

Capacity Development for Agricultural Innovation Systems - Key Concepts and Definitions

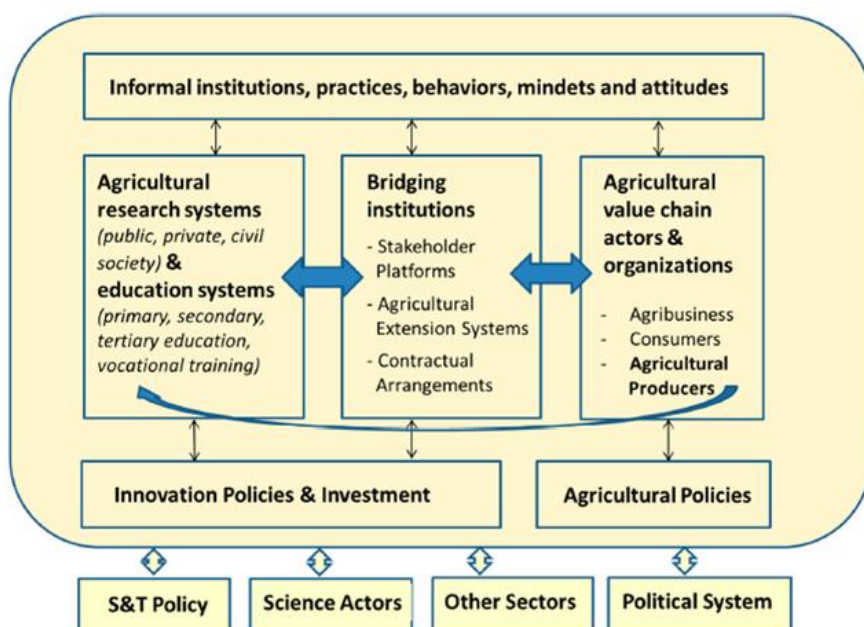
The following key concepts and definitions provide a common point of reference to inform the formulation of the TAP Common Framework on Capacity Development for Agricultural Innovation Systems.

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. "Institutional dimension" refers to 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 food and nutritional security, economic development and sustainable natural resource management.

The Agricultural Innovation System



Source: Aerni et al., 2015¹ (Modified version of Birner and Spielman, 2008²)

¹Aerni, P., Nichterlein, K., Rudgard, S., and Sonnino, A., 2015. Making Agricultural Innovation Systems (AIS) Work for Development in Tropical Countries. *Sustainability*, 7(1), 831–850

²Spielman, D., and Birner, R., 2008. *How Innovative Is Your Agriculture? Using Innovation Indicators and Benchmarks to Strengthen National Agriculture and Rural Development Discussion Paper* (Vol. 41, p. 48). Washington.

Agricultural innovation takes place within a dynamic 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, and farmers’ organisations, businesses, processors, marketers, transporters, input suppliers, policy-makers, regulatory agencies, researchers, service providers, extension services, civil society organisations and others) involved directly or indirectly in agricultural production, processing, marketing, distribution and trade (see diagram below). Innovation is thus an interactive, dynamic and flexible process involving learning and the application of knowledge among all these actors.

DEFINITION

An Agricultural Innovation System is a network of actors or organisations, and individuals together with supporting institutions and policies in the agricultural and related sectors that bring existing or new products, processes, and forms of organisation into social and economic 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 is generally viewed as the ability of individuals, organisations or society as a whole to set and implement development objectives as well as to identify and meet development challenges in a sustainable manner³.

DEFINITION

Capacity development is the process whereby individuals, organisations and society as a whole unleash, strengthen, create, adapt and maintain that capacity over time⁴.

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, organizational and institutional levels. 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, and processes focuses not only on the competencies 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”⁵.

Individuals and organisations must 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 allow for the unleashing of this capacity over time in a sustainable manner.

³See for instance **Tony Land, 2000** Implementing Institutional and Capacity Development: Conceptual and Operational Issues. ECDPM Discussion Paper No 14. European Centre for Development Policy Management, Maastricht, the Netherlands.

⁴**OECD/GAT, 2006.** The Challenge of Capacity Development. Working towards Good Practice <http://www.oecd.org/development/governance-development/36326495.pdf>.

⁵**Ministry of Foreign Affairs of The Netherlands, 2011.** Facilitating Resourcefulness. Synthesis report of the evaluation of Dutch support to capacity development. IOB Report no. 336i, The Hague.



Competencies and Capacity

Developing capacity for AIS needs to be addressed at the institutional, organisational and individual levels in conjunction with the necessary institutional changes and influences on good sound policies. It requires the development of the necessary individual competencies and collective capacity.

Competencies refer to the core knowledge, skills, attitudes and energies that *individuals* need to effectively work within the AIS. . 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 comprehend the larger system of which they are a part. “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.

Capacity refers to the ability of individuals and organizations to use competencies in such a way that their collective potential is realized. This includes the “collective” ability of a group or system to function as effective organizations and provide the space for organizational learning, adapt to changing circumstances, build effective partnerships and take risks as well as act towards organizational goals and acquire and manage 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 and to create meaning).

Strengthening capacity “system-wide” involves factors that influence the management of organisations, and in particular the interaction between these organisations and other stakeholders and builds 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 innovate⁶ requires conducive incentive structures and political commitment in order for stakeholders and organisations to acquire and effectively manage knowledge, learn as well as coordinate and collaborate.

⁶Leeuwis C., Schut M., Waters-Bayer A., Mur R., Atta-Krah K. and Douthwaite B., 2014. Capacity to innovate from a system CGIAR research program perspective. Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Program Brief: AAS-2014-29.