by members at these sessions. These analyses evaluate if the projects chosen for IAs systematically differed from other projects, checking for potential bias in observable variables like project ratings and characteristics.

⁵ Some projects were excluded from the random list due to a closing date postponed beyond 2024 (except if this occurred because there was additional funding leading to geographic expansion and the project had disbursed at least 70 per cent of its total amount); or if an IA was conducted in the country during the IFAD11 IA cycle and other feasibility issues such as local or national conflicts prevented data collection.

⁶ At the 106th session of the Evaluation Committee (held in September 2019), IOE provided comments stating that "While learning should be a priority, striking a balance between learning and accountability by introducing an element of randomness into the selection of projects for impact assessments is equally pertinent."

EB 2025/145/R.21 Annex I EC 2025/130/W.P.5

Table 1 Projects in the IFAD12 IA sample by region

		ı	· · · ·	ı				
#	Region	Country	Project full name	Project acronym	Approved financing (US\$ million) ^b	Glossary of interventions	Target group	
1	APR	Bangladesh	Char Development and Settlement Project IV	CDSP IV	89.2	Infrastructure, extension	Rural households in coastal areas	
2	APR	Cambodia	Agriculture Services Programme for Innovation, Resilience and Extension	ASPIRE	79.5	Extension, infrastructure	Rural smallholders	
3	APR	China	Sustaining Poverty Reduction through Agribusiness Development in South Shaanxi Project	SPRAD-SS	256.7	Extension, infrastructure	Poor and vulnerable small-scale producers and agro-entities (agribusiness enterprises and cooperatives)	
4	APR	Mongolia	Project for Market and Pasture Management Development	PMPMD	44.5	Finance, infrastructure, training	Pasture herders, women's groups, cooperatives	
5	APR	Nepal	Adaptation for Smallholders in Hilly Areas Project	ASHA	12.6	Infrastructure, extension	Local Adaptation Plan for Action groups (mainly consisting of smallholder producers)	
6	ESA	Eswatini	Smallholder Market-led Project	SMLP	20.6	Infrastructure, extension	Rural smallholders	
7	ESA	Madagascar	Vocational Training and Agricultural Productivity Improvement Programme	FORMAPRO D	95.4	Training for youth, infrastructure	Rural youth (aged 14–29)	
8	ESA	Uganda	Project for Restoration of Livelihoods in the Northern Region	PRELNOR	61.0	Infrastructure, extension	Rural smallholders	
9	LAC	Colombia	Building Rural Entrepreneurial Capacities Project: Trust and Opportunity	TOP	69.3	Finance, training	Small and micro rural enterprises	
10	LAC	Honduras	Project for Competitiveness and Sustainable Development in the South-Western Border Region	PRO-LENCA	34.1	Finance, training	Smallholder farmers, rural artisans, small-scale vendors and microentrepreneurs, members of producers' organizations	
11	NEN	Montenegro	Rural Clustering and Transformation Project	RCTP	12.5	Finance, infrastructure, training	Smallholder farmers and processors involved in selected value chains (livestock, cultivated berries and seed potatoes)	
12	NEN	Türkiye	Murat River Watershed Rehabilitation Project	MRWRP	46.3	Infrastructure, extension	Rural smallholders in high elevation areas	
13	NEN	Uzbekistan	Dairy Value Chains Development Project	DVCDP	38.7	Training, finance	Small and medium-sized farmers, households, milk processors, service providers	
14	WCA	Benin	Adapted Rural Financial Services Development Project	PAPSFRA	21.7	Finance, training	Small-scale producers	
15	WCA	Cabo Verde	Rural Socioeconomic Opportunities Programme	POSER	41.3	Water infrastructure, finance	Farmers living in areas with the greatest water deficiency	
16	WCA	Cameroon	on Youth Agropastoral Entrepreneurship Promotion Programme PEA-Yout		94.9	Finance, training	Rural youth engaging in agropastoral entrepreneurship, mainly livestock production	
Tota	Total financing							
Tota	Total IFAD financing for 16 projects							
Tota	l cofinanc	ing for 16 pro	jects	506				

Note: The IAs in Uganda use data collected in 2021. The IA in Cambodia used data from a national survey to identify treated and comparison households.

^a APR (Asia and the Pacific), ESA (East and Southern Africa), LAC (Latin America and the Caribbean), NEN (Near East, North Africa and Europe), WCA (West and Central Africa).

^b Based on data downloaded from IFAD Oracle on 5 December 2024.

5. The results from the sensitivity analyses show that the projects selected for IA are very similar to the rest of the projects that closed during IFAD12 (Table 2). Across 28 dimensions analysed, results show that there is no difference in the average values of project design ratings and relevant project characteristics for the 16 projects in the IA sample and the remaining 86 projects in the universe. On the two remaining dimensions, namely "quality of project management" and "coherence between annual workplan and budget (AWPB) and implementation", the IA sample had an average performance rating that was slightly higher than that of the remaining projects in the IFAD12 IA universe. However, no significant differences were found in the first performance rating dimensions taken together, using the F-statistics across the IA sample and the non-IA sample. This analysis supports the conclusion that projects selected for an IA are not better or worse on average than unselected projects – thereby mitigating concerns about the existence of ex ante selection bias.

Table 2
Test of difference across non-IA and IA sample of projects

Variable	Non-IA average ^a	Numberb	IA average ^c	Number ^d	p-score ^e
First ratings					,
Par value	0.08	85	0.00	16	0.23
Assessment of the overall implementation performance	3.94	85	4.06	16	0.90
Likelihood of achieving the development objective	3.98	85	4.00	16	0.90
Effectiveness	3.79	72	4.00	12	0.59
Targeting and outreach	4.01	84	4.06	16	0.91
Gender equality and women's participation	4.00	84	4.00	16	0.97
Adaptation to climate change	3.93	74	4.00	12	0.54
Institutions and policy engagement	3.99	67	4.08	13	0.85
Human and social capital and empowerment	3.96	69	4.00	14	0.75
Quality of project target group engagement and feedback	4.01	84	4.00	16	0.93
Responsiveness of service providers	3.99	83	4.06	16	0.14
Environment and natural resource management	3.98	66	4.00	12	0.75
Exit strategy	3.90	59	4.00	13	0.70
Potential for scaling up	3.99	67	4.07	14	0.85
Quality of project management	3.91	85	4.25	16	0.09
Knowledge management	3.96	80	4.00	14	0.58
Coherence between AWPB and implementation	3.66	82	4.07	14	0.07
Performance of monitoring and evaluation system	3.85	85	4.06	16	0.31
Acceptable disbursement rate	3.13	84	3.75	16	0.27
Quality of financial management	3.90	83	4.00	15	0.10
Quality and timeliness of audit	4.01	67	4.00	15	0.66
Counterpart funds	3.94	84	3.94	16	0.91
Compliance with loan covenants	4.08	83	4.06	16	0.93
Procurement	3.90	84	4.00	16	0.67
Project characteristics					
Target participants at design	519 986	82	332 800	16	0.134
Total funds per person at design (USD)	380	81	402	16	0.810
IFAD funds per person at design (USD)	174	81	215	16	0.321
Total approved financing	75 430 946	85	68 080 700	16	0.690
IFAD approved financing	33 202 048	85	35 790 150	16	0.663
IFAD percentage in approved financing	0.530	85	0.581	16	0.255

^a Average ratings/values for the projects in the portfolio that are not in the IA sample.

^b Number of non-IA projects that have ratings available.

^c Average ratings for the IFAD12 IA sample.

^d Number of projects in the IFAD12 IA sample.

^e A p-score greater than 0.05 indicates that the difference between the values is not statistically significant, i.e. the two groups are similar on average. Chi-square test is used to compare first ratings as the ratings are categorical variables. For project characteristics that are continuous variables, a T-test is used.

B. Project-level impact assessments

6. The core of the IA methodology entails the implementation of individual project-level IAs to generate in-depth learning on what works – and what does not - across the 16 projects in the IA sample. These assessments used rigorous quasi-experimental methods to estimate attributable impacts and relied on detailed data collected through tablet-based questionnaires from both project participants and comparable non-participant households and communities. A summary of the individual IA results is presented in Table 3 and the full reports can be accessed here.

Table 3 Magnitude of impact of the IFAD12 projects evaluated⁸

				SO2:		Mainstreaming		
		Goal:	SO1:	Improved	SO3:	theme:		
	Project	Increased	Improved	market	Greater	Improved	Food	Women's
Country	acronym	income	production	access	resilience	nutrition	security	empowerment
Cabo Verde	POSER	+++	+++	+++	NS	NS	+	NS
Uzbekistan	DVCDP	+++	+++	+++	NA	NS	++	+
Madagascar	FORMAPROD	+++	+++	NS	+++	NS	NS	NS
Montenegro	RCTP	+++	+++	+++	+++	NS	NS	++
China	SPRAD-SS	+++	NS	NS	NS	NS	NS	NS
Honduras	PRO-LENCA	+++	+++	++	NS	NS	NS	NS
Cambodia	ASPIRE	+++	+	++	+++	+	NS	NS
Cameroon	PEA-Youth	++	+++	+++	NA	NS	+	NS
Uganda	PRELNOR	++	NS	NS	NS	NS	NS	+
Colombia	TOP	++	NS	NS	NS	+	NS	NS
Mongolia	PMPMD	NS	NS	NS	NS	NS	NS	++
Türkiye	MRWRP	NS	NS	NS	NS	NS	+	NS
Eswatini	SMLP	NS	++	NS	NS	NS	+	+
Bangladesh	CDSP IV	NS	NS	NS	NS	NS	NS	NS
Benin	PAPSFRA	NS	NS	NS	NS	+	+	NS
Nepal	ASHA	NS	NS	NS	NS	NS	NS	NS

Note:

(1) The signs in the table refer to the magnitude of estimated impact that is statistically significant:

+++ (---) = very positive (negative) impact, >50 per cent;

++ (--) = positive (negative) impact, >25 per cent and <50 per cent;

+ (-) = slightly positive (negative) impact, <25 per cent;

NS = impact is not statistically significant; and NA = indicator not available.

C. Aggregation

7. Another key component of the methodology involves aggregating the impact estimates from the 16 project-level assessments to produce aggregate-level impacts across key indicators. This is done by conducting a meta-analysis of individual project impact estimates to compute aggregated impacts. Meta-analysis is a statistical procedure for combining data from multiple studies, or in the specific case of IFAD, project impact estimates from individual

⁷ Quasi-experimental IAs are defined as those for which treatment is not randomized and a robust counterfactual/comparison group (that is as similar as possible to the treatment group in terms of pre-intervention characteristics) is created using statistically robust methodologies to identify causal impact (<u>Angrist and Pischke, 2010</u>).

⁸ It is important to note that meta-analysis results are not simple averages of results presented in this table but take into account the statistical precision with which they are estimated as well as sample sizes. Therefore, the average effect size estimated by this method can differ in magnitude and precision to what simple averages may suggest. Note also that, in addition to the standard indicators for IFAD's SOs and economic goal in this table, the project-level IA reports include a rich set of impact estimates for each project's specific theory of change that will be available on a dedicated microsite for the IFAD12 IA report.

- IAs. Meta-analysis can be defined as a synthesis of results or "a quantitative summary of statistical indicators reported in similar empirical studies". 9
- 8. **Meta-analysis outcomes are mean effect sizes representing the impact of IFAD-cofinanced projects**. Once combined, aggregate and attributable impacts are reported as percentage changes over counterfactual (i.e. comparison) groups for each RMF Tier II development indicator for the IA sample.
- 9. The mean effect sizes from the meta-analysis of findings from the 16 IAs were validated by analysing impacts using the pooled household-level data. The team estimated the impact on main indicators using pooled household data including country/project fixed effects using ordinary least squares method and regression adjustment and found similar results.¹⁰

D. Projection

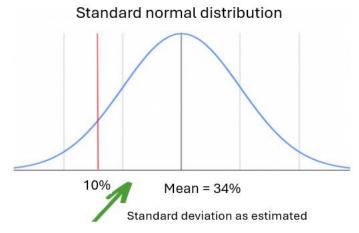
- 10. The projection exercise is conducted to extrapolate the mean effect sizes resulting from the meta-analysis to the whole universe of 102 IFAD12 IA projects to estimate the total number of people across the portfolio that were impacted on each Tier II indicator. The projection requires determining the number of actual participants reached (i.e. outreach) across the whole universe of eligible investments. This totalled 64.5 million participants for all 102 projects in the IFAD12 IA universe based on data extracted from IFAD's internal reporting mechanism: the Operational Results Management System.
- 11. The projection assumes that estimated impacts are normally distributed across the entire population of 64.5 million participants reached in the IFAD12 cycle, using the same means and standard deviations as the empirically estimated impacts. Based on this distribution, the number of people that participated in IFAD interventions during this period is estimated by calculating how many benefits above a fixed impact threshold (figure 1 illustrates the method graphically). These thresholds are set at: 10 per cent for income; 20 per cent for productive capacities, market access and resilience; and 10 per cent for nutrition (Table 4). By applying the estimated aggregate impacts to the total number of participants in the universe, the number of people impacted above each threshold for these indicators is estimated.

⁹ Brander L.M., P.V Beukering and H.S.J. Cesar. 2007. The recreational value of coral reefs: A meta-analysis. *Ecological Economics*, vol. 63, no. 1, pp. 209–218.

¹⁰ As the literature shows, a better way to tackle the potential systematic differences between a sample and the population from which it has been drawn is to merge all the micro-level data together and run a pooled analysis that also includes country/project fixed effects. That is, once the household data from each project have been combined, one can exploit the between-project variability and control for country/project-specific unobservable characteristics, thus improving the external validity of the overall meta-analysis.

¹¹ For example, to measure achievement of the IFAD goal, IAs and meta-analysis will indicate how many participants increased their income by at least 10 per cent as a result of IFAD investments (including cofinancing).

Figure 1 **Projection method**



Number of beneficiaries in the distribution that exceed that threshold.

Table 4 IFAD12 Tier II development impact indicators and IFAD12 targets

Goal / strategic objective (SO)	IFAD12 RMF code	Definition	IFAD12 target (million people)
Goal	2.1.1	Number of people with increased income (at least by 10%)	68
SO1	2.1.2	Number of people with improved production (at least by 20%)	51
SO2	2.1.3	Number of people with improved market access (at least by 20%)	55
SO3	2.1.4	Number of people with greater resilience (at least by 20%)	28
Mainstreaming goal	2.1.5	Number of people with improved nutrition (at least by 10%)	11

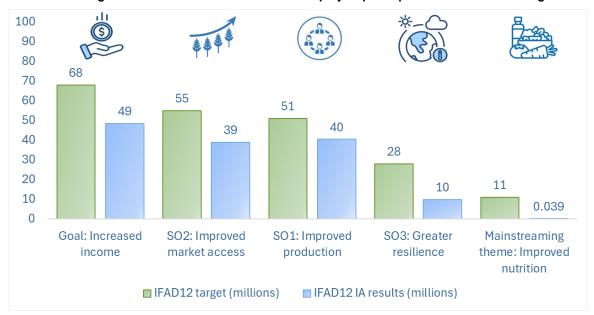
Source: Report of the Consultation on the Twelfth Replenishment of IFAD's Resources.

Results of the projection and achievements on RMF indicator targets

- 1. The projection results, illustrated in figure 1, show that the 102 projects completed during the IFAD12 cycle delivered measurable and, in many cases, deep improvements in beneficiaries' livelihoods. While the total number of participants achieving outcome thresholds fell short of the RMF targets across all Tier II indicators, these results reflect a combination of factors including evolving project typologies, increasingly targeted interventions and a shift towards deepening support among specific populations rather than maximizing coverage.
- 2. Investments from IFAD and cofinanciers totalling US\$6.8 billion during the IFAD12 cycle led to income increases of at least 10 per cent for approximately 49 million participants below the target of 68 million.¹² Similarly, the productive capacities (SO1) of 39 million project participants improved, while market access (SO2) increased for 40 million project participants, against targets of 55 million and 51 million, respectively. Additionally, around 10 million project participants experienced an improvement in resilience (SO3), while only 39,000 people observed improvements in nutrition against a target of 11 million. Even though the impact on nutrition was very low, IFAD-cofinanced projects were able to impact food security of 28 million project participants. These outcomes reflect both the narrower outreach in IFAD12 projects and the fact that resilience and nutrition were not explicitly targeted in the design of most evaluated interventions.

Figure 1

IFAD12 RMF targets and IFAD12 IA results: Number of project participants above the RMF target



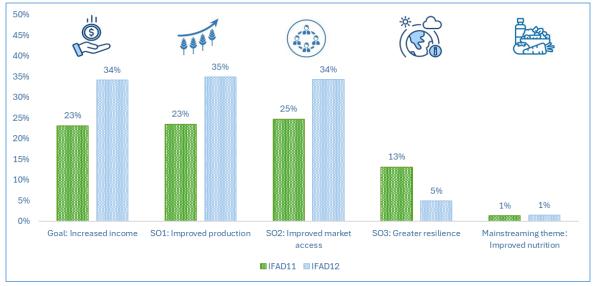
3. **IFAD projects were designed to reach fewer people but produce deeper impact.** While IFAD12 projects have demonstrated stronger average impacts on core RMF indicators – income, productive capacities and market access – than in IFAD11, they reached fewer people overall. Figure 2 illustrates that estimated effect sizes (average impacts) improved across these dimensions across IFAD11 and IFAD12 cycles. However, total outreach has been declining since 2020, partly due to the conclusion of large-scale operations such as the Rural Financial

¹² Income indicators were selected based on project's focus, covering crop, livestock, fisheries, or enterprise income for sector-specific projects, and total income for broader livelihood projects.

Intermediation Programme (RUFIP) in Ethiopia, which had previously accounted for a substantial share of global outreach. As cumulative RMF targets increased by nearly one third after IFAD9, the bar for success was raised. At the same time, however, the Fund responded to client demand and designed projects oriented towards a more holistic value chain approach, with fewer tracked beneficiaries. These structural dynamics help explain why fewer people were projected to have achieved outcomes above the RMF thresholds, even as average impacts increased.¹³

4. The corporate targets for IFAD12 were largely informed by outreach figures from prior cycles, particularly from large-scale projects with broad geographic coverage, higher population density or wider beneficiary bases. These earlier projects – by nature, location or scope – tended to reach more people, thereby setting a high benchmark for the current cycle. In contrast, many IFAD12 projects were implemented in contexts with smaller, more vulnerable or harder-to-reach populations and were increasingly designed to deepen support among specific groups over time, rather than expand coverage indiscriminately. This strategic shift towards greater intensity of support, particularly in remote or fragile settings, means that differences in project typologies and sampling frames across replenishment cycles must be taken into account when comparing results to past benchmarks.





5. Limited impacts on resilience are partly driven by multiple concurrent global shocks, which intensified vulnerabilities and overshadowed any localized positive effects from resilience-enhancing interventions.

Resilience-related interventions were included in over half of the 16 projects evaluated, but impacts were generally limited. Projects closing during the IFAD12 period (2022–2024) coincided with the COVID-19 pandemic, inflation spikes and worsening extreme weather events, all of which intensified vulnerabilities and eroded household resilience across both project participants and non-participants. Consequently, measuring resilience impacts using solely self-perceived recovery indicators is challenging, as these broad systemic shocks tend to dilute project impacts. At the same time, only one project in the sample was classified as

¹³ Specifically, overall outreach declined from 112 million participants in 96 projects (including RUFIP in Ethiopia with an outreach of 38.7 million participants) in the IFAD11 IA sample to 64.5 million participants in the 102 projects in the IFAD12 IA sample. Consequently, in the IFAD11 cycle, due to high outreach, IFAD not only met but surpassed targets on all RMF indicators.

- "nutrition-sensitive" with specific interventions targeting dietary diversity, so the observed nutrition outcomes primarily reflect unintended effects rather than impacts resulting from explicit design features. ¹⁴ Consequently, results reported for resilience and nutrition should be interpreted with caution.
- 6. Building resilience requires integrated, context-specific interventions that address exposure to shocks, adaptive capacity and recovery ability over the short and long term. Research shows that livelihood diversification – such as combining agriculture with off-farm income – significantly reduces vulnerability to food insecurity and climate-related risks. The adoption of climate-smart agricultural practices, including drought-tolerant seeds and irrigation systems, has been shown to enhance productivity and facilitate recovery from shocks. Access to social safety nets, such as cash transfers and food aid, reduces the need to sell productive assets during crises. Financial tools such as credit and weather-indexed insurance enable households to better manage risk, reducing distress sales and improving planning capacity. Social capital and strong community networks further reinforce resilience by fostering mutual support and knowledge exchange, while investments in human capital and infrastructure strengthen households' adaptive capacity and enhance access to resources for recovery. Collectively, these findings highlight that comprehensive, multidimensional approaches are most effective in helping rural households anticipate, withstand and recover from climate and market shocks.
- 7. **Systemic shocks during IFAD12 likely diluted observable resilience impacts.** Projects closing under the IFAD12 period (2022–2024) coincided with the COVID-19 pandemic, which caused widespread economic and social disruptions, exacerbating global inequality and poverty to levels unseen since 1990.

 Concurrently, post-2020 inflation spikes particularly severe in sub-Saharan Africa and increasingly frequent and intensifying extreme weather events exacerbated vulnerabilities. These shocks eroded households' resilience broadly, affecting both IFAD project participants and non-participants. As a result, measuring resilience impacts through an indicator on self-perceived recovery ability may be challenging, as broader systemic pressures tend to overshadow localized project effects.
- 8. Recognizing the multidimensional nature of resilience, studies emphasize measurement approaches that combine indicators from economic, social, environmental, institutional and health sectors. Evidence underscores the need to go beyond solely perception-based indicators. A study defines and estimates development resilience as the probability that a household can maintain or improve its well-being over time despite exposure to shocks. The Resilience Index Measurement and Analysis II (RIMA II) framework from the Food and Agriculture Organization of the United Nations identifies key dimensions - such as access to basic services, assets, social safety nets and adaptive capacity - and employs statistical models to assess their link to food security outcomes. Empirical applications, such as the resilience index for Palestinian households, illustrate the importance of factors like asset ownership, income diversification and social capital. A study elaborated a conceptual model to distinguish between absorptive, adaptive and transformative capacities, which continue to shape the current empirical landscape. Panel data studies, like those in Ethiopia, reveal how resilience can be reflected in a household's ability to maintain consumption during shocks. Together, these studies suggest that future IAs should integrate more objective, multilevel and time-sensitive indicators to better capture the dynamic and context-specific nature of resilience.

¹⁴ IFAD is developing a Nutrition Action Plan (2026–2031) that will further enhance actions to promote nutritional outcomes.

External review of the IA approach

1. During the 127th session of the Executive Board, the Board recommended to conduct a peer review of the IA methodology and further strengthen it with support from external experts. Aligned to this, IFAD recognizes the importance of robust and credible impact assessment methodology to inform the delivery of development outcomes and to help improve the design of its strategies and programs. As a result, an external review process was implemented by IFAD, comprising three arms: i) Advisory Panel (AP), ii) Peer Review (PR) and iii) Push Button Reproducibility (PBR). By engaging with external experts and institutions, IFAD seeks to uphold the highest standards of transparency and quality. The methodology also gained credibility and validation through its publication in peer-reviewed academic journals. This includes both the original aggregation methodology¹⁵ and the later enhancement¹⁶, which incorporated a correction for potential selection bias in the IA sample selection. The detailed recommendations of the advisory panel, peer review and push button reproducibility are available on request, while a summary is provided below.

A. Peer Review

2. A Peer Review (PR) process was established to further enhance the quality of IA reports. The review focused on assessing the technical soundness and policy relevance of the reports, ensuring the chosen approach was appropriate for the scope of work. It also validated the robustness of the methodology, the clarity of the results, and the relevance of the policy implications. The PR covered four IA projects (Benin, Cambodia, Eswatini, and Honduras). 17 In line with the broader goal of building an evaluation network among the Extended Rome-Based Agencies (RBAs), peer international organizations, and United Nations agencies, the peer review group was composed of representatives from FAO (Antonio Scognamillo, Economist at the Agrifood Economics and Policy Division) and WFP (Jonas Heirman, Evaluation Officer and Acting Head of WFP's Impact Evaluation Unit). Feedback from the reviewers led to minor revisions, primarily addressing manual errors found during the drafting of the reports and improving the readability of the reports. All comments related to editing and clarifications were incorporated while more substantive comments, though few, were taken on board to the extent possible.

B. Push-button reproducibility

3. **The Push-button Reproducibility (PBR) aimed to ensure the reproducibility, consistency and accuracy of IA results**. The PBR exercise conducted by external reviewers¹⁸ covered 5 IA projects (Colombia, Cabo Verde, Montenegro, Cameroon and Nepal).¹⁹ Reviewers confirmed that the raw anonymized survey data together with the associated code for data preparation and analysis were sufficient to fully reproduce the results reported in IA reports. Minor discrepancies were identified in a few cases, primarily attributable to rounding and other small corrections. Given the value and credibility added by this

¹⁵ See Garbero, A. 2021. "Aggregate Development Effectiveness and Externally-Valid Extrapolation: A Fourth Principle for Agency-Wide Performance Measurement Systems." Journal of Development Effectiveness 13 (2): 117–144.

¹⁶ The methodology used by IFAD to aggregate and project aggregate impact has also been published in the Journal of Development Effectiveness (see <u>Garbero, A., & Stanghellini, E. (2025)</u>. Addressing selection bias while estimating aggregate development effectiveness: can we obtain externally valid estimates at portfolio level? Journal of Development Effectiveness, 1-20).

¹⁷ These IA reports were selected to ensure representation by regional and principal investigators.

¹⁸ The scholars that implemented PBR included Professor Valerio Sciabolazza, Sapienza University of Rome; Professor Kashi Kafle, Texas A&M University; Professor Miguel Robles, Universidad del Pacifico (Peru); Ms. Katia Kovarrubias, FAO and Mr. Beza Teshome, IFPRI.

process, push button reproducibility was subsequently applied to the remaining 11 impact assessments by the respective analysts who led them.

Advisory Panel

- 4. The main objective of the panel was to review the methodology and its findings. The panel played a key role in critically reviewing the overall methodology used in IAs; verifying the credibility of overall results; and suggesting alternative rigorous and cost-effective methods to improve the efficiency of the IA approach. The panel was composed of eminent scholars and experts in the field including Francois Bourguignon, Paris School of Economics (Chair); Saweda Onipede Liverpool-Tasie, Michigan State University; Travis Lybbert, University of California, Davis; Miet Martens, KU Leuven; Howard White, Global Development Network; Mark Sunderg, Millennium Challenge Corporation (Observer). Two key recommendations emerged from the review conducted by the advisory panel.
- 5. The panel acknowledged that it is not feasible to observe or control for all sources of heterogeneity across the IFAD portfolio and therefore the feasibility of drawing a fully representative sample is inherently limited. Nonetheless, they affirmed the value of the meta-analytical approach and encouraged continuous methodological refinements to ensure representativeness and policy-relevance in aggregating results. To verify the representativeness of the IA sample, the panel recommended testing whether impact indicators are randomly distributed across the project universe. If randomness holds, a simple random sampling is appropriate. However, if project impacts are likely to vary based on observable characteristics - such as sector, outreach (number of people reached), or financing level- then stratified sampling should be adopted. The panel proposed to conduct meta regressions using all 58 IAs conducted in IFAD10, IFAD11 and IFAD12 cycles to examine the relationship between project typology, outreach and financing on the one hand, and the Tier II RMF indicators (such as income, productive capacity and market access) on the other. Table shows that size of financing and outreach do not significantly explain variation in results. In some cases, project sector seems to be associated with impact on income and market access. Nevertheless, sector definitions do not fully capture the multiple interventions and components in IFAD's projects.

Table 1: Testing samples' heterogeneity with meta-regression

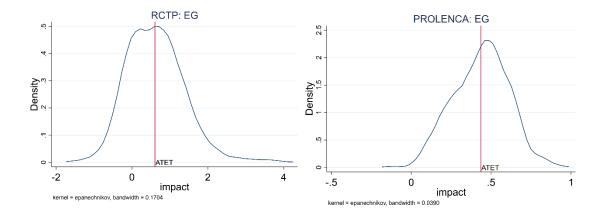
	(1)	(2)	(3)	(4)
		Productive	Market	
VARIABLES	Income	capacity	access	Resilience
Actual Participants (Cumulative from Log Frame)	0.000	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
IFAD financing per participant (million per participant)	-0.000	0.001	-0.000	-0.001*
	(0.001)	(0.000)	(0.001)	(0.000)
Sector: Credit and Financial Services	-0.215	-0.109	-0.462**	-0.153
	(0.187)	(0.136)	(0.181)	(0.109)
Sector: Marketing/Storage/Processing	-0.333*	0.046	-0.474**	-0.108
	(0.178)	(0.117)	(0.184)	(0.102)
Sector: Research/Extension/Training	-0.121	-0.015	-0.195	0.006
	(0.178)	(0.114)	(0.178)	(0.098)
Sector: Rural Development	-0.275**	0.029	-0.031	-0.021
	(0.131)	(0.085)	(0.138)	(0.071)
Constant	0.501***	0.198**	0.555***	0.213***
	(0.133)	(0.087)	(0.137)	(0.072)
Observations	58	58	57	55

Note: The table presents estimated coefficients from a random-effects meta-regression model, using weighted least squares with standard errors as weights. The omitted reference categories are Agricultural Development

for sector and APR (Asia and the Pacific Region) for region. Significance levels are denoted as follows: *p < 0.10, **p < 0.05, ***p < 0.01.

- 6. Second, the panel suggested exploring alternative projection methods, noting that the current approach rests on an assumption regarding the distribution of estimated impacts derived from the meta-analysis. Specifically, the methodology assumes that these impacts are normally distributed across the full population of project participants in the universe, using the empirically estimated means and standard deviations. While this is a standard assumption in large-sample inference and facilitates extrapolation the panel encouraged testing its plausibility by using micro-data from individual impact assessments.
- 7. As an exploratory check, an empirical test on two selected IAs (Montenegro RCTP and Honduras PRO-LENCA) was conducted. For these projects, baseline specifications included in the project level IA reports were reproduced, from which the impact estimates were originally derived for meta-analysis. The targeted effect at the household level for treated households was then predicted. These results were analysed in the following ways: a) comparison of the distribution of targeted effect among treated households with the average effect estimated (i.e., the impact coefficient value); b) verification of whether the targeted effect was normally distributed; c) assessment of whether the estimated proportion of participants exceeding the RMF threshold was consistent with projections derived from the estimated coefficient at the project level, mimicking the meta-analysis approach.
- 8. In these two cases, the distribution of household-level effects showed some departure from normality While visual inspection suggested a bell-shaped distribution, statistical tests (skewness and kurtosis) indicated modest deviations, particularly skewness greater than zero and kurtosis above three. These patterns were consistent across indicators assessed. However, it is important to note that these results are based on a very limited number of projects (two) and should be interpreted as indicative rather than conclusive. The assumption of normality in the meta-analysis serves as a pragmatic simplification for aggregate projections, particularly in the absence of universal household-level data. Nevertheless, these exploratory findings underscore the potential value of continued methodological testing, especially where projections could be sensitive to underlying distributional assumptions.
- 9. **To this end, the panel proposed that, in future cycles (e.g. IFAD13), an alternative approach could be used as a robustness check**: estimating the share of participants reaching each RMF indicator target based on predicted household-level effects, then aggregating these proportions across the sample of IAs. This would complement the current projection method and help assess the sensitivity of corporate-level estimates to distributional assumptions. Such efforts could enhance the credibility and transparency of IFAD's impact reporting.

Figure 1: Distribution of the targeted effect on the Economic Goal in Montenegro RCTP (left) and Honduras PROLENCA (right)



- 10. In addition to the above-mentioned recommendations, the panel suggested to strike a balance between the need for aggregated reporting (accountability) and learning from individual projects. This recommendation has already been implemented in this report in section 5, which extensively documented lessons learnt from value chain projects and IFAD12 IAs. Further, the panel recommended estimating average impact on each RMF indicator using the pooled harmonized data on households interviewed in all 16 impact assessments which has also been implemented and presented in this report.
- 11. Several forward-looking recommendations will be explored in the IFAD13 IAs. The panel suggested conducting a more systematic causal chain analysis to bolster causal arguments, i.e. an understanding of pathways that can help shed light on the mechanisms leading to observed outcomes. The panel also recommended exploring alternative robustness checks that can strengthen causal identification methodologies in future IAs.