



## IMPACT BRIEF

©IFAD/Joanne Levitan

# Sao Tome and Principe

## Participatory Smallholder Agriculture and Artisanal Fisheries Development Programme (PAPAFPA) and Smallholder Commercial Agriculture Project (PAPAC)

### About the project

**Objective.** The Participatory Smallholder Agriculture and Artisanal Fisheries Development Programme (PAPAFPA) and the Smallholder Commercial Agriculture Project (PAPAC) are complementary projects designed to improve the livelihoods of smallholders in Sao Tome and Principe. PAPAFPA created four farmers' cooperatives to enhance the development of the cacao, coffee, and pepper value chains through increased commercialization in domestic and niche export markets. PAPAC aimed to consolidate the activities carried out under PAPAFPA and to introduce family plantations within each value chain.

**Financing.** PAPAFPA incurred a total cost of US\$16.3 million, with contributions from IFAD, OFID, and GEF. PAPAC has an estimated cost of US\$12.8 million.

**Timing.** PAPAFPA took place from 2003 to 2015, and PAPAC, initiated in 2015, is ongoing until 2020.

## The project's theory of change

PAPAFPA and PAPAC sought to improve the lives of the rural poor by reducing food insecurity and increasing household revenues. The projects hoped to achieve these objectives by implementing several interventions under PAPAFPA that were later reinforced under PAPAC.

The two projects supported the development of **family plantations** in sustainable niche value chains for organic, high-quality quality cacao, coffee, and pepper. Thanks to the provision of farm inputs and expert consultations on **organic production techniques**, farmers were expected to increase the quantity and quality of their production. Moreover, **contractual agreements** between project-created cooperatives and international buyers were expected to establish minimum guaranteed prices, thus protecting farmers from fluctuations in commodity prices.

**Rural infrastructure** was enhanced via the Fonds d'Infrastructure Communautaires, which assessed the needs of rural people in terms of socioeconomic infrastructure and provided rural areas with drinking water, latrines, roads, agricultural irrigation, and crop transformation machinery. **Farmers' organisations** were also strengthened through trainings in business management, operations, and marketing techniques, raising the professionalization of producers and reinforcing the production capacity of rural actors. As a result of the trainings received, the cooperatives are operational and have improved management and transparency practices.

All of these effects in turn were expected to result in increased productivity, income, and food security for participating households as well in the creation of producer associations that are institutionally strong and have improved market access.

## Project outreach and outputs

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

PAPAFPA and PAPAC beneficiary households<sup>1</sup>: **3,218**

Female beneficiaries: **30%**

Hectares of land cultivated: **6,026**

Smallholders trained in production technologies: **3,939**

Smallholders trained in transformation and marketing techniques: **451**

Producer associations trained: **77**

Solar dryers installed or rehabilitated: **287**

## Project impact

As part of IFAD's Development Effectiveness Framework, PAPAFPA and PAPAC have been subject to a rigorous impact assessment.

### Data and methods

The impact assessment uses a mixed-methods approach incorporating a qualitative survey and two quantitative surveys. Data were collected from 1,404 households and 126 community and producer association leaders. Information was collected at the household level on demographics, expenditures, wealth, income-generating activities, and resilience, and at the community level on market access, infrastructure, gender, and producer organisation empowerment.

<sup>1</sup> All existing PAPAFPA beneficiaries were integrated into PAPAC in 2015. More than 21 per cent of the population are beneficiaries

## Key impact estimates

Overall, the analysis shows positive impacts of the projects on agricultural production and productivity, household income and assets, food security, and commercialization for beneficiary farmers.



The results show that, as expected, the projects contributed to an increase in the extent of organic certification among beneficiaries. The evidence also shows that the projects increased harvests and yields (kg/ha) for the value chains targeted by the interventions: yields increases for the three crops ranged from 16 to 35 per cent for beneficiaries compared with non-beneficiary households. Beneficiary households also benefitted from increased sales revenues from these crops, ranging from 29 to 45 per cent.

Households in the treatment group earned net income 46 per cent higher in the 12 months preceding the data collection—equivalent to an increase of approximately US\$650 a year compared with non-beneficiary households.<sup>3</sup> This increase in income was driven mainly by a 77 per cent increase in agricultural income. Treated households appeared less reliant on income from self-employment or agricultural wages than their non-treated counterparts.

Similarly, beneficiary households accumulated 7 per cent more durable assets and 19 per cent more productive assets. The number of livestock units owned also rose by 33 per cent among treated households.<sup>4</sup>

Finally, the analysis shows that the projects contributed to greater dietary diversity (by 5 per cent), higher food security (by 13 per cent), and higher resilience (by 13 per cent).

<sup>2</sup> Based on the perceived ability to recover from shocks index.

<sup>3</sup> US\$1 = 21.49 Sao Tome and Principe *dobras* (average for January 2019).

<sup>4</sup> As measured in tropical livestock units (TLUs).

## About the brief

This brief draws upon the findings of an IFAD-funded impact assessment of the PAPAFA and PAPAC projects in Sao Tome and Principe, which was prepared by Alessandra Garbero, Martina Improta and Sonia Gonçalves.

The impact assessment report on PAPAFA and PAPAC is available upon request.

## Contact

Alessandra Garbero  
Senior Econometrician  
Research and Impact Assessment Division  
(RIA), IFAD  
Email: [a.garbero@ifad.org](mailto:a.garbero@ifad.org)



International Fund for Agricultural Development  
Via Paolo di Dono, 44 - 00142 Rome, Italy  
Tel: +39 06 54591 - Fax: +39 06 5043463  
Email: [ifad@ifad.org](mailto:ifad@ifad.org)  
[www.ifad.org](http://www.ifad.org)

[facebook.com/ifad](https://www.facebook.com/ifad)  
[instagram.com/ifadnews](https://www.instagram.com/ifadnews)  
[linkedin.com/company/ifad](https://www.linkedin.com/company/ifad)  
[twitter.com/ifad](https://twitter.com/ifad)  
[youtube.com/user/ifadTV](https://www.youtube.com/user/ifadTV)

March 2019

## Lessons learned

- **Linked interventions** in the provision of **agricultural organic inputs and techniques, farmers' professional development, and rural infrastructure** were crucial to ensure that gains in agricultural yields resulted in increased sales revenues, asset ownership, and income for beneficiary households. The magnitude of these gains, however, is still constrained by a lack of processing infrastructure, which prevents farmers or farmers' associations from selling a higher-value-added product (such as cocoa powder or chocolate instead of cacao seeds).
- Given that some key project interventions were not crop- but rather farmer-specific (e.g., professional training, access to productive assets and techniques), **gains in yields and sales revenues** were not restricted to project-targeted crops but **extended to other crops** such as sugar cane, tobacco, fruit, and tubers. There were, however, no measurable gains in crop diversity.
- The projects accentuated households' **specialization in agricultural activities** as a source of income, mostly at expenses of self-employment. While this was in part a consequence of the projects' success in increasing agricultural production and associated revenues, it flags concerns about **increased vulnerability** in the medium and long run in the event of an agricultural shock.
- The project cooperatives played a key role **articulating different agents in the value chains**, connecting farmers and producers' associations to international buyers, and ensuring minimum guaranteed prices for their products, thus **buffering the impact of price shocks**. However, the fact that these cooperatives appear to deal with a small number of international buyers may pose a **risk for households' resilience** moving forward.
- The project targeted female farmers with the aim of promoting greater gender parity. Although the qualitative evidence suggests that the projects generated a high level of satisfaction among beneficiary women, it showed **no significant measurable impacts on women's empowerment**. For empowerment to occur, stronger interventions directed at women would have to be implemented.

