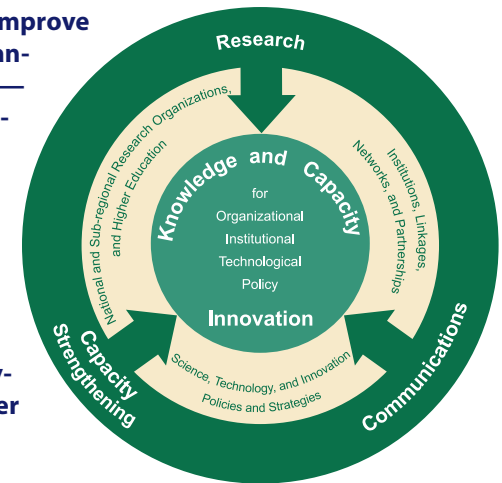




Developing Knowledge and Capacity for Innovation in Food and Agriculture

Knowledge, Capacity, and Innovation Division (KCID)

The Knowledge, Capacity, and Innovation Division (formerly ISNAR) works to improve the functioning of food and agriculture systems by facilitating knowledge management—the creation, accumulation, sharing, and utilization of knowledge—and developing the capacity for innovation by all actors along the food and agriculture value chain. Fostering innovation means investing in agricultural science and technology, research and extension, education and training, and farmer organizations and other local institutions. The division strengthens the capacity of organizations and individuals involved in generating and disseminating new knowledge, producing the next cadre of actors in the food and agriculture value chain, and organizing the creation and marketing of agricultural products. In combination with indigenous knowledge, new findings, and technology, the division uses appropriate institutional and policy arrangements to promote increased productivity and competitiveness of agriculture and to improve the livelihoods of smallholder operators in rural areas of developing countries.



Now, more than ever, knowledge management is a key factor in development, and this trend is likely to increase. In the twenty-first century, knowledge accumulation and application will drive development processes forward. Knowledge management should permeate all activities in the food and agriculture value chain to increase the technical and economic efficiency of agricultural systems. Research and development (R&D) organizations often fail to achieve their goals because they have not embraced knowledge management concepts. The reasons for this failure are manifold. Some governments do not place enough emphasis on agricultural research and development and, as a result, economic growth and poverty reduction stagnate. Other countries suffer from weak institutional capacities because they have been beset by political and other crises or outmoded customs and practices. Policy and institutional innovations are required to generate, accumulate, and disseminate technology and information and to ensure that they are used to find solutions in food and agriculture systems.

KCID maintains a global focus. For its work on the organization and management of knowledge, innovation, and science systems, it places a particular emphasis on Sub-Saharan Africa, given the region's paramount need for more effective institutions.



FOCUS

KCID's work falls broadly under two IFPRI research themes: (1) food- and nutrition-related science and technology policies and innovations that serve poor people and (2) capacity strengthening. The four specific areas of work are

- agricultural science, technology, and innovation policy;
- institutional change in agricultural innovation systems;
- organization and management for strengthening agricultural research; and
- learning and capacity strengthening.

Farmers face environmental risks and climate-related and other shocks that threaten their livelihoods. Conventional knowledge is not enough to help them

cope. Scientific innovations can help mitigate these threats, but they must be generated, adapted to local conditions, and adopted by farmers. The social and economic impacts of new scientific knowledge and technology depend on the science, technology, innovation policy, and investment choices made by individual countries. Many developing countries, however, do not give science and technology the attention they deserve and therefore do not benefit from their full potential. Investment in agricultural R&D is less than 1 percent of agricultural gross domestic product in most developing countries, compared with more than 2 percent in the developed world. When decisionmakers in developing countries are aware of the huge potential of R&D, they are in a better position to implement public policies and

strategies that can improve the funding, performance, and impact of public and private agricultural R&D for poverty reduction and environmental sustainability.

Under the Agricultural Science and Technology Indicators (ASTI) initiative, KCID collects data on investments in resources and national policies regarding agricultural R&D while examining the factors that inhibit or enhance the performance of agricultural science and technology in developing countries. It gives specific attention to changes and trends in science and technology policy so that policymakers, researchers, and other actors can observe and compare different countries, types of actors, and points in time in order to determine strategic options. The user-friendly data-mapping tool on ASTI's website facilitates such observations (www.asti.cgiar.org).

The extent to which countries invest in R&D and use the output in the innovation process depends on the type of policy being pursued. The policy may promote or hinder the generation and effective dissemination of technologies for innovations in food and agriculture. KCID focuses on pluralistic arrangements for funding and delivering research, extension, and inputs in the most efficient and effective way. Agricultural innovation takes place in dynamic technological, economic, socio-political, and institutional environments. Many times the absence of appropriate civil society organizations, rules, and regulations or the presence of outdated customs, traditions, and practices constrains the innovation process. The division studies institutional changes that promote or impede innovations in food and agriculture. KCID experiments with effective ways of bringing suitable technologies to final users by involving all users in the innovation platform. The division supports national research and extension organizations, institutes of higher education, farmer organizations, and public, private, and nonprofit input and output distribution enterprises in order to manage their organizations efficiently and influentially.

APPROACH

KCID uses best approaches in research, capacity strengthening, and communications to achieve the highest possible impact in implementing its agenda. Research projects collaborate extensively with national and regional partners, follow action-research paradigms, and employ both qualitative and quantitative methods. Capacity-strengthening and communication activities emphasize learning, knowledge, and information sharing for skills development at various levels: global, national, regional, and local.

Research

KCID's research aims to facilitate pro-poor innovation through dissemination and adoption of agriculture-related technologies for the reduction of hunger and poverty. The division generates evidence-based, policy-relevant, and practical knowledge; disseminates that knowledge; and engages in capacity development (education, training, networking, and institutional support) to help improve innovation in food and agriculture. Research programs generate information for various levels of decisionmaking:

1. To better understand the processes of innovation, researchers collect information from farmers and other actors in the food systems, paying attention to sociocultural, legal, political, and economic factors that affect the creation and dissemination of knowledge.
2. Research undertaken at the organizational level helps organizations strengthen their innovativeness and become more efficient—for example, by setting more coherent priorities; planning more effective programs; helping establish participatory monitoring and evaluation plans for learning; and improving participation, networking, and partnerships.
3. Research at the systems level focuses on policies and institutions that enable improved coordination and stronger national interaction among the various drivers of innovation.
4. Research on learning and capacity strengthening provides information on capacity needs and improved pedagogical methods to effectively teach different groups in the food and agriculture system.

Capacity Strengthening

Strengthening capacity to innovate contributes to agricultural growth, poverty reduction, and economic development. As a global leader in food policy research, IFPRI plays a key role in strengthening capacity for policy research and analysis. IFPRI has consolidated its capacity-strengthening program under KCID in order to more effectively promote learning and achieve its mission. The division liaises with other IFPRI divisions, national agricultural research systems, and centers in the Consultative Group on International Agricultural Research (CGIAR).

Capacity strengthening activities involve learning activities, distance-education programs, open-education resources, learning modules, and networks or linkages that support higher education and other organizations engaged in agricultural innovation. Capacity strengthening is demand driven and delivered through reusable learning materials. Through the develop-

ment of the Agricultural Open Curriculum and Learning Initiative (AGROCURI), the division hosts a CGIAR-wide distance-learning program for supporting MSc-level courses in agriculture that traditional and open universities in the developing world offer and for specialized courses that improve the knowledge and skills of practicing professionals, including extension officers, policy analysts, and managers of organizations.

Communications

Through targeted publications, the division communicates research results to different stakeholders, including scientists, policymakers, extension officers, and leaders of farm and rural organizations. Continuous dialogue with decisionmakers and other end users helps to better implement research results.

KCID coordinates capacity strengthening in IFPRI and hosts a knowledge center on behalf of the institute that individuals and organizations can contact for food policy information.

For additional information:

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