# Glossary of Key Terms

**Advisory Services**

Advisory service(s) is commonly used as an alternate term for extension services. These systems involve a broad spectrum of market and non-market entities, and agents are expected to provide useful technical information about new technologies that can improve the income and welfare of farmers and other rural people. Apart from their conventional function of providing knowledge and technology to improve agricultural productivity, agricultural advisory services are also expected to fulfill a variety of new functions, such as linking smallholder farmers to high-value and export markets, promoting environmentally sustainable production techniques, and coping with the effects of HIV/AIDS and other health challenges that affect rural people.

**Agricultural Extension**

Agricultural Extension is described as “assistance to farmers to help them identify and analyse their production problems and become aware of the opportunities for improvement” (Adams, 1982 cited in <http://en.wikipedia.org/wiki/Agricultural_extension#cite_note-ReferenceA-9>). For other definitions of extension/agricultural extension from different books refer to the same wikipedia web page

**Agricultural Innovation Systems (AISs)**

“An innovation system can be defined as a network of organizations, enterprises, and individuals focused on bringing new products, processes, and forms of organization into economic use, together with the institutions and policies that affect their behavior and performance. The agricultural innovation systems concept embraces not only the suppliers of new technologies but is also concerned with the role and interaction of different actors within agricultural innovation systems, especially in connecting with new and emerging markets for different types of high-value crops and products. Increasingly important players within AISs at the local level are innovative farmers who successfully determine, through trial and error, which crops/products, as well as the necessary technologies, are most profitable in supplying different and emerging markets” ( source: <http://www.meas-extension.org/home/glossary>).

**Agricultural Technologies**

Until recently, agricultural technologies have largely been created and disseminated by public research institutions. However, during the past 50 years, the private sector has played an increasingly important role in producing and selling proprietary technologies in the form of production inputs, such as hybrid seed, pesticides, and mechanical technologies. Over the past two decades, biotechnologies have developed rapidly, especially as the agricultural economy has become more globalized and liberalized. This development has boosted private investment in agricultural research and the transfer of these technologies, which is expanding the influence of national and multinational corporations in supplying new technologies, especially to commercial farmers. At the same time, the public sector still has an important role to play in providing oversight of these new technologies; conducting research to fill the important technology gaps not being addressed by private-sector firms, especially for small and marginal farmers; and in continuing to develop and transfer sustainable natural resources practices to all types of farmers.

**Diffusion of Innovation**

Diffusion of innovation is defined as “the process by which new ideas and technologies spread through different farming systems, countries, and cultures” (<http://www.meas-extension.org/home/glossary>).

**Extension**

Extension is defined as “a series of embedded communicative interventions that are meant, among others, to develop and/or induce innovations which supposedly help to resolve (usually multi-actor) problematic situations” (Leeuwis and van den Ban, 2004 p 27).

Extension is also described as a function that can be applied to various area of society such as industrial sector, health and education sector, agriculture and rural development (FAO, 2001 p. 7)

**Gender Analysis**

Gender analysis is described as the analysis that offers “a framework for illuminating the opportunities and constraints in development activities that are based on the relations between women and men” (<http://www.usaid.gov/our_work/cross-cutting_programs/wid/gender/gender_analysis.html>)

**Human Resource Development (HRD)**

Human resource development is a term commonly used in formal organizations and is generally associated with improving the skills and knowledge of employees so that they can become more effective on the job and can advance within the organization. For example, improving the skills and knowledge of extension workers so that they can take on new and different tasks within a more decentralized, participatory, market-driven extension system (<http://www.meas-extension.org/home/glossary>).

**Information and Communications Technology** (ICT) is an umbrella term that includes all types of technologies for the communication of information. It encompasses any medium to record and broadcast information, as well as technologies for communicating information through voice, sound, and/or images. Information technology (IT) has become a hub for communicating information, most often using computers (<http://www.meas-extension.org/home/glossary>).

OR

**ICT** (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning (<http://www.meas-extension.org/home/glossary>

**Indigenous knowledge (IK)/ Indigenous Technical Knowledge (ITK)**

Indigenous Knowledge can be defined as "A body of knowledge built up by a group of people through generations of living in close contact with nature" (Johnson, 1992).

**Innovation/Innovation System**

**“Innovation** can be defined as a new way of doing something, ranging from changes in the way we think to the way we produce new products or use new processes or procedures. It also includes institutional innovations that change the way an organization carries out new or different functions. For example, shifting toward a bottom-up, rather than a top-down extension system; or moving toward a more market-driven, rather than a technology-driven extension system. Also, in a rapidly changing economy, innovative farmers are frequently the source of production technologies for market-driven innovations involving different high-value crops/products. Because innovation is a major driver to economic change, it is important to consider all factors that make life better for people, such as increasing the value of products for the producer and/or consumer of new or different products. An **innovation system** generally involves the flow of technology, information, inputs and products among people, enterprises, and institutions. However, it also involves interaction among actors who can turn an idea or technology into a new process, product, or service that is desired or needed within accessible markets” (<http://www.meas-extension.org/home/glossary>).

**Input Supply Advisory Services**

“Input supply advisory services are one-on-one advisory services provided by private-sector input supply firms (and input-supply cooperatives) to farmers who purchase production inputs from these firms. This is the dominant model in most industrially developed countries because it has become a “win–win” arrangement. Farmers get sound technical advice from certified crop advisors, and the input supply firms are able to recover the cost of advisory services through profits generated from the sale of inputs, especially to commercial farmers” (<http://www.meas-extension.org/home/glossary>).

**Integrated Rural Development (IRD)**

Integrated rural development is described as “an ongoing process involving outside intervention and local aspirations; aiming to attain the betterment of groups of people living in rural areas and to sustain and improve rural values; through the redistribution of central resources, reducing comparative disadvantages for competition and finding new ways to reinforce and utilize rural resources” (Nemes, 2005 p. 23 cited in <http://www.meas-extension.org/home/glossary>).

**Market-Driven Extension (MDE)**

Market-driven extension is described as “a relatively new concept in which the focus of a technology transfer-driven agricultural extension system shifts 180 degrees—or from “research” to the “market,” especially for high-value crops, livestock, fisheries, or other products. This change in focus is consistent with the concept of a market-driven agricultural innovation system (AIS), because market opportunities and access depend in part on the location of each farm (or groups of farmers), farm size (to produce specific products), and many other factors, such as agro-ecological conditions, transportation infrastructure, available labor, and, possibly, access to other production resources, such as irrigation, greenhouses, etc. Therefore, the decision by groups of farmers to supply specific markets with different high-value crops or products will depend in large part on the relative size of accessible markets for particular products and the strategic advantage of producer groups to supply these markets with high-value crops or products” (<http://www.meas-extension.org/home/glossary>).

**Natural Resource Management (NRM)**

Natural resource management is defined as “the responsible and broad-based management of the land, water, forest, and biological resources base—including genes—necessary to sustain agricultural productivity and avert degradation of potential productivity. Most donor agencies encourage the sustainable use of natural resources, from the community level to projects at national and international levels. Accordingly, the key issues and/or institutional dimensions of natural resource management include the following sectors: (1) forests and forestry, (2) land resources management (including drylands management and combating desertification), (3) water resources management (including irrigation and drainage), and (4) biodiversity” (<http://www.meas-extension.org/home/glossary>).

**Nongovernmental Organizations (NGOs)**

Nongovernmental organizations are described as “legally constituted organizations created by private individuals or organizations with no participation or representation by any government agency. NGOs can be categorized into two types: operational and advocacy. The primary purpose of an operational NGO is to design and implement development-related projects. Operational NGOs can be community-based, national, or international. The primary purpose of an advocacy NGO is to defend or promote a specific cause. These advocacy organizations typically try to raise awareness, acceptance, and knowledge by lobbying and organizing activist events (<http://www.meas-extension.org/home/glossary>).

**Participatory Extension**

The participatory extension paradigm is essentially a combination of technology transfer, advisory services, and human resources development and involves two key elements. The first element addresses how extension systems are organized and emphasizes the fact that all types of farmers, especially small-scale and women farmers, must play an important role in setting extension priorities and shaping extension programs. By so doing, farmers will take more “ownership” over these ongoing extension programs and operations. The second key element of the participatory extension approach generally encompasses more participatory extension methods, such as experiential learning and farmer-to-farmer exchanges. It emphasizes that knowledge is gained through interactive processes that include extension field staff, private-sector firms, NGOs, and/or innovative and progressive farmers within local or nearby communities. Participants are expected to make their own decisions, especially about how they will intensify and/or diversify their farming systems (<http://www.meas-extension.org/home/glossary>).

**Participatory Farm Management (PRM)**

“The participatory farm management approach uses simple methods to enable small-scale farmers, working on their own or with a facilitator, to quantify and analyze their use of farm or household resources in order to assess the potential impact of different decisions on farm income. The methods can be used to assess the resource implications of modifying the current farming system by diversifying into one or more new enterprises and comparing the impact of these potential new enterprises, in comparison with current enterprises, on both farm resources and incomes” (<http://www.meas-extension.org/home/glossary>).

**Participatory Rural Appraisal (PRA)**

“Participatory rural appraisal is a label given to a family of participatory approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis, and plans. The key tenets of a PRA are participation, teamwork, flexibility, and triangulation to ensure that information is valid and reliable” (<http://www.meas-extension.org/home/glossary>).

**Private Advisory Services (PASs)**

Private advisory services is types of service provision whereby “a private-sector firm (or NGO) is contracted by a government, donor, or even a farmer organization to provide different types of advisory services to farmers, but generally using government or donor funding….This approach uses the same basic tools and approach as public extension, but the management has the capacity to hire and fire employees and to provide incentives based on performance, as well as to allocate adequate program and operating funds. Therefore, the short-term performance of PASs can be efficient and effective. However, this approach appears less sustainable over the long-term, because policy changes (e.g., when a different political party takes over government leadership) may directly affect the availability of government funding. Also, donor funding is generally not long-term, and donor priorities may change, as evidenced by World Bank investments in T&V extension” (<http://www.meas-extension.org/home/glossary>).

**Self-Help Groups (SHGs)**

Self-help groups provide mutual support among peers, especially women, in rural communities. Mutual support is a process by which people voluntarily come together to address common problems, especially in improving the livelihoods of group members, such as increasing access to education and health services. Self-help groups can also transition into specific economic activities of mutual interest that are culturally acceptable within rural communities. In India, for example, SHGs often begin as thrift or credit groups in which members pool savings and re-lend within the group on a rotational or needs basis. These groups have a common perception of need and an impulse toward collective action. For example, some of these groups focus on specific production activities (e.g., dairy, mushrooms, poultry) and then use their pooled resources to enter into a jointly owned and operated enterprise (e.g., fisheries) or to produce individually (e.g., dairy) and market collectively as a producer organization (<http://www.meas-extension.org/home/glossary>).

**Strategic Research and Extension Plan (SREP)**

Formulating a strategic research and extension plan involves identifying the farming systems and the resource base of farmers within a target area, as well as identifying the successes and failures of innovative farmers. It also involves the identification of problems and needs of farmers by using participatory rural appraisal (PRA) techniques and then analyzing all of this information using a SWOT (strengths, weaknesses, opportunities and threats) analysis. In addition to farmer information, the SWOT analysis examines other important types of agricultural information, including (1) the different agro-ecological zones (AEZs) within the district (e.g., soil type/conditions; rainfall patterns; and irrigation water, including availability and cost), (2) transportation infrastructure, and (3) available markets for all types of staple and high-value food crops/products. The analysis must consider all of this information within a global information system (GIS) framework in determining the most feasible economic opportunities for different categories of farm households within each AEZ of the district. The output of the SWOT analysis will be a preliminary SREP that is then reviewed, modified, and eventually approved by a cross-section of agricultural community representatives, consisting of all types of farmers (including women farmers), rural banks, input supply firms, and agricultural product buyers (<http://www.meas-extension.org/home/glossary>).

**Sustainable Development**

Sustainable Development is defined as “development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (Porteous, 2008 p. 652)

**Technology Transfer**

Technology transfer is the process of disseminating new technologies and other practical applications that largely result from research and development (R&D) efforts in different fields of agriculture. In general, these technologies include (1) genetic improvement in the form of improved crop varieties/hybrids and livestock breeds; (2) improved production practices, including soil fertility and animal nutrition; (3) improved plant protection and animal health practices; (4) mechanical technologies that will improve labor efficiency and other management practices; and (5) sustainable natural resource management practices, such as drip irrigation, water harvesting, integrated pest management, and so forth—in other words, technologies that all types of agricultural producers will need in order to increase agricultural productivity and farm incomes (<http://www.meas-extension.org/home/glossary>).

**Training and Visit (T&V) Extension**

Training and Visit extension is based on classical management principles, including (1) extension agents should have primary responsibility for carrying out extension functions, (2) extension should be closely linked with research, (3) training should be carried out on a regular and continuous timetable, (4) work should be time-bound, and (5) a field and farmer orientation should be maintained. This technology-driven approach was initially successful during the late 1970s and 1980s in disseminating the production management practices associated with Green Revolution wheat and rice varieties. However, in rainfed and other production areas where these new technologies were not appropriate, the T&V approach had limited success. The primary reason was that extension agents did not have economically useful messages to disseminate to these farmers; also these agents were not trained how to assess the needs of farmers and then look for alternative technologies or production systems that might better address their needs (<http://www.meas-extension.org/home/glossary>).

**Value Chain**

“A value chain is an alliance of enterprises that collaborate “vertically” to achieve a more profitable position within a market. Vertically aligned means that both producers and essential companies are connected from one end of the primary production process (e.g., farmer’s fields) through processing and then into the final marketing stages where consumers purchase a finished product. The basic characteristic of a value chain is market-focused collaboration in which different enterprises work together to produce, package, process, and market products and services in an effective and efficient manner. Value chains allow farmers and businesses to work together in responding to market demands by linking production, processing, and marketing activities” (<http://www.meas-extension.org/home/glossary>).