

# Knowledge Management and Dissemination

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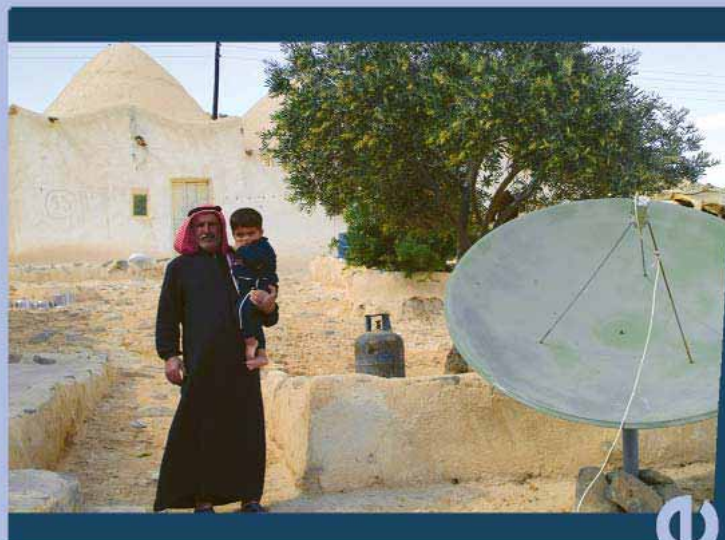
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Knowledge  
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Rural poverty reduction is increasingly becoming a global development strategy. This is reflected in declarations that call to revitalize support to agriculture and rural development to levels that are consistent with the importance of agriculture in national economies. Therefore, the international public goods (IPG) generated by research must have an impact on rural communities and poverty. The creation of a Knowledge Management and Dissemination (KM&D) program is considered by ICARDA as the best response to the growing concern about the cost-effectiveness and impact of public investment in pro-poor research. The *primary task* of KM&D is to integrate the Center's work on knowledge management and dissemination into an overall research and capacity building program, and to enhance equitable access to pro-poor knowledge that contributes to ICARDA's goal of food security, poverty reduction and preservation of natural resources. The KM&D program aims to address the following **causes** of poor access and adoption of agricultural knowledge:

- Limited and uncoordinated international and national support for dissemination of available knowledge
- Limited capacity of national programs to take advantage of advances in information and communication technologies (ICT) to acquire, share and disseminate knowledge
- Inadequate analysis of the existing "knowledge pathways" that emerged from research for development projects
- Lack of research programs exploring innovative methodologies and approaches for knowledge management (documentation, learning, sharing and dissemination)

**Mission:** Effective contribution to rural poverty reduction, livelihoods enhancement and food security in the dry areas through management and dissemination of knowledge generated from ICARDA's international public goods (IPG) research.

**Vision:** To enable ICARDA to effectively share and deliver the knowledge it generates from IPG research to achieve sustainable rural poverty reduction, livelihoods enhancement and food security in the dry areas.

**Goal:** Improved welfare of people in dry areas through better use of pro-poor knowledge for sustainable agricultural production.

**Purpose:** Increased use by stakeholders of IPG generated by ICARDA for agricultural development and rehabilitation.

### A Practical Approach towards Knowledge Management and Dissemination

#### Aim

To capitalize and add value to ICARDA's past experience and to assure maximum benefit from its future research programs.

#### Overall Strategy

The *overall strategy* is to develop and implement a systematic and consultative approach to manage and disseminate knowledge to the widest possible segments of the rural poor, and to establish an integrated ICT-KM program supported by the following "**guiding principles**" of good practice:



- **Ownership and partnership** — empowering people to fully participate
- **Coordination and collaboration** – forging effective poverty reduction partnerships
- **Capacity building** — building capacities of NARS and other partners (civil society, NGOs) to undertake and disseminate pro-poor knowledge generated from ICARDA's research



- **Sustainability** — supporting pro-poor growth, reducing inequality, etc.
- **Feedback and impact assessment** — developing research programs supported by participatory Monitoring and Evaluation systems
- **Appropriateness** – ensuring harmony with poverty reduction strategy programs (PRSP) of the benefiting countries

## Two major approaches are being followed:

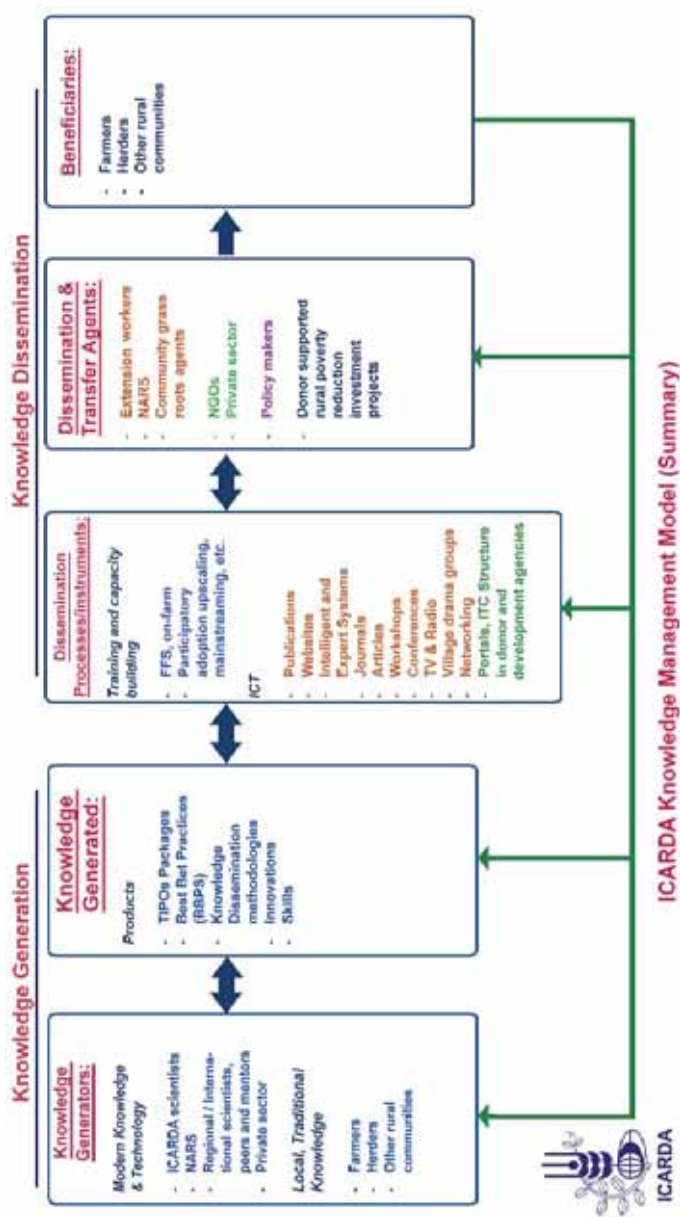
- **Short/medium-term:** analysis of the knowledge available from completed projects (*exploring the background*), and identification of 'Best Bet Practices' and innovative approaches that enhance the capacity of a broad range of users to access packages of *technical, institutional and policy options* (TIPOs) - see Box 3.
- **Long-term/core:** identification and development of research programs in knowledge management and dissemination. This is a new area of research that aims to best capitalize on the experience gained by sharing and up-scaling, and to bring out a change in culture and behavior of all partners that assure equity, transparency and flexibility in order to achieve maximum impacts.



## Processes

The following processes are being adopted:

- To directly engage a wide range of stakeholders in documenting the knowledge generated, tested and used by the communities
- To identify TIPOs emanating from research outputs
- To develop knowledge (TIPOs, TIPO packages, Best Bet Practices, lessons learnt, innovations) suitable and responsive to the targeted communities



- To develop flexible dissemination support mechanism and tools (e.g. decision support tools, expert systems, information systems) that are suitable for adoption and up-scaling
- To build on the successes identified from *ad hoc* but effective dissemination exercises
- To develop effective partnerships with the public and private sectors to assist in equitable and profitable dissemination to the targeted poor rural communities
- To devise new approaches (e.g. development journalism, participatory development communication, village drama) to strengthen the ability of NARS, technology transfer agents and farming communities to participate in knowledge generation, sharing and adoption

### Implementation Plan

Practices which demonstrate effectively that knowledge can be captured and disseminated are being developed through:

- identification of validated technologies and best practices ready for dissemination and adoption by *exploring the background* of completed projects/programs. A *case study template* (CST) that allows for the identification of the attributes of the “knowledge pathway<sup>1</sup>” followed during implementation is being used in surveys of selected projects;
- consultation with a wider community of stakeholders to verify the results of the *case study surveys* (CSSs) and to provide feedback on knowledge generation and dissemination through *ground truthing and impact assessment surveys* (GTIAS);

<sup>1</sup>See Box 2

- (c) development of methodologies and approaches for effective dissemination, and assessing the possibility of mainstreaming some of the already available approaches developed by ICARDA such as: the expert systems, community action plans, and *community-based seed enterprises* (CBSEs). The construction of *decision support tools* (DSTs) and the toolkits follows the analysis of the case studies;



- (d) assuring knowledge capturing and sharing via publication in a dedicated KM&D website that allows for stakeholders' feedback, input, reviews, improvements and updates;
- (e) maintaining and nurturing strong linkages with other CGIAR knowledge management exercises (e.g., ICT-KM, ILAC [*Institutional Learning and Change*]) through consultations, workshops and gatherings of communities of practices. Also establishing strong partnerships and networking with peers who are involved in similar or related tasks (e.g., SDC-IC [*Swiss Agency for Development and Cooperation*], NRI-DFID [*Natural*

- Resource International – Department for International Development].
- (f) developing linkages with key donors and institutions directly investing in rural poverty reduction. For example, sharing and linking ICARDA information and knowledge with outlets directly linked to the rural poor (e.g., IFAD's Poverty Reduction Portal);
- (g) achieving sustainability of the KM&D process in ICARDA through:
- institutionalizing measures that integrate and link ICARDA's information platform (data, papers, training materials and programs, learning resources, biometric modules, etc) with knowledge dissemination.
  - developing approaches to facilitate and ensure smooth and cost-effective flow of data to information to knowledge.
  - building partnerships with institutions developing and applying expert systems (e.g., Egypt-based *Central Laboratory for Agricultural Expert Systems* (CLAES));
  - demonstrating that ICARDA has already tested, up-scaled and used its research results in the design and implementation of several international and national development programs.
- (h) bringing cultural change: effective KM&D requires a change in culture and behavior of all partners (those who influence the process or use its products) at all levels. This involves:
- observing equity when reaching out for the poor and the poorest farmers and livestock keepers. This is only possible when the farming and pastoral communities

are empowered and the members – specially the silent majority – are encouraged to engage and involve in the learning, sharing and networking processes;

- understanding the complexity of engaging policy-makers at local, regional and national decision-making levels;
- understanding and incorporating the roles, responsibilities and complementary niches of the donors, international and national organizations, civil society organizations, NGOs and local entrepreneurs when designing dissemination processes and instruments;
- exchanging information, expertise and lessons learned in an open and non-prejudiced approach with peers in other institutions, expert consultations, workshops, gathering of communities of practices and mentors, etc, with a view to defining new and effective paths for KM&D and to indicate clearly that KM&D can be continuously developed and improved through research and application of results.

### Beneficiaries and Users

The ultimate beneficiaries of the knowledge and the technologies are farmers, farming and



pastoral communities, and other resource users in dry areas. The users are a very broad range of stakeholders and partners including national agricultural research and extension systems, national seed systems, policy-makers, development agencies, and the public and private sectors. Other users are the donor community, peers in international and advanced development and research organizations, civil society organizations, general public, etc.

### Collaborators and Linkages

- **National programs:** National research and extension programs, national seed programs, national agricultural universities, national libraries.



- **Non-governmental organizations:** (NGOs) and civil societies; other institutes in the public and private sector.
- **International and regional development organizations:** e.g. FAO, IFAD, UNDP, GEF and other UN agencies, ISTA (International Seed Testing Association), AARINENA (Association of Agricultural Research Institutes in the Near East and North Africa)

- **Advanced research institutes (ARI):** Regional and international research institutes, e.g., CLAES (Central Laboratory for Agricultural Expert Systems), Egypt.

### System Linkages

- **CGIAR System:** e.g. FHCRAA (Future Harvest Consortium to Rebuild Agriculture in Afghanistan) and planned consortia for Iraq and Sudan; Inter-Centre Training Group (INTG) and ICT-KM projects; Challenge Program on Water and Food through projects implemented by ICARDA
- **Non-CGIAR System:** e.g. IFAD Rural Poverty Portal and IFAD Regional Information Networks (RINs) such as the WANA Region's Network (KARIANET); [www.ifad.org](http://www.ifad.org); FAO: Livestock, Environment and Development (LEAD); (<http://lead.virtualcenter.org>); and the Interagency pro-poor livestock and animal health research donors <http://lri.virtualcentre.org>

### Box 1

#### The Knowledge Pyramid



The pathway from data to information to knowledge is illustrated with the above triangle where a wide range of data are condensed into various types of information and messages useable for knowledge generation.

### Box 2

#### Forms of Knowledge

**Outputs:** One form of knowledge which ICARDA generates is the results (data and information) of the public goods research in the form of technological, institutional and policy options (TIPOs).

**Lessons learnt:** The "lessons learnt" is another form of knowledge that ICARDA has not so far developed in a systematic approach to use and share. The lessons learnt include the knowledge of positive/negative factors, circumstances and conditions that affect projects and their outputs.

**Methodologies:** A third form of knowledge is the approaches and methodologies developed in generating and disseminating this knowledge. These processes may: (a) be based on the existing Technology Transfer systems; (b) influence and lead to policy and strategic shifts (e.g., community-driven development (CDD), gender mainstreaming); or (c) influence demand for or packaging of the technical, institutional or policy options (TIPOs).

**Best bet practices:** Innovative procedures, approaches and tools that offer win-win scenarios for pro-poor growth through agriculture.

**Technical advisory notes (TANs):** TANs are concise communication guides of selected packages of TIPOs suitable and adoptable by a range of users and stakeholders.

**Innovations:** are improved/cost-effective new approaches that address problems/opportunities faced by the rural poor. The "approaches" could be technological, institutional, policy or partnership.

### Box 3

#### Technical, Institutional and Policy Options (TIPOs)

Research outputs are technological, institutional or policy options. The most important options or combination of options are based on impact assessment, and response of stakeholders who are consulted through a ground truthing and impact assessment (GTIA) survey that follows analysis of the case study.

*Technological options:* Technologies are modern, contemporary or traditional. The link between them is the fact that all are based on knowledge (whether local, contemporary or not). For example, a technical option could be a production input (a new seed variety) or a practice (water management, breed improvement).

*Institutional options:* The organization of beneficiaries into different types of structures (water users associations, informal seed delivery organizations; community-based rangeland users associations; village organizations, women groups, NGOs, cooperative).

*Policy options:* Policy options provide incentives to beneficiaries and support achieving project objectives and goals (examples: price policy that encourages adoption of technology or new seed varieties; legal policies that allow service providers to work in remote areas; compensation to rangeland users to allow for resting; etc).

*Packaging TIPOs:* Packaging of the TIPOs is based on suitability to selected groups of users and to their socio-economic circumstances as well as the agro-ecological environments.

### Appendix

#### Major Elements of Knowledge Management and Dissemination (KM&D)

- Researching, developing and implementing a systematic approach to strengthen and use ICARDA's empirical information platform (scientific data bases, tools and methodologies, etc).
- Managing the generation and dissemination of pro-poor knowledge (TIPOs, lessons learned, Best Bet Practices, and innovations).
- Developing frameworks for up-scaling pro-poor knowledge.
- Institutionalizing the participatory and pro-poor community-based research approaches that contribute to strengthening the public/private partnership.
- Enhancing management and delivery of research products and knowledge to end-users through new tools such as expert systems, scientific information systems and databases, and the development of integrated knowledge management systems.
- Strengthening national seed systems through technical assistance to formal seed delivery systems (development of effective and competitive seed markets), action research on alternative seed supply systems (e.g., community-based seed enterprises), and research and technical assistance in developing policy and regulatory reforms needed to diversify seed delivery systems by encouraging community and private sector participation.
- Strengthening national agricultural information and communication systems.
- Strengthening the capacity to support rehabilitation of agricultural research in conflict/post-conflict countries.
- Developing and supporting training, capacity building and innovative learning programs in KM&D.
- Integrating the Center's work on knowledge management (data and information management, documentation and publications) and dissemination into an overall research and capacity building program.