Capacity Development for Agricultural Innovation Systems -
Key Concepts and Definitions

Draft for Review

The key concepts and definitions below provide a common point of reference to inform the formulation of the TAP Common Framework on Capacity Development for Agricultural Innovation Systems.

A distinction is made between invention and innovation. Invention is seen as a novel idea that has been given form e.g. as a diagram, model or technology and has potential for application. Innovation, on the other hand, may take different forms (e.g. as a product, a process, a service or new organizational form). It must be new and useful in a given context and demonstrate practical application at scale. Agricultural innovation covers technological, social, economic, organisational and institutional dimensions of change. By “institutional” we mean the formal and informal rules as well as beliefs, values and frameworks for understanding that create stability and order of the system. This is often referred to as the “enabling environment”.

**DEFINITION:**

Agricultural innovation is the process whereby individuals or organizations bring existing or new products, processes and forms of organization into social and economic use to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability, thereby contributing to achieve food and nutrition security, economic development and sustainable natural resource management.

Agricultural innovation takes place within a network of actors – individuals and organizations – fostering interaction and learning through adaptation and responsiveness to emerging challenges and opportunities. An ‘agricultural innovation system’ (AIS) encompasses all of the various actors (farmers, businesses, processors, marketers, transporters, input suppliers, policy-makers, regulatory agencies, researchers, service providers, extension services, NGOs and others) involved directly or indirectly in agricultural production, processing, marketing, distribution and trade. Innovation is thus an interactive, dynamic and flexible process involving learning and the application of knowledge.

There is an emerging international consensus around the concept of agricultural innovation systems as an overarching framework linking research, extension and innovation.

**DEFINITION**

An Agricultural Innovation System is a network of actors or organisations, and individuals together with supporting institutions and policies in the agricultural and in related sectors that bring existing or new products, processes, and forms of organisation into economic and social use. Policies and institutions (formal and informal) shape the way that these actors interact, generate, share and use knowledge as well as jointly learn.
Capacity Development for AIS

Capacity Development (CD) is increasingly recognised as a multi-dimensional and multi-actor process that goes well beyond the transfer of knowledge and skills at the individual level and encompasses organizational and institutional dimensions. It is a complex interplay between individual, organisational and institutional levels.

A widely accepted definition of CD views it as “the process whereby people, organisations and society as a whole unleash, strengthen, create, adapt and maintain capacity over time”. The focus of CD therefore is on the process rather than just on the acquisition of skills and knowledge to perform a defined task. Developing the overall capacity of the agricultural innovation system with its various actors, incentives, norms, processes etc. focuses not only on the competencies and capabilities needed to achieve technical results but also on what it takes to build more effective and dynamic relationships among multiple actors and to “facilitate resourcefulness”.

Thus, beyond the skills, technical expertise and experience in their relevant fields to perform a given function, CD for AIS requires that individuals experience a shift in mind-sets, attitudes and behaviours to enable them to understand the larger system of which they are a part, analyse internal and external context bring various perspectives to bear through interaction, reflection and learning, access, create as well as take advantage of opportunities (e.g. technologies, markets, policy windows) in order to co-create and use knowledge, learn and chart the future. Organisations and institutional arrangements must support/facilitate the networks, partnerships and enabling environment that allows for the unleashing of this capacity over time in a sustainable manner.

---

Competencies, capabilities and capacity

Capacity for AIS therefore needs to be addressed at institutional, organisational and individual level in conjunction with the necessary institutional change and influence on policy. It is useful to distinguish between competencies of individuals, capabilities of organisations and overall capacity of the system.

**Competencies** refer to the core knowledge, skills, attitudes and energies that individuals need to effectively work within the AIS. “Innovation competencies” include abilities to create, access and use information and knowledge, work and learn with others, to improve innovation systems performance and facilitate the innovation process.

**Capabilities** refer to the “collective ability of a group or system” to function as effective organizations including providing the space for organisational learning, adapting to changing circumstances, building effective partnerships and willingness to take risk as well as acting towards organizational goals and acquiring and managing the necessary resources. The collective skills involved may be technical, logistical, managerial or less tangible (i.e. the ability to earn legitimacy, to create trust, to adapt, to create meaning etc.).

**Capacity** refers to the ability of individuals and organizations to use competencies and capabilities in such a way that their collective potential is realized. Strengthening capacity “system-wide” involves factors that influence the management of organisations, and in particular the interaction between these organisations and other stakeholders and build trust between them. CD for AIS must ensure the design and implementation of an appropriate institutional framework (“enabling environment”) if organisations and individuals are to sustainably improve their own capacity.

A system’s capacity to innovate requires that stakeholders and organisations acquire and can effectively manage knowledge and learn. They should be able to:

- Continuously identify and prioritise problems and opportunities in a dynamic systems environment;
- Take risks, identify and experiment with social and technical options, and assess the trade-offs that arise from these;
- Mobilise resources and form effective partnerships around promising options and visions for the future;
- Organise mechanisms to bring stakeholders together and facilitate their interaction in order to access, share and process relevant information and knowledge and collaborate and coordinate with others and achieve effective concerted action.5

---