



IMPACT BRIEF

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United Republic of Tanzania Agricultural Sector Development Programme – Livestock (ASDP-L) and Agriculture Service Support Programme (ASSP)

About the project

Objective. The Agricultural Sector Development Programme–Livestock (ASDP-L) and the Agricultural Services Support Programme (ASSP) were implemented in Zanzibar to contribute to the government's efforts to increase agricultural productivity and profitability, generate employment in rural areas, and ensure national and household food security. Both ASDP-L and ASSP were designed to develop agricultural production systems by empowering livestock keepers and farmers through capacity-building and training activities offered in the form of farmer field schools (FFSs).

Financing. The project was co-financed by IFAD, the Government of United Republic of Tanzania, and the beneficiaries. The total cost of the project was US\$14.1 million.

Timing. ASDP-L and ASSP were approved in 2005 and 2004, respectively, and implemented over 10 years from January 2007 to March 2017.

The project's theory of change

The FFS method is a **participatory approach** that uses trainers to facilitate farmers' learning and problem solving and to promote new techniques. Project staff members first **trained selected facilitators** in the *shehias* (communities), and the facilitators then **trained FFS participant farmers**. For ASDP-L, training topics included the use of artificial insemination, calf rearing, linkages between farms and markets, and delivery of services from veterinary and animal health workers. For ASSP, FFS topics included land preparation, use of manure, organic farming, promotion of highly nutritious crops, soil fertility, and erosion control. FFSs for both ASDP-L and ASSP promoted climate adaptation practices.

The FFSs were expected to lead beneficiary farmers to **acquire knowledge** and **adopt improved practices and marketing**. Farmers' acquired knowledge would spill over into local communities through **farmer-to-farmer knowledge sharing**. The adoption of improved practices would contribute to **increases in crop and livestock productivity** and consequently **raise farmers' agricultural income**. With the increases in farmers' productivity and agricultural income would come better resilience to economic and climate-related shocks.

The formation of FFS groups was expected to promote farmers' investments in packaging, processing, and marketing activities. **Greater access to markets** would raise agricultural productivity by facilitating specialization and intensifying input use. Finally, households were expected to be less likely to experience hunger in the lean season and more likely to feed their children nutritious meals. Better management of production yields and agricultural cycles would thus stem food insecurity in beneficiary households.

Project outreach and outputs

Determining the overall impact of the project requires first understanding whom the project reached and what outputs it generated.

FFSs supported: **1,500** in 9 districts and 253 *shehias*

District farmer fora (DFFs) supported: **10** in 9 districts and 253 *shehias*

Direct beneficiary households participating in FFS: **28,145** in 9 districts and 253 *shehias*

Female beneficiaries participating in FFS: **63%**

Indirect beneficiary households: **12,954**

Project impact

As part of IFAD's Development Effectiveness Framework, ASDP-L and ASSP have been subject to a rigorous impact assessment.

Data and methods

The impact assessment of ASDP-L and ASSP used a mixed-methods approach that combines non-experimental statistical methods and qualitative analysis to compare a sample of project beneficiaries with non-participants. The cross-sectional quantitative survey collected data from 2,082 beneficiary and control households. To inform the design and interpretation of the quantitative data, the impact assessment also drew information from a qualitative study, known as the Participatory Impact Assessment (PIA), conducted by the project staff as part of the project completion process.

Key impact estimates

The findings of this study are positive, contingent on beneficiaries' level of adoption of FFS-taught practices and specialization. Beneficiaries with a high level of adoption and involved in livestock activities benefited most relative to the control farmers.



While the study found lower returns for total crop income for the whole sample of beneficiaries, possibly because of heterogeneity in the crop portfolio between treated and control samples, beneficiaries consistently received higher positive and significant livestock income. Increases were particularly substantial for high adopters, whose livestock income increased by 141 per cent, compared with 69 per cent for the total sample.

Improvements in food security are seen only for high adopters, whose dietary diversity score increased by 9 per cent. Further, high adopters exhibit an **11 per cent** increase in crop diversification compared with their control counterparts.

Significant results were found in the sphere of collective agency. There was a 31 per cent gain in group membership for the full sample of beneficiaries and a **42 per cent** gain for high adopters.

Female FFSs participants' ownership of land and other assets increased by 6 per cent compared with control farmers. For high-adopting female FFSs participants, the assessment also showed positive effects on a range of women's empowerment indicators, such as input into productive decisions, access to and decisions on credit, control over the use of income, mobility, and group membership.

¹ This is defined as value of sales from livestock assets.

² High adopters are those that have a very high extent of adoption of FFS practices (they belong to the high tertile of the distribution of adoption of FFS practices).

About the brief

This brief draws upon the findings of an IFAD-funded impact assessment of the ASDP-L and ASSP projects in the United Republic of Tanzania, which was prepared by Alessandra Garbero and Bezawit Chichaibelu.

The impact assessment report on ASDP-L and ASSP is available upon request.

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Lessons learned

- Livestock farmers and farmers having both crop and livestock activities were **more likely to adopt agricultural practices promoted by FFS**. Adoption of **FFS practices increased when participants were led by an extension worker instead of a farmer**.
- **Livestock income has increased significantly** for all beneficiary households, especially for high adopters of FFS practices, unlike the crop income. Moreover, **FFS increases the number of small livestock holdings and reduces asset-based poverty** of the participant farmers compared to the non-participant farmers.
- The study found higher expenditures on fertilizers for crop producers as well as for the sample of crop and livestock producers. Such expenditures are particularly large for high adopters of FFS practices, who also exhibit higher expenditures on fertilizers and pesticides, and other capital inputs, such as labour. This may point to the fact that the **FFS induced farmers to invest more in farming inputs** by **combining organic and inorganic fertilizers** and potentially led to the **Good Agricultural Practices (GAP)**.
- Higher adopters of FFS practices exhibited better food security. Additionally, they have better access to markets, particularly for crop production. Farmers are significantly more likely to sell to the market with fruit crops, and to a lesser extent, vegetables. Interestingly, only **high adopters exhibit higher market participation** when looking at total crop production.
- The collective learning approach of FFS has a value in itself, particularly vis a vis stimulating empowerment in the collective but also individual sphere. Moreover, female FFSs participants' ownership of land and other asset holdings increased significantly. There are also positive effects on a broad range of empowerment indicators, i.e., input in productive activities, access to and decision on credit, control over the use of income, and mobility, for the high-adopting female FFSs participants.
- The FFS training involved a large number of activities (spanning livestock and crop production) which were adjusted and adapted over time. One recommendation would be to have **more focused curricula**, perhaps assessing before-hand the profitability of the technology and the possible uptake, given the specificities of the agro-ecological context. The results show that the fragmentation of FFS activities along with the need to tailor the technology to the local needs was not conducive of sizeable impacts across all activities promoted.

