



United Nations
Office for South-South Cooperation



Brazil Africa
Institute

GOOD PRACTICES

in **South-South** and
Triangular Cooperation
in the Context
of **Food Security**



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FOREWORD

For several decades, development cooperation has followed mainly a North-South pattern, with donors from the developed countries and recipients from the developing countries. Africa's economic progress has historically relied heavily on Northern donor support and trade but this trend is changing as South-South cooperation experiences a resurgence.

Several countries of the South, such as Brazil, China and India, have identified Africa as an important trade, investment and development partner, crafting policies, programmes and initiatives with African governments and institutions to engage them in potential win-win partnerships.

Additionally, developing countries, including African countries, are increasingly recognizing good practices in South-South cooperation as a viable pathway to accelerate the attainment of the Sustainable Development Goals (SDGs). These good practices aim to address common and crucial challenges.

The Brazil Africa Institute (IBRAF), as a non-governmental organization, seeks to promote a transparent perspective regarding African countries and their societies. Through its various projects, IBRAF is engaged in the building of a better and more sustainable future.

The United Nations Office for South-South Cooperation (UNOSSC) engages with Member States globally and regionally as well as within the UN system to facilitate practical expressions of Southern solidarity towards the achievement of internationally agreed development goals in an effort to promote the SDGs. IBRAF is pleased to take part in such efforts, contributing by bridging the knowledge gap between international stakeholders through the organization of its many projects and events and the collation of good practices on South-South and triangular cooperation in the area of food security.

The strong partnership between UNOSSC and IBRAF has led to the compilation of good practices and solutions on South-South cooperation shared during the seventh Brazil Africa Forum, held in Sao Paulo, Brazil, in November 2019. Those good practices, featured in this compilation, highlight innovative enterprises that illustrate the central tenets of effective South-South and triangular cooperation, address transnational development challenges, present solutions that have been piloted and scaled up, and have tangible development outcomes.

This report is expected to inspire governments, the private sector and entrepreneurs, civil society and non-governmental organizations, and citizens in general to adopt, improve and share the best practices in agriculture and food security, ensuring good living conditions and well-being for all rural communities.

IBRAF is pleased to take part in this endeavour and hopes to contribute to a fairer reality for all people.

João Bosco Monte
President
Brazil Africa Institute

Agriculture provides livelihood for 40 per cent of today's global population. It is the largest source of income for poor rural households, especially women. Some 500 million small farms worldwide, most still rain-fed, provide up to 80 per cent of food consumed in a large part of the developing world. However, prior to the COVID-19 pandemic, more than 820 million people had already been identified as chronically food insecure. This number could nearly double by the end of 2020 owing to economic slow-downs and disruptions caused by the pandemic. Thus, eradicating hunger and achieving food security remain major challenges, especially now and in the wake of the pandemic.

To mitigate the negative impacts of the pandemic on vulnerable populations, Governments need to take immediate action to keep trade flowing, to strengthen food supply chains and to increase agricultural production. This also includes investing in smallholder women and men to increase food security and nutrition for the poorest as well as food production for local and global markets and enhancing agricultural and rural development through South-South cooperation. This goal can be attained through adopting, adapting and broadening good practices that promote agricultural development, which has been increasing between developing countries.

This special thematic edition entitled *Good Practices in South-South and Triangular Cooperation in the Context of Food Security* that has been compiled by IBRAF presents 40 good practices in food security and agriculture. It showcases notable solutions at the national, subregional, regional and global levels to crucial challenges faced by developing countries in the area of food security. The good practices gathered in this edition, which are also relevant to the unprecedented global health crisis triggered by the COVID-19 pandemic, aim to benefit developing countries seeking to scale up South-South and triangular cooperation initiatives, particularly in the widespread application of policies, strategies and programmes relating to food security and agriculture.

UNOSSC will utilize the South-South Galaxy, a digital global knowledge-sharing and partnership-brokering platform, to promote the good practices in this compendium in order to facilitate knowledge-sharing and cooperation between partners of the Global South.

Adel Abdellatif

Director a.i.

United Nations Office for
South-South Cooperation



EXECUTIVE SUMMARY

The good practices presented in this compendium are based on the data collected during the Brazil Africa Forum 2019, an international event organized by the Brazil Africa Institute that gathered representatives of government, the private sector and civil society from over 40 countries to discuss the theme “food security: paths to economic growth”.

The two-day event, held in São Paulo, Brazil, and attended by nearly 300 international representatives, addressed the main challenges in agriculture, livestock and food security. With plenary sessions and side events, representatives from the United Nations system, the Alliance for a Green Revolution in Africa, the Forum for Agricultural Research in Africa and many other institutions discussed a myriad of agriculture-related themes.

The Forum focused on creating a platform for dialogue, one that could strengthen cooperation on Sustainable Development Goal (SDG) 2 (zero hunger), in order to foster innovation and productivity, paving the way for a new African agriculture.

With an opening ceremony attended by the Vice-President of Brazil, H.E. Mr. Hamilton Mourão, the Forum achieved its convergence-building mission. Many good practices and experiences were shared throughout the event, with a focus not only on domestic policies but also on South-South cooperation and triangular cooperation initiatives.

The thematic sessions of the Forum looked at governance and political engagement, agro-energy and food processing, the green revolution and sustainable practices, agro-finance and credit mechanisms, international trade and macroeconomic policies, and water management and resource optimization.

This compilation features good practices from the global South, mainly from Brazil and the Africa region that are relevant to the implementation of SDG 2.

They feature innovative initiatives on agriculture and food security that illustrate the central tenets of effective South-South and triangular cooperation, including initiatives that involve and benefit a great number of people in two or more Southern countries, that address transnational development challenges, that present solutions that have been piloted and scaled up, and that have tangible development outcomes that address the attainment SDG 2.

The evidence gathered in these good practices aim to benefit developing countries that seek to scale up South-South and triangular cooperation initiatives, in particular with respect to widening the application of policies, strategies and programmes.

ACKNOWLEDGEMENTS

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ABBREVIATIONS AND ACRONYMS

ABC	Brazilian Cooperation Agency
AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
ANA	National Water Agency (Brazil)
ARFA	Agency for Regulation and Supervision of Pharmaceutical and Food Products
ARIFA	Agricultural Research and Innovation Fellowship for Africa
ASAP	Adaptation for Smallholder Agriculture Programme
AUDA	African Union Development Agency
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
CONAB	Brazilian National Supply Company
CSO	Civil society organization
CTBA	Brazil-Germany Trilateral Cooperation
EMBRAPA	Brazilian Agricultural Research Corporation
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
Fiocruz	Oswaldo Cruz Foundation
GDP	Gross domestic product
GIRSAL	Ghana Incentive-based Risk-sharing System for Agricultural Lending
GIZ	German Agency for International Cooperation
HMB	Human milk bank
IBRAF	Brazil Africa Institute
IFAD	International Fund for Agricultural Development
IFB	Federal Institute of Education, Science and Technology of Brasília
IFBA	Bahia Federal Institute of Education, Science and Technology
ISRA	Senegalese Agricultural Research Institute
LAC	Latin America and the Caribbean
LDC	Least developed country
MIC	Middle-income country
NEPAD	New Partnership for Africa's Development
QADCO	Qatarat Agricultural Development Company
SNRD	Sector Network Rural Development Africa
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNOSSC	United Nations Office for South-South Cooperation
WFP	World Food Programme
YTTP	Youth Technical Training Programme

GOOD PRACTICES



Brazil–Japan–Mozambique Triangular Cooperation Project (ProSAVANA)

1

Improving the livelihood of farmers through inclusive and sustainable agriculture

CHALLENGE

One of the biggest issues facing agriculture in Africa is that certain regions have natural conditions that are inadequate for crop cultivation owing to geography and climate. The savanna is widely known for its dry conditions, which, complemented by an acid soil, represent a significant barrier for agricultural activities in countries such as Kenya, Mozambique and the United Republic of Tanzania. Low levels of technology and mechanization as well as inadequate technical training make it even more difficult to maintain crops in these countries as smallholder farmers struggle to achieve sustainable production.



PROJECT NAME

Triangular Cooperation Programme for Agricultural Development of the Tropical Savannah in Mozambique (ProSAVANA)

COUNTRIES/REGIONS/TERRITORIES

Brazil, Japan and Mozambique

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 11 Sustainable Cities and Communities
- 12 Responsible Consumption and Production
- 15 Life on Land

SUPPORTED BY

National Bank for Economic and Social Development (Brazil)

IMPLEMENTING ENTITIES

ABC, Japan International Cooperation Agency (JICA) and Ministry of Agriculture and Food Security (Mozambique)

PROJECT STATUS

Ongoing

PROJECT PERIOD

2015 — Ongoing

URL TO THE PRACTICE

<https://www.prosavana.gov.mz/>



TOWARDS A SOLUTION

ProSAVANA aims at generating new models for rural development, taking into account the environmental conditions of the region to reduce poverty in the Nacala Corridor in Mozambique. The natural similarity of the Cerrado in Brazil allows for the sharing of experiences, especially tackling soil conditions, which in turn may boost productivity and generate employment, revenue and development across the aforementioned countries. The project seeks to incorporate the results of relevant studies from Brazil to support the establishment of appropriate models of agrarian development in Mozambique. At the same time, it seeks to increase productivity through the development of a market-based approach, facilitating access to inputs and services and crop diversification, in order to properly develop value chains and expand cultivated areas. Finally, the aim is to establish regional agricultural centres and develop value-chain systems with public-private partnerships and actions of non-governmental organizations to enable technical training and technology transfer.

The project established as a target area the Nacala Corridor region, comprising the provinces of Cabo Delgado, Nampula, Zambezia, Niassa and Tete. With three separate, although integrated, programmes, its methodology involved several phases: (a) "Define development models and formulate reference projects to be implemented"; (b) "Identify and select potential stakeholders in the target areas of ProSAVANA to engage in promoting agricultural development models"; (c) "Engage public/private/NGOs in the reference projects to contribute to Activity 1-5" (see (d)); (d) "Recommend potential agricultural development models based on the reference projects"; (e) "Support implementation of the agricultural development models in the target areas of ProSAVANA"; and (f) "Compile public policy recommendation(s) to promote the potential agricultural development models for sustainable rural development"¹

For systemic and cross-country effectiveness, "co-ordinating institutions (Mozambique Ministry for Agriculture and Food Security, the Japan International Cooperation Agency and the Brazilian Cooperation Agency (ABC) agreed on the establishment of a ProSAVANA administrative coordination unit in Maputo, namely, ProSAVANA-HQ"² to act as a communication centre and mobilize the institutions involved to ensure that the Mozambique ministries and other agencies liaise with the project. The aim is for the work to be coordinated and to implement public relations activities with the private sector, civil society and academics interested in information, dialogue and developing activities within the ProSAVANA framework, focusing on the Nacala Corridor as a focal point.

The project's activities were structured in accordance to the principles of environmental protection, and succeeded in supporting Mozambican farmers and contributing to poverty reduction, food security and nutrition. **As outcomes, ProSAVANA achieved the following:**

- a. **Strengthening of the operational capacity of the Agricultural Research Institute of Mozambique (IIAM) North-east and Northwest research centres;**
- b. **Evaluation of natural resources and environmental impact resulting from the use of new agricultural technologies and socio-economic conditions in the Nacala;**
- c. **Development of soil improvement technologies for agricultural use in Nacala Corridor;**
- d. **Development of appropriate cultivation technologies and livestock production of Nacala Corridor; and**
- e. **Development and validation of new agricultural technology, which were then implemented in the demonstration units.**

ProSAVANA is sustainable and replicable because it involves the commitment of the Government of Mozambique to mitigate a long-standing issue concerning the country's agriculture with the assistance of international partners. The project was able to build on a Brazilian-led agenda of mitigating the natural conditions of the Cerrado to improve agricultural output and transfer such concerns to the Mozambican reality, engaging national and provincial governments alongside local communities in a joint effort to improve the situation of the savanna. Even though ProSAVANA is a triangular cooperation project, with the involvement of Japan in the role of a traditional donor for development projects as a provider of technology and training, the focus of the initiative was the synergy between Brazil and Mozambique, which can be replicated and scaled up in future South-South cooperation projects. With due adjustments in governance mechanisms and cultural approach, Brazil can become a hub for sharing soil-related experiences with other African countries, especially Portuguese-speaking ones, assisting in the identification of major challenges and the development of institutions capable of delivering solutions.

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1 ProSAVANA – PEM. See <https://www.prosavana.gov.mz/prosavana-pem-1/>.

2 ProSAVANA. See <https://www.prosavana.gov.mz/who-we-are/>.



Brazil's South-South Cooperation Project on Strengthening the Integrated Use of Hydric Resources in Latin America and the Caribbean and the Community of Portuguese-speaking Countries

Providing clean water to local communities to improve agricultural productivity

CHALLENGE

Brazil's semiarid region has an immense population, which suffers from acute water shortages and structural scarcity for agricultural production due mainly to successive droughts. As the territory of two major hydrographic basins – the Amazon and the Rio de la Plata – and as a country with many social inequality issues related to water access (over 22 million people from the Northeastern region of Brazil live with irregular rainfall and little to no supply of water), Brazil engages in multiple efforts to share experiences with Southern partners on this subject, especially through technical and scientific cooperation.

PROJECT NAME

South-South Cooperation Project for Strengthening the Integrated Use of Hydric Resources in Latin America and the Caribbean and the Community of Portuguese-speaking Countries

COUNTRIES/REGIONS/TERRITORIES

Latin America and the Caribbean, and Community of Portuguese-speaking Countries

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 6 Clean Water and Sanitation
- 11 Sustainable Cities and Communities
- 15 Life on Land

SUPPORTED BY

UNESCO and Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil, ANA (Brazil) and ABC

PROJECT STATUS

Ongoing

PROJECT PERIOD

2014 — 2021



TOWARDS A SOLUTION

After the creation of the National Water Agency (ANA), Brazil started to engage in trilateral and bilateral cooperation schemes through ABC to share experiences in water management with other Southern countries. Although Brazil has programmes across the globe, Brazilian efforts are directed especially towards countries in Latin America and the Caribbean and Africa to take advantage of similar geographical and climate conditions and create joint solutions. The South-South Cooperation Project for Strengthening the Integrated Use of Hydric Resources in Latin America and the Caribbean and the Community of Portuguese-speaking Countries was created and implemented with the United Nations Educational, Scientific and Cultural Organization (UNESCO) with the goal to strengthen the national capacities in water management and solidify institutional and legal frameworks regarding this issue. The main goals of the project are: (a) the exchange of experiences and knowledge in the management of water resources; (b) training of technicians in the themes relevant to the management of water resources; and (c) training in the use of equipment, notably that aimed at monitoring the quantity and quality of water and for the prediction of critical hydrological events such as droughts and floods.

This overarching initiative involved several specific projects in multiple countries. For instance, a specific programme focused on sharing Brazilian experiences with the Project for Northeastern Region Subterranean Waters to adapt technologies obtained from Canada to access, purify and manage the subterranean water resources for the Northeastern semiarid region with Caribbean partners. The aim was to assist countries such as Barbados and Dominica to structure monitoring networks since Brazil used cutting-edge technology, mainly powered by solar panels, to access underground water and aerial technology to map aquifers and drilling zones and facilitate the allocation of manpower and resources in later phases, when subterranean waters would be accessed, stored and used for the rural populations' drinking, agricultural and livestock needs during dry seasons. The project also gave rise to capacity-building programmes in Argentina, the Plurinational State of Bolivia, Colombia and Ecuador, to name a few, focusing either on public policy implementation or on development of human resources.

Among many outcomes, the project enabled the development of over a dozen bilateral projects, four interregional cooperation schemes, multiple agreements with international organizations (i.e., the Global Water Partnership, the Organization for Economic Cooperation and Development, UNDP, the United Nations Environment Programme and UNESCO) and the 8th World Water Forum in Brasília in 2018.

The project helped to structure the national systems of water management in Argentina and Mexico, modernize the hydro-meteorological networks of Uruguay, and improve the river basin analysis and monitoring in Cuba. Finally, it produced a documentary entitled "National Hydrometeorologic Network" with professionals, researchers and technicians from ANA and partner organizations to share good practices and solutions in water management, serving as a knowledge product for capacity-building in other realities. All of these impacts result in a better environment for agricultural and livestock production, enabling both large-scale and smallholder farmers to sustain crop yields and market access and providing better conditions for food systems to work in a sustainable manner.

This South-South cooperation project is aligned with SDG 7 as well as with Brazilian principles for international cooperation. This initiative and its unfolding actions, focused on structural change and capacity-building, enable the qualification of the performance of technicians for water management and create favourable environments for discussion, negotiation and the search for solutions in a democratic way through a participative and decentralized process, which is essential for better management of water resources. The international cooperation of ANA in the area of water resources has also contributed to the fulfilment of commitments undertaken by the Government of Brazil, strengthening human rights, food security and environmental concerns in its target countries.

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Strengthening the agro-industrial sector in Nigeria to increase agricultural production and boost food security

CHALLENGE

Many African countries face challenges in accessing cutting-edge technology, which can be seen in the difficulty of the agriculture sector in integrating into global networks. African agriculture, led by smallholder farmers, has yet to be assimilated into digital fluxes, a situation that hinders the use of new applications and services to boost productivity. Although Nigeria is the top African economy in terms of GDP, regional disparities are evident, and its rural spaces are still suffering with poor infrastructure and low levels of mechanization, making connections between suppliers, producers, distributors and consumers extremely difficult.



PROJECT NAME

Brazil-Nigeria Green Imperative

COUNTRIES/REGIONS/TERRITORIES

Nigeria, Brazil, Germany and Nigeria

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

Getúlio Vargas Foundation, Brazilian Machinery Manufacturers Association, Deutsche Bank, Brazilian National Bank for Economic and Social Development and Government of Nigeria

IMPLEMENTING ENTITIES

Getúlio Vargas Foundation, Brazilian Machinery Manufacturers Association and Government of Nigeria

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — 2029

URL TO THE PRACTICE

<http://www.abimaq.org.br/site.aspx/Abimaq-Informativo-Mensal-Infomaq?DetalheClipping=96&CodigoClipping=2105>



TOWARDS A SOLUTION

The Green Imperative project champions the use of Brazilian technology for the development of agricultural mechanization to make farming a dignified venture for Nigerian people and, ultimately, increase agricultural production and boost food security. The solution for Nigeria is the connection of the agricultural value chain through an investment package: initial financing of over \$1 billion has been set by the Governments of Brazil and Nigeria to be used for the improvement of the overall infrastructure in the rural areas of Nigeria. In partnership with the Getúlio Vargas Foundation (Brazil), the Brazilian Machinery Manufacturers Association (ABIMAQ), Deutsche Bank and the Brazilian National Bank for Economic and Social Development, the Government of Nigeria is focused on the construction of power plants, training structures and agroprocessing factories, with a special interest in the acquisition of rural machinery (tractors, drillers, seeders, cultivators, harvesters and more).

The methodology includes, as central components, technical training, technology transfer and industry integration, which are emphasized as means for achieving the structural and long-term development of Nigeria. The key objective of the programme is to scale up that country's agriculture through close collaboration between Nigerian and Brazilian industries for the delivery and use of appropriate technologies to improve productivity in crops such as rice, cassava, cocoa, wheat, soya beans, maize, sugar cane and tomatoes in order to boost food production, improve food security, expand job growth and ultimately boost household income in Nigeria. With a duration of 10 years, the project will have two phases of implementation: (a) allocation of over \$200 million for the creation of around 780 agricultural service centres as the poles for catalysing, through training and equipment-sharing, the increase in productivity; and (b) technology transfer from Brazil to Nigeria via the commercialization of agricultural equipment and inputs, such as tractors, planters, seeders, fertilizers and pesticides.

In terms of outcomes, the Green Imperative is still in the early stages of implementation, and despite the large size of the project, results achieved to date have been minor. With the execution of the first phase, the construction of 30 agricultural service centres in the most sensible rural areas serves as a pilot for the assessment of impacts and evaluation of risks, adapting the technical training to the specific demands of each location. **Ultimately, the Brazil-Nigeria cooperation scheme is set to benefit over 100,000 young Nigerian professionals directly and more than 5 million Nigerian people indirectly;¹ the transfer of technology, on the other hand, is set to involve the trade of 50,000 machines and equipment and 10,000 tractors, which will be assembled by professionals in Nigeria.²**

With the active and engaged participation of the Governments of Brazil and Nigeria through their respective Ministry of Foreign Affairs, the Green Imperative is a part of the foreign agenda of each of these countries, thus representing a triangular cooperation initiative, with long-term goals for food security. With the participation of an educational institution (Getúlio Vargas Foundation), an industry association (Brazilian Machinery Manufacturers Association) and banking organizations (Deutsche Bank and the Brazilian National Bank for Economic and Social Development), this good practice involves multiple efforts from many sectors of activity, which converge to serve as a sustainability factor for its practical implementation. With a holistic approach and a clear mandate in the agricultural and rural development fields, it is also replicable with proper political commitment.

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1 A. Moreira, "Brazil promotes Africa's largest agricultural project", Economic Value, 16 January 2019.

Available at <https://valor.globo.com/agronegocios/coluna/brasil-fomenta-o-maior-projeto-agropecuaria-da-africa.ghtml>.

2 Ibid.



Brazil's Institutional Strengthening of Rural Development and Cooperatives in Botswana

4

Strengthening community engagement for economic growth, job creation and poverty reduction

CHALLENGE

One of the issues concerning agriculture in Africa is the use of non-mechanized, low-technology practices and techniques, which are, not rarely, damaging for the environment. The population of Botswana – in some places as high as 90 per cent – is engaged in subsistence agriculture despite the difficulties related to food relief and climate change. At the beginning of the twenty-first century, there arose a general need to organize cooperatives, which would enable the exchange of experiences and the development of agricultural activities between local farmers and rural communities.



PROJECT NAME

Institutional Strengthening of Rural Development and Cooperatives in Botswana

COUNTRIES/REGIONS/TERRITORIES

Botswana and Brazil

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil, ABC, EMBRAPA and Organization of Brazilian Cooperatives

PROJECT STATUS

Ongoing

PROJECT PERIOD

2010 — Ongoing

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/906>



TOWARDS A SOLUTION

In 2010, the Governments of Brazil and Botswana formalized a cooperation scheme that was to be carried out by ABC and the Brazilian Agricultural Research Corporation (EMBRAPA) and that focused on agriculture. Brazil, as a reference country in terms of agriculture, opted for a South-South cooperation scheme, based on education and technical training, for sharing with Botswana the know-how and experience acquired in over 50 years of advancements in the field. The ultimate goal was to use agriculture and its associated activities as the engines for the economic growth of Botswana, with job creation, poverty reduction and overall improvements in the quality of life of both urban and rural communities; as a consequence, crop management and food security would be enhanced, with professionals being trained in business strategies for optimized results.

In terms of methodology, the cooperation activities were led by ABC, which sent a Brazilian team of officials and experts to Botswana in 2011 with the objective of identifying how a cooperation framework could contribute to the strengthening of rural cooperatives and stimulate community engagement. Until 2011, there had been no legislation on cooperativism in that African country. Following the design of the cooperation initiative, Brazil assigned EMBRAPA to conduct a programme of technical training, taking officials, farmers and workers from Botswana to Brazil for capacity-building in institutions, shared economy, productivity enhancement, climate-change resilience and market-based practices. Strengthening food production and creating food surpluses within the country would enhance sustainability in production, since the Government sought to feed the population itself without resorting to imports, which was the standard practice until the beginning of the bilateral cooperation.

In terms of results, **Brazil and Botswana had a twofold outcome: through ABC, in 2011, the project produced a comprehensive, deep diagnosis of Botswana's structural gaps with respect to agricultural production and cooperatives, which served as an input for policymakers and businesspeople to adapt their strategies on local action;** through EMBRAPA, in 2014, Brazil trained 20 people from Botswana in the aforementioned skills, generating a scaling up with a massive spillover effect in rural communities, especially the most vulnerable ones with no access to digital platforms and Internet connection. In 2015, Brazilian experts from the Organization of Brazilian Cooperatives began to teach courses and workshops in Botswana, with classes that had more than 50 participants from that country.

After the initial phases, the Government of Brazil created a cooperative training centre, and both governments and local producers agreed on the establishment of a pilot plan for a model horticultural cooperative, which resulted in the North Kweneng Horticultural Cooperative, currently in operation based on an eight-year strategic plan and formed by 10 members (6 men and 4 women).

A part of the Brazilian foreign policy and international development agendas, the initiative Institutional Strengthening of Rural Development and Cooperatives in Botswana has a clear mandate, using government agencies for the achievement of sustainable goals. This good practice is aligned with Agenda 2063 of the African Union, especially with key transformational outcomes such as “the volume of intra-African trade especially in agricultural value added products would increase three fold by 2023”¹ and “labour intensive manufacturing, underpinned by value addition to commodities and doubling of the total agricultural factor productivity will be attained by 2023”², which indicates a long-term political commitment. In terms of sustainability, Brazil focuses not on financial assistance but rather on the exchange of good practices and technical cooperation, with no imposition of specific models for development.

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1 The African Union Commission, Agenda 2063: The Africa We Want – First Ten-Year Implementation Plan 2014–2023, p. 22.

Available at <https://www.un.org/en/africa/osaa/pdf/au/agenda2063-first10yearimplementation.pdf>.

2 Ibid.



Brazil's Development of Integrated and Sustainable Agroecological Production in Senegal (PAIS Project)

5

Brazil supporting Senegal in promoting sustainable agriculture and agroecological practices to enhance food security

CHALLENGE

Over 75 per cent of the population of West and Central Africa is under the age of 35, with a significant concentration of the youth in rural areas. Nevertheless, many countries still suffer, from poor infrastructure and low levels of mechanization. In Senegal, agriculture and livestock occupy a large part of the active population, since they are subject to soil erosion, climatic variations and insecurity. Owing to the great biodiversity and the different types of crops and activities, the Government has sought to leverage this promising, although underdeveloped, sector in order to reduce unemployment, enable self-sufficiency and introduce rural producers to food exports.



PROJECT NAME

Integrated and Sustainable Agroecological Production (PAIS) Project

COUNTRIES/REGIONS/TERRITORIES

Brazil and Senegal

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

Government of Brazil and Government of Senegal

IMPLEMENTING ENTITIES

Government of Brazil, Government of Senegal, ABC, Federal University of Rio de Janeiro and Rio de Janeiro Association of Organic Farmers

PROJECT STATUS

Completed

PROJECT PERIOD

2007 — 2016

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/642>
<http://www.abc.gov.br/imprensa/mostrarconteudo/800>



TOWARDS A SOLUTION

Structured through a Brazil-Senegal international partnership, the ABC technical cooperation project Development of Integrated and Sustainable Agroecological Production (PAIS Project) was developed in 2012 when a bilateral agreement created the opportunity for a Brazilian mission of officials and experts to the African country with prospecting goals. As officially stated by ABC, the Integrated Sustainable Agroecological Production (PAIS) system assimilates simple agricultural production techniques based on models used by smallholders and teaches low-income families how to produce environmentally sustainable and profitable crops on their farms using locally available resources. The idea behind the project is the integrated farming of animals, vegetables and fruits with a cyclical approach to production and its by-products as part of the food chain, the so-called "PAIS social technology". With both a social and an environmental approach, PAIS social technology integrates simple techniques known to rural communities in a form that is in harmony with local precepts.

The PAIS Project had two phases and four areas of action (horticulture, fish farming, poultry and fruit growing) for the generation of food and surpluses, ultimately aiming at the goal of a polyculture-type farm. The first phase comprised the implementation of the "Mandala system" on local properties, which integrates vegetable farming and animal husbandry in concentric circles for a holistic and integrated approach. In the first phase of the project, 10 agrovillages were established, with the structural problems resulting from climate shocks and droughts creating the need to build pumps powered by solar energy for artesian wells. Between the two phases, the Senegalese, with the support of other countries, created an agrovillage with 10 producers, each responsible for 1 hectare. Each producer received an initial financial contribution and later a bank credit, which also generated the need for cooperatives for the purchase of inputs and machines at a lower cost. In the second phase of the project, technical assistance was given to the 10 initial properties and another 20 were subsequently created with training in rural economy, complemented by the internationally recognized certification of organic products to enable local producers to benefit from enhanced market access.

In terms of outcomes, several representatives were trained in Brazil and in Senegal to implement the project besides the smallholders through capacity-building in the assembling of energy systems, construction of water tanks, agroecological systems and PAIS farming. The solar-powered pumps and the artesian wells address the problem of extracting water and at present service the families and the different farming activities on the smallholding properties.

With regard to vegetable farming, the production of eggplants, peppers, onions, tomatoes, cassava, watermelons, corn, okra, melons and sweet potatoes was quickly established; dual-purpose-breed laying and broiler chickens were also introduced. In each unit, 50 fruit tree seedlings (mango, citrus, banana, coconut, papaya and soursop) were planted and fish production with tilapia fry was introduced. Some smallholders also benefited from refurbishments, which resulted in improved living conditions. **The Government wants to expand the PAIS system to the entire territory because, in addition to its direct results, young people have returned to the countryside, avoiding massive migration.**

The main path for creating a South-South replica for this practice is through an intergovernmental, interministerial effort, one that can export the lessons used in the PAIS design to governmental agencies of other countries and unite private businesses with banking institutions to promote commercial practices and facilitate credit access. This can lead least developed African countries in every region, i.e., Burundi, Gabon, the Gambia, Malawi and Niger, to create their own vulnerable-area agendas, focusing on resilient agriculture and interconnected public-private efforts to create spillover effects on infrastructure, industry and social welfare.

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Strengthening Family Farming Capacities in the Plurinational State of Bolivia

6

Strengthening the capacity of policymakers and citizens in family farming

CHALLENGE

One of the biggest issues of developing countries is the division between those engaged with large-scale agribusiness and those engaged with small-scale family farming. Brazil is no exception, since the central-Western region of the country is characterized by modern, technological precision agriculture, while the Southern and Northeastern regions are dominated by smallholder farming. With different and often conflicting agendas, these groups tend to require particular policies but the gap between their economic capabilities dictates an unbalanced relationship. The Plurinational State of Bolivia suffers with a similar structural concern as a deeply unequal economy is translated into conflicts in the rural areas of the country.



PROJECT NAME

Strengthening Family Farming Capacities in the Plurinational State of Bolivia

COUNTRIES/REGIONS/TERRITORIES

Plurinational State of Bolivia, Brazil

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil, CONAB and ABC

PROJECT STATUS

Completed

PROJECT PERIOD

2018

URL TO THE PRACTICE

<https://www.conab.gov.br/ultimas-noticias/2351-bolivia-busca-acoes-brasileiras-para-fortalecer-agricultura-do-pais>



TOWARDS A SOLUTION

As part of the Brazil-Plurinational State of Bolivia cooperation agenda, representatives of the Government of Brazil were in the Plurinational State of Bolivia in order to present the Brazilian experience in relation to the Food Acquisition Programme (PAA) and the Food Acquisition Programme Web app (PAA Net). The aim is for the Government of Brazil to present national experiences in the management (and stimulus) of family farming, serving people in situations of food insecurity and assessing the possibility of supporting the commercialization of products from smallholder producers. To achieve this end, the cooperation aims at enabling farmers to increase productivity and technicians to prepare market analyses, uniting two skills that are valuable for agricultural development.

For the implementation of the cooperation programme, the Brazilian National Supply Company (CONAB) sent a delegation of experts and technicians to La Paz, Plurinational State of Bolivia, with the objective of presenting the Brazilian experience in terms of policymaking to support family farmers and agricultural marketing. The goal of the mission, which culminated in a workshop and field visits, was to train representatives of the Andean country to prepare surveys of agricultural data, with market production and cost analysis. On the basis of the aforementioned PAA and PAA Net, CONAB sought to train representatives of the Government of the Plurinational State of Bolivia in the main tools of Brazilian agricultural policy in order to boost and strengthen the country's agriculture sector. For that purpose, a workshop on Bolivian family farming capacity-building was held in 2019.

As outcomes, **the CONAB mission provided the necessary know-how and expertise for the Government of the Plurinational State of Bolivia to implement its own food acquisition programme, with a digital interface as well.** The programme concentrated on (a) the PAA specific modalities of simultaneous acquisition and donation, which are focused on supporting family farmers through government acquisition of food from cooperatives and associations and later donating it to social and assistance networks of food security such as community kitchens and public restaurants, and (b) minimum price policy, which serves as a government incentive to ensure a minimum income for agricultural producers when prices fluctuate or hit low values while regulating the supply of products when there is an overflow of goods to the market.

Although executed by CONAB and ABC, this initiative is part of a broader Brazilian development commitment. Within the Brazilian foreign policy and international cooperation agendas, and aligned with the country's specific focus towards Latin America, this South-South cooperation project aims at developing rural areas in neighbouring States as a means of achieving longer-term goals, such as eradicating poverty, diminishing violence and boosting economic growth. It is aligned with both the SDGs and the Organization of American States development principles, ensuring a political commitment that is key for avoiding conflict and finding common ground in the region.

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Providing access to water to local communities impacted by frequent droughts



CHALLENGE

Brazil's semiarid region has an immense population, which suffers from acute water shortages and structural scarcity for agricultural production due mainly to successive droughts. Over 22 million people from Northeastern Brazil live with irregular rainfall and little to no supply of water; child malnutrition, agricultural devastation and livestock losses are some of the main issues faced by such populations. Social inequality catalysed this problem, since only a part of the population could access water and used this condition as leverage for political and economic benefits.



PROJECT NAME

Cisterns Programme

COUNTRIES/REGIONS/TERRITORIES

Brazil

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 6 Clean Water and Sanitation
- 11 Sustainable Cities and Communities
- 13 Climate Action
- 15 Life on Land

SUPPORTED BY

Ministry of Social Development, Brazil

IMPLEMENTING ENTITIES

Ministry of Social Development, Brazil

PROJECT STATUS

Ongoing

PROJECT PERIOD

2003 — Ongoing

URL TO THE PRACTICE

<http://mds.gov.br/assuntos/seguranca-alimentar/acesso-a-agua-1/programa-cisternas>; <https://www.futurepolicy.org/healthy-ecosystems/biodiversity-and-soil/brazil-cisterns-programme/>

TOWARDS A SOLUTION

The Government of Brazil, alongside local communities, developed the Cisterns Programme to install over one million water tanks and guarantee the supply of water for local populations, focusing on low-cost technologies. Initially aiming to tackle only the drinking water problem, the programme later evolved to become a more sophisticated programme that sought to collect water for productive use, agricultural irrigation, feeding animals, etc. The focus on Brazil's Northeastern region, which is a semi-arid region, is a priority area of the programme, aiming to structure family capacities so that they can coexist with the scarcity of rain characteristic of the climate of the region, using mainly the technology of plate cisterns, reservoirs that store rainwater for use during droughts.

The methodology of the Cisterns Programme is “social technology”, for it involves the use of a technological advancement with close governmental interaction with local communities, involving appropriate approaches and techniques. It has three steps: (a) “social mobilization” – the process of choosing the communities involved and mobilizing the families to be involved, carried out by the executing entity with the participants that represent the locality; (b) training – the phase of the project that characterizes the technologies implemented by the Cistern Programme as “social technologies”, with technical training using teaching materials that are produced with simple language and illustrations, favouring an easy understanding, and carried out valuing the existing community organization, with an appropriate pedagogical proposal aimed at popular education; and (c) implementation – the phase of the project that builds or implements the technology, with a workforce chosen preferably in the community itself, thus reducing costs, generating job opportunities and stimulating the local economy. Thus, the process of constructing and implementing technologies is carried out cooperatively, generating a feeling of belonging, which promotes greater sustainability of the installed equipment.

The goal of building over 1 million cisterns has already been achieved, complemented by the building of thousands of productive cisterns and school-based cisterns.

Effects of recent droughts have been significantly mitigated, and fewer people are forced to leave their homes in search of more adequate areas; this has improved outputs of local farms, increasing food security across the region. Officially, “1.2 million cisterns were built between 2003 and 2016, benefiting 4.5 million people in the Semi-arid. The 1 million goal was reached in 2014... The 16,000-litre domestic [“first water”] cisterns can supply a family of five with water for drinking, cooking and washing during a dry period of eight months, or even more. 200,000 productive [“second water”] tanks have also been built.

These 52,000 litre cisterns have helped families advance from subsistence farming to producing a more diverse range of products...to supplement their diets and income.”¹ Also, in terms of well-being and gender equality, “For women, the policy is transformational. Cisterns are registered in the name of the female head of the household, giving them ownership, status and responsibility.”² Water collection at home means no more walking for miles to fetch water. Children can go to school and women’s time is free for other activities: community engagement, learning new skills, and growing food – including vegetables, native and medicinal plants, and keeping chickens and goats.

Brazil’s Cisterns Programme is a government strategy intrinsically related to other national programmes. This entails a long-term commitment to structural reforms, which in turn reveals the sustainability of such a programme in terms of political engagement and financial resources. With respect to replicability, as a low-cost and low-tech programme, it can be easily implemented in other countries and regions that struggle with aridness issues. The initiative directly involves only the Government of Brazil. Nonetheless, it serves as a successful example for water management programmes in many arid and semi-arid regions due to the outstanding scale of its implementation and its overarching impact. Recognized by the United Nations Convention to Combat Desertification and the World Future Council with the 2017 Future Policy Silver Award, the initiative was studied by FAO in order to be implemented through South-South cooperation as a mitigator of drought and rural-urban migration in Africa, Asia and South America.

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1 United Nations Convention to Combat Desertification, World Future Council and Green Cross, Combating Desertification and Land Degradation: The World’s Best Policies, p. 6. Available at https://www.worldfuturecouncil.org/wp-content/uploads/2017/08/FPA-Brochure-2017_e.pdf.

2 Ibid., p. 7.



Reducing extreme poverty and widespread hunger through an interconnected effort



CHALLENGE

In Brazil, approximately 2.5 per cent of the population suffers from malnutrition. Although the agriculture sector thrived, rural properties were focused mainly on commodity production, and smallholder farmers were not able to keep up with the growing demand for food. The North and Northeastern regions were especially affected by hunger and malnutrition, as climate conditions, droughts and floods created barriers for smallholder farmers to produce food. Central and Southern urban peripheries also struggled with lack of infrastructure and poor access to basic supplies, and vulnerable communities from the favelas struggled with hunger on a daily basis. A national and comprehensive effort to address food security was thus imperative.

PROJECT NAME

Zero Hunger Programme

COUNTRIES/REGIONS/TERRITORIES

Brazil, Latin America and the Caribbean, and Africa

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

FAO and Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil

PROJECT STATUS

Complete

PROJECT PERIOD

2003 — 2010

URL TO THE PRACTICE

<https://www.camara.leg.br/radio/programas/267330-especial-programa-fome-zero-08-41>



TOWARDS A SOLUTION

The Government of Brazil established the Zero Hunger Programme as an umbrella initiative to tackle the immediate causes of hunger and malnutrition in the country. It implemented the project through a series of minor initiatives, which sought to engage regional and local governments in food security efforts and mobilize public agencies in the fight against hunger. Coordinated by the Special Secretariat of Family Farming and Agrarian Development (and by the Extraordinary Ministry of Food Security), the programme involved the creation of the Bolsa Família programme, (a conditional cash transfer scheme), the establishment of low-cost restaurants, the teaching of nutrition habits, the improvement of the water supply, the boosting of smallholder farmers' capacities and other specific measures. Complementarily, the Food Acquisition Programme, created in 2003, contributed to the reduction of poverty and the overcoming of hunger in the country, especially in the rural areas, reaching a total of 188,000 families, mainly by allowing rural families to take control of the food supply, thereby eliminating the need for intermediaries.

The programme succeeded in removing Brazil from the world hunger map by reducing the population suffering from malnutrition by 82 per cent between 2003 and 2012. As a consequence, poverty rates also fell from 24 per cent of the total population in 2003 to 8.5 per cent in 2012. In terms of child mortality, there was a reduction from 26.1 to 15.3 from 2001 to 2011, Brazil went from the "average" range (20 to 49 deaths per thousand) to the "low" range (less than 20). FAO's report also shows that the rate fell in all regions, with a more marked reduction in the Northeast (6.6% per year on average). The infant mortality rate in the indigenous population decreased by 56.1% between 2000 and 2009, and the prevalence of acute malnutrition (underweight for age) in children under five years decreased from 4.2% to 1.8% between 1996 and 2006. Chronic malnutrition, characterized by short stature-for-age, also fell by half from 1996 to 2006, from 13.4% to 6.7%, with a greater reduction among the lower income bracket.

The Brazilian experience involved a decade of efforts, driven mainly by government agencies, and served as an example for food security programmes of other countries. Based on Brazil's Zero Hunger Programme, the Africa-Brazil Cooperation Programme on Social Development was launched in 2008; it aimed at introducing six African countries (Ghana, Guinea-Bissau, Nigeria, Mozambique, South Africa and Zambia) to the Zero Hunger component, Bolsa Família, through visits of representatives of the Government of Brazil and distance-learning efforts, ultimately assisting Ghana to create and develop its own cash-transfer initiative.

Also inspired by the Brazilian experience, FAO launched the Initiative for Latin America and Caribbean without Hunger 2025, which works through the Programme of Brazil-FAO International Cooperation. It promotes the exchange of experiences among countries through South-South cooperation so that they can replicate their successful experiences and improve their public policies to fight hunger, focusing especially on the Plurinational State of Bolivia, the Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras and Paraguay.

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Brazil's Dissemination of the Crop-livestock-forest Integration System

The integration of agriculture, pastoralism and forestry to contribute to the reduction of the degradation of the ecosystem

CHALLENGE

Brazil's Northern and Northeastern regions suffer the most with territorial conflicts opposing environmentalists, which often put at risk the life of members of local communities. Owing to poor education and lack of technical training, many rural families tend to neglect the impacts of their production activities on the environment, damaging the water courses, soil and forests with slash-and-burn and other practices; this in turn increases food insecurity, since it drastically reduces overall productivity.



PROJECT NAME

Dissemination of the Crop-livestock-forest Integration System

COUNTRIES/REGIONS/TERRITORIES

Brazil, African and Latin America and Caribbean regions

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 6 Clean Water and Sanitation
- 10 Reduced Inequalities
- 15 Life on Land

SUPPORTED BY

Government of Brazil and EMBRAPA

IMPLEMENTING ENTITIES

Government of Brazil and EMBRAPA

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — Ongoing

URL TO THE PRACTICE

<https://www.embrapa.br/web/rede-ilpf/o-que-e>
<https://www.embrapa.br/en/tema-integracao-lavoura-pecuaria-floresta-ilpf/nota-tecnica>
<http://www.agricultura.gov.br/noticias/novo-ciclo-da-integracao-lavoura-pecuaria-floresta-busca-agregacao-de-valor>

TOWARDS A SOLUTION

The EMBRAPA crop-livestock-forest integration system, also known as the ILPF system, is a sustainable development practice for the production of crops in small spaces in coexistence with livestock and forests. The Brazilian approach to international cooperation in the field aims to promote the dissemination and adaptation of the methods of the ILPF system to local demands of other countries. The ILPF system, which integrates activities of agriculture, pastoralism and forestry and contributes to the reduction of the degradation of the Brazilian Caatinga ecosystem, aims to ensure production stability, increase the productivity of the land, ensure proper employability in the field, and create means for achieving economic and environmental sustainability.

The aim is to use rural proprieties for several activities either at the same time, in succession or in rotation, with technologies that enable the distribution of benefits among them: of the total space, 20 per cent is dedicated to agriculture, 60 per cent is dedicated to livestock and 20 per cent remains as protected forests. This minimizes the impacts of soil degradation, boosting productivity in a non-harmful manner and promoting education and capacity-building for rural communities to improve awareness of environmental issues. The ILPF system, in its various modalities, is being adopted at different levels of intensity in the Brazilian biomes, and estimates from 2015 and 2016 point to an adoption area of 11.5 million hectares.¹ The fostering network involves the transposition of this system, through public-private partnerships, to new localities, focusing especially on the LAC and Africa regions. **With the help of international financial institutions, large multinational companies and local governments, the ILPF system is gradually starting to be implemented in least developed countries, with the ultimate goal of creating an internationally recognized certificate for the application of the principles of the system abroad.**

According to EMBRAPA, the initiative also requires a good approach in terms of public relations and cross-country or cross-province exchange of experiences. The preparation of the area for agriculture is made in the dry period (summer), starting with the thinning of the caatinga woody vegetation, preserving the riparian forest of streams and springs and about 200 trees per hectare. In the area intended for livestock, woody vegetation is cleared while preserving about 400 trees per hectare as well as riparian forests. EMBRAPA, in its Southeastern Livestock branch, received 16 African farmers from Benin, Burkina Faso, Chad, Mali and Togo in mid-2018, with the promotion of activities to introduce foreign producers to the ILPF system and raise awareness of the positive impacts of environmental actions, which can lead to soil protection and increase productivity.

As a Brazilian public policy, ILPF stands as part of a larger agenda. It is implemented with government engagement, complemented by the support of agribusinesses and rural communities in an attempt to transform large-scale production into a more sustainable activity, avoiding criticism from green organizations. It is essential to implement a set of communication strategies and actions that can more effectively support the technology transfer network and contribute to expanding the adoption of the systems of the programme by the productive sector as well as a set of educational actions in the form of an integrated and continuous training programme on its practices. Ultimately, the South-South cooperation that involves the ILPF fostering network enables the use of this good practice in multiple contexts, ensuring general support, internationally and domestically, for both the initiative and its derivatives.

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¹ ILPF. Available at <https://www.embrapa.br/web/rede-ilpf/o-que-e>.



Brazil's Institutional Support for the Togolese Agricultural Research Institute

10

Modernizing the cultivation of cassava in Togo through capacity-building

CHALLENGE

The issue of low-tech agriculture in the Togolese value chain is treated very carefully by the Government of Togo, since agriculture is extremely important to the country commercially and in relation to subsistence. In Togo, cassava production represents 8.9 per cent of the agricultural area, and 69 per cent of family farming is used for planting cassava for commercial purposes and for family subsistence on a smaller scale. However, in order to increase income and food security in the country, the modernization of cultivation techniques is increasingly necessary.



PROJECT NAME

Institutional Support for the Togolese Agricultural Research Institute

COUNTRIES/REGIONS/TERRITORIES

Brazil and Togo

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 12 Responsible Consumption and Production
- 16 Peace, Justice and Strong Institutions

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

ABC and EMBRAPA

PROJECT STATUS

Completed

PROJECT PERIOD

2009 — 2017

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/1270>



TOWARDS A SOLUTION

As a result of a cooperation scheme between the Governments of Brazil and Togo, ABC arranged a mission for technicians and experts to the African country. Their goal was to help to combat low agricultural productivity, and the product chosen was cassava, which is Africa's main source of carbohydrates. This crop, grown mainly for its practicality and its resistance to bad weather and soils, has the potential to achieve good results in terms of food security and tradable surpluses, with Brazilian expertise assisting in Togo's institutional approach for boosting the value chain. The aim was to capitalize on Brazil's experience in large-scale agribusiness and smallholder farming in terms of institutional arrangements, which materialized in the country's ministerial commitment to the two agendas in separate cabinets, and to make the Government of Togo and its agencies powerhouses for catalysing rural development in the country.

This cooperation scheme had, as a methodology, the organization of on-site visits, with training sessions and technology transfer. During Brazil's preliminary mission to Togo for the design of the programme, different problems and gaps in agriculture were encountered, such as the lack of disease-resistant varieties and the lack of know-how regarding common management techniques during production in sectors including transportation and industry, which suffered from the farmers' failure to meet deadlines. The first five technicians sent to Brazil (in 2011) received training from EMBRAPA to avoid losses in harvests, in soil management, post-harvest, in phytotechnical restrictions, and in the production and transformation of agricultural products as well as in seed analysis and cassava processing. In 2013, after the Togolese requested species from Brazil that could be adapted to the soil and climate of the African country, the technology-transfer component was realized through the construction of a suitable laboratory in Togo in view of the rules for sending genetic material, and EMBRAPA experts went to Togo to train the Togolese in the use of such material, avoiding contamination and helping to multiply it through biotechnology. In 2017, new training sessions were held after there was a positive evaluation of the project in addition to a request for a new phase, which is under negotiation

In terms of outcomes, the introduction of new varieties and the crossing with local species ensured a better-quality cassava starch, which was later replicated to local producers and created spill-over effects in different regions of the country. More than 30 technicians were trained in agricultural practices and in post-harvest processing, and specialists from Brazil had the opportunity to study a local pest (African mosaic virus), resistant to four of the six Brazilian species taken to Togo, which is important for future prevention in its agriculture.

Also, the Brazil-Togo cooperation scheme resulted in the construction of a biotechnology laboratory in the African country, where the development and replication of genetically modified seeds, with EMBRAPA exchanging know-how in the field, may be responsible for long-term effects in education, science, training and overall productivity. Ultimately, the Brazilian technical and technological assistance helped the Government of Togo, through the Togolese Agricultural Research Institute, to design and execute its own policies in the agricultural realm with increased precision and positive effects.

Brazil-Togo South-South cooperation in agriculture is part of an effort by the Government of Brazil to achieve the SDGs, taking advantage of institutional and scientific expertise acquired over many years to provide assistance for LDCs. Although focused on public policy and thus lacking the dynamism of an intersectoral dialogue with private companies and civil society organizations (CSOs), this good practice is a component of the Brazilian foreign policy agenda, with clear long-term perspectives and the aim of sustainability.

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Brazil's Technical Support for the Implementation of Human Milk Banks in Cabo Verde

11

Establishing milk banks to enhance child nutrition and food security

CHALLENGE

Some African countries struggle with poor health and public-sanitation infrastructure, which endangers the lives of newborn babies and infants. Coupled with such poor conditions, lack of access to food and water are major drivers of child mortality. While human milk banks (HMBs) serve as sustainable solutions for child nutrition in many countries, Africa still lags behind in the adoption of such a public health instrument. Cabo Verde in particular faces a serious food security problem, with a 2.5 per cent infant mortality rate in 2020.



PROJECT NAME

Technical Support for the Implementation of Human Milk Banks in Cabo Verde

COUNTRIES/REGIONS/TERRITORIES

Brazil and Cabo Verde

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities
- 17 Partnerships for the Goals

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil, ABC, Fiocruz and Fiocruz HMB Network

PROJECT STATUS

Completed

PROJECT PERIOD

2008 — 2013

URL TO THE PRACTICE

<http://www.blog.saude.gov.br/index.php/promocao-da-saude/50541-centros-de-coleta-de-leite-humano-inaugurados-em-cabo-verde>



TOWARDS A SOLUTION

The ABC project Technical Support for the Implementation of Human Milk Banks in Cabo Verde was designed and executed as a Brazil-Cabo Verde cooperation framework for the promotion of economic and social development in the African country, focusing on the enhancement of child nutrition and food security. The project was implemented by ABC alongside the Brazilian Ministry of Health and the Oswaldo Cruz Foundation (Fiocruz). Through this cooperation, Brazil transfers knowledge, advice on formulating legislation, support for building information systems, training and technology for pasteurization, management and planning, among other actions.

With regard to the methodology of the project, after a Brazilian technical mission to Cabo Verde to assess local conditions for the implementation of the milk-bank project in 2008, a total of eight steps were followed in the implementation of the project in the country: (a) Cape Verdean technicians went to Rio de Janeiro for a theoretical and practical internship, including workshops and visits to HMBs in 2010; (b) Brazilian experts and technicians from ABC and the Fiocruz HMB Network went to Cabo Verde to establish the technical bases for the continuation of the project and the installation of the first HMB at Hospital Agostinho Neto in Praia in 2010; (c) Brazilian consultants from the Fiocruz HMB Network were sent on a mission to monitor and accompany the installation and preparation of equipment in 2011; (d) Cape Verdean professionals went to Brasilia to learn about the work and performance of the HMBs as well as to exchange experiences; (e) Brazilian experts from the Fiocruz HMB Network were sent to Praia to promote a workshop on processing and quality control of HMBs; (f) Brazilian experts visited Praia to implement the country's HMB management and information system, with workshops held for local professionals to use the interface; (g) Brazilian experts went to Praia to give a course on promotion of breastfeeding and child nutrition for hospital professionals; and (h) Brazilian officials went to Cabo Verde in 2013 for a final evaluation of the execution and results of the project.

With respect to the outcomes of the ABC project Technical Support for the Implementation of Human Milk Banks in Cabo Verde, there was the transfer of know-how on child nutrition, food security and overall health between Brazilian and Cabo Verdean professionals, which materialized in a myriad of concrete results. For example, in 2012, an HMB unit was implemented at Hospital Agostinho Neto, the first HMB not only in the country but in Africa as a whole. **Until 2013, over 90 Cape Verdean professionals were trained in HMB management techniques, with assistance given to over 17,000 women and 2,503 newborn babies in terms of food security.**

The success of the bilateral initiative incentivized the Government of Cabo Verde to extend its range to the city of Mindelo on the island of São Vicente, arranging for the creation of an HMB at Hospital Batista de Sousa. Finally, the cooperation scheme had significant socioeconomic impacts, reducing the newborn mortality rate by 50 per cent in the country.¹

The Brazilian Human Milk Bank Network was established in 1998 at the initiative of the Ministry of Health and the Oswaldo Cruz Foundation, with the mission of promoting, protecting and supporting breastfeeding, collecting and distributing human milk of certified quality, and contributing to the decrease in infant mortality.² Thus, the ABC cooperation project is aligned with Brazil's domestic and foreign policy agendas, with long-term goals that ensure its sustainability. Brazil provides "technical cooperation for the implementation of the human milk bank in 24 countries around the world: Angola, Argentina, Belize, Bolivia, Cabo Verde, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Spain, Guatemala, Haiti, Honduras, Mexico, Mozambique, Nicaragua, Panama, Paraguay, Peru, Portugal, Uruguay and Venezuela. Through this cooperation, Brazil transfers knowledge, advice for formulating legislation, support for the construction of information systems, training and technology for pasteurization, management and planning, among other actions."³

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1 ABC, "Brazil and Cape Verde negotiate new phase of Human Milk Bank Project". Available at: <http://www.abc.gov.br/imprensa/mostrarconteudo/721>.

2 Ibid., p. 1.

3 Ibid.





SOUTH-SOUTH
COOPERATION
BEYOND THEORY

Promoting the sharing of knowledge on agricultural innovations between Africa, Latin America and the Caribbean

CHALLENGE

In agriculture, especially on smallholder farms, access to information is a key component for the improvement of all daily activities. African and Latin American rural producers face a similar challenge in this area owing to barriers to local community engagement with international fluxes of trade, investment and even ideas. Outside the worldwide network, it is difficult for families and cultivators to promote adequate adaptations in their practices, causing a very serious issue of stagnating productivity, thus raising concern over food security in local areas.



PROJECT NAME

Agricultural Innovation Marketplace

COUNTRIES/REGIONS/TERRITORIES

Africa, Caribbean and Latin America

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 9 Industry, Innovation and Infrastructure
- 4 Quality Education
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities

SUPPORTED BY

EMBRAPA, IFAD, World Bank, Bill and Melinda Gates Foundation, ABC, Department for International Development (United Kingdom of Great Britain and Northern Ireland), the Inter-American Institute for Cooperation on Agriculture and the Forum for Agricultural Research in Africa (FARA)

IMPLEMENTING ENTITIES

EMBRAPA and Government of Brazil

PROJECT STATUS

Ongoing

PROJECT PERIOD

2010 — Ongoing

URL TO THE PRACTICE

<https://www.embrapa.br/en/busca-de-noticias/-/noticia/17507878/un-praises-platform-coordinated-by-embrapa-as-world-example-of-cooperation>

TOWARDS A SOLUTION

Developed by the Brazilian Agricultural Research Corporation (EMBRAPA) and promoted by the International Fund for Agricultural Development (IFAD), the World Bank, the Bill and Melinda Gates Foundation and other institutions, the Agricultural Innovation Marketplace is an international cooperation initiative in the form of an online platform that aims at facilitating the access to knowledge in rural environments in order to promote the establishment of partnerships. As a showcase for agricultural innovation, the Marketplace serves the purpose of connecting investors and businesses across all regions in order to catalyse the improvement of agricultural conditions in less developed countries.

The main goal of the Marketplace was to create an online hub where it would be possible to link African and Latin American stakeholders in agriculture, generating policy dialogues and knowledge-sharing among institutions and researchers for the development of projects. The entire Marketplace project revolves around the concept of cross-country transfer of good practices and technologies, mainly through the adaptation of Brazilian innovations in the agriculture of Latin American and African countries: technical solutions developed by EMBRAPA were made accessible to African and Latin American and Caribbean research institutions with similarities in climate and ecology, identifying similar challenges to overcome the issue of “reinventing the wheel”. The Marketplace has three complementary pillars: policy dialogue involving the main African, Latin American, Caribbean and Brazilian authorities that support institutions focused on the development of a common environment for collaboration; a knowledge-sharing and knowledge-management forum that uses communication tools to strengthen capacities to present, discuss and consolidate research ideas for development that are supported by the instrument; and collaborative research in agriculture for development projects, which involves a comprehensive process of matchmaking and funding for proposals.¹

As a policymaking and business tool, the Marketplace raised over \$20 million for multiple projects in nine Latin American countries and 13 African countries. Up until 2016, the Marketplace had organized four international events and funded over 80 research-for-development projects, even generating a byproduct initiative (Building on the Successes of the Marketplace), which raised over \$9 million for new efforts. As a result, to date, the initiative has promoted: the training of over 2,000 people; the development of over 170 technologies, products and services; the elaboration of 129 technical publications; the exchange of over 1,000 germplasms; and the organization of over 100 events.

With respect to thematic areas, 55 per cent of the projects were dedicated to productivity-enhancing technologies, 22 per cent to smallholder and poverty-alleviation technologies, 18 per cent to policy, institutional and market-strengthening and knowledge management, and 5 per cent to improvement of natural resource management. The 10 countries with the most projects were Ethiopia (13 per cent), Uganda (12 per cent), Ghana (11 per cent), Kenya (10 per cent), United Republic of Tanzania (7 per cent), Mali (6 per cent), Colombia (6 per cent), Nigeria (5 per cent), Cameroon (5 per cent) and Costa Rica (4 per cent).

This project is an initiative that unites Latin American and African countries in a common agenda, all of them committing resources and experiences to enhance the solution database. Tackling SDG 17 (partnerships for the goals), it focuses on building partnerships as a means of achieving other development goals, finding synergies that can further enhance food security, reduce global poverty and promote better livelihoods. As a joint effort, it brings together governments, policymakers, businesspeople, researchers and NGOs, raising wide and deep concern regarding the struggle of rural communities with poverty and hunger. Therefore, it is a project that can be easily replicated, given due governance and technology adaptations.

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¹ Platform for African – European Partnership in Agricultural Research for Development, Africa-Brazil Agricultural Innovation Marketplace: Forum 2015, 18 Sept. 2015. Available at <http://paepard.blogspot.com/2015/09/africa-brazil-agricultural-innovation.html>.



Brazil Improving Sugarcane Production in Sudan

13

Strengthening Sudanese sugarcane production



CHALLENGE

Sudan, as an LDC, suffers from an economy that is overreliant on commodities. With a mostly rural population (65 per cent), the agricultural production lacks technology and mechanization. There are significant deficiencies in the sugar production chain, from cane agriculture to the marketing of by-products. Nonetheless, there are also issues related to productivity, which can be corrected only by tackling education, technology and infrastructure. The Government of Sudan has expressed a desire to obtain new varieties of sugarcane through a cooperation project with Brazil.

PROJECT NAME

Sugarcane Production Improvement Project in Sudan

COUNTRIES/REGIONS/TERRITORIES

Brazil and Sudan

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 7 Affordable and Clean Energy
- 9 Industry, Innovation and Infrastructure
- 11 Sustainable Cities and Communities
- 12 Responsible Consumption and Production

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

ABC, Sudan Sugar Company Ltd. and Federal University of São Carlos

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — 2020

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/787>



TOWARDS A SOLUTION

The ABC initiative in Sudan started in 2017 with the objective of sharing experiences and techniques relating to soil preparation, cultivation of different varieties of sugarcane, and combating sugarcane pests and the environmental impacts of this cultivation. Brazilian delegations in Sudan over time noticed a management gap in the production chain of the sugar and energy sector in particular. The goal of the sugarcane project was to promote knowledge transfer in the sugar sector with technicians from the Federal University of São Carlos, a Brazilian university, and the Sudanese Sugar Company Ltd., a Sudan State company that operates in the sector.

With respect to the methodology, in the first phase of the project, Brazilian specialists went to Sudan to train technicians in the experimental station of the Sudanese company. In the second phase, the Sudanese began to apply the acquired knowledge and develop local varieties of sugarcane. In the third phase, the Sudanese went to Brazil to exchange experiences and show the results of the programme. The budget of the initiative, totalling \$339,142, was used by Brazil to offer to the Government of Sudan five public-domain sugarcane varieties, which underwent the quarantine process and then local validation. Subsequently, after confirming which varieties are most productive, they will be used in the Sudanese sugarcane fields. Themes identified as priorities to comprise the exchange of experiences to be carried out include: (a) soil preparation; (b) cultivation of sugarcane; (c) varieties of sugarcane; (d) sugarcane diseases and pests; and (e) environmental impact of sugarcane production.

One outcome of the project was the organization of a Brazil-Sudan joint mission in Khartoum in December 2017, with the participation of government officials and 30 Sudanese technicians. Together with Brazilian officials, they visited the sugarcane producing unit at Guneid, around 150 km from the capital of Sudan. The follow-up mission was organized for November of 2018, when authorities, investors and technicians would meet to assess the preliminary results with regard to the country's value chain.

The project, conducted by the Governments of Brazil and Sudan with assistance from international agencies and local universities and businesses, helped to increase awareness about the development of Sudanese sugarcane production. It is part of a greater commitment by Brazil and Sudan to bring together both countries along with the Latin America and East Africa regions, which started with the opening of embassies in both countries in 2004 and 2006 and was followed up by cooperation initiatives. With Brazil being a developing country and the second-largest sugar producer in the world, the South-South cooperation component shows the benefits of the exchange of know-how among countries with similar challenges.

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Institutional Strengthening of Professional and Technical Education in the Areas of Agroecology and Cooperativism in Benin

14

Promoting capacity-building in rural communities and shared economy for the local producers of Benin

CHALLENGE

Benin, a small country in West Africa, has an underdeveloped economy: agriculture accounts for 38 per cent of the its GDP and employs over half of its 11 million people. Although the agriculture of Benin accounts for the majority of its production, employment and revenue, the lack of technical advancements makes it a poor competitor. The agriculture sector is characterized by small proprieties, a low level of mechanization and high vulnerability, with climate change posing a significant risk to the food security of rural communities.



PROJECT NAME

Institutional Strengthening of Professional and Technical Education in the Areas of Agroecology and Cooperativism in Benin

COUNTRIES/REGIONS/TERRITORIES

Benin and Brazil

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities
- 12 Responsible Consumption and Production

SUPPORTED BY

Government of Brazil and ABC

IMPLEMENTING ENTITIES

ABC; IFBA; IFB, Ministry of Secondary Education, Technical and Vocational Training of Benin; and Lycée Agricole Médji de Sékou

PROJECT STATUS

Completed

PROJECT PERIOD

2011 — 2020

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/1100>



TOWARDS A SOLUTION

The project Institutional Strengthening of Professional and Technical Education in the Areas of Agroecology and Cooperativism in Benin seeks to use the Brazilian experience in the field of agricultural development to adapt the rural model of Benin, largely derivative from old techniques, to the country's specific climate, soil and water needs, adding green and sustainable practices during the process. The objective of the project is to train the teachers of the Lycée Agricole Médji de Sékou, a public school focused on agriculture and farming in Benin that provides technical training for young professionals in transition from secondary school to higher education, and share knowledge of entrepreneurship, cooperativism and agroecology for spillover effects in the future.

With regard to the methodology, this initiative had several components: (a) training of teachers at the Lycée Agricole Médji de Sékou; (b) development of agroecology and cooperativism techniques according to Cotonou reality; (c) sharing of technologies and important industrial innovations in the areas of agroecology and cooperativism; (d) knowledge-sharing in the area of food processing; (e) technical training of teachers in processing machinery; (f) construction of a food transformation laboratory (business incubator) at the Lycée Agricole Médji de Sékou; (g) training of 25 teachers from the Lycée Agricole Médji de Sékou in the equivalent to a postgraduate degree, with specialization in agroecology and cooperativism; and (h) constitution of a multiplier centre of techniques and incentives to the cooperativism of small-scale local producers.

The ABC initiative in Benin started with a visit by professors from the Bahia Federal Institute of Education, Science and Technology (IFBA) and the Federal Institute of Education, Science and Technology of Brasília (IFB) to the Lycée Agricole Médji de Sékou. Brazilian professors focused on the pineapple value chain, transforming the production of the simple fruit, which is low in value and highly perishable, into a much more complex fruit-processing chain, with the output of pulp, juice, jam and other outputs, which are more valuable goods that can generate more income for the farmers. **The teachers trained in Benin, a total of 25, visited Brazil twice, each with groups of six teachers, to complement the new knowledge acquired and produce scientific knowledge while also having the opportunity to visit Brazilian enterprises in the Federal District, Goiás and Bahia, all of which develop the concepts of cooperativism and agroecology.** The second part of the project in Benin was to build, at the Lycée Agricole Médji de Sékou, a laboratory for the processing of local products as well as a space for students to put into practice the knowledge acquired during their training, and to enable income generation through direct marketing of those produced items. The "Incubator", which was installed on

the same grounds as the Lycée and counted on the Brazilian donation of all its own machinery for processing, has rooms for the receiving of food, storage and a space for the sale of products to the community.

The initiative was part of the South-South cooperation of Brazil and ABC with the African continent under the country's structural mission of transitioning from a technical assistance receiver to a proactive technical-cooperation provider. The project has a long-lasting and structural approach, with the involvement of government authorities and scientific personnel. Furthermore, the courses were adapted to the socioeconomic reality of the country, and teachers from partner institutions explained topics such as cooperativism in the solidarity economy; agroecology principles and concepts; strategic planning and entrepreneurship; and practices in agroecology and social technologies. It had, therefore, an emphasis on social responsibility, green economy and sustainable development, developing awareness of environmental issues in local communities.

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EMBRAPA's Programmes for the Promotion of Rainwater Reuse in Semiarid Regions

15

Boosting the sustainable use of rainwater in agricultural practices



CHALLENGE

Brazil's semiarid region has an immense population, which suffers from acute water shortages and structural scarcity for agricultural production due mainly to successive droughts. Over 22 million people from Brazil's Northeastern region live with irregular rainfall and little to no supply of water; child malnutrition, agricultural devastation and livestock losses are some of the main issues faced by such populations. In the countries of the LAC region and Africa, semiaridness is also a major concern, with populations suffering from water shortages on a daily basis. The production of food, especially of fruits and vegetables, is significantly compromised during some periods of the year, leaving local communities in situations of extreme vulnerability.



PROJECT NAME

EMBRAPA's Programmes for the Promotion of Rainwater Reuse in Semiarid Regions

COUNTRIES/REGIONS/TERRITORIES

Brazil, Latin America and the Caribbean

SUSTAINABLE DEVELOPMENT GOAL(S)

2 Zero Hunger
6 Clean Water and Sanitation
10 Reduced Inequalities
15 Life on Land

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

EMBRAPA and ABC

PROJECT STATUS

Ongoing

PROJECT PERIOD

2010 — Ongoing

URL TO THE PRACTICE

<https://www.embrapa.br/cerrados/busca-de-publicacoes/-/publicacao/1091807/cooperacao-tecnica-e-capacitacao-para-paises-em-desenvolvimento>



TOWARDS A SOLUTION

The Brazilian Agricultural Research Corporation (EMBRAPA) efforts seek to introduce Brazilian-owned rainwater reuse innovations into African and Latin American countries, which can significantly boost the sustainable use of water for both drinking purposes and agriculture. Since its creation, EMBRAPA has developed numerous systems and projects for rainwater reuse, with government, academic, private-sector and civil-society involvement, generating positive outcomes in human security, agriculture and livestock. Through South-South cooperation, the goal of the EMBRAPA effort is to take such technologies and techniques abroad and, through governmental agreements, help in the mitigation of drought-related risks and in the improvement of rural conditions in semi-arid regions while also improving productivity, employability, revenue, food security and overall quality of life in these areas.

The EMBRAPA cooperation schemes use rainwater reuse systems, such as cisterns, filters and barrels, and underwater barrages to help Latin American and African smallholder producers to deal with water scarcity. Methodologies for the implementation of rainwater reuse systems vary from project to project but the effort has an overall approach that includes: (a) organization of technical visits; (b) development of governmental capacities; (c) organization of technical training; (d) transfer of sustainable technologies; and (e) production of knowledge, reports and courses. These actions are driven by public agents but include the participation of civil society and rural producers and have as final beneficiaries rural families from semiarid regions in order to ensure longer-term impacts and spillover effects across countries.

The EMBRAPA programmes for the stimulus and dissemination of rainwater reuse had multiple outcomes. Brazilian expertise was exchanged with foreign specialists during the visit of the Zimbabwean Minister of Agriculture, Mechanization and Irrigation Development in 2010; the visit of Mozambican government agents and a technical delegation in 2012; the visit of Ugandan researchers in 2017; the field mission of state representatives responsible for water management in rural areas from El Salvador, Guatemala, Honduras, Guatemala and Nicaragua to Pernambuco in 2016; and the field missions of Brazilian experts to Angola, Haiti, Mexico and Mozambique throughout the decade. **It also resulted in a Brazil-Argentina technical training project for government capacity-building in this area and in a Brazil-Argentina-Haiti tripartite project for technical training of Haitian experts in rainwater storage, management and use.** Finally, it resulted in the publication of the book *Rainwater Harvesting, Management and Use*, which contains a collection of different experiences on the theme of water management from Brazil, China, Mexico and Nepal.

This South-South cooperation project involves the Government of Brazil, EMBRAPA, ABC and, to an extent, regional administrations of other countries, which helps the inclusion of the rainwater reuse system on the rural development agenda. Brazil and other countries negotiated and executed cooperation arrangements after high-level talks, giving EMBRAPA, a consolidated and capable Brazilian agricultural corporation, the mandate for the implementation of the programmes and projects. In terms of sustainability, with the adoption of rainwater reuse techniques and technologies, there is an alternative for the irrigation of vegetable and fruit production, providing improvements in food quality and increases in income while also respecting the principles of green economy, low energy consumption and low carbon emissions.

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Brazil Supporting the Increase of Cotton Production in Senegal

16

Increasing Senegalese farmers' productive capacities through the introduction of new cotton varieties

CHALLENGE

The agriculture sector plays a strategic role in Senegal's economic and social development. According to data from the Ministry of Agriculture and Rural Equipment, agriculture occupies about 70 per cent of the workforce and contributes less than 10 per cent of GDP. Cotton cultivation reached a record production of 52,421 tons in 2008, putting producers in a good position in the international market.¹ Since then, cotton productivity and farmers' incomes have been declining owing to a combination of outdated farming practices, rising costs and institutional difficulties.



PROJECT NAME

Brazil Supporting the Increase of Cotton Production in Senegal

COUNTRIES/REGIONS/TERRITORIES

Brazil and Senegal

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

Government of Brazil and ABC

IMPLEMENTING ENTITIES

ABC, Federal University of Lavras and ISRA

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — 2022

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/1118>



¹ IndexMundi. See <https://www.indexmundi.com/agriculture/?country=sn&commodity=cotton&graph=production>.

TOWARDS A SOLUTION

With Senegal's challenge of low-productivity, high-risk, low-resilience agriculture in mind, ABC is promoting a project to increase the Senegalese family farmers' productive capacities with the insertion of new cotton varieties. This general objective leads to the goals of promoting better-quality cotton, which can be competitive in the national and international markets, and expanding job opportunities and income for young people living in rural areas, including, and especially, women. In 2019, an ABC prospecting mission went to Senegal in response to the demand for cooperation made by the Government of Senegal to integrate the range of Brazilian technical cooperation initiatives to support the cotton production chain in Africa, with the final purpose of the visit being to prepare a proposal for a cooperation project in this area.

With regard to methodology, actions are being taken to improve mechanization in the field and encourage no-till farming, with the following objectives: (a) strengthening institutional capacities of the Senegalese Agricultural Research Institute (ISRA) to lay the groundwork for adequate and precise policy-making; (b) technical training (technical assistance and rural extension services) to promote capacity-building; (c) provision of more effective services to Senegalese farmers to create market practices and develop the entire value chain from production to distribution; and (d) technology transfer and access to equipment to modernize the techniques used in the cotton production chain.

In terms of outcomes, the delegation, comprising officials, academics and scientists from the Ministry of Foreign Affairs, the Minas Gerais Association of Cotton Producers and the Federal University of Lavras (Brazil) stayed in Senegal for a week where, through involvement with government agents and local communities, it was able to identify the country's main agriculture-related needs, collecting indicators in the cotton production field. **The ABC mission resulted in a comprehensive study on the Senegal cotton sector, compiling information on its main challenges and deficiencies, coupled with potential solutions and good practices to fill in those gaps. During the technical visits carried out by the Brazilian delegation, it was possible to learn about research already carried out by the Senegalese Institute on seed quality of food crops in addition to an in-vitro culture laboratory, where clones of good-quality and disease-free plants multiply.** Afterwards, ABC also organized a meeting of the Brazilian delegation with representatives of Senegalese institutions that work in the agricultural sphere to discuss the challenges and difficulties that the sector faces.

The technical cooperation promoted by Brazil in accordance with South-South cooperation principles of horizontality, knowledge transfer and no conditionalities can contribute to overcoming the challenges faced by the cotton sector internationally and nationally, such as fluctuations in cotton prices, agricultural subsidies practised by some countries or the market dispute over unsustainable yarns and fabrics. Owing to the involvement of the Governments of Brazil and Senegal and incorporation of the initiative into broader Senegalese strategic planning, the initiative finds itself aligned with long-term commitments and sustainability principles.

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Brazil's Technical Support for the Development of Livestock in Zimbabwe

17

Stimulating livestock production through capacity-building and technological tools



CHALLENGE

Most African countries, although with good natural conditions and suitable land, still base their cattle and poultry production on rudimentary techniques, with low productivity and poor food security. Livestock farming is one of the most important and promising sources of income for Zimbabwean smallholder farmers, particularly those living in the poorest and driest regions. Under these conditions, most animals on the properties of small-scale producers are not registered, much less marketed. The reasons for this poor trade performance stem furthermore from the scarcity of specific public policies that this sector needs in order to thrive.

PROJECT NAME

Technical Support for the Development of Livestock in Zimbabwe

COUNTRIES/REGIONS/TERRITORIES

Brazil and Zimbabwe

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production
- 15 Life on Land

SUPPORTED BY

Government of Brazil and ABC

IMPLEMENTING ENTITIES

ABC and Federal University of Viçosa

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — 2022

URL TO THE PRACTICE

<http://www.abc.gov.br/impressa/mostrarconteudo/1112>



TOWARDS A SOLUTION

This ABC initiative aims to stimulate livestock production through an increase in productivity, profitability and safety with the exchange of quality information among animal breeders. The agreement between Brazil and Zimbabwe was signed in November 2019 at the Zimbabwe Ministry of Lands, Agriculture and Rural Resettlement. Representatives of ABC and experts from the Federal University of Viçosa made a technical visit to Zimbabwe to draw up an action plan and start implementing the cooperation in the educational and scientific realms.

With regard to the methodology of the initiative, the Brazilian mission to Zimbabwe held several meetings with public agencies, local businesses and rural producers in the country. In addition to official talks, it made technical visits, some of them emphasizing the aspects of social responsibility and gender equality, as was the case, for example, for a visit to a Zimbabwean farm run by local women. The possible new technical cooperation project should have the following areas as priorities, taking into account the needs and development of the agriculture sector in Zimbabwe: (a) animal reproduction; (b) animal feeding; and (c) technologies applied to livestock.

As a result of the mission, areas visited in Zimbabwe were identified as having an important similarity to the Brazilian Cerrado, which will facilitate the application of technology that has made this region one of the most productive in Brazil, with large-scale production of meat supplying both the international and domestic markets. **The central outcome is the agreement for Brazil to provide Zimbabwe with know-how inputs, professional training and technological tools, with the Federal University of Viçosa at the forefront of the process.** Professors from the university, in a visit to the Grasslands Research Station in Zimbabwe, delineated the scope of the institution's agronomy and zootechnics courses, the laboratories and the research areas that will be used for capacity-building.

This project is included in the South-South cooperation agenda of Brazil, aiming to extend the outreach of its Ministry of Foreign Affairs to other developing countries in order to achieve the SDGs, reducing poverty and increasing food security worldwide. The ABC technical cooperation project will therefore carry out its activities in line with the current national livestock policy, focusing on livestock production, management and commercialization to boost rural revenues of rural communities. This creates a synergy between Brazil and Zimbabwe at a government level but also strengthens their ties in terms of business relations and civil society cooperation.

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Improving Efficiency and Quality of Cashew Production and Processing in Ghana

18

Promoting the best practices in cashew farming for Ghanaian cultivators through trilateral cooperation between Brazil, Germany and Ghana



CHALLENGE

The African continent is a leader in producing cashew, providing most of the world supply in recent years, with 58 per cent of the global output and an increasing share in international trade. The cashew value chain, however, faces many of the same challenges as other crops in countries in Africa, such as poor access to information, poor technical training and poor funding options. These structural constraints make the African cashew value chain uncompetitive although with great potential for improvement. Ghana in particular has an immense potential for developing the cashew nut markets but suffers from similar structural constraints, which compromise its productivity.

PROJECT NAME

Improving Efficiency and Quality of Cashew Production and Processing in Ghana

COUNTRIES/REGIONS/TERRITORIES

Brazil, Germany and Ghana

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production
- 17 Partnerships for the Goals

SUPPORTED BY

Ministry of Food and Agriculture (Ghana), ABC and BMZ

IMPLEMENTING ENTITIES

Ministry of Food and Agriculture (Ghana), EMBRAPA and GIZ

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — 2020

URL TO THE PRACTICE

<http://www.ctba.net.br/projetos/aumento-da-eficiencia-e-qualidade-da-producao-e-processamento-do-caju>



TOWARDS A SOLUTION

Taking advantage of similar natural conditions in Brazil and Ghana for the production of cashew – each has a mix of tropical climate, deep soils and land availability – the project aims to improve cashew-planting materials and techniques and develop cashew with product-processing technologies in order to transform the Ghana rural communities involved in this cashew value chain (and those related to it through marginal activities) into business-oriented producers.

In response to demands expressed by developing countries, especially in Africa and Latin America, ABC and GIZ agreed on the goals of the project. The two agencies identified Brazilian sector organizations with extensive experience in the relevant field and jointly prepared, implemented, monitored and evaluated the capacity-building measures, with technical training and technology-sharing activities. Throughout three years, training sessions were held in Brazil and Ghana or online to explain modern cashew harvesting, handling and processing methods, improving the education of African farmers in that area. Around 20 experts and 200 farmers took part in the classes and training sessions, with 42.5 per cent of the trainees being women. In addition, over 400,000 cashew seedlings were distributed to Ghanaian farmers in order to apply the knowledge obtained during the training in several regions of the country.

The project achieved two major results: (a) the adaptation of five Brazilian varieties of cashew clones to local conditions in Ghana through the dissemination of high-yield, disease-tolerant species of the fruit, and (b) the improvement of cashew-fruit manipulation and processing techniques, with a boost in the efficiency of this value chain. Those outcomes led to other results as well with **the establishment of 7 hectares of scion gardens in cashew-producing districts and the overall increase in access to better plants and fruits by Ghanaian smallholder farmers throughout the implementation of the project, allied with the training of local experts in germplasm research and production, cashew production systems, and fruit and nut processing techniques at EMBRAPA and of local farmers and private entrepreneurs in post-harvesting techniques and commercialization practices.**

Regarding its replicability, the cashew project is a component of the largest Brazil-Germany trilateral cooperation programme, which comprises other projects from the agriculture, energy, biodiversity and institutional fields based on the trilateral cooperation manual jointly developed by ABC and GIZ. The projects use the same methodology and networks to promote the enhancement and improvement of experiences and skills, exchange of technologies and information, and dissemination of successful experiences accumulated during the years of the programme. Four trilateral projects have already been implemented and five others are still ongoing. Another line of work of the programme, which has now been completed, was human capacity development, which focused primarily on training measures. During its duration, five courses were developed with 11 different institutions from developing countries, such as Angola, Argentina, Brazil, the Dominican Republic, Mozambique, and São Tomé and Príncipe, and 10 out of 12 institutions participating in the human capacity development courses have implemented their action plans after the return of the trainees to their countries.

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Implementation of a Cashew and Other Tropical Fruits Stalk Processing Plant in Guinea-Bissau

19

Generating income and employment opportunities through the diversification of products from the processing of cashew and other fruits

CHALLENGE

The African continent is a leader in the production of cashew apple and cashew nuts, providing most of the world's supply in recent years. The cashew value chain, however, faces many of the same challenges as other crops in these countries, such as poor access to information, poor technical training and poor funding options. These structural constraints make the African cashew value chain less competitive, although it has great potential for improvement in several areas. Guinea-Bissau has immense potential for developing the cashew apple and cashew nut markets but suffers from similar structural constraints as other countries in the region. Agriculture in Guinea-Bissau is dominated by family farming. Subsistence agriculture is responsible for 90 per cent of the country's food production. Also cultivated mainly by small-scale farmers, cashew is the main source of income.



PROJECT NAME

Implementation of Cashew and Other Tropical Fruits Stalk Processing Plant in Guinea-Bissau

COUNTRIES/REGIONS/TERRITORIES

Brazil and Guinea-Bissau

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities

SUPPORTED BY

Government of Brazil and ABC

IMPLEMENTING ENTITIES

EMBRAPA and ABC

PROJECT STATUS

Ongoing

PROJECT PERIOD

June 2012 — June 2021

URL TO THE PRACTICE

<http://www.abc.gov.br/Projetos/CooperacaoSulSul/GuineBissau>



TOWARDS A SOLUTION

The initiative seeks, through Brazil-Guinea-Bissau cooperation in technology, to contribute to employment and income generation in the West African country mainly by diversifying the supply of the processing products of cashew apple and other fruits. The implementation of the project on the stalk processing plant for cashew and other tropical fruits in Guinea-Bissau improves the ways in which to produce products from those fruits in the country, ensuring food security and adding value to agricultural production.

With regard to the methodology, the Cashew and Other Tropical Fruits Stalk Processing Plant project has implementation phases that correspond to specific activities in education, training, technology transfer and institutional strengthening. The project had four stages: (a) implementing a didactic processing unit for the cashew stalk at the Cashew Promotion Centre; (b) providing technical training in agro-industrial practices in the processing of the cashew stalk; (c) supporting the operation and operationalization of the Didactic Processing Unit; and (d) supporting the development of teaching materials and norms and standards for the identity and quality of products resulting from the industrialization of the cashew stalk.

As outcomes, the initiative, with the participation of 14 Brazilian professionals, directly benefited 34 producers and associate technicians of Guinea-Bissau. According to official information from the Government of Brazil, the bilateral cooperation with Guinea-Bissau reached \$2.2 million, of which the Government of Brazil contributed \$1.8 million, to finance projects. To achieve its specific goals, **the project enabled the implementation of a cashew peduncle-processing didactic unit, technical training in agro-industrial practices of cashew peduncle processing, the operation of the equipment and the elaboration of didactic material, and the elaboration of norms and standards of identity and quality of the products resulting from the industrialization of the cashew stalk.**

Aligned with the SDGs, Agenda 2063 of the African Union and the Community of Portuguesespeaking Countries and inserted into the Brazilian foreign policy agenda, ABC's project Implementation of Cashew and Other Tropical Fruits Stalk Processing Plant in Guinea-Bissau is an example of a good practice involving two countries with similar natural conditions but with contrasting access to technology. Within a broader South-South cooperation scope, this good practice is sustainable and replicable with due political and economic commitment, for it involves the intertwining of the agendas and strategies of national governments in a joint effort to promote educational advancement and business-making opportunities.

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Brazil's Sustainable Coffee Production in Mozambique in an Integrated Agroforestry System in the Context of Deforestation, Climate Change and Food Security

20

Enhancing the sustainability of the coffee production system



CHALLENGE

In agriculture, especially on smallholder farms, access to information and technology is a key component for the improvement of all daily farming activities. Latin American and African rural producers face a similar challenge in this sense: the barriers to engagement by local communities with international fluxes of trade, investment and even ideas. Mozambique, although a consolidated and large-scale producer of coffee, faces issues with deforestation and climate change that might impact this sector and that can potentially impact the livelihood of coffee producers. The need to ensure sustainable agriculture in this value chain converges, therefore, with the necessity of promoting a long-term approach to ensure decent work and food security for local communities.



PROJECT NAME

Brazil's Sustainable Coffee Production in Mozambique in an Integrated Agroforestry System in the Context of Deforestation, Climate Change and Food Security

COUNTRIES/REGIONS/TERRITORIES

Brazil, Mozambique and Portugal

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

ABC, Camões – Institute for Cooperation and Language I.P.

IMPLEMENTING ENTITIES

ABC, Federal University of Espirito Santo, University of Lisbon and Gorongosa National Park (Mozambique)

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — 2022

URL TO THE PRACTICE

<http://www.abc.gov.br/imprensa/mostrarconteudo/816>
<http://www.abc.gov.br/imprensa/mostrarconteudo/1122>



TOWARDS A SOLUTION

This ABC project aims at promoting sustainable coffee production in Gorongosa National Park, Mozambique, in an integrated agro-forestry system in the context of deforestation, climate change and food security. This initiative results from collaboration between Brazil, Mozambique and Portugal in an intergovernmental effort that brings together public agencies, private actors and civil-society organizations. The project has a duration of five years and was made official in 2017 between the Ministry of Land, Environment and Rural Development of Mozambique, ABC and Camões – Cooperation and Language Institute, I.P. (Portugal) in partnership with the executing entities of the three countries: the University of Lisbon, the Federal University of Espírito Santo and the Gorongosa National Park Faculty of Agronomy.

The Sustainable Coffee Production in Gorongosa National Park project aims to characterize and implement a sustainable coffee production system, mitigating the effects of deforestation and the pressure of climate change. Its methodology involves a long-term commitment, with a duration of 60 months; it includes field work carried out by the local technical team, plus research carried out by master's and doctoral students from cooperating universities immersed in the context of the project in order to promote and advance the training of local human resources throughout the coffee value chain. Partners carried out monitoring visits to the coffee processing plant and to the coffee plantation sites in Serra da Gorongosa, where the technical team is currently adjusting cultural management practices in partnership with local farmers. As a result of the visits, the technicians and researchers found it viable to use coffee as a complementary activity in Gorongosa National Park, with the potential for an increase in employment and revenue.

The project anticipates the following outcomes: (a) restoration and preservation of one of the largest repositories of biodiversity in the world; (b) promotion and guarantee of the functioning of a coffee production system covering the whole value chain (from farmer to market and consumer access), making it sustainable and ensuring the autonomy of farmers, technicians and researchers in the medium term; (c) training of human resources in the coffee value chain, from farmers to technicians, extensionists, young teachers and researchers; and (d) selection of elite genotypes capable of preserving biological (plant) and economic sustainability, including maintaining grain quality under climate pressure. The challenge is to promote technical guidance for planting coffee in a small area of the park with about 300 hectares, where there is no tradition of growing this plant and which has as its main attraction the international safari, while conducting technical training that will reach, through classes and a free handbook, **85 farmers per year, 25 per cent of whom are women, and will indirectly boost profitability for over 1,600 families.**

The Sustainable Coffee Production in Gorongosa National Park initiative is a triangular cooperation project, with Brazil and Mozambique as the leaders of its implementation. With the Governments of Brazil and Mozambique actively engaged in the capacity-building scheme, and with the Portuguese institutions serving as facilitators, there is a public-policy commitment to the broader agenda of food security. This sustainability is reinforced by the concern of the three countries over the Community of Portuguese-speaking Countries development principles, which highlight solidarity, horizontality and structural actions in the achievement of economic growth. The project is easily replicable in other Portuguese-speaking African countries, such as Angola, Cabo Verde, Guinea-Bissau, and Sao Tome and Principe, owing to the lack of a language barrier, with due adjustment in terms of political engagement and value-chain focus.

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Transferring farming technologies to developing countries to achieve food security

CHALLENGE

The concerns of Brazil with food security took a serious turn in the early 2000s as the country advanced in terms of economic development, yet challenges related to hunger still persisted. Over 40 million people were found to be affected by food insecurity, a structural condition that significantly hindered the advancement of any development agenda in the country. Although the agriculture sector thrived, rural properties were focused mainly on commodity production, and smallholder farmers were not able to keep up with the growing demand for food. Government programmes enabled a structural U-turn in food security in the country, which now seeks to contribute to food security through sharing past experiences across the Global South.



PROJECT NAME

More Food International

COUNTRIES/REGIONS/TERRITORIES

Brazil, Cuba, Ghana, Mozambique, Senegal and Zimbabwe

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 5 Gender Equality
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

Government of Brazil and Bank of Brazil

IMPLEMENTING ENTITIES

Government of Brazil; Brazilian Ministry of Agriculture, Livestock and Supply (MAPA); ABC; and Brazilian Machinery Builders' Association (ABIMAQ)

PROJECT STATUS

Completed

PROJECT PERIOD

2010 — 2019

URL TO THE PRACTICE

<http://agenciabrasil.ebc.com.br/geral/noticia/2015-05/programa-brasileiro-estimula-producao-rural-familiar-em-paises-africanos>



TOWARDS A SOLUTION

The More Food International programme was created after the meeting “Brazil-Africa Talks on Food Safety, Hunger Alleviation, and Rural Development”, which was held in May 2010 in Brasilia. The meeting was attended by high-level representatives from Brazil, Africa and international organizations focused on agriculture and agrarian development. The main goal of the programme was to ensure food and nutritional security via access to technology and mechanization for family and smallholder farmers. That was to be achieved through Brazilian public-sector actors, such as the Ministry of Agriculture, Livestock and Supply (MAPA), the Bank of Brazil and ABC, alongside international public-sector and private-sector collective actors and private individuals.

The methodology of the More Food International programme involved four individual, but integrated, approaches: (a) international cooperation between developing countries on public policies on family farming and agrarian development; (b) access for least developed countries (LDCs) and middle-income countries to technologies, machinery, equipment and agricultural implements; (c) technical cooperation for food production resulting in more resilient and more productive family farming; and (d) export of agricultural machinery, equipment and implements from the Brazilian planting and processing industry. The programme involved bilateral arrangements between Brazil and a beneficiary country, with the scope depending on the specific demands of each country in terms of sustainable development.

In terms of outcomes, Brazil provided food and technical assistance for all participating countries. In Cuba, the focus was on the mechanization of cooperatives and associations as well as family farmers under the regime of usufruct of public lands by both groups, under State supervision. In Ghana, Machinery Service Centres were created for the provision of qualified assistance and services in mechanics for family farmers. In Senegal, farmers were selected through regional and local committees, with priority for those organized in cooperatives and associations, to benefit from equipment and implements alongside government actors that work in the area of technical assistance and rural extension. In Zimbabwe, results included direct financing to family farmers as well as their associations and cooperatives to purchase equipment and implements, with a major focus on irrigation. Finally, in Mozambique, equipment was destined to service centres and used as part of one of the strategies of local government in its National Plan for Agricultural Mechanization. Besides stimulating Brazilian exports of agricultural machinery and equipment, especially for small-scale farming, **the programme resulted in the transfer of technology to beneficiary countries, with Zimbabwe acquiring 320 pieces of equipment and tractors in 2014 and Mozambique and Senegal receiving 513 and 175 tractors, respectively, in 2015.**

As part of the Brazilian foreign policy agenda, the More Food International programme aims at accomplishing not only the SDGs but also the key transformational outcomes of Agenda 2063 of the African Union, promoting the eradication of extreme poverty, the reduction of social inequalities and the end of hunger. With the participation of players from the public and private sectors, the elaboration of strategies depends on the synergies of multiple goals; with adequate coordination, the project has succeeded in creating a scheme that benefits all countries involved not only in social development but also in increasing exports and economic growth. As the More Food International programme advanced, the Brazilian equipment was purchased by the national government of partner countries in separate arrangements, each having its goals, strategies and ways of making the material available to family farmers.

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Institutional Strengthening of the Agency for Regulation and Supervision of Pharmaceutical and Food Products in Cabo Verde

22

Providing capacity and technical assistance to strengthen food and pharmaceutical regulations

CHALLENGE

Cabo Verde imports around 80 per cent of the food consumed in the country and 100 per cent of the wheat for the production of wheat flour, 100 per cent of its rice and around 80 per cent of its corn. The country also imports other food products, mainly from Brazil, such as meat, and exports such fishery products primarily to some countries of the European Union. The changes in the Cabo Verde economic structure and the need to adopt health and economic regulations and institutional reform measures require institutional capacity-strengthening.



PROJECT NAME

Institutional Strengthening of the Agency for Regulation and Supervision of Pharmaceutical and Food Products of Cabo Verde

COUNTRIES/REGIONS/TERRITORIES

Brazil and Cabo Verde

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 10 Reduced Inequalities
- 15 Life on Land
- 16 Peace, Justice and Strong Institutions

SUPPORTED BY

ABC, National Sanitary Surveillance Agency (Brazil), CONAB and the Ministry of Foreign Affairs and Communities (Cabo Verde)

IMPLEMENTING ENTITIES

ARFA

PROJECT STATUS

Ongoing

PROJECT PERIOD

2011 — 2020

URL TO THE PRACTICE

<http://www.abc.gov.br/Projetos/>; <http://www.eris.cv/index.php/noticias/1242-arfa-e-embaixada-do-brasil-assinam-protocolos-de-cooperacao-internacional>



TOWARDS A SOLUTION

The Institutional Strengthening of the Agency for Regulation and Supervision of Pharmaceutical and Food Products (ARFA) of Cabo Verde project, “covering the areas of regulation of pharmaceutical and food products aims to strengthen the work of the Agency for Regulation and Supervision of Pharmaceutical and Food Products (ARFA) in the scope of the economic and sanitary regulation of medicines and foodstuffs in Cape Verde, and the creation of institutional management tools.”¹ The aim is for Brazil to provide the know-how and technical capacities acquired after the creation of the Brazilian National Sanitary Surveillance Agency in 1999 to a least developed country with similar challenges, with a focus on the training in policymaking for leaders and techno-bureaucrats in the infrastructure, health, water, food and sanitation fields.

The aim of the Brazil-Cabo Verde programme is to enhance the institutions and policies of the African country. For two years, a total of nine training activities with structuring purposes took place, with a focus on medications, sanitary control, economic regulation, food security and institution-building. Those activities centred on four thematic areas, which corresponded to key results to be achieved: (a) the operationalization of the activities of ARFA in sanitary control and economic regulation; (b) the operationalization of ARFA activities in food security; (c) the strengthening of ARFA-specific institutions; and (d) the monitoring and evaluation of overall actions. For the achievement of its general guidelines and specific goals, the Brazilian cooperation involved the structuring of the Cabo Verde Integrated System for Monitoring the Pharmaceutical Market and the National System for Food Control, coupled with the execution of 14 technical missions to the Cabo Verde facilities, with the training of over 30 professionals in different institutions.

With respect to the outcomes, the cooperation scheme is twofold. “In the pharmaceutical sector, the project will enable (i) the creation of instruments for the economic and sanitary regulation of medicines, (ii) formulation of instruments for the operationalization of the National Pharmacovigilance System, (iii) establishment of the drug registration process, and (iv) the preparation of strategic plans for intervention in the aftermarket (quality, safety, efficacy and use). In the food sector, it intends to operationalize sanitary regulation and surveillance in Cape Verde, through: (i) the creation of a technical and methodological regulation for the incorporation of CODEX ALIMENTARIU[S] in the Cape Verdean order, (ii) creation of instruments for the operationalization of the National Food Control System and Sanitary Licensing, and (iii) elaboration of methodology for investigation of outbreaks of food and waterborne diseases.”²

The ABC initiative involves a South-South partnership between Brazil and Cabo Verde through their respective agencies for sanitary control, which aims at capacity-building, constructive dialogue and exchange of experiences alongside technical assistance in the design and implementation of regulatory instruments and technical support for the preparation of communication actions. **The ultimate goal is to implement a national system that ensures adequate health and economic regulation of pharmaceutical and food products to ensure access to them and quality and safety in their use, thus protecting the public health of the citizens of Cabo Verde** so that ARFA is fully capable of monitoring the supply and price of staples. Inserted within the scope of the cooperation agenda of the Community of Portuguese-speaking Countries, this project brings two Governments and their respective agendas and bureaucracies to the scene, which guarantees its sustainability in terms of long-term commitments.

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1 KNOWLEDGE HUB.UNIDO.ORG, Legal and Regulatory Framework – Brazil, “Strengthening food and medicines regulatory institutions – Cabo Verde”, 2017. Available at <https://tii.unido.org/category/legal-and-regulatory-framework-brazil>.

2 Ibid.



A network that brings together a multitude of rural development experts for rural development and sustainable management of natural resources in Africa



CHALLENGE

Africa faces challenges concerning access to information on innovations and new technologies, especially in the agricultural development field, hindering the development of working techniques and creative solutions. Innovative solutions to many of the Global South greatest challenges often do not reach local communities, due to a lack of networks connecting knowledge and fostering economic development among Southern countries.

PROJECT NAME

Sector Network Rural Development Africa

COUNTRIES/REGIONS/TERRITORIES

Africa region

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 4 Quality Education
- 8 Decent Work and Economic Growth
- 12 Responsible Consumption and Production
- 17 Partnerships for the Goals

SUPPORTED BY

GIZ, BMZ and SNRD Asia

IMPLEMENTING ENTITIES

GIZ

PROJECT STATUS

Ongoing

PROJECT PERIOD

1995 — Ongoing

URL TO THE PRACTICE

<https://www.snrd-africa.net/>



TOWARDS A SOLUTION

Sector Network Rural Development (SNRD) Africa constitutes a community of practice and knowledge-sharing hub involving the experts of the German Agency for International Cooperation (GIZ) and African rural workers (and between African rural workers themselves) to introduce the best practices in good governance, sustainable development and environmental responsibility. Joint efforts on sustainable development goals and methods within SNRD Africa promote the introduction of innovative and standardized approaches across programmes and countries with which GIZ works. By connecting scientists, workers and technicians, SNRD Africa fosters communal and individual study initiatives, workshops and other outputs, and the access to scientific knowledge, quality education and professional instruction enables overcoming of simple production challenges.

At its core, the sector networks operate mainly through working groups on relevant topics but they also use formats such as regional conferences, strategy meetings and task teams to join efforts. Working groups bring GIZ professionals together to organize knowledge management, provide training in best practices and develop new approaches. Currently, four groups are operational: (a) agribusiness and inclusive value-chain development; (b) policy processes for agriculture and rural development; (c) climate change, livelihoods and natural resources management; and (d) food and nutrition security and resilience. All of these formats and approaches are complemented by the engagement of communities of practice, which offer a flexible format for exchanges on cross-cutting thematic issues that may go beyond the regular scope of SNRD Africa, such as technical vocational education and training in agriculture, information and communications technologies (ICT) for agriculture, rural youth employment and contract farming. Finally, a SNRD Africa Conference, held every two or three years, enables farmers and stakeholders to meet in person to exchange good practices and solutions from all around the globe.

At the centre of SNRD Africa lies the exchange of knowledge, which is achieved through several means. One that deserves to be highlighted is virtual collaboration, through which the SNRD Africa workflow uses modern digital tools. Each working group and community of practice has access to an internal community platform. Based on Microsoft SharePoint technology, these virtual communities, with their base of knowledge-sharing on management practices, have become essential to active cooperation, networking and partnership. This enables a cross-country dynamic in which a user can have exchanges with other users on current topics in real time, e.g., in webinars and online meetings, online discussions, blogs and forums; have options for sharing news, updates, announcements and articles among users; and use a document management system to upload documents and information, and share documents, information and links with other users.

SNRD Africa has achieved multiple outcomes from the time that it was launched in Lesotho in 1995; it has grown into a substantial network that today comprises 115+ projects and programmes in 32 African countries plus some based in Germany. Altogether, more than 500 staff and consultants contribute to the successful outcome of its operations. In a joint effort, it promotes innovative and standardized approaches across countries, tackling, through conferences, classes and seminars, the agribusiness value chain, policy processes, climate change, food security, technical and vocational education, contract farming, information and communication technologies and more.

With the participation of Germany, this is a triangular cooperation project that assumes many faces and forms when applied to specific realities, having the potential to be replicated in South-South efforts both interregionally and within Africa itself, connecting experts from African countries on their own specific platforms. In line with Agenda 2063 of the African Union, specifically with the goals of information and communications technologies contributing twice as much to continental gross domestic product (GDP) as in 2013 and local content in all print and electronic media increasing by 60 per cent, African governments can take advantage of the widespread use of mobile devices and, using local, low-cost software, develop their own shared networks in the form of multilateral or bilateral databases to be constantly filled with Southern-adapted, locally produced insights and innovations.

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AUDA-NEPAD Grow Africa for Value-chain Identification Initiative

24

Increasing private-sector investment in agriculture and accelerating the execution and impact of investments in Africa

CHALLENGE

African countries, as least developed economies, struggle with the production of knowledge; this struggle is aggravated when considering the production of accessible information, since knowledge remains, for the most part, restricted to a small population. The lack of a strong network to connect knowledge and foster economic development means that innovations often become restricted to a small share of rural workers and fail to reach local communities. The access to good practices in industry, services and trade is very constrained, with poor alignment between public and private stakeholders to promote investment.



PROJECT NAME

Grow Africa for Value-chain Identification Initiative

COUNTRIES/REGIONS/TERRITORIES

Benin, Burkina Faso, Côte d'Ivoire, Ghana, Malawi and Nigeria

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

AUDA-NEPAD, African Union and World Economic Forum

IMPLEMENTING ENTITIES

AUDA-NEPAD and African Governments

PROJECT STATUS

Ongoing

PROJECT PERIOD

2011 — Ongoing

URL TO THE PRACTICE

<https://www.nepad.org/news/making-african-agriculture-more-attractive-investors>



TOWARDS A SOLUTION

Grow Africa, an effort by the African Union Development Agency (AUDA)-New Partnership for Africa's Development (NEPAD)¹, "works to increase private sector investment in agriculture, and accelerate the execution and impact of investment commitments. The aim is to enable countries to realise the potential of the agriculture sector for economic growth and job creation, particularly among smallholder farmers, women and youth."² The practice is guided by local partners, who attempt to create a market-guided culture that enhances the potential for investments and create business opportunities. It has been successful in suppressing a key deficiency in African agriculture, which is the weak business awareness of local producers.

The Grow Africa business model consist of six steps, "each step feeding to the next or occurring simultaneously depending on country context. The first phase begins with convening of multi-stakeholder platforms... around priority agriculture value chains to align investments from the public and private sector. In the second phase, business case studies are undertaken to identify value chain constraints, opportunities, potential markets for commercialization as well as impact on small holder farmers."³ In the third phase, with opportunities identified, "national investment forums are organized to attract both domestic and international private sector. Once opportunities have been identified and aligned to potential investors,...the fourth phase... entails entering into public-private partnerships"⁴ In the fifth phase, the initiative focuses on groundwork, deploying specialists for in-country facilitation of investment deals and execution. Finally, the sixth phase involves mutual accountability and knowledge-sharing, with periodic reporting of results,⁵ for increased transparency in the process.

As outcomes, Grow Africa "established six new multi-stakeholder platforms in partnership with country stakeholders in Benin, Burkina Faso, Cote d'Ivoire, Ghana, Malawi and Nigeria, focusing on pineapple, mango, rice, cassava and oilseeds as priority value chains"⁶ In terms of investment, an estimated \$30 million worth of potential business has been identified, and the initiative hosted Investment Facilitation Conferences in both Malawi and Uganda in March and April 2019, respectively.

"Potential investors in key value chains were convened, investment prospects showcased, and robust public-private sector dialogue occasioned on investor challenges and solutions... Grow Africa is in advanced discussions with an Africa-based company in the coffee industry looking to invest in an agro-processing programme designed to contribute to reshaping the disparities of the African value chain in the coffee sector particularly in Côte d'Ivoire... Grow Africa has entered into a partnership with John Deere, an American corporation with global footprint specializing in the manufacturing of agricultural, construction and forestry machinery for potential investment in rice and cassava mechanization in Ghana. The investment will render postharvest processing and marketing activities more efficient and effective."⁷

"Given Grow Africa's continental mandate, the programme will continue to support countries to institute the Country Agribusiness Partnership Framework for structured investment mobilisation in agriculture,"⁸ with a target of reaching more than 15 African Union member States in 2020. As an AUDA-NEPAD action that is broad in scope, with the participation of multiple countries in South-South cooperation, it is safe to state that the project is sustainable in terms of governance and of environmental responsibility and replicable at the international and local levels. "This is an ongoing process and feeds into the continental African Union accountability mechanism. Data from this process feeds into the Joint Sector Reviews of respective countries as well as into the CAADP Biennial Review reporting."⁹

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1 AUDA-NEPAD is the development agency of the African Union. See <https://www.nepad.org/who-we-are/about-us>

2 AUDA-NEPAD, "Making African agriculture more attractive for investors", 29 May 2019, p. 1. Available at <https://www.nepad.org/news/making-african-agriculture-more-attractive-investors>.

3 Ibid., p. 2.

4 Ibid.

5 Ibid.

6 Ibid., p. 3.

7 Grow Africa, "Making African agriculture more attractive to investors", p. 2.

Available at <https://www.growafrica.com/news/making-african-agriculture-more-attractive-investors>.

8 AUDA-NEPAD, Making..., p. 6.

9 Ibid., p. 2.



Youth Technical Training Programme on Post-harvest Processing of Cassava

25

Promoting knowledge transfer in order to develop the skills of young Africans



CHALLENGE

Africa has the youngest population in the world: 60 per cent of its 1.25 billion people are under the age of 25. It is expected that by 2050, this population will increase by nearly 50 per cent. This requires efforts by governments in Africa to train and create job opportunities for young men and women in multiple sectors. Unemployment in sub-Saharan Africa has been on the rise since 2008, reaching as high as 6 per cent in 2020 – not considering the negative effects of the COVID-19 pandemic. Agriculture alone employs nearly 60 per cent of the entire African workforce, and low productivity is usually an issue in ensuring stable employment and food security in rural areas. Joint efforts to ensure employment and food security are necessary, giving young workers the knowledge and tools to contribute to economic development.

PROJECT NAME

Youth Technical Training Programme on Post-harvest Processing of Cassava

COUNTRIES/REGIONS/TERRITORIES

Benin, Brazil, Burundi, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Ghana, Malawi, Mozambique, Nigeria, Senegal, Sierra Leone, Uganda, United Republic of Tanzania, Zambia

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 4 Quality Education
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

BRAF, FAO, IFAD and GIZ

IMPLEMENTING ENTITIES

IBRAF and EMBRAPA

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — Ongoing

URL TO THE PRACTICE

<https://ibraf.org/yttp/>



TOWARDS A SOLUTION

The Brazilian experience with both large-scale and smallholder agriculture has served as a model for other countries across the globe, and Brazil has been one of the major promoters of South-South and triangular cooperation, especially with Africa, in this field. The Brazil Africa Institute (IBRAF) Youth Technical Training Programme (YTTP) is a knowledge-transfer programme that involves a cross-country exchange of know-how, techniques and technologies. Between 2017 and 2019, three editions of the programme were executed, all of them focused on agriculture; the most recent edition received candidates from Ghana, Malawi and Nigeria, who were trained in the latest Brazilian agricultural practices of the cassava value chain, with the ultimate goal of enabling young agripreneurs to apply the learned capacities in their own realities.

IBRAF and its partners, such as FAO, AGRA, IFAD and GIZ, select young Africans between the ages of 18 and 35 to engage in technical training. Alongside the EMBRAPA¹ Cassava and Fruit branch, its scientists and its technicians in Cruz das Almas, Bahia, the initiative offered young agripreneurs an education programme to strengthen their capacities in post-harvest processing of cassava. Each edition lasted around 10 days and, through classes, laboratory visits and field missions, participants were able to learn from one of the world's leading agriculture and livestock companies the best practices and solutions, with valuable lessons to add value to, conserve and commercialize their products.

Since 2017, within the Youth Technical Training Programme on Post-harvest Processing of Cassava, a total of 62 young workers from 14 different African countries have been trained, with direct and indirect effects on the productivity of crops of local communities, enhancing overall food security. The participants of the three editions are already applying what they learned locally, and many of them provide IBRAF with valuable feedback on the programme outcomes at a micro level. One of the participants, who founded the PaaClee Cassava Processing Company in 2014, for example, started to invest in training sessions with his employees, sharing the knowledge acquired during the one-week course in Brazil. The success of the YTTP on Post-harvest Processing of Cassava also resulted in the organization of four YTTP sessions on smallholder agriculture scheduled for 2021 and 2022, the first ones to be organized in bilateral arrangements.

The aforementioned aspects of YTTP highlight the capacity-building and spill-over effects of the programme, which in turn emphasize the importance of its South-South cooperation component. As a knowledge-transfer programme with the support of international organizations and development funds, YTTP is designed to be sustainable and replicable for other realities; it is aligned with the food security agenda of the Government of Brazil and the African Union goals and strategies of Agenda 2063, having a clear mandate for helping to overcome education and malnutrition issues.

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¹ EMBRAPA was founded on 26 April 1973 and is under the aegis of the Ministry of Agriculture, Livestock and Food Supply of Brazil.



Promoting capacity-building through the exchange of knowledge among international professionals in the area of agriculture

CHALLENGE

Innovations in developing countries often face countless barriers to reach local communities, and even self-taught practices become trapped and restricted to a small share of rural workers since there is no network to connect knowledge and foster economic development among Southern countries. This issue is even deeper in higher education, since many universities lack the proper resources to engage in exchange and fellowship opportunities worldwide; however, the access to scientific knowledge, quality education and technical training enables people to overcome simple production challenges.



PROJECT NAME

Agricultural Research and Innovation Fellowship for Africa

COUNTRIES/REGIONS/TERRITORIES

Brazil, China, Cuba, India, Italy, Kenya and the Netherlands

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 4 Quality Education
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 17 Partnerships for the Goals

SUPPORTED BY

FARA and the African Export-Import Bank

IMPLEMENTING ENTITIES

FARA, Federal University of Viçosa, Chinese Academy of Agricultural Sciences, Punjab Agricultural University, Wageningen University & Research, and International Centre for Advanced Mediterranean Agronomic Studies of Bari

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — Ongoing

URL TO THE PRACTICE

<https://faraafrica.org/2019/11/15/arifa-is-the-game-changer/>



TOWARDS A SOLUTION

The activities of FARA¹ involve bringing together individuals with experience in modern agriculture, from high-level actors to technical workers, scientists and academics, to discuss ideas and develop solutions for African farmers. The aim is to promote capacity-building for African agripreneurs to improve productivity, giving them access to the knowledge base and good practices of reference countries (Brazil, China, Cuba, India, Italy and the Netherlands, for instance). FARA aims to produce a new generation of fit-for-purpose members of the workforce to re-engineer the African agri-food sector in order to provide the change factor for rapid agricultural transformation in the next 10 years, using the approach of integrated agricultural research for development.

With regard to the methodology, the project comes under the Holistic Empowerment for Livelihoods Programme (HELP). It offers both advanced short courses with a duration of 10 weeks and Master of Science (MSc.) programmes with a duration of 2 years, all of them focusing on the improvement of education standards and technical productivity. The first courses concentrate on two themes: sustainable development of coastal communities, and innovation and youth entrepreneurship in the Mediterranean agri-food sector. The second courses focus on three areas: land and water resource management: irrigated agriculture; precision-integrated pest management for fruit and vector vegetables; and Mediterranean organic agriculture. Finally, the Agricultural Research and Innovation Fellowship for Africa (ARIFA) aims to facilitate intra-African exchange of knowledge and, with a steady input of cohorts, create learning routes between African institutions, universities, technical colleges and rural communities.

ARIFA in particular is the FARA flagship project on capacity development, seeking to produce a new generation of fit-for-purpose members of the African workforce to reinvent and re-engineer the continent's agricultural, food and livestock sector, focusing on a transformation in the next 10 years or so. **Currently in implementation, the first cohort, in 2020, will involve the sending of 180 ARIFA Fellows to the Federal University of Viçosa for short courses on Brazilian agri-business and M.Sc. programmes in agriculture and food, with candidates being allowed to engage in multidisciplinary classes focusing on sustainable development and agricultural technologies.**

The FARA capacity-building initiative, ARIFA, works on a South-South basis because it enables emerging economies such as those of Brazil, China and India to exchange know-how with less developed countries, with assistance, support and active engagement of national governments. The programme is a development component of Agenda 2063 of the African union, the "Africa We Want" commitment, and the international agendas of the countries involved, being part of a long-standing goal of both developed and developing countries in contributing to the education, health and science of poor countries. FARA is also sustainable in itself because it teaches young students and rural producers about the leading, most innovative solutions in agriculture and livestock production, aligned with the principles of green economy

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1 "The Forum for Agricultural Research in Africa (FARA) is the apex continental organization responsible for coordinating and advocating for agricultural research for development (AR4D). FARA serves as the technical arm of the Africa Union Commission on matters concerning agriculture science, technology and innovation." Aid and International Development Forum, "Forum for Agricultural Research in Africa". Available at <http://www.aidforum.org/directory/forum-for-agricultural-research-in-africa-fara/>.



Ibero-American Programme on Science and Technology for Development (CYTED)

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Promoting cooperation in science, technology and innovation for the harmonious development of the Ibero-American countries

CHALLENGE

Ibero-American countries are leaders in agriculture and livestock production, with a history that involves some of the world's finest research and technologies in terms of food production. Nonetheless, some Latin America and Caribbean countries struggle with poverty and food insecurity, which hinder government strategies for economic development and create a context of high vulnerability to climate change and natural disasters. Although a mainly urbanized region, overall, rural areas have poor access to services and digital platforms, and local cities are socially unequal and scarcely integrated; high-tech solutions are therefore unequally disseminated between communities, with the need for governments and private actors to converge in the formulation of adequate strategies.



PROJECT NAME

Ibero-American Programme on Science and Technology for Development (CYTED)

COUNTRIES/REGIONS/TERRITORIES

Andorra, Argentina, Plurinational State of Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Portugal, Spain, Uruguay and Bolivarian Republic of Venezuela

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 16 Peace, Justice and Strong Institutions
- 17 Partnerships for the Goals

SUPPORTED BY

Ibero-American General Secretariat

IMPLEMENTING ENTITIES

Ibero-American General Secretariat

PROJECT STATUS

Ongoing

PROJECT PERIOD

1984 — Ongoing

URL TO THE PRACTICE

<http://www.cyted.org/en/node/4812>



TOWARDS A SOLUTION

The main objective of the Ibero-American Programme on Science and Technology for Development (CYTED) “is to contribute to the harmonious development of the Ibero-American region through cooperation mechanisms that seek scientific and technological results, transferable to production systems and social policies...CYTED was created in 1984 through an Interinstitutional Framework Agreement signed by 21 countries of Spanish and Portuguese language. Since 1995, the CYTED Programme has been formally included among the Cooperation Programmes of the Ibero-American Summit of Heads of State and Government.”¹ “The beneficiaries of CYTED financing instruments may be universities, R&D centres and innovative corporations in member countries. The CYTED Programme also answers the calling to act as a bridge for interregional cooperation in Science and Technology between the European Union and Latin America.”²

“The specific goals of the CYTED Programme are: encouraging the integration of the Ibero-American Scientific and Technological Community; strengthening the technological development capacity of the Ibero-American countries through the promotion of joint scientific research, the transfer of knowledge and techniques, and the exchange of scientists and technologists among R&D+i groups in the member countries; promoting the participation of business sectors from member countries interested in innovation processes...; and promoting the participation of researchers from the Region in other multilateral research programmes through agreements for this purpose.”³ The programme works through “strategic projects”, which are scientific and technological programmes with relevant viewpoints and a duration of up to three years, selected after a competitive call for projects and funded with a maximum of €15,000 per year, and “thematic networks”, which are groups formed by experts to promote long-lasting scientific interactions, with a maximum duration of two to four years and that must contain at least six groups of participants from six different Ibero-American countries. These two flagship initiatives are complemented by the “entrepreneurial scholarships”, which are funding initiatives for companies in the start-up stage to develop their businesses within the scope of the Latin American trade and investment context; the “Iberoeka initiative”, which is a certificate for the companies of the region that are engaged in multinational work in the innovation field with social impacts; and the “CYTED forums”, which are meetings between businesspeople and scientists to analyse the demands of the technology sector and boost overall innovation.

The results of the Programme include the generation of strategic research and development projects involving corporations and experts that, with the CYTED cooperation platform, can access important international funds. **A total of six projects, four of them from Spain and two of them from Chile and incorporated into the programme, have already been implemented and evaluated, ranging from vegetal food, urban fronts and biofuels to nutrition, bacterial control and solar energy, all with meaningful impacts for social development.**⁴ **CYTED formed nine thematic networks on agriculture, health, industry, technology, communications, science, energy, start-ups and sustainable development. A total of five entrepreneurial scholarship centres were created in company incubators in Brazil, Colombia, Costa Rica, the Dominican Republic and Spain. In the Iberoeka initiative, companies from 21 countries received proper certification for their activities in the field of science and innovation, aiming to develop and implement new processes, products or services.** Also, there have been 42 CYTED forums to date, divided into nine mini-forums and 33 forums, which were held in multiple countries in both Europe and Latin America and centred on themes such as sustainable development, bioenergy, industry, mining and food.

The CYTED initiative converges with the SDGs and the agendas of countries of the LAC region. This project has a strong triangular cooperation component, with Spain and Portugal having an active role in providing funds and technologies for the projects, networks and scholarships, contributing with the exchange of good practices in a sustainable manner. It also has a South-South cooperation flow, with Argentina, Brazil, Chile, Colombia and Mexico serving as hubs for business relations with less developed countries in the region, hosting the majority of certified companies and some of the most important innovation forums. This programme is sustainable and replicable because it promotes a perspective of social development and environmental responsibility, catalysing scientific research and innovation in a form that can be replicated in many regions, with adequate bilateral and multilateral political commitment.

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1 CYTED, Objectives. Available at <http://www.cyted.org/en/Objetivos>.

2 Ibid.

3 Ibid.

4 CYTED, Objectives. See <http://www.cyted.org/es/Objetivos>.



Transferring knowledge, skills and solutions from Asian bamboo farmers to African cultivators



CHALLENGE

Rural communities in Africa often lack access to education and knowledge necessary to create linkages between stakeholders in the private sector, which hinders the creation of agricultural value chains. The production of bamboo in particular suffers from a lack of awareness of the economic and social potential of the crop, which is reflected in the poor performance of the product in African production and international trade. There is therefore a need to boost the production of bamboo in African economies and make it familiar to the African farmer in order to unlock its true potential.

PROJECT NAME

Inter-Africa Bamboo Smallholder Farmers Livelihood Development Initiative

COUNTRIES/REGIONS/TERRITORIES

Cameroon, China, Ethiopia, Ghana and Madagascar

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 15 Life on Land

SUPPORTED BY

IFAD

IMPLEMENTING ENTITIES

International Network for Bamboo and Rattan (INBAR), Government of China and African Governments

PROJECT STATUS

Ongoing

PROJECT PERIOD

2018 — 2021

URL TO THE PRACTICE

<https://www.inbar.int/project/inter-africa-livelihood-development/>



TOWARDS A SOLUTION

The International Network for Bamboo and Rattan (INBAR) and China's efforts involve the transfer of knowledge, skills and solutions from Asian bamboo farmers to potential African cultivators, improving the entire value chain of this perennial, highly resilient and highly tolerant crop from planting to processing. The programme targets over 30,000 smallholder farmers and community members as an attempt to include bamboo in the portfolio of crops either to enable communities to take advantage of the plant to break into the biomass and energy product markets or to enable farmers to sell timber and components for cash.

The project works by enhancing connectivity between bamboo technical experts from the countries involved for capacity-building and development of high-quality standards. With China in the frontline and a focus on Cameroon, Ethiopia, Ghana and Madagascar as beneficiaries, the initiative seeks to diversify the economies of these countries and promote industrialization while also being in alignment with the principle of crop rotation, facilitating the restoration of degraded areas that can be used for food production. Furthermore, voluntary guideline standards will boost a sustainable bamboo trade in and beyond the four beneficiary countries, with impacts on intra-African and Sino-African trade flows. As for the method of implementation, three study tours in China and two regional symposiums in Africa will be carried out, which will have a strong emphasis on fostering linkages with China's One Belt One Road Initiative as well as with the construction of public-private partnerships for technology transfer.

The outcomes are expected to build on previous Asian experiences and foster innovation in African smallholder farmers' activities to: (a) reduce poverty and increase employment, especially for women and youth; (b) reduce land degradation and restore thousands of acres; (c) transform bamboo into a mainstream crop with attention from national policies, business strategies and development programmes; (d) increase industrialization, intra-Africa and Sino-Africa trade, investments and exchanges; and (e) improve the energy security of smallholder farmers through the production of bamboo charcoal briquettes. **As for concrete results, since 2010, IFAD-supported grants in Ethiopia and Madagascar have seen 2,194 new livelihoods created and 665 hectares of bamboo plantation established, with IFAD loan projects engaging to scale up results.**

This programme draws on the South-South cooperation between China and Africa and within Africa itself to scale up sustainable, climate-smart, smallholder-based bamboo value chains in Africa. It builds on International Network for Bamboo and Rattan networks and 20 years of IFAD investments, which have successfully validated smallholder bamboo valuechain models and technologies in multiple countries. Worldwide, these models have created 250,000 new rural jobs, benefiting primarily women and youth.

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FAO–China South–South Cooperation Project in the Democratic Republic of the Congo

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Supporting smallholder farmers to enhance their production, productivity and profitability through sustainable agriculture

CHALLENGE

While the Democratic Republic of the Congo has immense agricultural potential, its population of 90 million faces one of the most serious food and nutrition crises in the world. This is due to increased intercommunal conflicts, which in turn have triggered massive population displacement, infrastructure destruction, high food prices, loss of livelihoods, undiversified diets, pest infestations and health epidemics such as Ebola, cholera and measles. Since over 75 per cent of rural families rely on agriculture for their livelihoods, ensuring access to inputs and new technologies is essential for enhancing agricultural production and food security.



PROJECT NAME

FAO–China South–South Cooperation Project in the Democratic Republic of the Congo

COUNTRIES/REGIONS/TERRITORIES

China and Democratic Republic of the Congo

SUSTAINABLE DEVELOPMENT GOAL(S)

2 Zero Hunger

SUPPORTED BY

Government of China through the FAO–China South–South Cooperation Programme

IMPLEMENTING ENTITIES

FAO, Ministry of Agriculture of the Democratic Republic of the Congo and the Ministry of Agriculture and Rural Affairs of the People's Republic of China

PROJECT STATUS

Completed

PROJECT PERIOD

July 2017 — August 2019

URL TO THE PRACTICE

fao.org/3/ca6795en/CA6795EN.pdf



TOWARDS A SOLUTION

The objective of this FAO-China South-South cooperation project in the Democratic Republic of the Congo is to contribute to the implementation of the National Agricultural Investment Plan over a period of two years. The project gives direct support to the priority area of promoting the agriculture sectors and developing agribusiness in order to ensure sustainable food security for the populations and improve the income of farmers and other operators in the sector. More specific objectives of the project include: (a) strengthening national capacities in the development of rice cultivation, including production and multiplication of seeds; the development of the cultivation of soybeans, corn and vegetable crops; and the development of fish farming and short-cycle farming; and (b) selecting and disseminating different varieties of rice, soybeans and other legumes, and vegetable crops, and introducing suitable techniques and technologies for fish farming, rice cultivation and corn.

FAO was responsible for the overall management of the project, facilitating the coordination among all partners, providing procedural guidance, etc. The Government of China funded the project through the FAO-China South-South Cooperation Programme, while Chinese experts and cooperants conducted field training and demonstration sessions in the Democratic Republic of the Congo and provided hands-on guidance to local technicians and farmers. The Government of the Democratic Republic of the Congo assigned counterparts to work directly with the Chinese experts and cooperants and provided in-kind contributions to the project implementation. The project provided technical assistance for enhancing the agricultural production, productivity and profitability of nearly 2,260 households. Over a two-year period, 13 Chinese experts and technicians were deployed to the Democratic Republic of the Congo to provide technical assistance to local farmers in crop production, plant protection, horticulture, and livestock and aquaculture development as well as in the use of agricultural machinery. The project has helped households to meet their cereal and vegetable consumption needs, increase their net income and acquire new agricultural technologies. It also enhanced the efficiency of national extension services through the cross-country exchange of expertise.

The deployment of experts to local communities and the active involvement of beneficiaries brought tangible results in a number of areas. In terms of crop production, Chinese experts introduced practical technologies and carried out demonstrations of various crop production techniques, including rice, soybeans, millet, maize and vegetables. Local farmers also learned how to detect and prevent pests such as fall armyworms and aphids. **As a result, rice yields increased between 133 and 466 per cent. The increase in millet yield also was substantial, with an average of 6.3 tons per hectare.**

With regard to horticulture, Chinese technicians provided assistance to local farmers in soil loosening, land preparation, seedbed construction and seeding techniques. That resulted in a significant increase in the harvest of cabbage, tomatoes, peppers and onions. In the area of livestock production, local farmers adopted Chinese livestock breeding techniques and received technical training in systems for raising and managing rabbits, pigs, goats and broilers. In addition, the Veterinary Inspection and Quarantine Bureau of Haut Katanga was provided with veterinary medicine products for distribution to the poultry farms. With respect to aquaculture, during the project, hand-operated fish pellet feed machinery was introduced. Aquatic experts wove five cages of 24 cubic metres and 30 kilograms of fish fry were put into the cage for demonstration. Regarding other technologies, smallholder farmers also received training in post-harvest processing. By transforming maize into fodder and soybeans into milk, families were able to introduce new products to the market, thereby improving their monthly income. Furthermore, labour-saving production tools and equipment tailored to local conditions were introduced to local farmers.

This project effectively transferred agricultural knowledge and technologies at the local level and will further enhance food security at local and national levels, including through agricultural intensification and diversification throughout the Democratic Republic of the Congo. Achieving impact at scale will require a renewal of relevant partnerships and increased investments in local agriculture. Given adequate resources, the technologies and varieties introduced through the FAO-China South-South Cooperation Programme could be utilized on a larger scale, reaching more beneficiaries throughout the Democratic Republic of the Congo.

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Establishing better working conditions for smallholder farmers through the use of good practices and new technologies

CHALLENGE

One of the challenges concerning African agriculture is the use of rudimentary practices and techniques, which are, not rarely, damaging for the environment. The climate-change package of perils represents a significant risk for the food production of poor countries as the air warms, precipitation becomes irregular and the sea level continues to rise. Smallholder farmers are usually the most affected by climate change and harsh natural conditions since they are usually located in rural areas of significant vulnerability, such as hill-sides, rangelands, semi-arid and arid lands, flood plains and deltas, and depend on climate-sensitive natural resources to produce and live.



PROJECT NAME

Adaptation for Smallholder Agriculture Programme

COUNTRIES/REGIONS/TERRITORIES

Africa, Asia, Latin America and Caribbean

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 11 Sustainable Cities and Communities
- 13 Climate Action
- 15 Life on Land

SUPPORTED BY

IFAD

IMPLEMENTING ENTITIES

IFAD

PROJECT STATUS

Ongoing

PROJECT PERIOD

2012 — Ongoing

URL TO THE PRACTICE

<https://www.ifad.org/en/asap>



TOWARDS A SOLUTION

This IFAD project is set to assist smallholder farmers, especially in Africa, Asia and Latin America, to overcome a range of rural issues through large- and small-scale funding of climate-resilient policies, strategies and programmes. The Adaptation for Smallholder Agriculture Programme (ASAP) constitutes a “multi-year, multi-donor financing window,” through which it “provides a new source of cofinancing to scale up and integrate climate change adaptation across IFAD’s approximately US\$1 billion per year of new investments.”¹ ASAP engages in climate-resilient agriculture via seven bilateral donors and \$340 million for projects, integrating a climate-smart approach into all of the initiatives of the organization. ASAP seeks to use “tried and tested approaches to rural development with relevant adaptation know-how and technologies from different realities”; incentivizing South-South and triangular cooperation in the process and ultimately increasing “the capacity of an estimated 8 million smallholder farmers to expand their livelihood options”²

The project methodology involves the funding of good practices for scaling up those tried and trusted approaches to rural development (particularly with climate-smart approaches) that have proved successful in delivering resilience benefits to smallholders. ASAP funding is directed to multiple countries, communities and initiatives, focusing on three pillars (or steps) in promoting change: (a) “Basing projects and policies on a deeper risk assessment and a better understanding of the interconnections between smallholder farming and wider landscapes;” (b) “Substantially scaling up successful multiple-benefit approaches to sustainable agricultural intensification;” and (c) “Enabling smallholder farmers to become significant beneficiaries of climate finance and achieve (and measure) a wider range of multiple benefits, going beyond the traditional ‘poverty and yield’ approach.”³

ASAP aims at five key outcomes: (a) improve land management and promote gender-sensitive, climate-resilient agricultural practices and technologies; (b) increase availability and efficient use of water for smallholder agricultural production and processing; (c) increase capacity to manage short- and long-term climate risks and reduce losses from weather-related disasters; (d) increase climate resilience of rural infrastructure; and (e) document and disseminate knowledge on climate-smart smallholder agriculture. This approach gives ASAP a holistic approach, covering sustainability promotion, water accessibility, capacity-building, infrastructure development and knowledge dissemination, with a permanent concern for the engagement of local communities in decision-making.

Some ASAP impacts for 2020 were estimated: 8 million people, including 4 million women and girls, of poor households with increased climate resilience; less than 30 per cent of ecosystem and land degradation in productive landscapes; 80 million tons of greenhouse gas emissions avoided and/or sequestered; 1 million-hectare increase in hectares of land managed under climate-resilient practices; 100,000 households achieving increased water availability or efficiency in production and processing facilities; \$80 million in new or existing rural infrastructure to become climate resilient; and 1,200 groups of individuals, communities and institutions engaged in climate risk management, environmental and natural resource management or disaster risk reduction activities.

The aim of IFAD efforts to promote a coherent response to climate change in line with the SDGs requires a continued focus on country-led development, community-based natural resource management, gender equality and women’s empowerment, land tenure security, access to financial services and markets, environmental sustainability and institutional capacity-building. ASAP involves a broad network of initiatives, such as the rangeland management in Kyrgyzstan, watershed management in the Plurinational State of Bolivia, conservation agriculture in Ghana, drip irrigation in Nigeria, rainwater harvesting in Yemen, reforestation and afforestation in Djibouti, biogas in Mali, and relevant partners in Nepal which have all served as solutions for enhancing production and are easily adaptable to analogous situations. These efforts entail South-South and triangular cooperation and cross-country exchange of experiences, technologies and practices.

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1 IFAD, “Adaptation for Smallholder Agriculture Programme (ASAP) brochure”. Available at <https://www.ifad.org/en/web/knowledge/publication/asset/39186467>.

2 Ibid.

3 IFAD, Adaptation for Smallholder Agriculture Programme (ASAP), p. 5. Available at <https://www.ifad.org/documents/38714170/40213192/asap.pdf/b5a8c1f9-f908-4a68-ad30-e3d5eeb17c31>.



Home-grown School Feeding Initiative

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Linking school feeding programmes with local smallholder farmers to provide schoolchildren with food that is safe, varied, nutritious and, above all, local

CHALLENGE

Africa, Latin America and Asia have the highest rates of hunger in the world; Africa, in particular is also the region with the highest prevalence of undernourishment at almost 20 per cent. This is attributed to unequal global economic conditions and, in many countries, adds up to political and social unrest, armed conflicts and climate variability. These conditions have an impact on children and adolescent livelihoods because many turn up for school on empty stomachs, which make it difficult to focus on personal and intellectual development, or simply must be absent in order to assist families with work and domestic chores.



PROJECT NAME

Home-grown School Feeding Initiative

COUNTRIES/REGIONS/TERRITORIES

Africa, Asia, Latin America

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities

SUPPORTED BY

WFP

IMPLEMENTING ENTITIES

WFP

PROJECT STATUS

Ongoing

PROJECT PERIOD

1990 — Ongoing

URL TO THE PRACTICE

<https://www.wfp.org/school-meals>



TOWARDS A SOLUTION

The World Food Programme (WFP) Home-grown School Feeding Initiative seeks to tackle the structural condition of malnutrition on the African continent, in Latin America and in Asia through the production and distribution of meals and snacks. The aim is to connect smallholder farmers with school feeding programmes to provide food for children in 46 countries. The initiative serves as an overarching framework and can be tailored to target specific groups of children, including those forced into child labour or those whose lives have been affected by HIV/AIDS. The initiative also seeks to prevent early marriage for girls and child pregnancies and help girls to access better-paid jobs through education, thus tackling a wide range of social challenges at the same time through the guarantee of food security alone.

Organized and led by WFP, the Home-grown School Feeding Initiative has many facets and great potential for spill-over and indirect effects. The goals of the programme are manifold: schools provide local farmers with a predictable outlet for their products, leading to a stable income, more investments and higher productivity, and children correspondingly enjoy healthy, varied food. The initiative, itself comprised of multiple projects of many sizes and forms, by its nature entails cross-country transfer of good practices. Reaching over 44 countries with different natural and social conditions, the programme incentivizes the exchange of sustainable solutions, especially those related to productivity gains, food storage, water management, market strategies and energy consumption. For instance, its knowledge products, the WFP School Feeding Policy and the Home-grown School Feeding Resource Network apply lessons from several countries and the WFP Regional Centres of Excellence to find new paths for rural development.

In 2018, over 16 million children worldwide directly benefited from the supply of food by the initiative, which enabled them to achieve better results in their education.¹ As a complement, the programme also assisted governments, local communities and school administrators in capacity-building, which in turn improved the supply of food for another 39 million children. The initiative also attempts to use local producers to meet local demands, with many countries in and outside Africa benefiting from local smallholder farmers' linkage efforts. In Kenya, for instance, a home-grown school feeding programme was developed based on cash transfers. Under this model, WFP transfers cash to the bank accounts of schools, with the amount depending on the enrolment rates and number of school days, so that they can purchase fresh food locally for the daily menu. This represents a sustainable solution due to its understanding of the role of food security in development and of local farmers' potential as drivers of economic growth.

In terms of raising awareness and setting agendas, WFP works with Governments to develop national policies and strategies for Home-grown School Feeding programmes and to design or implement such initiatives directly where needed. The contribution of local producers to the programmes and the benefits that they derive from them depend on context-specific factors: the range of actors involved, the size and precise objectives of the programme, the quantity and types of foodstuffs required, and other purchasing and contractual variables. Specifically in the Home-grown School Feeding Resource Network, Module 2, focused on planning by the national programmes for home-grown school feeding, South-South cooperation takes place when governments and agencies develop political commitment for their initiatives by collecting and exchanging information with their peers, and when "pioneer countries" within groups of countries that are similar and face analogous challenges can provide experiences, evidence, advice, models and solutions to others. In the case of the WFP initiatives, this South-South component is manifested through the Global Child Nutrition Forums, the Centres of Excellence, the Pan-African School Feeding Network, the Asian and Latin American variants, the national workshops and the peer-to-peer study visits.

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1 World Food Programme, "School feeding". Available at <https://www.wfp.org/school-meals>.



IFAD's Rural Solutions Portal and IT Tracking Systems

32

Strengthen the access to rural solutions through a digital platform

CHALLENGE

The African continent faces challenges in accessing cutting-edge technology, which is exemplified by the difficulty of the agriculture sector in integrating into global networks. The agriculture of Africa, led by smallholder farmers, has yet to be assimilated into digital fluxes, an issue that hinders the use of new applications and services to boost productivity. The connection between suppliers, producers, distributors and consumers lacks dynamism, creating unnecessary gaps in the entire value chain, a situation that can be addressed by the establishment of an interconnected network of good practices and solutions.



PROJECT NAME

Rural Solutions Portal and IT Tracking Systems

COUNTRIES/REGIONS/TERRITORIES

Latin America and Caribbean (Argentina, Plurinational State of Bolivia, Brazil, Colombia), Africa (Angola, Benin, Burkina Faso, Cameroon, Mali), Asia (Afghanistan, Bangladesh, Bhutan, Cambodia, China)

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 9 Industry, Innovation and Infrastructure
- 17 Partnerships for the Goals

SUPPORTED BY

IFAD

IMPLEMENTING ENTITIES

IFAD

PROJECT STATUS

Ongoing

PROJECT PERIOD

2018 — Ongoing

URL TO THE PRACTICE

www.ifad.org/en/web/latest/news-detail/asset/40983322
<https://ruralsolutionsportal.org/en/home>



TOWARDS A SOLUTION

The IFAD initiative Rural Solutions Portal and IT Tracking Systems has an overall objective of improving, developing and ultimately strengthening a rural solutions portal, that is, a web-based portal that collects and makes available innovative rural development solutions. The portal integrated the IFAD South-South and triangular cooperation tracking systems with a view to increasing the uptake of rural development solutions and improving the living conditions of the population in target countries. Specifically, the Rural Solutions Portal seeks good practices that are: (a) rural, that is, focused on solving specific problems of the rural space and aimed at reaching the smallholder farmer, the rural small business or the fisher folk; (b) reliable, that is, having been tried and tested, producing good results, or an innovative solution with clear expected results; and (c) replicable, that is, easily used by other rural people in similar situations in different locations.¹

The IFAD Rural Solutions Portal involves the exchange of information and knowledge between countries that face similar challenges in the agricultural field, facilitating the use of new technologies and the creation of solutions, with the potential to boost productivity in the food sector on a global scale. The methodology for reaching this goal involves the connection between the South-South and triangular cooperation centres in Addis Ababa, Beijing and Brasilia and, through the development of a shared database and dashboard, the exchange of information and knowledge with similar web-based information platforms. The IFAD efforts to strengthen the Rural Solutions Portal initiative include multiple agreements with bilateral partners, such as the IFAD-China South-South Cooperation Facility, for the portal to extend its reach and broaden its range, cataloguing more good practices, promoting their uptake in different contexts and monitoring their results on a greater scale.

Within the context of an international web portal, this initiative entails the cross-country exchange of information and knowledge. and The shared solutions are concrete initiatives, which solve specific development challenges to the promotion of sustainable and inclusive rural transformation. **The IFAD Rural Solutions Portal will thus help rural people and organizations in developing countries to identify opportunities for replicating such solutions in their own development context in an easier, more integrated fashion to achieve better livelihoods.** With strengthening efforts, the portal went from 31 solutions in 2018 to a total of 46 in 2020, with 9 of them having a global effect. In addition, IFAD and its regional centres are working with local governments and authorities to see if the portal can be translated into national and local languages, making the dialogue on challenges and solutions even easier.

Managed by IFAD, the Rural Solutions Portal and its improvement activities are not components of the national agendas of any countries. Nonetheless, it is aligned with many South-South cooperation principles, the SDGs and the IFAD Strategic Framework 2016–2025, an aspect that creates a sense of guidelines for the activities of the fund in general and the solutions portal specifically. This effort is sustainable owing to the engagement of governments, business experts and technicians in its overall scope since the strengthening of the web-based system is carried out in a constructive manner, with all solutions included after careful review from specialists in agriculture and rural development.

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¹ IFAD, Rural Solutions Portal. Available at <https://ruralsolutionsportal.org/en/about>.



One Million Cisterns for the Sahel Region

33

Giving desert communities in the Sahel region adequate tools to survive and thrive during dry periods

CHALLENGE

Considering the natural conditions of the Sahel region and inspired by the Brazilian Cisterns Programme, the issue of water storage became a priority for the development of the region in the 2010s. Millions of families, especially in the poorest households, struggle against climatic shocks: every year, populations are exposed to the risks of water scarcity. Climate change is a catalyser of irregular rainfall, periodic droughts and eventual floods, conditions that also make the Sahel an inadequate space for agricultural activities.



PROJECT NAME

One Million Cisterns for the Sahel

COUNTRIES/REGIONS/TERRITORIES

Brazil, Burkina Faso, Cabo Verde, the Gambia, Mali, Niger and Senegal

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 6 Clean Water and Sanitation
- 10 Reduced Inequalities
- 11 Sustainable Cities and Communities
- 15 Life on Land

SUPPORTED BY

FAO

IMPLEMENTING ENTITIES

FAO, Government of Niger and Government of Senegal

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — Ongoing

URL TO THE PRACTICE

<http://www.fao.org/resilience/resources/resources-detail/en/c/1195824/>
<http://www.fao.org/resilience/news-events/detail/en/c/1195547/>



TOWARDS A SOLUTION

The initiative One Million Cisterns for the Sahel seeks to enable Sahel populations to access safe drinking water, manage surpluses to use for agricultural needs and improve their families' resilience. The project is currently being piloted in Niger and Senegal and aims for rollout in five additional pilot countries: Burkina Faso, Cabo Verde, Chad, the Gambia and Mali, with the potential for extension across the entire region.

The methodology involves an integrated approach, with water management, climate-smart agriculture, agroecology principles, capacity-building, gender empowerment and cash transfer. The aim is to sustain the needs of local communities in the long term, providing clean water in the dry seasons and promoting the adoption of food security practices. The main elements of the programme are as follows: (a) ensuring better access to clean water during the dry season through these harvesting and storage systems, which are aimed at collecting water during the rainy season – June to October – for use during the dry season – November to May; (b) providing agroecological inputs in consultation with local communities and adapted to local conditions, with vegetable production used for self-consumption and sales, seeking to improve nutrition levels and incomes; (c) communities participating in the construction of cisterns through cash-for-work activities and the use of local materials; and (d) training of local communities in the construction, use and maintenance of cisterns, thus becoming qualified for civil construction works, infrastructure maintenance and good water management techniques.

The One Million Cisterns for the Sahel initiative is inspired by Brazil's Cisterns Programme, implemented by the Government of Brazil and promoted by Articulação no Semiárido Brasileiro. The project is organized and facilitated by the Food and Agriculture Organization of the United Nations (FAO), with the exchange of experiences between the Government of Brazil and African counterparts and among African countries themselves, enabling common problems to be overcome through the application of concerted solutions. **The FAO programme is still being implemented, aiming to reach millions of people in vulnerable situations. To date, the four components are being put into practice simultaneously.**

With an integrated approach bringing together multiple actors, the programme involves the governments of the Sahel region as well as local communities, with training for empowerment as a central component. This raises awareness of the social problem and facilitates the spill-over of outcomes, thereby facilitating the engagement of donors and agencies in the implementation of the programme.

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Combining food security efforts with a nutrition-sensitive approach in order to not only feed children but also promote healthier eating habits



CHALLENGE

Latin America and the Caribbean suffer from a food security challenge, with over 11 per cent of children under five struggling with chronic malnutrition. Although the region has an agriculture sector that is seen as an example for countries abroad, its food supply is not always guaranteed. Great advancements have been made, especially since the 1990s, but the region still faces a mix of rising levels of obesity and malnutrition, undernutrition and micronutrient deficiencies.

PROJECT NAME

Smart School Meals

COUNTRIES/REGIONS/TERRITORIES

LAC region

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

WFP

IMPLEMENTING ENTITIES

WFP and national governments of countries of the LAC region

PROJECT STATUS

Ongoing

PROJECT PERIOD

2017 — Ongoing

URL TO THE PRACTICE

<https://www.wfp.org/publications/smart-school-meals-nutrition-sensitive-national-programmes-latin-america-and-caribbean>



TOWARDS A SOLUTION

The WFP Smart School Meals initiative focuses on nutrition-sensitive projects for countries of the Latin America and the Caribbean (LAC) region, trying to analyse how the cumulative regional annual budget of over \$4.3 billion for school meals can turn into an investment for healthier practices. As a fight against obesity and malnutrition, the focus is on building nutrition-sensitive actions that can adapt to changing needs and use local food production for such ends, with special attention to pre-primary schoolchildren and adolescent girls. The aim is to convert a quantity-based approach into a quality-based one, assisting national governments in the development of comprehensive national plans to this end.

The method of the WFP initiative focuses on regional good practices in six key areas in which food security deficiencies in terms of smart and sustainable nutrition are felt. The key areas are: (a) smart investment in quality school meal programmes that maximize their contribution to nutrition; (b) continued political and financial commitment to advance the quality of service provision; (c) strengthened monitoring and evaluation systems to support the expansion of school meal programmes; (d) nutrition-sensitive school meal programmes integrated into wider national social protection systems and linked to other social protection instruments; (e) renewed forms of community participation to enhance local ownership and advance gender equality; and (f) different contexts, many actors and one community of practice joining forces to move towards more innovative partnerships to strengthen nutrition outcomes. The mapping of good practices is done in a way that will incentivize Governments to adopt adequate policies for their national needs. This is done through a comprehensive analysis in 16 LAC countries (Plurinational State of Bolivia, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay and Peru, plus Brazil, Chile and Mexico, the three of which have well-established smart-meal programmes), representing 90 per cent of the 85 million school-meal beneficiaries in the world.

The WFP initiative compiled the experiences of LAC countries in conducting food security policies and systematizing and sharing knowledge on nutrition-sensitive approaches for school meals in the region in a comprehensive publication entitled *Smart School Meals: Nutrition-sensitive National Programmes in Latin America and the Caribbean – A Review of 16 Countries* so that they can serve as examples of what to do and what to avoid. Seeking to enable and unlock the potential of South-South cooperation, the report presents information that enables the identification of solutions, innovations and approaches that could be replicated elsewhere, since many of the countries and communities of the region face similar (if not parallel) challenges in agriculture and farming.

The WFP initiative and final report found that “school meals are increasingly seen as key components of national social protection systems, as well as an instrument to realize the rights to food and education” and that “food security and nutrition are becoming increasingly important complementary objectives.”¹ The review by the organization shows that while this is the current scenario, LAC countries are, indeed, **increasingly committed to strengthening the nutritional quality, cost-efficiency and sustainability of their school-meal programmes while also seeking to link local producers to school meals in order to achieve complementary objectives.** Finally, the study concludes that a noteworthy strategy, and a valuable lesson in order to think of food security in terms of quality, is the provision of animal products and fresh fruits and vegetables in the food basket to increase schoolchildren’s access to not only sufficient but also healthy and nutritious foods.

This good practice is sustainable and replicable because it is inherently linked to structural reforms, thus requiring wide and thorough commitments to specific agendas. The WFP initiative is one comprehensive approach to school-meal programmes and one that must be replicated in national, provincial and local policies to adequately map demands. Considering that Governments are increasingly perceiving food security, child nutrition and quality education as the foundations of solid economic growth and that “[n]utritionally balanced school meals, along with complementary nutrition education and health measures, can support child development and hunger reduction, with short- and long-term benefits”;² this clearly becomes a matter of concern for countries all across the region.

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1 World Food Programme (2017), *Smart School Meals: Nutrition-sensitive National Programmes in Latin America and the Caribbean – A Review of 16 Countries*, p. 119. Available at https://docs.wfp.org/api/documents/WFP-0000019946/download/?_ga=2.17908793.1845995349.1603653667-984776635.1603653667

2 Ibid., p. 10.



FAO-Qatar Capacity-building for Sustainable Natural Resource Management

35

Improving the management and conservation of natural resources to enable sustainable increases in agricultural and fisheries productivity

CHALLENGE

Qatar has harsh natural conditions (high temperatures and high humidity), which are not conducive to a productive agriculture sector; therefore, most of its agricultural supply came from international partners. The current blockade created further problems for the sector in terms of achieving self-sufficiency. Since many Middle Eastern and African countries suffer from aridness and semi-aridness, agriculture and livestock activities are significantly hampered, with food production constantly at risk, especially with rising climate-change concerns.



PROJECT NAME

Capacity-building for Sustainable Natural Resource Management

COUNTRIES/REGIONS/TERRITORIES

Egypt, Jordan and Qatar

SUSTAINABLE DEVELOPMENT GOAL(S)

- 1 No Poverty
- 2 Zero Hunger
- 3 Good Health and Well-Being
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

FAO and Government of Qatar

IMPLEMENTING ENTITIES

FAO, Government of Qatar and QADCO

PROJECT STATUS

Ongoing

PROJECT PERIOD

2008 — Ongoing

URL TO THE PRACTICE

<http://www.fao.org/documents/card/en/c/d6808ee3-81fb-451d-8391-f95fa8622a04/>



TOWARDS A SOLUTION

The Government of Qatar established a food security department especially for the coordination of food and nutrition efforts, expanding the production of fruits and vegetables and creating a dairy and poultry market from scratch. A food security crisis generated a myriad of agricultural solutions through the use of science and the convergence of public and private efforts. The Government opened a space for a business-led food security initiative, with the Qatar Agricultural Development Company (QADCO) in the vanguard; the work is directed mainly to the reclamation of tracts of land, the desalinization of water and the overall increase in productivity.

FAO supported the project by providing technical assistance to enable Qatar to shape the Qatar National Food Security Programme, with a focus on strategic planning, enhanced agricultural and fisheries productivity and development, conservation and sustainable management of natural resources, and environmental protection. The country's national methodology is based on four elements: (a) guaranteeing that the local production uses the least possible amount of water and electricity by using modern technology; (b) strategic storage; (c) using international trade and logistics services in a way that makes it possible to secure the diversification of food supply sources; and (d) managing the local market by offering customers high-quality food items at fair and reasonable prices.

With FAO assistance, Qatar has improved its food production to supply 25 per cent of its local market – although the idea was to increase the supply to 70 per cent – through 10 projects offered to investors to cultivate vegetables in greenhouses, producing around 21,000 tonnes of vegetables every year. In poultry production, too, the country has made significant advances, increasing its output from 11,000 tonnes in 2017 to 22,000 tonnes annually, achieving 100 per cent self-sufficiency in this area.¹ In the area of egg production, the Government has announced a total of 8 projects to produce eggs on local farms, with the aim of increasing self-sufficiency from 28 per cent to 70 per cent.

The initiative has a South-South component embedded in the FAO and Qatar efforts at sharing know-how with other Middle Eastern countries in similar conditions such as Egypt and Jordan to contribute to food security in the region and subregion. FAO helped the World Bank to develop a study entitled *The Grain Chain: Managing Wheat Resources in the Arab Countries*, which included Qatar as a role model and which was presented to the Governments in the region that participated in its formulation.

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¹ Gulf Times, "MME [Ministry of Municipality and Environment, State of Qatar] to increase self-sufficiency in vegetable output", 20 March 2019. Available at <https://www.gulf-times.com/story/626395/MME-to-increase-self-sufficiency-in-vegetable-outp>.



Promotion of Water Conservation and Irrigation for Water-use Efficiency in Ethiopia and Kenya

36

Improving access of Ethiopian and Kenyan communities to water



CHALLENGE

From the Sahara to the savanna, dry soils are a significant and constant threat to food production. The savanna is widely known for its dry conditions, which, complemented by an acid soil, represent a significant barrier for agricultural activities in countries such as Ethiopia, Kenya, Mozambique, Sudan and the United Republic of Tanzania. Countries in the Sahara-savanna area have some of the continents' poorest areas/communities, especially impacted by climate-change effects: rising temperatures, increasingly severe incidences of drought and diminishing water sources.



PROJECT NAME

Promotion of Water Conservation and Irrigation for Water-use Efficiency in Ethiopia and Kenya

COUNTRIES/REGIONS/TERRITORIES

China, Ethiopia and Kenya

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 6 Clean Water and Sanitation
- 10 Reduced Inequalities
- 15 Life on Land

SUPPORTED BY

IFAD

IMPLEMENTING ENTITIES

IFAD, Government of Ethiopia and Government of Kenya

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — Ongoing

URL TO THE PRACTICE

https://www.ifad.org/documents/38711624/41074781/sstcf_proposals.pdf/d8058331-ff3e-0ceb-b605-42c48a9c36d9



TOWARDS A SOLUTION

This project, supported by the China-IFAD South-South and Triangular Cooperation Facility, aims to improve ecosystem and community resilience in Ethiopia and Kenya through improved management of natural resources and, specifically, of water while expanding linkages between government, private-sector and civil-society organizations to provide access to markets, finance and agricultural technology. The main driver of the initiative is the goal to enhance the development of the water resources of both countries in order to make an optimum contribution to accelerated socioeconomic growth, mitigating the risks of droughts and floods in each country, especially in its rural communities. The objectives of the project are the development of the water resources of each country for the economic and social benefits of the people, on an equitable and sustainable basis, with the allocation and apportionment of water based on comprehensive and integrated plans and optimum allocation principles that incorporate efficiency of use, equity of access and sustainability of the resource.

In terms of methodology, the Promotion of Water Conservation and Efficiency of Irrigation Water Use in Ethiopia and Kenya seeks to deepen the form and scope of the exchange of existing Ethiopia-Kenya knowledge, skills and experiences, engaging government institutions from the two countries in joint activities in the field. The aim is for policymakers and businesses to act mainly by assessing the following areas: (a) technologies for efficient irrigation-water use; (b) effective capacity-building approaches of irrigation and water user associations and other community-based organizations; (c) interaction and learning from poor rural farmers who have developed their capacity to grow crops profitably and sustainably using irrigation water and who successfully market their produce; (d) interaction and learning from poor rural farmers who have been trained in sustainable rainwater harvesting using farm-level ponds and are profitably growing and marketing food crops; and (e) awareness of policy and legislative regimes that enable the creation of community-based institutions that have a legal basis and the capacity to manage and oversee the use of river waters.

With regard to the outcomes, since the agricultural productivity of Ethiopia is hampered by poor water management and climate-change risks, **the aim is for the IFAD project to help the Government of Ethiopia in addressing the country losses of about 2 billion tons of fertile soils annually due to land degradation and the siltation of water bodies as a threat to irrigation development. Kenya, for its part, benefits from a water-management scheme that improves the conditions of smallholder farmers planting in the savanna and helps the infrastructure and sanitation services in the Nairobi region.** IFAD seeks to improve the resilience of ecosystems and

communities through improved management of natural resources and, specifically, of water, while expanding linkages between government, private-sector and civil-society organizations to provide access to markets, finance and agricultural technology.

South-South cooperation is thus undertaken by the China-IFAD South-South and Triangular Cooperation Facility, which enables the exchange of experiences between an emerging country with multiple projects in the agriculture and water management realms and less developed countries, which suffer from water scarcity and misuse. In terms of sustainability, the IFAD initiative is aligned with the Water Resources Management Policy of Ethiopia and the First Natural Water Resource Management Strategy of Kenya, which indicates a political commitment to its main goals and strategies as well as a potential for engagement by local communities and businesses.

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A fund to promote South-South partnerships and knowledge-sharing among African countries

CHALLENGE

Over the years, experiences in the international development community have shown that sharing development knowledge and expertise is crucial to finding relevant, effective and efficient solutions to common development challenges. There remain enormous potential and urgency in further exploring and harnessing the opportunities for South-South cooperation, especially in Africa. Among the current impediments to greater South-South cooperation are limited institutional capacity, lack of access to financial resources, and a disconnection between supply and demand. In recent years, Brazil has emerged as a major player in the international development community, having demonstrated successful poverty reduction through sustainable economic development. Brazil has also been pivotal in promoting South-South cooperation.



PROJECT NAME

AfDB-Brazil South-South Cooperation Trust Fund

COUNTRIES/REGIONS/TERRITORIES

AfDB member countries

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 7 Partnerships for the Goals
- 8 Decent Work and Economic Growth
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

AfDB and Government of Brazil

IMPLEMENTING ENTITIES

AfDB

PROJECT STATUS

Ongoing

PROJECT PERIOD

2011 — Ongoing

URL TO THE PRACTICE

<https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/south-south-cooperation-trust-fund>

TOWARDS A SOLUTION

In March 2011, AfDB approved an agreement with Brazil for inter-regional cooperation to strengthen the South-South Cooperation Trust Fund. Developing countries have accumulated effective development practices, and an increasing number of developing countries have demonstrated strong achievements in various domains, which are of great use to support the development efforts of other countries. The objective of the Fund is to use Southern-acquired experience in many areas to support African countries in mobilizing and taking advantage of such achievements, especially in terms of development solutions and technical expertise available for catalysing economic growth. The Fund aims to achieve significant impact on areas such as agriculture and agri-business, privatesector development, clean energy/environment, governance, health and social development.

The Fund also seeks to promote South-South partnerships and knowledge-sharing among middle-income countries (MICs) and between MICs and least developed countries (LDCs) in Africa. The ultimate goal is to introduce and implement solutions in all the areas of focus that can have a high development impact. As for the methodology, the aim is to provide support, in the form of technical assistance, for least developed and developing countries in: (a) the preparation of policy and sector studies, research and analysis; (b) capacity-building and human resource development; (c) the organization of seminars, workshops, conferences and consultations and knowledge-sharing on experiences; and (d) the implementation and piloting of innovative approaches to solve development challenges in regional member countries. The Fund is utilized to facilitate South-South knowledge-sharing, learning from best practices, know-how and approaches developed, applied and proved useful by countries of the South.

The responsibility for managing the Fund lies with AfDB. As the tool for engaging with targeted projects, the Bank issues a call for proposals for annual programming. Some of its multinational initiatives include the Nacala Road Corridor Development Project, Supplementary Financing for Ethiopia-Kenya Electricity Highway and NELSAP [Nile Equatorial Lakes Subsidiary Action Programme] Burundi-Rwanda Interconnection. Nationally focused initiatives include Climate Change Adaptation for Sustainable Rural Water Supply in Lowlands in Lesotho; Integrated Programme for Food and Potable Water in Libreville, Gabon; and Preparation of Feasibility Studies and Detailed Designs for Faecal Sludge Service Chain Management in Un-sewered Urban Centres in Uganda. **As for the Brazil-AfDB cooperation scheme, it was agreed that the Government of Brazil would provide the South-South Cooperation Trust Fund with \$6 million to be allocated between ongoing development projects and new international actions.**

An interdepartmental technical review committee, chaired by the head of the unit, assesses the technical and financial viability of all proposals. An oversight committee, consisting of representatives of contributing donors, ensures the strategic orientation and overall policy governing the use of the Fund through its annual meetings.

The AfDB-Brazil South-South Cooperation Trust Fund works within the context of a broader South-South cooperation system, guided by the SDGs, Agenda 2063 of the African Union and the AfDB Group Medium-term Strategy for 2008–2012, developing intra- and interregional cooperation among MICs and LDCs. It also converges with the Brazilian foreign policy agenda of using multi-lateral institutions and South-South funds to promote sustainable development, with horizontal dialogue and no conditionalities of a political or economic nature. The idea of creating a Fund also consolidates the possibility of mobilizing the necessary credit and financial resources for locally demanded projects, with the use of national institutions and the domestic workforce in the guidance of practices and the achievement of results.

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African-first integrated agribusiness platform



CHALLENGE

One of the challenges regarding agriculture in Africa is that there is no adequate funding for medium and small-scale farmers. Despite the fact that there are some success cases, most African farmers have not benefited from initiatives and programmes that use improved agricultural techniques or better agricultural activities, seeds, fertilizers, post-harvest technology and rural finance, among other examples. There is a need to re-emphasize strategies and policies aimed at the structural transformation of agriculture and reduce the vulnerability of smallholder African farmers and millions of consumers to prices and climate challenges.

PROJECT NAME

AGROB Platform

COUNTRIES/REGIONS/TERRITORIES

Brazil and Africa

SUSTAINABLE DEVELOPMENT GOAL(S)

- 1 No Poverty
- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 12 Responsible Consumption and Production

SUPPORTED BY

BraAfric

IMPLEMENTING ENTITIES

BraAfric

PROJECT STATUS

Ongoing

PROJECT PERIOD

2019 — Ongoing

URL TO THE PRACTICE

<https://brazafricenterprises.com/agrob/>



TOWARDS A SOLUTION

BrazAfric, a Brazilian company operating in East Africa, works in the agriculture and rural development sector through the provision of goods and services for local producers. The idea of the AGROB platform – an “African-first” integrated agribusiness platform – revolves around a mechanism of knowledge multiplication for technology, innovations, solutions and products in the agricultural field. It also serves as a consulting platform for many types of issues, including harvesting, processing and commercialization of commodities and food products. It aims to be the one-stop partner of the agribusiness environment on an international scale, providing an efficient interface between investors/resources and execution/action.

Through the provision of an integrated service platform, the AGROB platform can address challenges of any scale, complexity and proximity to end-users, training farmers as well as providing sound and efficient solutions from all corners of the world. The solutions designed for the AGROB platform have been tested in Brazil and elsewhere in the world and adapted to the African reality, bringing Southern-based solutions to a diverse but converging range of challenges. Its main outcome is to shorten the time that Africa takes to tackle its self-sufficiency in agricultural production and food security, introducing, at a fast pace, new solutions to local realities.

Although the platform was launched in 2019, **the initiative has already catalysed many rural projects, incentivizing good practices that can be shared with other stakeholders in the agricultural field. The methodology of the project has been shown to be successful when tested in Brazil. In this way, BrazAfric is transferring Brazilian practical solutions in agribusiness and rural development to the African context, seeking to achieve the same positive results.** Core areas in the exchange of experiences are soil health, carbon capture, human innovation and ecological economies alongside efficient mechanization and regenerative practices, all of which have been worked on and mastered by Brazilian cultivators and which may be useful for agribusinesses and smallholder farmers in West, Central and East Africa, all of which share common natural conditions with the South American country.

In terms of sustainability, BrazAfric works alongside governments and civil-society actors to promote excellence in agribusiness on the African continent. Following corporate principles such as creating shareholder value, customer focus, team spirit, leadership and integrity, the company shows a commitment to transparency and good practices, addressing not only farmers’ concerns with green economy and agroecology but also social problems as a whole. This allows for a holistic view of South-South cooperation within the scope of the actions of the company, increasing and improving the component of communication among developing countries and catalysing, in Brazil and in African countries, the creation of knowledge and scientific research in the field.

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Ghana Incentive-based Risk-sharing System for Agricultural Lending Project

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Developing funding tools for rural producers in Ghana to improve economic resources of rural communities

CHALLENGE

Ghana suffers with an agriculture sector that needs further funding, and existing financial institutions consider those activities as high-risk ventures, thus elevating interest rates. The issue represents a barrier for the acquisition of necessary supplies, tools and equipment, which leads to low productivity and food insecurity. Smallholder farmers in particular suffer from the lack of attention to their particular needs from both public and private actors, ultimately being unable to achieve sustainable production.



PROJECT NAME

Ghana Incentive-based Risk-sharing System for Agricultural Lending (GIRSAL) Project

COUNTRIES/REGIONS/TERRITORIES

Ghana, Kenya and Nigeria

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 8 Decent Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reduced Inequalities
- 12 Responsible Consumption and Production

SUPPORTED BY

French Development Agency (AFD), AfDB and Bank of Ghana

IMPLEMENTING ENTITIES

AGRA and Government of Ghana

PROJECT STATUS

Ongoing

PROJECT PERIOD

2018 — Ongoing

URL TO THE PRACTICE

<https://www.girsal.com/>



TOWARDS A SOLUTION

The Ghana Incentive-based Risk-sharing System for Agricultural Lending (GIRSAL) is designed to provide an effective framework for the Bank of Ghana to collaborate with commercial banks to lend at competitive interest rates to players in the agricultural value chain. With access to cash and credit, local farmers may be able to build on existing activities, increasing overall productivity while diversifying crops and livestock, increasing overall resilience. The System is set to be undertaken while giving banks and financial institutions their necessary assurance through a risk-sharing system that minimizes potential setbacks.

The Alliance for a Green Revolution in Africa (AGRA)¹ and the Government of Ghana designed an agriculture finance mechanism that operates in better conditions, uniting public investments and private capital to promote agricultural activities. With the intervention of the African Development Bank (AfDB), the GIRSAL project was developed, connecting both small and large producers with sources of capital that enable the boosting of production. This represents the advancement of a project led by an African NGO, an African Government and an African bank, with significant impacts on the improvement of the entire Ghanaian value chain. The GIRSAL instrument has six major pillars: (a) risk-sharing; (b) digital finance; (c) insurance; (d) technical assistance; (e) bank incentive mechanisms; and (f) a bank rating scheme.

AGRA has already implemented a similar mechanism in Nigeria that has been very instrumental in the development of the agriculture sector in that country. As part of a South-South effort to exchange experiences and apply sustainable solutions to common challenges, this successful endeavour is now being applied in Ghana as well. **With a focus on a set of specific value chains – horticulture, cereals, tree crops, poultry, roots and tubers, fisheries and livestock – the aim of the initiative is to use de-risking instruments and incentives/enablers to catalyse, through finance, producers, processors and marketers in agricultural activities.** In its early stages of implementation, the outcomes, in specific terms, have not yet been shared with the public; what may be inferred, however, is that access to economic resources has facilitated the struggle of local communities against poor infrastructure and services.

The ownership and sustainability of the project are enhanced by the roles that various stakeholders played during the formulation and preparation of the initiative. The Bank of Ghana chaired a systematic review, consultation and design process that has since resulted in the formation of the company running the initiative. It is anticipated that within three to five years of launch, GIRSAL will be able to fund itself using a combination of its fee income and drawdowns from its investment portfolio. This is a Southern-based practice that takes lessons from African countries that are more advanced and sophisticated in agriculture, such as Kenya, and in the finance and credit realms, such as Nigeria, and, with the help of a large-scale banking institution that has a Southern-led agenda, such as AfDB, applies them in the mitigation of economic risks for smallholder producers in a specific reality.

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¹ Based in Kenya, AGRA is a dynamic, African-led partnership working across the African continent to help millions of small-scale farmers and their families lift themselves out of poverty and hunger. AGRA programmes develop practical solutions to significantly boost farm productivity and incomes for the poor while safeguarding the environment.



Itaipu Binacional's Cultivating Good Water Programme

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Promoting water security in South America

CHALLENGE

Brazil's immense territory is extremely diversified, and water security is a primary concern for the Government's strategy for social development. Over 22 million people from Brazil's Northeast live with irregular rainfall and little to no supply of water; child malnutrition, agricultural devastation and livestock losses are some of the main issues faced by such populations. Although the Northeastern region is the area of primary concern in terms of aridness, the central-Western region is also affected by water mismanagement issues because extensive agriculture and livestock demand great quantities of hydric resources.



PROJECT NAME

Cultivating Good Water

COUNTRIES/REGIONS/TERRITORIES

Argentina, Brazil, Guatemala and Paraguay

SUSTAINABLE DEVELOPMENT GOAL(S)

- 2 Zero Hunger
- 3 Good Health and Well-Being
- 6 Clean Water and Sanitation
- 10 Reduced Inequalities
- 15 Life on Land

SUPPORTED BY

Government of Brazil

IMPLEMENTING ENTITIES

Government of Brazil and Itaipu Binacional

PROJECT STATUS

Completed

PROJECT PERIOD

2003 — 2017

URL TO THE PRACTICE

<https://www.itaipu.gov.br/meioambiente/cultivando-agua-boa>



TOWARDS A SOLUTION

The Itaipu Binacional¹ Cultivating Good Water Programme involved a collection of social and environmental initiatives led by the company but with the assistance of both governments and CSOs to improve the quality of life of local communities, especially those affected by the operations of the hydroelectric dam. Through a wide effort of awareness-raising, information and mobilization, the programme attempted to mitigate the environmental footprints of the dam, securing a water supply for rural communities in the surrounding areas. Among many other points, it emphasized environmental education, infrastructure efficiency, protection of biodiversity, family farming, organic agriculture, agroindustry diversification, sustainable pisciculture and natural-heritage conservation.

The PLAN-DO-CHECK-ACT cycle was applied in order for the programme to plan, execute, check/evaluate and act/correct so as to mitigate risks and ensure sustainability. There was a very strong educational action (formal, not formal, diffuse and “educommunication”) alongside the building of a culture of water conservation and sustainable practices. Emphasis was placed on connections of water with climate, society, energy production, food production and the environment. The involvement of communities and institutions was a major part of the methodology: all projects and watersheds had management teams comprised of social actors of the hydrographic basin area. The planning, execution, monitoring and evaluation of actions engaged the people to guarantee the sustainability of the programme.

Today, even though the programme is no longer running, its methodology and concepts are applied in several of the Itaipu social and environmental actions, reflecting a maturation in the management and implementation of actions in the territory, which currently comprises 55 municipalities (54 in West Paraná and one in Mato Grosso do Sul). Between 2003 and 2017, the project achieved many of its development goals, reaching over 29 municipalities and 200 hydrographic microbasins. Itaipu has a partnership with Spain and other Latin American countries to share the methodology with those Governments, promoting triangular and South-South cooperation efforts with countries in the region. While initial projects are being implemented in Guatemala, Itaipu has also partnered with Yacyretá Dam (Argentina and Paraguay Binacional) to help to implement a similar project in Paraguay.

The Itaipu Binacional initiative Cultivating Good Water was awarded the UN-Water “Water for Life” Best Practices Award in Category 1, “Best water management practices”, in 2015. The initiative was also recognized by United Nations Secretary-General Ban Ki-moon with the Earth Charter +5 award. The methodology of the project is already being used in other similar programmes, which emphasizes its sustainable and replicable character, its comprehensive and integrated systemic approach, broad participatory process, citizenship and shared responsibility, involving a very large network of partners in addition to local actors, whether economic, social, political, environmental or cultural.

CONTACT INFORMATION

NAME	Mr. Jorge Samek
TITLE	Former Brazilian Director, Itaipu Binacional

¹ Itaipu Binacional is a hydroelectric power company with a plant located on the border between Brazil and Paraguay. It is a leader in clean and renewable energy production. With 14,000 megawatts (MW) of installed capacity, the plant holds the world record for annual production with 103.1 million megawatt hours (MWh) generated in 2016. It is currently responsible for 19 per cent of the electricity consumed in Brazil and 86 per cent in Paraguay.





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