Strengthening Knowledge Management for Greater Development in the Near East, North Africa, Central Asia and Europe

Writeshop to Develop Capacity Building and Innovation Plans

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Innovation Platforms

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Introduction:

Integrated Agricultural Research for Development (IAR4D)

Evolution of Agricultural Research System in Africa

Problem of Agriculture in Africa:

- **African agricultural research has not realized its potential contribution towards improving the livelihoods of Africans, especially smallholder farmers.**

Breakdown of constraints to Agriculture:

<u>Old challenges:</u>

- **Population growth against economic and agricultural productivity growth.**
- **Rural poverty.**
- **Environmental degradation.**
- **Markets, policies.**
- **Natural resource management.**

Additional challenges:

- Unstable commodity prices
- Globalization
- Increasing protectionism of the West
- Rising energy costs
- Challenges of new waves of technology
- Climate change
- Traceability

Africa Agriculture has had numerous success stories:

- Varietal improvements (NERICA, climbing beans, mosaic resistant cassava etc).

- Alternatives and supplements to expensive inputs (soil fertility, fodder, pest management).

- INRM (Integrated Natural Resources Management).

- **Approaches to R&D (Farming systems research; participatory research, scaling up)**

However, the impact of the technologies did not match their potentials.

- **Institutional setting of the research system cannot support scaling up of the technologies.**

- **Approaches to R&D are not all encompassing.**

Evolution in ARD system:

- **Traditional linear model for research and extension Farming systems perspective (OFR/FSP)**
- **Participation/participatory research methods Action research**
- **Rural livelihoods**
- **Agri-food systems/value chain Positive deviance**
- **Knowledge development, dissemination and use Doubly green revolution**
- **Rainbow revolution**
- **IAR4D**

The IAR4D Concept

· A new approach to help research contribute more effectively and efficiently to poverty reduction and sustainable use of natural resources.

· To mainstream a new way of doing business that ensures that research does not only lead to knowledge and publications, but also contributes to change and innovation for the betterment of people, while also preserving the natural resource base for future generations.

The Innovation System Approach to ARD

What is Innovation System?

- **An innovation system is a group of organizations and individuals involved in the generation, diffusion, adoption and use of new knowledge and the context and institutions that govern the way these interactions and processes take place.**

- **Not a theory, but an organizing principle .**

- **Can be defined at different levels.**

- **It is an analytical construct**

Definitions of mostly miscomprehended terms in ARD:

Knowledge:

is the set of concepts, meanings, skills and routines developed over time by individuals or groups as they process information.

Technology:

is defined as the sum of knowledge — of received information — which allows things to be done. It is a flow of new knowledge.

Invention:

delivers new technology/knowledge as solution to a problem — things new to the world.

Innovation:

Could be in different dimensions: product innovation, process innovation, management and organizational innovation and service delivery innovation.

Two important factors are…

Knowledge & Networking

Value of knowledge increases with its use, and exchange can only be realized in a cooperative environment.

Innovation system:

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- **It is an analytical construct.**

Agricultural Innovation System:

A collaborative arrangement bringing together several organizations and individuals working towards a desire change in agriculture can be called Agricultural Innovation System (AIS)

The performance of an economy depends not only on how individual institutes (firms, research institutes, extension services, universities etc.) perform in isolation, but on how they interact with each other as elements of a collective system and how they interplay with social institutions — values, norms, and legal frameworks.

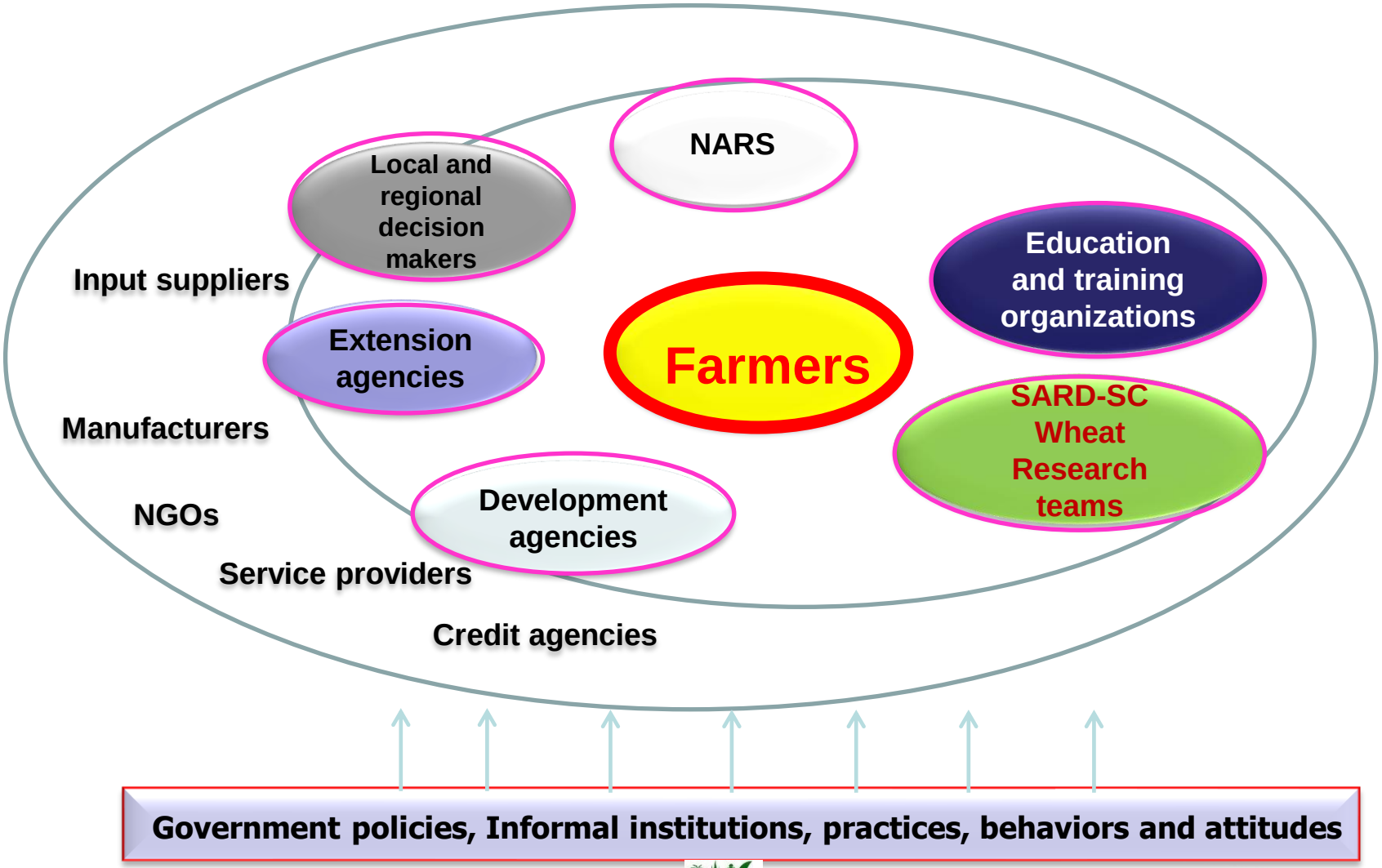
Setting up an innovation platform

What is an Innovation Platform?

An Innovation Platform is a physical or virtual forum established to facilitate interactions, and learning among stakeholders selected from a commodity chain analysis.

Their interaction leads to participatory diagnosis of problems; joint exploration of opportunities and investigation of solutions leading to the generation of agricultural innovation along the targeted commodity chain.

Design of SARD-SC Wheat Innovation Platform Approach



Functional types of Innovation Platforms:

1. Strategic Innovation Platforms

These are platforms that are set up at higher level of governance and management hierarchies. At this level strategies are developed for the development of agriculture in the domain of coverage.

2. Operational Innovation platforms

These are platforms set up at the grassroots level to respond to target commodity or system of production need for specific market. The operational IP do respond to the strategies developed by the strategic innovation platform.

How to set up a functional Innovation platform
Innovation platform can be set up in different ways, but to be effective, it must have the following qualities;

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- **It must have cohesion.**

- **Unite the stakeholders on the commodity where they have mutual interest.**

- **The platform must have potentials to meet the interest of stakeholders on board.**

- **All stakeholders must have a definite contribution to make and benefit to derive from the platform.**

Step 1: Establish the location of IP activities

This should be carried out with analysis leading to ;

a. Identification of opportunities and challenges in agricultural productivity.
b. Socio economic circumstances
c. Natural circumstances viz., soil factors, climatic characteristics etc.
d. Economic potentials e.g. market access, linkages with outside world, availability of infrastructures (road, network, electricity, telephone etc.)

Step 2: Identification of commodity or system of focus and analysis of market chain:

The commodity needs to be identified; this could be influenced by the strategic innovation platform operated by the government or the government research institute.

The value chain analysis needs to be conducted to

a) Identify chain of actors.

b) Challenges and opportunity for innovation.

- **Productivity, NRM, policies, market, product development**

Step 3: Identification and validation of stakeholders

The following should be noted in identification of partners,

1. **Partners are identified along the commodity value chain.**
2. **Partners must strong stake in the platform.**
3. **The partner should be engaged with output market as the pivot.**
4. **Partners' engagement should start from an identified and quantified output market.**
5. **Reference to input need, advisory services, processing, transportation, agricultural finance and insurance should also inform the engagement of partners.**
6. **Policy makers should be engaged.**

Step 4: The engagement of researchers:

Researchers are important to the generation of technologies along the commodity value chain.

1. Research should be represented by core research partners making direct contribution to the research agenda.

2. Representation of researchers should change as the prioritization of research topic change on the platform.

Step 5: Development of governance and management guidelines:

- IP varies in the degree of formality.

- Informal IP may have lose regulation guiding the operations, formal IPs will develop a set of well-articulated guidelines.
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- The orientation of IP in-terms of formality.

Step 6: Facilitation of stakeholders' interactions:

· It is anticipated that that the facilitation of the IP should be devolved to the extension system; however any of the stakeholders could initiate an IP and facilitate the process.

Step 7: Develop and implement business plan:

- The stakeholders all have equal right to decision on the platform; as such the business plan should be agreed upon by all.

- The implementation is undertaken by all partners and specified in the agreed business plan.

Step 8: The establishment of PM & E measures to draw lessons:

This is very vital to generation of innovation.

Most times, the platform could experience iterative learning along the pathway of generating innovation.

Step 9: Review of implementation and lesson learning:

1. This may include the review of business plan in response to lessons and re-assessment of priorities.

2. At this stage, the platform may assess other issues on the platform that require intervention along the commodity productivity chain.

Conclusion:

- IAR4D provides a holistic approach to solving the problems of agricultural research in Africa.

- IAR4D concept is implemented through the innovation platform.
- Innovations are generated at the interface of the interaction of all stakeholders along the value chain on the IP.
- The adoption of IAR4D concept is fast spreading among ARD stakeholders and countries in Africa.

Dr. Wole Fatunbi.

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Dr. Shinan Kassam.

Participatory facilitation of innovation platforms for out-scaling agricultural technologies. Egypt, Cairo – April 25th – 30th, 2015. ICARDA.

Agricultural innovation systems explained - YouTube.mp4

THANKS