

Food and Agriculture Organization of the United Nations

Enhancing the cotton sector in Latin America and the Caribbean with innovation's technologies through South-South cooperation

Within the framework of the Brazil-FAO International Cooperation Program, the Brazilian Agricultural Research Corporation (Embrapa) supports the technical implementation of the +Cotton Project in seven countries in the Latin America and Caribbean region and Haiti. In addition, it provides technical assistance and rural

Countries where the partnership activities were implemented



Source: United Nations Map No. 4170 Rev. 18.1, February 2020

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extension, technical guidance in seed validation and development of production protocols together with good agricultural practices transfer and validation and development of new machinery and adapted to cotton family farming.

PARTNERSHIP MILESTONES

- 2013 The Brazilian Government, through the Brazilian Cooperation Agency, the Ministry of Foreign Affairs (ABC/MRE), FAO, and seven partner countries joined forces to implement the +Cotton project to promote the sustainable development of the cotton value chain in the region.
- 2015 Formalization of the collaboration between FAO and Embrapa through the signature of Memorandum of Understanding
- **2020** Renewal of the collaboration
- 2021 Approval of the project "Extension C", which was based on the technical results achieved during the seven years of implementation of the +Cotton Project. Extension C aims at strengthening the sustainable and innovation FAO's agenda in the cotton producers Latin American and the Caribbean (LAC) Countries.
- 2022 Approved a new regional project to scale up the good practices developed by +Cotton, expanding the budget that reaches 20 million USD and focuses actions on seeds, machinery for family farming, digital tools, certifications and markets and cooperatives.





KEY RESUL

Key achievements are related with seed validation and policy review, training, cotton boll weevil control, and machinery adapted to cotton family farming including the transference of technology for the region. Two different kinds of technologies have been validated and adapted for family farming cooperatives with Embrapa technologies:

01 | A ginning machine imported from Brazil to Ecuador: the women of AMUCOMT (video) cultivated peanut and cotton; this machine allows them to add value to cotton with the ginning process. In a period of four months, with eight hours of work per day, it has the potential to gin cotton from up to 53 hectares (1500 kg of seed cotton/ha); the ginning capacity 100 kg of cotton per hour. It has a ginning cost of around USD 53 per ton of cotton bolls.

02 The validation of the harvesting machine developed by Embrapa through the project, tested with a Brazilian cooperative of farmers, Coopercat (video) and Paraguay small farmers. The technical characteristics are:

- Harvesting capacity 1 ha every 3.5 hours. Potential to harvest 120 ha in 30 days with 5% loss.
- Cost USD 123/ha with technology; USD 450 manual harvesting.

03 7 Brazilian varieties validated in Paraguay: 4 Embrapa white varieties (BRS 293, BRS 286 Embrapa, BRS 335, BRS 336) and 3 colored varieties (BRS Rubi, BRS Safiro, BRS Verde); 1 variety of Embrapa white cotton validated in Ecuador: BRS 336.

04 | The national seed regulations were revised with the support of Embrapa experts in Peru and Paraguay.

05 Six technical seed specialists from the Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas (SENAVE) and the Instituto Paraguayo de Tecnología Agraria (IPTA) trained in an international certified seed production course at Embrapa Cotton in Campina Grande-Paraíba, Brazil.

06 | The regional event "Seminar - Weevil control and eradication" was held in Paraguay, with the support of the Brazilian Association of Cotton Producers (Abrapa) and its office in the Sao Paulo Department (APPA), and Embrapa. Seventy technicians and specialists from the cotton sector in LAC were trained.

07 More than 50 technical support missions to assist the validation of good agricultural practices for sustainable cotton production.

08 | Establish protocols to sustainable cotton production to Latin-American producers.

LOOKING FORWARD

The joint cooperation with Embrapa allows the implementation of strategic topics defined jointly for:

- 1. Phase II of the +Cotton project in Paraguay: aiming to complete the processes of technology transfers and machinery testing, to integrate in the implementation of a sustainability model to strengthen cotton production systems for cotton family farming.
- 2. Strengthening of strategic themes at the regional level until 2024 for the cotton sector:
- Development of a regional strategy to combat the cotton boll weevil with support to technicians/researchers in the countries.
- Technical cooperation for the development of mechanization technologies for family farms in the region.
- Strengthening associativity for family farming in the value chain.
- Actions in the areas of marketing, commercialization and certification of the cotton production of small farmers, adding value in the framework of the fight against rural poverty.
- Provide technical guidance for the exchange of best practices in cottonseed guality and regulatory matters.
- Provide technical support to share good practices in small machineries to family farmers.

CONTACT

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Embrapa



AREAS OF COLLABORATION

FAO and Embrap<u>a collaborate on knowledge</u> transfer activities targeting sustainable agricultural technologies and practices, including agroecology and innovations to address women's work challenges that are of interest to both organizations and beneficiary countries.

Areas of work focused on:

- A. Capacity Development, including institutional strengthening and technical-scientific training in areas of common interest;
- B. Transfer of knowledge and practices in sustainable agricultural technologies, including agroecology and innovations to reduce the workload for women, which is of common interest for Embrapa, FAO and beneficiary countries; and
- C. Formulation of public policies aimed at promoting food and nutritional security and conservation and sustainable use of genetic resources, development of sustainable agricultural, livestock, aquaculture, and fiching and forestry production systems fishing and forestry production systems.

N PARTNERSHIP WITH EMBRAPA

The Brazilian Agricultural Research Corporation (Embrapa) is a public institution attached to the Brazilian Ministry of Agriculture, Livestock and Supply (MAPA). Its mission is to create research, development and innovation solutions to ensure the sustainability of agriculture, for the benefit of Brazilian society. Embrapa operates through specialized units in Brazil's technological research and innovation fields.

Areas of focus:

- Agricultural research and technology transfer
- Genetic improvement of cultivars
- Machinery adapted to family farming
- Technologies for sustainable production
- Supporting global initiatives to improve food and nutrition security in developing countries

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