ENHANCING AGRICULTURE & ENDING POVERTY

IFPRI AND JAPAN
JAPAN’S COMMITMENT TO HUMAN SECURITY AND QUALITY GROWTH CONTRIBUTES TO GLOBAL POVERTY REDUCTION, AGRICULTURAL AND RURAL DEVELOPMENT, AND IMPROVEMENTS IN HUMAN HEALTH AND NUTRITION. The International Food Policy Research Institute (IFPRI) works toward these same goals by providing research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition. For more than 30 years, Japan has partnered with IFPRI in Africa and Asia, providing support for areas of shared concern—from agricultural modernization to capacity strengthening to nutrition. Evidence from IFPRI research, which has benefited from long-term Japanese support, has influenced policies in the countries of research and informed Japan’s investments in development. This brochure highlights the achievements of our partnership.

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- **YUJIRO HAYAMI**, School of International Politics, Aoyama Gakuin University: 1988–1994
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SETTING THE RIGHT INVESTMENT PRIORITIES

PUBLIC INVESTMENT IN AGRICULTURE AND IN RURAL AREAS PLAYS A PIVOTAL ROLE IN INCREASING PRODUCTIVITY AND REDUCING POVERTY. Setting the right investment priorities can ensure the greatest impact.

Supported by Japan and other funders, IFPRI conducted pathbreaking work in the late 1990s in India and China. In India, IFPRI showed that national- and state-level investments in agricultural research and development, education, and rural roads had by far the greatest productivity returns among an array of rural investments as well as the strongest impacts on poverty alleviation. In China, this work pointed to the substantial win-win benefits of national investments in rural roads, agricultural research and development, and rural education. These results contributed to a massive rural road construction program in India and increased agricultural investment in China that lifted at least 24 million out of poverty.
GETTING AGRICULTURE MOVING

IN MANY DEVELOPING COUNTRIES, A MAJORITY OF THE POPULATION IS ENGAGED IN AGRICULTURE. Reducing poverty and food insecurity for smallholders requires better access to time-saving technologies, inputs, and markets that are essential to getting agriculture moving.

In Nigeria, IFPRI's research has shown that the government can more effectively promote private-sector tractor hiring services by supporting competitive hiring-service markets rather than supporting particular service providers or specific types of machinery. A related agricultural study tour, organized by IFPRI, took officials from Nigeria, as well as Ethiopia, Ghana, and Kenya, to Bangladesh to learn about the economic potential of small tractors (even two-wheelers) in smallholder farming. Using lessons from the tour, the Nigerian government is designing service centers that will aim to encourage small-tractor use. Related IFPRI research in Nepal and Ghana demonstrated that mechanization directly increases economies of scale in agriculture, providing evidence for policies that support both farm expansion made possible by mechanization and off-farm employment for people transitioning away from farming. This work also highlighted the importance of alternative policies for smallholders who lack options for leaving farming.
IFPRI research on fertilizer policies in Nigeria found that pre-2012 subsidy programs hurt commercial fertilizer sales, had limited impact on overall fertilizer use, and did little to reduce high food prices. This evidence indirectly supported the government’s reform of the fertilizer subsidy program, which shifted from arbitrary selection of subsidy recipients to a more transparent process. IFPRI’s work on smallholder coping mechanisms for climate- and market-related risks informed both the Nigerian government and the World Bank, likely encouraging investments in Nigeria’s Third National Fadama Development Programme—a program designed to increase farmers’ incomes and sustainability of water-resource use.

Research on the impacts of large irrigation dams in Nigeria, which showed greater drought-mitigation benefits for downstream drainage basins than for upstream drainage basins, may inform the government’s dam construction and rehabilitation strategies.

Research on varietal development in Nigeria found that plant-breeding not only increases productivity but even raises demand for mechanization in areas with agroecological conditions similar to those where the major crop-breeding institutes are located, regardless of distance. These findings are expected to inform Nigeria’s Agricultural Research Council as it reforms the country’s agricultural research and development system.

IFPRI’s research in Nigeria, funded by the Japanese Ministry of Foreign Affairs and other contributors, has been widely disseminated. The work on mechanization has been highlighted in regional policy dialogues, including an FAO report on mechanization in Africa, the African Transformation Report 2017, and the South-South knowledge-sharing conference on agricultural mechanization, held in Ethiopia in 2017. The report from this conference was recently used by the Agricultural Mechanization Forum in Ethiopia to prepare a technical brief that makes specific recommendations for Ethiopia.
INVESTING IN PEOPLE

HELPING PEOPLE MOVE OUT OF POVERTY REQUIRES INVESTMENTS IN CHILDHOOD NUTRITION, EDUCATION, AND ECONOMIC OPPORTUNITIES. These investments in building human capital are essential to rural development and better livelihoods.

In post-apartheid South Africa, investing in people’s development and capacity has been a priority. IFPRI research, funded by the Japanese Ministry of Foreign Affairs and other contributors, examined a broad set of issues affecting opportunities for South Africa’s poor. Results showed that, despite government efforts to improve access to education, racial disparities in school quality remained and that disparities in economic opportunities and public services, including access to high-quality education, reflected racial segregation in residential areas. The research also confirmed that access to health services determined nutrition outcomes in early childhood, which in turn affect long-term human potential. In addition, child schooling and the labor supply in South Africa suffered due to excess mortality among prime-age adults caused by HIV/AIDS.
South Africa’s government was informed through academic networks and policy working groups about the research results on child nutrition, AIDS-related mortality, and inequality in educational opportunities. IFPRI’s collaborative efforts with the University of KwaZulu-Natal on this study contributed to the launch of a national poverty-monitoring system.

Work in the Philippines funded by the Japan International Cooperation Agency (JICA) evaluated the government’s Third Elementary Education Project (TEEP), the country’s largest-ever school intervention. IFPRI’s evaluation pointed to positive short-term impacts of TEEP on academic performance and long-term impacts on labor market outcomes. Notably, female students benefited from the intervention more than male students, especially in terms of their eventual earnings. With these results, policy makers and researchers involved in education policy, including the Department of Education, began to consider gender differences in policy making.

In Indonesia, with support from JICA, IFPRI collected data through a household panel survey of rural communities to understand the roles played by infrastructure and public services in rural development. The survey, which was carried out in 98 villages in 7 provinces, provided detailed information on rural livelihoods over time. IFPRI analysis of this data demonstrated the importance of rural roads in increasing incomes, the adverse impacts of the food-price crisis on child growth, the role of labor shortages and mechanization in increasing the advantage of large farms, and the impact of seasonal fluctuations in rice prices on birthweights. The extensive research findings informed government policy making.
Japan is supporting current IFPRI work on agriculture and nutrition, agricultural productivity, and agricultural mechanization:

○ **AGRICULTURE-NUTRITION LINKAGES.** This study is generating evidence on the nutritional impacts of improving household food production in Tajikistan and Nigeria through research and development, particularly in areas with limited access to markets.

○ **AGRICULTURAL PRODUCTIVITY AND THE GROWTH OF NONFARM ECONOMIES.** Research in Nigeria is showing that higher agricultural productivity stimulates the growth of nonfarm economies and earnings, particularly in agriculture-related activities, such as trading of agricultural commodities and manufacturing of food items, and raises employment in both farming and nonfarm activities.

○ **AGRICULTURAL MECHANIZATION.** IFPRI researchers are exploring the role of agricultural mechanization in promoting agricultural diversification and boosting resilience in Nigeria and Ghana. A comparative study documenting the experience of several Asian and African countries in expanding mechanization is being prepared for publication, with the aim of informing national policies in Africa.

**WE LOOK FORWARD TO CONTINUING OUR COLLABORATIVE WORK WITH JAPAN TO SUPPORT RURAL DEVELOPMENT AND ENSURE FOOD SECURITY AND NUTRITION FOR ALL.**