



Food and Agriculture
Organization of the
United Nations

INSPIRATION, INCLUSION AND INNOVATION

FAO-China South-South Cooperation Programme (2009-2019)

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INTRODUCTION

This brochure presents the achievements of ten years' close cooperation between the Food and Agriculture Organization of the United Nations (FAO) and the People's Republic of China (China) through the FAO—China South—South Cooperation (SSC) Programme. Between 2009 and 2019 China and FAO have

coordinated efforts, at country and global levels, to advance countries' capacities to achieve the Sustainable Development Goals (SDGs), in particular SDG 1: End poverty in all its forms everywhere, and SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

KEY ROLES

FAO:

- facilitating dialogue between governments, civil society and the private sector;
- providing a framework for cooperation between countries, institutions and international organizations;
- offering technical oversight and ensuring adherence to international standards;
- working through FAO's extensive country-level presence (FAO Representations);
- mobilizing third-party resources in triangular cooperation projects.

CHINA:

- deploying teams of experts and technicians in the field for long-term assignments at village level;
- implementing capacity development activities on the ground hand-in-hand with farmers;
- co-organizing study tours, high-level training courses, SSC Ministerial Fora, hosting SSC knowledge exchanges;
- supporting specific FAO technical programmes of global relevance for sustainable agriculture;
- providing funding through a Trust Fund aimed at leveraging partnerships and resources.



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The first ten years of the Programme were supported by a Chinese Trust Fund of USD 80 million catalysing successful SSC projects and stimulating private and public investment. Activities were selected based on regional and national priorities and initiatives (including Africa's Agenda 2063 and China's Belt and Road Initiative), and on the United Nations (UN) Buenos Aires Plan of Action for South-South Cooperation (BAPA) including recommendations made on its fortieth anniversary (BAPA+40).



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Through this Programme, hundreds of Chinese experts and technicians have been deployed at village level to work-hand-in-hand with farmers, introducing several hundred technological innovations; boosting smallholders' productivity, production and income; and sustainably improving their food security and livelihoods. Activities are based on the principles of learning by doing, and include farmer field schools in collaboration with national technicians. The Chinese teams share the villagers' day-to-day life, advancing knowledge transfer and adaptation of innovations to the local context.

WHY THIS PROGRAMME?

Because ...

- pooling, sharing and using technical and other resources promotes collective self-reliance among countries of the global South;
- greater awareness of common problems among countries and access to available knowledge fosters creativity;
- developing countries often act as incubators of home-grown technical and policy solutions;
- exchange of technical and policy solutions generates important multiplier effects that can have significant impact on the ground;
- China offers considerable development knowledge and low-cost, practical solutions that are relevant to South–South cooperation;
- sharing experiences between least-developed countries, landlocked countries, small island developing states, and countries most affected by climate change leads to synergies; and
- FAO, the UN and China recognize the potential contribution of SSC to achieve the SDGs.

South–South cooperation breaks the conventional dichotomy between donor and recipient countries because it is based on the following principles:

Principles of SSC



FAST FACTS

THE PROGRAMME'S FIRST TEN YEARS

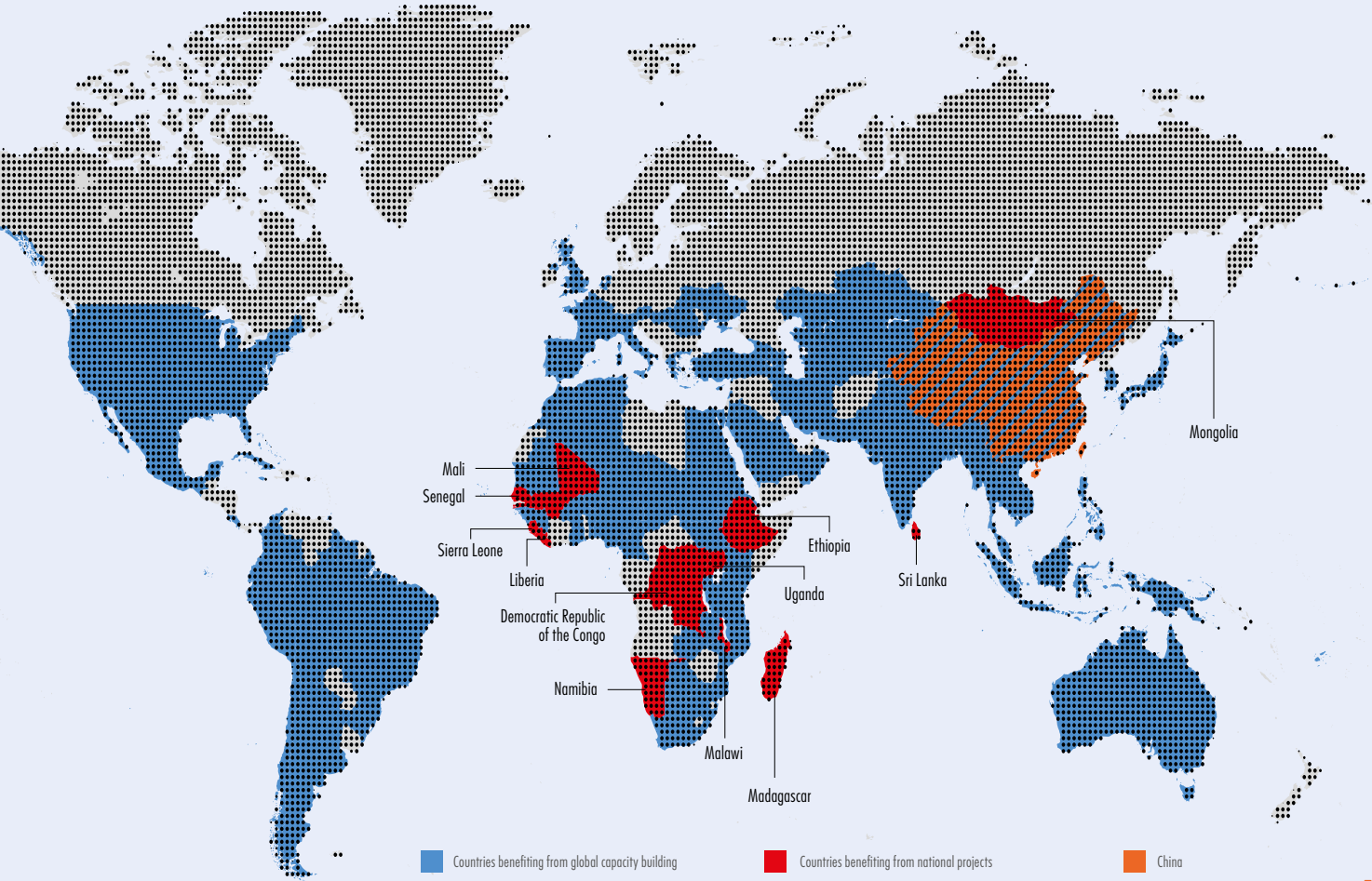
- ➔ More than **70 000** direct beneficiaries at grassroots level in rural areas, and several hundred thousand indirect beneficiaries.
- ➔ Hundreds of low-cost, scalable technological innovations adapted to the local environmental and socioeconomic context, including:
 - over **330** species and varieties
 - over **120** broad categories of plant and animal production practices
 - over **200** types of agricultural machinery and tools tested, demonstrated and introduced.
- ➔ **1 300** training events conducted in the field.
- ➔ **1 000** trainees from over **100** countries attended **48** high-level capacity development events (study tours, training courses, workshops, seminars, expert meetings, policy dialogues, symposiums and fora).
- ➔ More than **290** experts and technicians from China deployed in **12** countries (ten in sub-Saharan Africa, two in Asia), more than **240** of whom carried out two-year-long assignments at village level for hand-in-hand capacity development.
- ➔ Funding by China of **USD 80 million** supported the Programme's activities from 2009 to 2019.



The boundaries and names shown on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Adapted from United Nations (2019)

Countries involved in the FAO–China South–South Cooperation Programme



INSPIRATION, INCLUSION AND INNOVATION

The Programme's core values are inspiration, inclusion and innovation.



INSPIRATION

The Programme is an important source of inspiration for countries, development partners and farmers. It stimulates financial and technical support from developed countries and the participation of non-governmental partners, including the private sector, academia and non-governmental organizations. It encourages local and central government to engage in SSC, and facilitates entrepreneurship among farmers. It has created a new momentum for SSC in FAO and among its Members.

INSPIRING COUNTRIES:

CHINA, ETHIOPIA AND THE NETHERLANDS PARTNER WITH FAO TO DEVELOP AQUACULTURE SYSTEMS

This triangular cooperation agreement involves academia and the private sector, and focuses on:

- **launching** a pilot project in Ethiopia supporting sustainable aquaculture value chain development with engagement of the private sector;
- **upgrading** the capacity of two academic FAO Reference Centres in China;
- **involving** Wageningen University and Research Centre in the Netherlands;
- **generating** a study summarizing successful aquaculture policies and practices in China;
- **identifying** experiences that can be replicated in other developing countries;
- **servicing** an integral part of FAO's regional Blue Growth Initiative;
- **improving** the capacity of the aquaculture industry in both China and Ethiopia; and
- **promoting** the corporate social responsibility of the private sector.

INSPIRING A UGANDAN RICE FARMER TO INCREASE PRODUCTION

Robert Sageula lives with his family of ten in the Butaleja District of Uganda, a rice-planting area. With the support of SSC experts from China, and thanks to new varieties, inputs and planting practices, his paddy yield doubled to 4 tonnes per acre, and his milled rice yield more than doubled to 2.4 tonnes of milled rice per acre. Robert has now become a demonstration farmer in the region for farmer-to-farmer training (farmer field schools).



INCLUDING WOMEN

A Ugandan female dairy farmer received support from cooperants, who provided her with both technical advice and machinery to improve her production of silage. This allowed her to enhance the quality and quantity of her animal feed. As a result, the cows' improved nutrition led to a significant increase in their milk production, and the size of her herd grew significantly

as well. Thanks to the support of the Programme, this farmer went from selling 250 litres of milk a day to over 800 litres a day on average, representing a huge benefit to her livelihood. These results have been sustained and expanded since the cooperants left. She says that since the conclusion of the project, she has been able to keep growing her herd and business.

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INCLUSION

The Programme is eminently inclusive, involving stakeholders at all levels, based on the principle of “leaving no one behind”. It embraces farmers, women, rural youth, governmental and non-governmental partners, as well as least developed countries, small island states and landlocked countries.

INCLUDING RURAL YOUTH

A young Mongolian farmworker, along with several of his peers, found decent employment opportunities in his parents' village on the outskirts of Ulaanbaatar, thanks to a greenhouse farming company supported by the Programme. In this village, the Programme was promoting horticulture production in greenhouses suited to the harsh climate of Mongolia, which allow the vegetable growing season to be extended by several months. He received training from the cooperants in the cultivation of vegetables, the construction of passive solar greenhouses, and integrated pest management. This young farmworker offered high praise for the quality of the training he received and now dreams to establish his own farm.



INNOVATION

The Programme is an engine for innovation at multiple levels, generating new approaches to sustainable development, new technical assistance methods, new business models and new SSC policies and approaches to cooperation.

INNOVATING THROUGH APPROACHES TO SOUTH-SOUTH COOPERATION

Examples of innovative practices include:

- supporting the formation of dedicated governmental SSC offices, services or centres at country level;
- supporting FAO's engagement in joint projects at country level with the World Food Programme (WFP) and International Fund for Agricultural Development (IFAD) (e.g. in Sri Lanka with WFP);
- promoting developed countries' and academia's engagement in SSC through triangular cooperation (e.g. Germany, Netherlands);
- boosting value chain development by raising capacities of the private sector (e.g. Mongolia) and involving academia (e.g. Ethiopia);
- promoting agricultural cooperation parks and technology hubs that attract private investment (e.g. Uganda).

INNOVATING THROUGH SOUTH–SOUTH COOPERATION POLICY: CHANGSHA MINISTERIAL MEETING AND DECLARATION

In 2018, over 200 representatives of 30 developing countries and 12 international organizations, and the heads of the three UN Rome-based Agencies (FAO, IFAD and WFP), gathered in Changsha, China to attend the Ministerial Level Forum on Global SSC in Agriculture, supported by the Programme.

The objective was to discuss paths to increase SSC and promote it as a vital instrument to achieve the SDGs, specifically SDG 1: End poverty in all its forms everywhere; and SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

The outcome was the Changsha Declaration, which defined clear ways to include SSC principles in national policies and programmes, and provided global-level recommendations for the next steps for SSC. These highlighted the need to enhance SSC connectivity and global partnership; to empower SSC under UN coordinated efforts; and to enhance financial support and investment to promote SSC partnerships.



GLOBAL CAPACITY BUILDING



With national, regional, interregional and global projects, the Programme has benefited almost 1 000 trainees from over 100 countries through 48 high-level training events and study tours. Beyond technical capacity building, these activities also cover capacity building in policy and strategic issues.

TECHNOLOGICAL TRAINING – examples:

- hybrid rice cultivation in African and Asian countries
- rice value-chain technical improvement
- cassava production and processing
- aqua-seed and aqua-feed production
- biogas technology
- animal waste treatment and utilization
- tropical agriculture practices
- market information systems
- agricultural heritage site management
- digital technology in agriculture

POLICY TRAINING – examples:

- South–South cooperation – background, history, mechanisms
- trade and access to finance
- China’s agricultural policy
- innovative policies for food systems
- responsible aquaculture and fisheries
- policies for rice value-chains in sub-Saharan Africa
- market access for aquatic/fisheries products
- biogas in the animal industry to mitigate greenhouse gases
- pesticide risk management
- smart energy for food security





SUPPORTING GLOBAL PROGRAMMES

AGRICULTURAL HERITAGE

FAO's Globally Important Agricultural Heritage Systems programme (GIAHS) contributes to both food security and sustainable agricultural/rural development. It does so by safeguarding *in situ* unique agrobiodiversity resources, protecting remarkable heritage sites, conserving their ecosystems and visual landscapes, and maintaining their traditional knowledge and cultural heritage.

Thanks to the FAO–China collaboration, the number of GIAHS sites and countries that host such sites substantially increased over 2015–2018 by 18 new sites and six new countries. There are currently 52 GIAHS sites in 21 countries around the world, and 44 applicants are under examination. The FAO heritage sites portfolio now embraces North America and Europe, in addition to Asia, Africa and the Near East/North Africa. The GIAHS sites often provide reference points for changing paradigms in policy making at local and national levels.

PLANT PROTECTION

The Programme supports the International Plant Protection Convention (IPPC) by reinforcing capacity in developing countries. Through regional workshops, it has trained over 300 representatives from over 100 IPPC Contracting Parties, who are now able to fulfil their National Reporting Obligations more effectively.

Plant protection is a key area for improving agricultural production and trade. Each year, 20–40 percent of global crop production is lost to pests, and exports by developing countries are hampered by technical barriers to trade, including international phytosanitary standards. The Programme advances the integration of developing countries into the global market, while fostering more sustainable plant protection through training and guidance for improving the capacities of National Plant Protection Organizations.

TECHNOLOGICAL IMPACT

The Programme has a broad and multifaceted technological impact at local level through both national and global capacity development projects.

National projects directly benefited more than 70 000 farmers and small-scale producers in 12 host countries over ten years.

Ten of these countries are from sub-Saharan Africa (Democratic Republic of the Congo, Ethiopia, Liberia, Madagascar, Malawi, Mali, Namibia, Senegal, Sierra Leone and Uganda) and two from Asia (Mongolia, and Sri Lanka). Farmers from these host countries had access to demonstrations concerning **several hundred low-cost, scalable technologies** adapted to local environmental and socioeconomic circumstances.

Global capacity development projects organized 48 training events/study tours, directly benefiting nearly 1 000 participants from more than 100 countries over ten years.

Trainees are encouraged to share what they have learned through their networks, SSC platforms and other peer-to-peer mechanisms. **The Programme's impact is expanding and contributes to increasing production, productivity, incomes and sustainable livelihoods at the local level.**

UGANDA: SUPPORTING AGRICULTURAL DEVELOPMENT POLICY IMPLEMENTATION BY PARTNERING WITH THE PRIVATE SECTOR

The second phase of the FAO–China SSC project in Uganda was rolled out from 2016 to 2018 to support implementation of the country's Agricultural Sector Strategic Plan (2015–2020).

Seven agricultural technology demonstration hubs were established throughout the country, showcasing effective technologies in horticulture, livestock, cereals, aquaculture, renewable energy, agro-machinery value addition, and sustainable business models. Over 3 000 farmers and 80 extension staff members were trained. In addition, three capacity-development study tours for policy and technical staff were conducted in China.

In addition, significant private investments are enabling the development of a China–Uganda Agricultural Cooperation Industrial Park across multiple districts of Uganda, as a means to help transform the country's agriculture towards more commercial patterns of production. Five private enterprises from China's Sichuan Province have invested in the park and its three centres: an Agricultural Production Technology Incubation Centre, an Agricultural Products Processing and Trade Centre, and an Agricultural Industry Cooperation Centre.

The programme's technological impact encompasses genetic resources, crop production and plant protection, animal husbandry and health, innovative production techniques and sustainable management of natural resources, fisheries and aquaculture, horticulture and beekeeping, as well as mechanization, rural energy and post-harvest techniques.

In order to sustain the project's outcomes and to promote corporate social responsibility of private companies and other stakeholders, training courses for staff were held in the areas of gender, environment, human rights, and technological and economic sustainability.

The Park will provide up to 100 000 jobs, driving 1 million people to increase their incomes, thanks to a 2015–2022 investment plan totalling more than USD 220 million. It promotes mechanization of rice planting, and access to improved crop varieties and agricultural materials. It provides free technical advice services to small producers and facilitates stable

cooperative relationships among farmers, building bridges between farmers and markets.

Thanks to the project's capacity development activities and the establishment of trade and investment links, producers are able to sustainably increase their production. The project is an example of win–win–win experience where seed funding provided by the Programme has been a catalyst for leveraging very high levels of private and public investment; contributing to the government's policy implementation; and enhancing farmers' access to technologies, markets and advisory services, and thus enhanced income and employment opportunities.

SIERRA LEONE: BUILDING ON CHINESE EXPERTISE TO ACCESS NEW TECHNOLOGIES

In Sierra Leone, the Programme introduced 68 new agricultural techniques, 56 new crop varieties and 35 types of equipment and tools to enhance agricultural production. Examples include:

- introducing virus-free potato-planting technologies;
- improving livestock farming by introducing the production of corn as animal feed;
- raising rice yields from 0.9 to 2.1 tonnes per hectare by using a Chinese hybrid rice variety along with animal waste fertilizer;
- achieving three crops per year on the same plot in vegetable cultivation.

MONGOLIA: BOOSTING PRODUCTIVITY, VALUE CHAIN DEVELOPMENT AND MARKETS

In Mongolia, increasingly unpredictable weather conditions affect crop production, dietary diversity and nutrition. Limited technical capacity hampers the country's ability to improve agricultural production. The Programme has helped to address this gap through Chinese experts travelling to Mongolia to share their knowledge in animal husbandry, crop production, food safety and trade.

During Phase I, the transferred knowledge was significantly adopted at local level, supporting national and household food security as well as agricultural intensification. Phase II expanded the use of Phase I technologies and deployed additional Chinese experts tasked with introducing:

- horticulture – new cultivation technologies and new varieties, and highly successful greenhouses adapted to Mongolia's climate;
- livestock – artificial insemination and embryo transfer;
- animal feed production – new varieties of annual and perennial fodder crops, and silage-making technology;
- beekeeping – technology and practices for queen bee rearing and the management of bee colonies;
- aquaculture – design of an artificial pond and research on suitable species for fish breeding.



OVERALL OUTCOMES AND IMPACT

- **Fight against hunger in rural households**

Improvement is driven by the introduction of advanced agricultural knowledge through hand-in-hand demonstration, directly benefiting small-scale family farmers, herders and fishers.

- **Livelihoods and incomes**

The involvement of non-farmer actors – the private sector – creates an environment conducive to boosting market access and job opportunities, advancing the local village economy as well as links with national markets.

- **Value chains and structural transformation of sustainable agriculture**

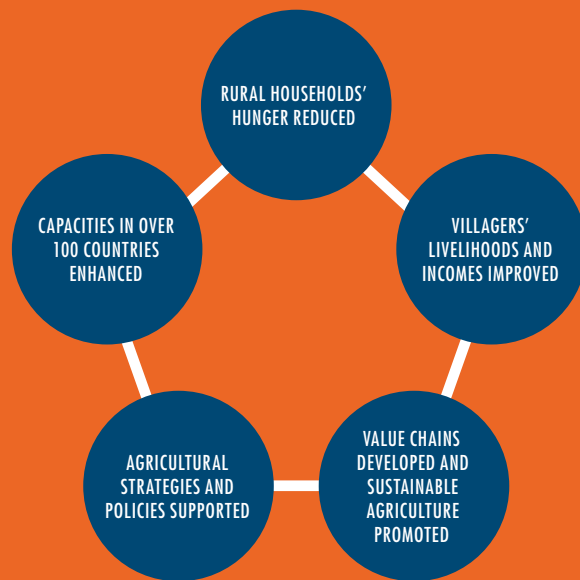
Projects address issues such as technical barriers to trade, plant and animal health, resilience of smallholders' production to climate change, agricultural biodiversity and heritage, among others.

- **Agricultural development strategies and policies**

The Programme supports the implementation of national policies, and contributes to enabling policy environments that are favourable for improved governance of agriculture and food systems.

- **Capacity development**

As a cross-cutting feature of all its activities, the Programme makes a major contribution to the capacity development of farmers, officials and representatives of the private sector, academia and non-governmental organizations.



ALL OF THE PROGRAMME'S CONTRIBUTIONS FULLY SUPPORT SDG 2: END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE.

WAY FORWARD

The Programme will improve its collaboration with national and regional frameworks, as well as its partnerships with non-governmental stakeholders, with an emphasis on the private sector and facilitating win-win partnerships between national and foreign investors.

In the context of the 2030 Agenda, it aims to sustainably improve the production and income of small-scale farmers, herders and fishers by enabling them to access both markets and technologies, including digital technologies.

“Having different strengths in agricultural resources, technology and market development, Southern countries can complement each other and achieve common development”

QU Dongyu, Director-General
Food and Agriculture Organization of the United Nations





South–South Cooperation is the mutual sharing and exchange of development solutions between developing countries, including knowledge, experiences and good practices, policies, technology and resources.

This brochure presents the achievements of ten years' close cooperation between FAO and China for the promotion of South–South cooperation. Over 2009–2019, China and FAO have coordinated efforts at country and global levels to advance developing countries' capacities to achieve the Sustainable Development Goals of the 2030 Agenda through a special agreement and the FAO–China SSC Programme.

Hundreds of Chinese experts and technicians were deployed at village level to work hand-in-hand with farmers, introducing hundreds of technological innovations, boosting their productivity, production and income, and sustainably improving their food security and livelihoods.

The brochure highlights how developing countries can inspire and support each other in overcoming their development challenges. It shows how the Programme's first ten years have promoted inclusive partnerships with different actors, including the private sector, academia, civil society and the Rome-based UN agencies.



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