What is an “agricultural innovation system”?

An **agricultural innovation system** is a network of actors (individuals, organizations, and enterprises), together with supporting institutions and policies, in the agricultural and related sectors that bring existing or new products, processes, and forms of organization into social and economic use. Policies and institutions (formal and informal) shape how these actors interact and learn together, and how they generate, share, and use knowledge.

**Terms and terminology**

**Agricultural innovation system**: An agricultural innovation system is a network of organizations, enterprises, and individuals that—together with the institutions and policies which shape how these actors act and interact to generate, exchange, and apply knowledge—bring new products, processes, and forms of organization into social and economic use.

**Systems thinking**: A holistic approach to problem-solving that takes into account how the component parts of a system interact with and affect one another. Systems thinking relies on a wide lens rather than a narrow focus only on the problem at hand and its immediate context.

**Human and organizational capacity development**: At its most basic, capacity development, whether individual or organizational, is the building or strengthening of capabilities necessary to
meet specific aims. In the context of agricultural innovation systems, gaps or shortcomings in implementation (e.g., within a value chain) or outcomes (e.g., from extension services) would indicate a need for capacity development.

1. UNDP defines capacity development as “the process through which individuals, organizations and societies obtain, strengthen, and maintain the capabilities to set and achieve their own development objectives over time.”

2. USAID’s model for human and institutional capacity development aims “to identify fundamental causes of performance gaps in host country partner institutions [and] address those gaps through a wide array of performance solutions. […]”

3. PICOTEAM Ltd. sees capacity development as a process of performance enhancement driven by results and desired impacts (rather than input-based capacity building of individuals), based on analyzing the performance of the organizational system as a whole, including the underlying systemic blockages to performance.

System domains: Categories that can be used to describe, classify, and group actors based on common attributes. In an agricultural innovation system, these domains are commonly grouped into four categories: research and education; bridging institutions; business and enterprise; the enabling environment; and the systems and networks that link these domains.

Theory of change: A detailed description of the process by which a desired outcome is expected to occur as a result of some change initiative, highlighting pathways, conditions, actors, and activities that together are expected to lead to the desired outcome.

Enabling environment: The policies and institutions, legal and regulatory frameworks, infrastructure, skills and capacities, and other factors that together influence the behavior of relevant actors in a system.

Monitoring and evaluation (M&E): An ongoing process of tracking and using specific indicators to determine whether, where, what A “new” approach to capacity development

In the past, our approach to capacity development in agriculture focused mainly on fostering technical skills among developing-country education and research organizations, with some additional focus on businesses and enterprises. Over time, however, our approach has become more nuanced, recognizing that capacity development requires something more. Many recent capacity development strategies and activities now integrate participatory engagement, experiential learning, and strategic communications with technical skills development.

The systems approach to capacity development for agricultural innovation builds on this evolution, with a focus on developing stakeholders’ abilities to navigate complexities, collaborate, reflect and learn, and engage in strategic policy processes.
This approach isn’t new—it’s just a more systematic way of integrating capacity development into the very center of an innovation process.

Moving toward an innovation systems approach to capacity development

Developing the innovative capabilities of organizations, individuals, networks, and systems requires long-term planning and investment. Capacity development agendas benefiting from such long-term planning and investment will enjoy institutional ownership and commitment from leadership, and ultimately will lead to sustained change over time.

The process described here is a set of heuristics—not a prescription—designed to help address the inherent complexity of designing and implementing a capacity development agenda with long-term investments.

When is it appropriate to use an innovation systems approach to capacity development?

An innovation systems approach to capacity development can be introduced at any point in the project cycle: at the planning, design, implementation, monitoring, or evaluation stage.