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Ensuring global food security in partnership with the G7 and international organizations

Japan has been an active participant in ongoing discussions on global food security at summits and ministerial level meetings of the G7, G20, etc.

Japan is committed to building partnerships within and outside the framework of the Global Alliance for Food Security (GAFS) to overcome the global food security crisis triggered by Russia's invasion of Ukraine in 2022.



Taking part in an international discussion on food security



Food and other essentials delivered to Ukraine



02

Dispatch of MAFF staff as experts

MAFF staff are dispatched to different countries as JICA experts to impart their expertise in “policymaking” and “human-resource development” towards reducing reliance on imported food, etc.

【Senegal】

Giving advice towards expanding rice acreage and production while promoting and disseminating market-oriented agriculture and farming as a business.

【Ethiopia】

Helping to enhance rice productivity through seed quality improvement, the adoption of farming equipment, etc. while facilitating information exchanges among stakeholders, including private enterprises, and working to solve issues issues they face in common.

【Democratic Republic of the Congo】

The Congo Basin is facing severe threats of deforestation and forest degradation due to the expansion of farmland, fuelwood production, and other consequences of rapid population growth. To counter the threats, Japan is supporting the capacity development of the DRC Government in the formulation and implementation of climate change policies, including sustainable forest management and REDD+ processes.



Gathering information related to a new project
(Senegal)



Demonstrating the use of a solar pump in rice
irrigation (Ethiopia)



03

Adoption of e-farming

Japan has been empowering smallholder farmer groups in rural Africa (Senegal and Mozambique) by building a digital platform for smartphones and other devices that enables them to collect market information and regulate sales electronically. The new platform, combined with the use of Japanese products and services, strengthens FVCs and increases the productivity and income of the farmer groups.



Adopting a smartphone-based system



Building FVCs linked to Japanese products



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Strengthening FVCs in partnership with international organizations

Africa Rice Center (AfricaRice), with assistance from MAFF, aims to grow rice varieties that match imported varieties in quality and market value by developing high-quality, high-nutrition rice breeds through the crossing of various genetic materials from Asian and African rice. The rice can be cultivated by a newly developed low environmental-impact farming method using inexpensive fertilizer co-products from Ajinomoto (a manufacturer of amino acid seasoning) and provided as an affordable staple food containing protein and trace minerals (iron, zinc, etc.), nutrients that are often deficient in African diets.



Measuring trace nutrients at a research
partner institution, University of Giessen
(Germany)



Cross breeding elite lines of rice



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Strengthening FVCs in partnership with international organizations



Selecting yam lines with high polyphenol content, etc.



Nutrition and livelihood improvement through the use of locally grown crops

Financial assistance from MAFF has enabled the International Institute of Tropical Agriculture (IITA) to develop more productive farming techniques by selecting breeding materials for fortifying yams and studying the use of plant growth-promoting microbes.

IITA is developing breeding materials and techniques to enhance the nutritional value of black-eyed peas, including a simple method for assessing the blood-pressure-lowering effect of folic acid and ACE inhibitors. New lines of black-eyed peas with higher protein and polyphenol content are also being selected.

Japan is also funding projects by Biodiversity International to improve the nutrition and livelihood of Africans by developing ICT-based nutrition evaluation tools, etc. and promoting the use of locally grown crops.



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Strengthening FVCs in partnership with international organizations



"Fallow Band System" to control
desertification while improving crop
production



Black-eyed peas damaged by drought in
degraded soil

Soil degradation is becoming a threat to food and nutrition security in arid Africa, as it not only reduces agricultural yields, but also exacerbates poor harvests in times of drought.

Japan International Research Center for Agricultural Sciences (JIRCAS), in collaboration with research institutions in Burkina Faso, is developing soil conservation techniques and crop management methods that can be practicably used by smallholder farmers to mitigate the risk of drought.



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Development of sustainable agriculture and food systems



Five themes discussed at the Food Systems Summit

The UN Food Systems Summit held on September 23, 2021 was the first high-level international conference to address the sustainability of food systems as a global challenge and to explore how food systems should be transformed for a better future.

Recognizing that there is no one-size-fits-all solution, Japan stresses the importance of customizing appropriate approaches to locally specific agroecological and socio-economic conditions.



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Promotion of agriculture adapted to climate change

The development of irrigation systems and other agricultural infrastructure is becoming essential to farming adapted to climate change.

In addition to building facilities, the proper management of water and equipment is also vital to the sustainability of irrigation farming.

Since rice cultivation has not progressed as planned in some African communities where irrigation facilities have been constructed, efforts are being made to expand the planted acreage by optimizing water use.



Water Management Cooperatives are established to engage stakeholders



Verifying the effectiveness of leakage protection and other measures for increasing rice acreage



09

Promotion of agriculture adapted to climate change

JIRCAS is developing ruminant livestock feeding techniques for smallholder farmers in Africa to improve their productivity and resilience.

JIRCAS has been experimenting with various lactobacillus strains that can facilitate silage fermentation in tropical or other climatic conditions. Findings from these experiments will be shared with R&D labs, universities, etc. in various parts of Africa, and promising strains will be tested on locally available feed materials towards practical applications.



Preparation of silage



Ruminant livestock



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Promotion of agriculture adapted to climate change

JIRCAS and Institute of Environment and Agricultural Research (INERA) of Burkina Faso have confirmed that a prototype phosphate fertilizer has fertilizing effects comparable to an imported phosphate fertilizer. A method to produce the fertilizer domestically has been established.

We plan to propose a comprehensive set of methods for the optimum use of limited phosphate resources, including methods to directly use unprocessed phosphate rocks, in the expectation that our research findings will be used in other African countries blessed with phosphate resources.



Outcrop of phosphate ore – a national treasure



Handover ceremony for fertilizer production equipment



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Sustainable Forest Management

JICA's technical cooperation projects and other activities to promote forest conservation, develop human resources, research reforestation technologies, etc. are supporting sustainable forest management in Africa.

As the providers of ongoing funding to the International Tropical Timber Organization (ITTO), Japan and partner countries are supporting HR development towards the establishment and monitoring of standards and indices for sustainable forest management and the development of legal and sustainable timber supply chains in Africa.



JICA's project for the development of
drought-tolerant trees in Kenya



Training as part of ITTO's HR development
project in Congo basin countries



Initiatives for Business Expansion,
Nutritional Improvement, etc. in Africa

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Nutritional improvement



MAFF's side event at Tokyo N4G
2021



E-learning course released by FAO

MAFF organized a side event to introduce Japan's nutrition-related initiatives at the Tokyo Nutrition for Growth (N4G) Summit 2021 hosted by the Japanese Government in December 2021. To culminate the event, MAFF compiled a specific “action plan” for food-related actors towards achieving the targets of the Tokyo Compact on Global Nutrition for Growth.

MAFF is working through the UN Food and Agriculture Organization (FAO) to conduct training and support the development of e-learning courses related to hygiene management in food manufacturing, the marketing of foods with higher nutritional value, etc. for SMEs in developing countries.



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Nutritional improvement

MAFF is working through the Nutrition Japan Public Private Platform (NJPPP) to support the initiatives of Japanese companies for improving nutrition in developing countries.

NJPPP is harnessing Japan's technologies and expertise to promote food-related businesses while developing a sustainable business model for improving the nutrition of people in developing and emerging countries.

The participants at TICAD7 agreed to establish the Japan Business Council for Africa, a public-private platform through which member companies are building foundations for improving diet and nutrition for children, the shapers of Africa's future, by preventing the stunting of infants and improving and stabilizing the incomes of smallholder farmers in Africa.



Prevention of stunting of infants
Through the diffusion of KOKO Plus (nutritional
supplement) (The Ajinomoto Foundation)



Procurement of sesame seeds and the
improvement of community livelihoods using
an ODA framework (ITOCHU Corporation)



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Nutritional improvement

MAFF has been implementing projects related to rice cultivation in West Africa in collaboration with the UN World Food Programme (WFP) since 1998. In projects launched in Sierra Leone from 2017, MAFF has been harnessing WFP's aid experience, knowledge of nutritional improvement, local networks, etc. to conduct educational campaigns focused on basic knowledge on nutrition and to help smallholder farmers raise their incomes.



Lecture on rice cultivation



Farmers growing rice and vegetables



Initiatives for Business Expansion,
Nutritional Improvement, etc. in Africa

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Business expansion

Transporting fresh seafood to Japanese

(a cold chain between Kenya/Tanzania and Uganda)



A seminar on preserving freshness



Sushi served in an inland country

Business feasibility is studied and assessed through
MAFF-subsidized projects focused on growth in Africa.

In Tanzania, a country with a high fisheries potential, we have
been promoting the development of a cold chain of fresh
seafood based on freezing equipment at a fisheries port by
providing training on Japanese fishing and processing
techniques and supporting the transport of fresh catches to
Japanese restaurants in Uganda, an inland neighbor.