A Resource Manual for Training in Integrated Agricultural Research for Development (IAR4D) in Innovation Platforms

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FARA
Forum for Agricultural Research in Africa

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Foreword

Efforts to develop Africa agriculture have taken the center stage in the international agricultural development agenda in recent times. This is due to the realization that the agricultural sector will play a pivotal role in the development of the different African countries. Agriculture remains the largest employer of labor in Africa but the contribution of the sector to the economies is low suggesting that the marginal productivity of labor is low. A number of reasons could be given for this situation, but more importantly is the failure of the system to translate scientific interventions into socio-economic benefits and development outcomes.

Agricultural research has generated numerous relevant technologies with high potentials, but the impact of the technologies on farmer's productivity, livelihoods and quality of life, have failed to achieve their potentials. Most times, benefits from promising technologies are hampered by institutional constraints; this scenario often calls for sourcing solutions to technological and institutional constraints around the commodity of interest in a concurrent manner. Generating solutions in this mode will require a complete change in the way agricultural research activities are conducted, from a disciplinary format to a systems mode that engages all the relevant interested and committed stakeholders and multiple institutions.

The Forum for Agricultural Research in Africa (FARA) proposed the adoption of Integrated Agricultural Research for Development (IAR4D) as an innovation system framework that should form the basis for efficient transformation of agricultural research in Sub-Saharan Africa. The IAR4D concept aims to transform the linear configuration of Agricultural Research for Development, ARD, by conducting research using the innovation system approach, where stakeholders within an agricultural system or commodity value chain are made to interact to jointly identify problems, source solutions, and implement solutions untill an innovation is generated. Within the IAR4D confines, the innovation generation process follows the network configuration rather than the linear path, and involves the continuous interaction of the different stakeholders for knowledge generation, exchange and lesson learning in a practical mode. The issues encountered while working in this mode will include the technical, social, institutional, and the economic parts of the innovation pathways. Apparently, innovations will not occur until the commodities are fully commercialized and bring profits to stakeholders that are engaged in production.

In the last decade, FARA has taken responsibility to work with its constituents to develop the IAR4D concept and conduct rigorous experiments for the Proof the Concept. This has been accomplished and the concept has been proven to lead to high adoption of technologies, high returns on research investments, high productivity from agricultural production, ease of sourcing solutions to institutional issues around markets, input delivery, engagement of policy makers and effective partnerships between the private and public sector practitioners in agriculture.

Furthermore, the use of the concept in generating many agro-businesses and translating the peasant smallholders to small and medium scale businesses. Efforts at up-scaling and out-scaling the benefits of the IAR4D concept involved the development of a strategy to ensure its quick spread across the Africa continent. This will work faster when the concept is streamed into continental framework for agricultural development viz., the Comprehensive Africa Agricultural Development program (CAADP), the Science Agenda for Africa Agriculture (S3A), the Science Technology and Innovation Strategy for Africa (STISA) and the National Agricultural and Food Security Investment Plan (NAFSIPS).

This concept will require some changes in the

wider institutional and policy environment to suit the requirements of the IAR4D concept underpinning systems thinking about innovation, evolutionary economics, and social learning separately to conventional thinking about agricultural research and development. It is important to further develop the capacity of the agricultural research and development stakeholders in implementing the concept and adapting it to the different social and cultural dimensions on the African continent.

In the light of the foregoing, FARA facilitated the development of this Training Resource Manual as a state of the knowledge document on IAR4D concept for wide range of categories of agricultural research and development stakeholder- This publication comprises of Ten Training Modules covering the essential aspects of the concept of Integrated Agricultural Research for Development and the setting up and management of Innovation Platforms. It also presents Practical Working Group Activities as well as necessary Background Reading to support efficient training delivery in IAR4D in Innovation Platforms.

Yemi Akinbamijo PhD
Executive Director
Forum for Agricultural Research in Africa (FARA)

The Purpose of this Training Manual

FARA has published this training resource manual for Trainers to contribute to strengthening the capacity of agricultural research scientists and related stakeholders in understanding the concepts, principles and practice of Integrated Agricultural Research for Development (IAR4D) for the generation of agricultural innovation and impact. To achieve this purpose, the manual will serve as a guide for trainers who are conducting group training courses in the application of the principles of IAR4D in the establishment of Agricultural innovation platforms in Africa. The Topics covered in this Manual include the following

- General overview and discussion of advances in Africa agricultural research and its development implications.
- Understanding the concepts of the inno vation system approach in agricultural for development.
- Understanding of the application of the Integrated Agricultural Research for Development (IAR4D) research concept in the generation of agricultural innovations.
- Guidelines on setting up and management of innovation platforms for agricultural development

The development of this training manual has benefited from several years of conducting training in IAR4D for a wide variety of clients in African agriculture, complemented with continuous consultation and interaction with national, regional and international development partners and stakeholders. Thus the Manual has been enriched by a synthesis of experiences from all over Africa and the developing world.

This Resource Manual is not meant to be prescriptive; rather, trainers should use it as a framework to plan and conduct group training courses in IAR4D in specific operational contexts and environments. In this way, the IAR4D training captures the complex and heterogeneous features of particular environments to make the training relevant to different situations.

The topics elaborated in this manual should be complemented with participatory dialogue, coaching, continuous learning and mentoring.

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Structure of this Training Resource Manual

This Resource Manual is presented in the following form.

The main editorial content of this Manual consists of an introductory section which sets the scene for conducting training in IAR4D in Innovation Platforms. This introductory section is followed by 10 Technical Modules which treat specific topics in IAR4D, as well as the characteristics, establishment, management and evaluation of the performance and delivery of Innovation Platform activities. Integrated into each technical Module are Illustrations which provide visual representations of the concepts elaborated in the specific technical Modules. These illustrations are incorporated here to facilitate more rapid understanding of the concepts of IAR4D in Innovation Platforms. Trainers may use these illustrations as a guide to prepare PowerPoint presentations and to prepare Practical Handouts to guide Working Group activities.

Here are some specific guidelines on how to use this Resource Manual

1. This book is a resource manual for trainers. It is designed to provide technical materials and suggested guidelines for Trainers who plan to conduct group training courses in IAR4D in Innovation Platforms. FARA developed the training content in this manual over several years of organizing training courses for a wide variety of stakeholders in IAR4D in Innovation Platforms in Africa.
2. The contents of this resource man ual are organized in Modular form into 2

Using this Training Manual

major themes, namely (i) Modules 1 – 4- understanding the concept and principles of integrated agricultural research for development IAR4D, and (ii) Modules 5 – 10 - the concept, principles and practice of setting up and management of Innovation Platforms. This arrangement illustrates the concept that Innovation Platforms serve as the operational framework for IAR4D. And your training should focus attention on this concept.

3. Although this manual contains 10 modules, do not hesitate to customize or adjust the training content of the modules to suit the type of participants to be trained in specific training courses. For example, the content of a course for researchers should emphasize the IAR4D modules while a course for extension agents and development partners may focus more on the setting up and management of Innovation Platforms.
4. Key Training Notes are provided in each Module to assist Trainers to treat the topics. Additionally, Background Reading is provided for each Module to facilitate preparation of the training presentations. Read these background briefs and use them to prepare your training notes. Trainers are encouraged to complement these notes with relevant materials from the Recommended Reading listed in the end matter of this manual, as well as ex periences from research in IAR4D.
5. Adopt a fully participatory mode when conducting this training course to ensure that all participants fully understand the topics of the Modules. Avoid lecturing and conduct the training to fully engage all participants.
   Remember that you are conducting TRAINING, NOT lecturing or Teaching.
6. Enrich your training with real Case Studies, Role Plays, Practical hands-on Working Group Exercises and Ice-Breakers; these should consist of Relevant Quotations, Jokes, Body Movements Exercises and Group Activities....
7. Ensure that the Case Studies you use to illustrate specific topics are relevant to the environments of the participants; this will facilitate understanding of the topic.
8. During training, sub-divide the training participants into Small Working Groups of 4-5 persons. Prepare simple and clear instructional handouts and explain fully the group exercises before the working groups commence on their tasks
9. Specific Objectives have been indicated for each Module. After treating the module, conduct a participatory evaluation exercise to determine the extent to which the Module objectives were achieved.
10. The following Guidelines will help you to use the Illustrations integrated into the technical Modules of this Resource Manual

- Use the Illustrations integrated into each Module to prepare presentations for treating the topics selected in training contents for specific target groups
- The Illustrations cover a wide range of topics in IAR4D in Innovation Platforms. Select the illustrations that are relevant to the topics to be treated during training and use these illustrations to prepare your PowerPoint presentations or to prepare prints to accompany the Training Notes to be provided to Trainees.
- You may also select illustrations from here to prepare Handouts for Practical Working Group sessions during training.
- Although these illustrations are designed

to serve as a guide for Trainers, do not confine yourself to these illustrations. You may modify or customize them to suit particular circumstances of your training environment. This will make your training delivery interesting and highly successful.

11. At the end of each day, conduct a participatory daily evaluation of how your training participants have felt during the day. Use the Daily Journal Form at the end of this section to conduct this exercise. Make many photocopies as handouts for distribution to participants for daily evaluation.
12. At the end of the training course, conduct a participatory evaluation of the entire course, especially the technical content of the Modules as well as the administration and overall management of the course. The result of this general course evaluation will help you to improve future course delivery.
13. On the last day of the course, allocate adequate time for planning back-home activities to disseminate information on the knowledge and skills acquired during the training course.

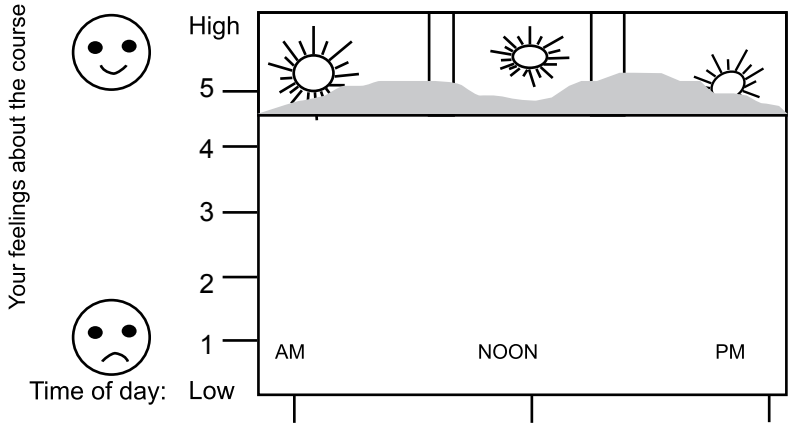
DAILY JOURNAL FORM

1. What breakthroughs have you had today or what new information have you acquired which you consider significant?

.....
.....
.....
.....
.....

2. Using the figure below, indicate what feelings you were experi encing about the course at three points during the day and average them.

Average:……



What suggestions do you have for the trainees or trainers?

.....
....
.....
.....
.....

Sources: WARDA 1991 Training Agricultural Trainers:Course Instructors Manual - Course Handouts

What does this Module cover?

In this Module, we shall define the goals of this training session and provide an insight into the structure, organization and management of the event.

Objectives

On completion of this Module, training participants will be expected to

1. Know each other and share their expectations of the training.
2. Be acquainted with each other and be familiar with members of the training faculty
3. Initiate networking amongst participants for after training interaction
4. Communicate their individual and group expectations of the training course
5. Have established ground rules and working norms to govern behavior during the training sessions.

Climate Setting

At the start of each module, conduct a brief discussion (about 15 minutes) on climate setting.
Ask participants if they have any previous information and knowledge about the topic

of the Module. The discussion should focus attention on any perceived differences in the concepts and understanding of the topic. Note that there should be no right or wrong answers or opinions but only alternatives. At the end of the discussion, all participants should be prepared, with open minds, to discuss and fully understand the Topic of the Module.

Networking

Participants Introductions

The training event is a good opportunity to establish contacts to develop networks for researchers and practitioners in IAR4D/Innovation Platforms and with other relevant people involved in IAR4D and innovation platforms for agricultural development. In effect this exercise will initiate the development of a "Community of Practice on IAR4D in Innovation Platforms"

Activity: Participants should introduce themselves, by mentioning their names, institutions, areas of specialization, the nature of their professional work and their specific responsibilities at work.
After verbal introductions, conduct the following Group Activities 1 & 2 on networking; distribute this handout to participants for individual and participatory exercises.

Group Activity 1- *Networking: Participants Information*

ASSIGNMENT
Please write a half page brief about yourself using the following suggested profile format:

Name
Institution
Full Contact addresses

- *Postal, fixed & mobile telephone, fax, email, Facebook, twitter, etc.*
- *Education and professional experience*

University and related education, working experience, training received etc
Professional activities
Current job responsibilities in relation to agricultural extension, agricultural education, farmer training, technical support to farmers etc

Hobbies
Non-professional interests and activities
eg sports, music, climbing mountains, boating, religious activities, photography judo, writing novels etc
Completed briefs should be handed over to the Facilitator.

while rules are normally established by people in authority.
Conduct a discussion session to establish behavioral norms/ground rules which will apply throughout the training course. List the norms and rules, as well as the sanctions for non-compliance agreed during this session on flip charts.
The flip charts should be pasted on the wall of the training room, to be continuously visible to all participants at all times.
At the start of each day session, the group should appoint a participant to monitor compliance with the norms and ground rules. Additionally, there should be a list of sanctions to be applied to any persons who violate the norms or ground rules.
Typical examples of behavioral norms/rules are;

- Respecting the scheduled times for the training session.
- Switching off or placing mobile phones on vibration during the training session
- Not sleeping during the training sessions
- Respectful behavior to other participants and to the training team.
- Cooperative behaviors and willingness to participate in group activities.

Networking

Paired Interactions

Prepare this handout for distribution to all participants. Ask a participant to facilitate this session.
Record Participants Expectations from the training course
Next, conduct a group exercise to harvest participants' expectations from this training course. Here is the exercise.

Establish Behavioural Norms/Ground Rules

Behavioral norms/Ground rules are vitally important for the smooth management of the training course. Behavioral norms are codes of conduct established by general consensus

Group Activity 2 – *Networking: Paired Interactions*

ASSIGNMENT

1. Choose a partner to work with and sit together for 10 minutes to get to know one another.

2. Ask your partner key questions about his/her professional career and interests outside work.

3. Write down the answers to the questions.

4. Each of you should now write down five good things about yourself.

5. Write five good things that you have done for other people (e.g. relations, parents, wife, and children) or the community – which you are proud of during the past 2 weeks.

6. Exchange these notes and prepare to present your partner to the whole Group during the plenary.

Group Activity 3 – *Participant's Expectations from this Training Course*
Ask one participant to volunteer to facilitate the session.

ASSIGNMENT

1. *Sub-divide participants into Small Working Groups of 4-5 persons per group. Provide each group with flip chart papers and markers.*

2. *Each group should write no more than 5 expectations from the course. After 20 minutes, each group presents their expectations to the entire training group in a plenary session. The Facilitator guides the session.*

3. *After all presentations and general discussion the facilitator summarizes the expectations and writes them on flip charts.*

4. *The flip charts with summarized expectations are pasted on the wall of the training room so that participants continue to view the expectations throughout the course.*

Technical Briefing

- describe training content and training administration
- Prepare and make a PowerPoint presentation to explain the details about the training course. Your presentation should include the following aspects

• Objectives of the training course
• Course Contents & structure of the Modules
• Training Duration, mode and schedules
• Training faculty & Training Administration
• Administrative arrangements for the course

– accommodation, medical facilities, travel, financial arrangements
• Return travel arrangements
• Ideas for Training follow up actions

During this briefing session, allow adequate time and opportunity for participants to ask questions, raise issues or provide helpful information which would help in the successful management of the training course.

Module 1 Evolution of African Agricultural Research Systems

Introduction

What does this Module cover?

This Module covers key aspects of the evolution of African agriculture and the challenges which have been addressed by agricultural research in Africa. This Module provides the background and framework for common understanding of current changing paradigms, challenges, and the concept of Integrated Agricultural Research for Development, (IAR4D).
Objectives
On completion of this Module, training participants will....
1. Identify and describe the challenges of Agriculture Research for Development.
2.. List and explain the changing paradigms in Research for Development.

Key Training Notes

Characteristics and Constraints of African Agriculture and Agricultural Research

- African agricultural research has not realized its potential contribution towards improving the livelihoods of Africans, especially smallholder farmers.
- Constraints to African agriculture: challenges include

i. Populations growing faster than economic and agricultural growth
ii. Rural poverty
iii. Degradation of the Environmental and natural resource base
iv. Inefficient natural resource management
v. Weak agricultural Policies and Markets
vi. Unstable commodity prices
vii. Globalization
viii. Increasing protectionism of the West
ix. Rising energy costs
x. Challenges of new waves of technology
xi. Climate change
xii. Traceability

The Problem Tree Approach

- The Problem Tree Approach (illustrated in Figure 1) can be used to analyze and diagnose the problems of African agriculture in each agro-ecology or African country.

Success Stories in African Agriculture

- Despite these constraints, African agriculture has achieved numerous success stories, examples

i. Variet al improvements (NERICA, climbing beans, mosaic resistant cassava etc)
ii. Alternatives and supplements to expensive inputs (soil fertility, fodder, pest management)

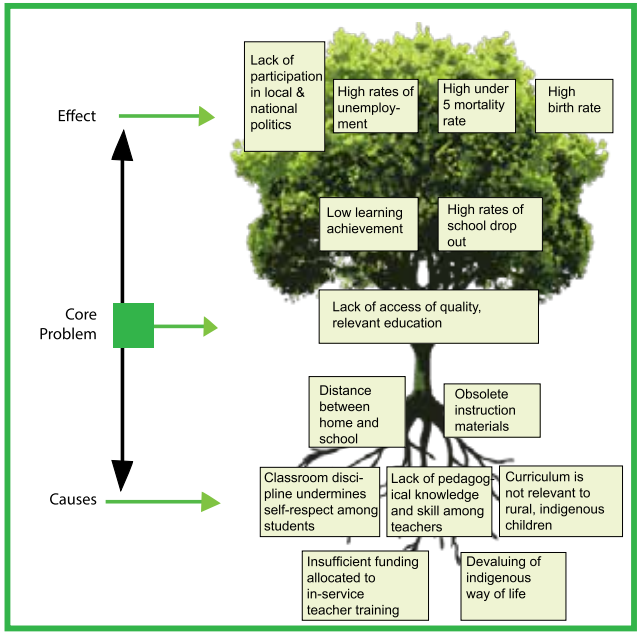
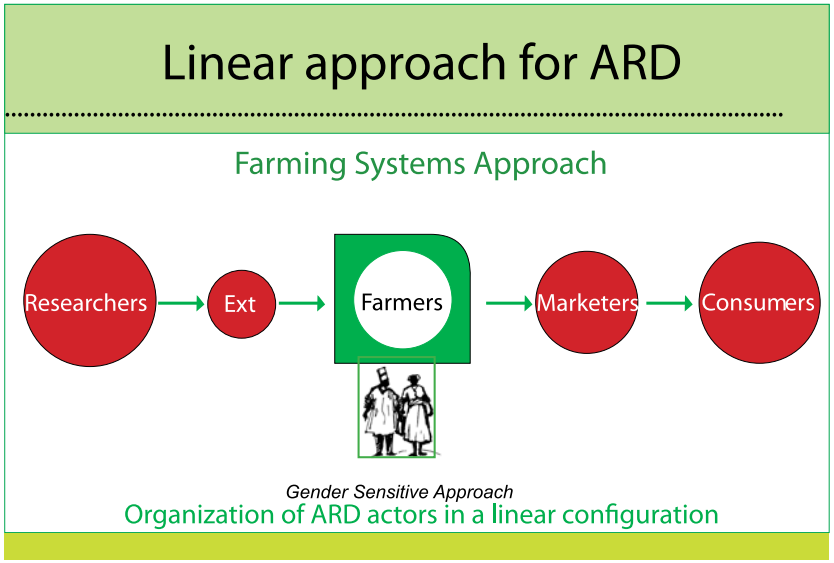


Figure 1 Diagnosing a Problem using Problem Tree Approach

iii. Integrated Natural Resource Management - INRM
iv. Approaches to R&D (Farming systems research; participatory research, scaling up)
- However, the impact of the technologies did not match their potentials

i. Institutional setting of the research system cannot support scaling up of the technologies.
ii. Approaches to R&D are not all encompassing. Technologies being hindered by Institutional Barriers as illustrated in these diagrams the requirement for change.

"institutional barrier will prevent socioeconomic benefits"



Evolution in the ARD system

The problems of African agriculture have been addressed through an evolution of the Agricultural Research and Development (ARD) system consisting of the following themes

i. Traditional linear model for research and extension
ii. Farming systems perspective (OFR/FSP)
iii. Participation/participatory research methods
iv. Action research
v. Rural livelihoods
vi. Agri-food systems/value chain
vii. Positive deviance
viii. Knowledge development, dissemination and use
ix. Doubly green revolution
x. Rainbow revolution
xi. IAR4D – Integrated Agricultural Research for Development

The Linear approach for ARD

Other Approaches

1.Action Research

Philosophy — learning by doing, (Ideas are borrowed, tested and adapted to local circumstances;

***Attributes**:*

• Turning people involved in the process into researchers.
• Always connected to social action
• Takes place in real world situation
• Action research is typically cyclical

2. Rural livelihoods

• Poverty is multidimensional — income, vulnerability, lack of voice etc.
• Poor have some assets, used for multiple livelihood strategies and outcomes
• They often manage a portfolio of part time activities
• Poor are deprived of entitlement, and have inadequate knowledge and power to claim them

3. Positive deviance

‘ Deviance’ refers to departure from the ‘norm’
- PD is the departure from the norm which results in positive outcomes
- Leads to solutions that are cost effective,
- internally sustainable, owned and managed by community
- Positively deviating individuals have exactly the same resources as their non-PD neighbors.
- Identify and amplify PD — use PDs as change agents.
- Discover original local answers to problems and give everyone access to the secrets.

4. Doubly Green Revolution

- A revolution which is more productive and green.
- Aims to be equitable, sustainable, and environmentally friendly
- Knowledge intensive methods to promote agricultural and rural development.
- Focus on both high risk marginal and remote environment as well as high potential areas

5. Rainbow Revolution

Based on:
- Combination of science and policy with community empowerment and NRM.
- Healthy crops and environmentally sound and profitable small holder farming systems (green)
- Diversity of farming systems that reflects African realities and institutions

Key components

- Agriculture, Nutrition, Politics, Markets, Ec system regeneration and Policies

Differences in the system

Reflecting of Evolution of ARD systems scenarios

Critical Agenda for ARD Reform – to significantly improve agricultural research delivery

i. Redefinition of role of government in agricultural R&D.
ii. Decentralization/privatization of agricultural R&D activities
iii. Broader and active stakeholder participation— pluralism in service provision, networks and partnerships
iv. New funding arrangements
v. Separation of financing from service provision and research execution.
vi. Changing the funding base to competitive funding.
vii. Orientation of R&D to be more outward looking, client oriented and impact driven.
viii. Embracing Systems perspectives

ARD System Scenario	Partners Engagement						Market consideration	Value chain consideration	Research demanded by Users
Research	Extension	Farmer	Policy	Private	End user				
Traditional linear model for research and extension	yes	No	No	No	No	No	No	No	No
Farming systems perspective (OFR/FSP	Yes	No	Yes	No	No	No	No	No	No
Participation/ participatory research methods	Yes	Yes	Yes	No	No	No	No	No	Yes
Action research	Yes	Yes	Yes	No	No	No	No	No	No
Rural livelihoods									
Agri-food systems/value chain	Yes	No	Yes	No	No	No	yes	yes	No
Positive deviance	yes	No	yes	No	No	No	No	No	No
Knowledge development, dissemination and use	Yes	No	yes	No	No	No	Yes	No	No
Doubly green revolution	Yes	No	Yes	No	No	No	No	No	No
Rainbow revolution	Yes	yes	Yes	Yes	No	No	yes	No	No
IAR4D	Yes	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Group Activity 4: *Using the Problem Tree to diagnose a problem*

Conduct a group activity exercise on the Use of the Problem Tree Approach

ASSIGNMENT

1. *Through consensus, select a participant to facilitate this Activity*
2. *Participants should select 4 African countries as case studies*
3. *Working Groups should sit in their groups. Assign each country to one Working group*
4. *Use the Problem Tree Approach to analyse and diagnose the most important problems of commodities in Innovation Platforms in the selected African country*
5. *Each Working group to present their output in a plenary session*
6. *After all presentations, conduct a general discussion on the merits of using the Problem Tree Approach to analyze and diagnose the agricultural problems of a country.*

Background Reading

Agenda for Reforms in African Agricultural Research

Sub-Saharan Africa is the only region in the world where, overall, livelihoods and food security continue to deteriorate. The number of Africans living below the poverty line is estimated at 48.5%. The majority of Africans still face widespread rural poverty, worsening food insecurity, and degradation of the resources on which their farming systems depend. Today, half the population of Africa – 550 million people – lives on less than US$1.5 per day. Forty eight percent of people over the age of 15 are illiterate, and 42% of the population lack access to safe potable water. Twenty percent (20%) of the population, most of them women and children, are undernourished. These conditions are linked to life expectancy at birth of only 52 years. Seventy percent of the population (1.11 billion people) lives in rural areas, and more than 90% of these rural dwellers live on small-scale farms. Although the economies of sub-Saharan Africa are essentially based on agriculture, for over three decades the region has faced a structural food deficit whereby food production has failed to keep pace with population growth. To compensate for the shortfall in food supply, Africa receives the highest per capita quantity of food aid in the world. Taken as a whole, the problems faced in Africa represent a humanitarian crises, as well as threatening peace in the region, the conservation of unique environments and biodiversity, and the continent's ability to take up its proper role in expanding world trade. For farmers, one's geographic and socio-economic location determines the particular configuration of hardships to be faced. In the semi-arid regions of sub-Saharan Africa, farmers and pastoralists have to contend with extreme natural resource challenges (limited water, poor soil fertility, and availability of organic amendments). They also have few technology options, and are constrained by limited infrastructure and links to markets. In the densely populated highlands, available land is scarce, water and other resources are becoming more limited, and off-farm income sources are not readily available. Declining soil fertility and erosion are major concerns, as are increased pests and diseases. In all cases, input supplies and credit are limited. Traditional production systems of rural households were geared for subsistence, and were generally sustainable under conditions of low population pressure and isolated markets. However, this equilibrium is increasingly stressed by population growth, which in turn triggers either intensification of agriculture or expansion into marginal lands. Inappropriate crop and land management practices under either of these scenarios strip the soils of nutrients and organic matter and leave them vulnerable to degradation, reducing both the productivity and sustainability of agricultural systems over time. In addition, expansion into marginal areas brings increased risk of crop failure, environmental degradation and loss of biodiversity.

Further aggravating these problems are emerging forces such as the uncertain consequences of climate change, and the growing strength of urban markets which in turn affects labor and cash movements between rural and urban areas. Community expectations for services are also increasing in response to the integration of urban and rural livelihoods, physical (roads) and social (schools) infrastructure development, and general economic growth. These higher expectation levels drive competition for available resources and investment capital, often at the expense of investment in natural resource management.

In these circumstances, rising rural poverty leads to lack of investment in the natural resource base and overexploitation of ecosystem services. The pressures outlined above lead to an erosion of the natural resource base because incentives to conserve natural resources are weaker than the immediate rewards of simply extracting them. A vicious circle arises, characterized by: (a) agricultural practices that are detrimental to important ecosystem services, such as water conser-

vation, biodiversity management, carbon sequestration; (b) a level of resource degradation that threatens the medium- to long-term ecological sustainability of agriculture in the region; and (c) the failure to generate sufficient financial and social capital for rural communities to secure the health and education of their members, and to catalyse economic development at local levels and beyond. The ubiquitous land degradation in Africa, whether manifested in terms of soil erosion, nutrient depletion, desertification, deforestation or overgrazing, is both a cause of poverty and low productivity in rural areas and a symptom of the multiplicity of factors that drive both poverty and food insufficiency.

The state of land degradation reflects both a dramatic draw down of natural capital and a simultaneous lack of investment in replenishing it. Success in motivating investment in natural resources requires incentives, inputs, information, and institutions more or less concurrently.

One of the principle drivers behind this vicious circle is low agricultural profitability. Smallholder agricultural production is characterized by very low profit margins. Low farmer purchasing power limits access to inputs that could substitute for natural capital. The problems are even worse for the increasing numbers of female-headed households, given endless demands on women's time and money. The low purchasing power of farmers and the high costs of distribution within the smallholder economy also constrain investment in input markets, particularly seed and fertilizer markets. Agricultural markets tend to be fragmented, thin, and inefficient. Assembly, bulking and storage of small quantities of smallholder produce is expensive, and private sector investment in better transport and storage facilities is limited. Market inefficiencies also result from ineffective contract enforcement, and the high costs of connecting dispersed smallholder production to distant (in infrastructural terms) urban or international markets.

Unless the vicious circle described above – of unsustainable agricultural practices and unfavorable economic returns to agricultural production – is broken, Africa will be unable to guarantee viable livelihoods for its rural populations, nor ensure broader economic development for its citizens.

However, not only are the problems at the farm level becoming more complex, but the global economic context and the institutional environment in African nations are also in flux. With regard to global economic conditions, Africa is faced with the need to raise smallholder productivity at a time of historically low world commodity prices. Support policies, technical change, and market efficiencies in more advanced countries have combined to increase the competition in world markets and lower prices for agricultural products. Structural adjustment and market liberalization should theoretically enable African agriculture to compete with world producers. However, except for coastal West Africa, African farmers and markets are constrained by high transport and transaction costs that limit participation in world bulk commodity markets. Increasing the profitability of African agriculture will therefore depend in large part on improving the efficiency of domestic markets serving growing urban populations.

In terms of the African policy and institutional setting, improving private sector participation and the efficiency and reach of agricultural markets remain key objectives within a policy environment generally committed to minimal government intervention. Incentives to conserve natural resources were strengthened during the 1980s and early 1990s by institutional changes designed to facilitate market liberalization, democratization and decentralization of public sector services. However, while necessary, market liberalization policies and structural adjustments were not sufficient to foster the development of efficient agricultural markets. In fact, as governments withdrew from the markets, consumption of purchased inputs such as fertilizer fell markedly, and in most cases has not recovered. Limited government budgets will not support a return to the types of subsidies and market interventions that characterized the early part of the post-colonial period. Policies must

therefore move away from price and market interventions into strengthening institutions, infrastructure, and technical change processes to foster profitable production and links to growing urban and sub-regional markets. This is consistent with the success of African agriculture in peri-urban areas, in commodities such as smallholder dairy produce for which there is growing urban demand, and in countries such as Nigeria where there has been marked investment in road and transport infrastructure. The task is to find ways to extend such market and infrastructural development to enable improved access to urban markets by larger agricultural areas and rural populations.

Core Reform Issues
(Source : Anandajayasekeram P, et al . 2008)

The policy and institutional context in which agricultural research and innovation occurs has changed dramatically. Rapid changes continue to take place in the structure and authority of governments, the global economy, the structure of the farming sector and in the global and local food industries and retail businesses. The institutional landscape is also changing dramatically. The 'third parties' (such as civil society, farmer organizations and NGOs) are increasingly playing an important role in agricultural R&D. Cross sectoral linkages between agriculture and other sectors (such as water, health, energy and education) are becoming increasingly important. The agricultural sector is expected to play a significant role in poverty alleviation and food and nutrition security, while protecting the environment.
Research and support services are now inextricably linked to the broader development questions. With reduced funding support, the agricultural R&D system is now forced to face questions on its continuing relevance, approaches, accountability and impact. Since independence from colonial powers, most developing country research and extension managers have been forced to grapple simultaneously with five complex transitions which ultimately will influence the productivity and sustainability of the R&D system.
These are:

- Managerial transition—from colonial to local research and extension administrators;
- Scientific transition—from expatriate to national scientists;
- Financial transition—from dependence on financial support from colonial governments and large-scale farmers to mobilizing support from national governments, donors and beneficiaries;
- Political transition—from commercial farms to smallholders to private research and extension; and
- New forms of public–private–civil society research–extension partnerships.

At present the three core institutions in the agricultural knowledge triangle—research, extension and higher education—have been downsized and restructured and new private institutions are now in stiff competition with their public counterparts.
In most developing countries, the public sector agricultural R&D system has been characterized by buildup of research personnel, declining levels of operating resources per researchers and growing reliance on donor funds. Today most NARIs are constrained by recruitment freezes or lack of finance to hire new staff or retain existing staff (inadequate support, low pay); budgets highly committed to staff salaries and benefits, i.e. existing establishment costs; budgetary constraints that focus on short-term activities, geographical areas and limited number of commodities; and lack of strong national or rural development policies in favor of resource-poor smallholders and sustainability.
Recent studies (Biggs and Smith 1998; Hall and Nahdy 1999; Ashby et al. 2000; Chema et al. 2003) show that many organizations, especially publicly funded agencies dealing with agricultural R&D in developing countries are facing a crisis of confidence among key stakeholders due to:

- lack of strategic planning that indicates future directions
- inward looking attitudes
- poor participation and cooperation of

end-users in research activities
- inadequate monitoring and evaluation systems
- top-heavy, bureaucratic procedures
- insufficient resources for effective implementation of priority research
- lack of effective external linkages and
- lack of evaluation and performance culture.

This crisis has been found to result in organizational inefficiencies, lack of adequate stakeholder participation and responsiveness, decreasing investor confidence, inadequate staff motivation and morale, limited research and service outputs, limited uptake and utilization of research findings and a 'brain-drain' from the public sector.

The reform agenda within the R&D arena includes: redefinition of the role of government in agricultural R&D, decentralization/privatization of agricultural R&D activities, broader and active stakeholder participation-pluralism in service provision, networks and partnerships and new funding arrangements.

The new funding arrangements include: separation of financing from service provision and research execution and changing the funding base to competitive funding. Orientation of R&D to be more outward looking, client oriented and impact driven and embracing of 'systems' perspectives are also part of the reform agenda in the R&D arena. Some of the exogenous trends contributing to the reform process are changes in the political, socioeconomic, market and institutional context together with changes in the demand for R&D services, research technologies, methodologies and approaches. Managing this complex environment requires a range of skills and tactical planning, and shift in paradigms.

Recent developments in the context of agricultural R&D present certain challenges to agricultural research and innovation in developing countries.

These developments include:
- Confronting new priorities in a rapidly changing world (e.g. stronger demand for competitive and quality-conscious agriculture) and adapting to changes within a more complex innovation systems framework where there are a greater number of actors and linkages to consider;
- Redefining the role of government in agricultural research and service provision and defining the role of the private sector, civil society and end users;
- Strengthening the demand side of agricultural research and services to ensure that these programs are more responsive and accountable to end users;
- Developing a clear understanding of the institutional structures needed at the national, regional and subregional levels for agricultural research and service provision and of whether, and how, this understanding would imply changes in the current structures present at national, regional and global levels;
- Developing a clear understanding of the institutional structures needed at every level for agricultural education within the emerging food and agricultural innovation systems;
- Ensuring stakeholder participation and developing local, regional and global partnerships and alliances;
- Facilitating development of innovative funding instruments that make public institutions more sustainable, reduce donor dependence, and enhance co-financing by end users and others
- Assisting in developing mechanisms through which internal and external support for food and agricultural innovation systems in developing countries are better coordinated;
- Strengthening system linkages and coordination, including linkages between agricultural research policy and wider policies for science and technology..

Module 2

Systems Thinking and the Innovations Systems Approach to Agricultural Research and Development

Introduction

What does this Module cover?

This Module deals with systems thinking in agriculture to clarify the concept of systems thinking. And to create a common understanding of the evolution of the innovation systems approach to agricultural research and development in analyzing and characterizing innovation systems

Objectives

On completion of this Module, training participants will;

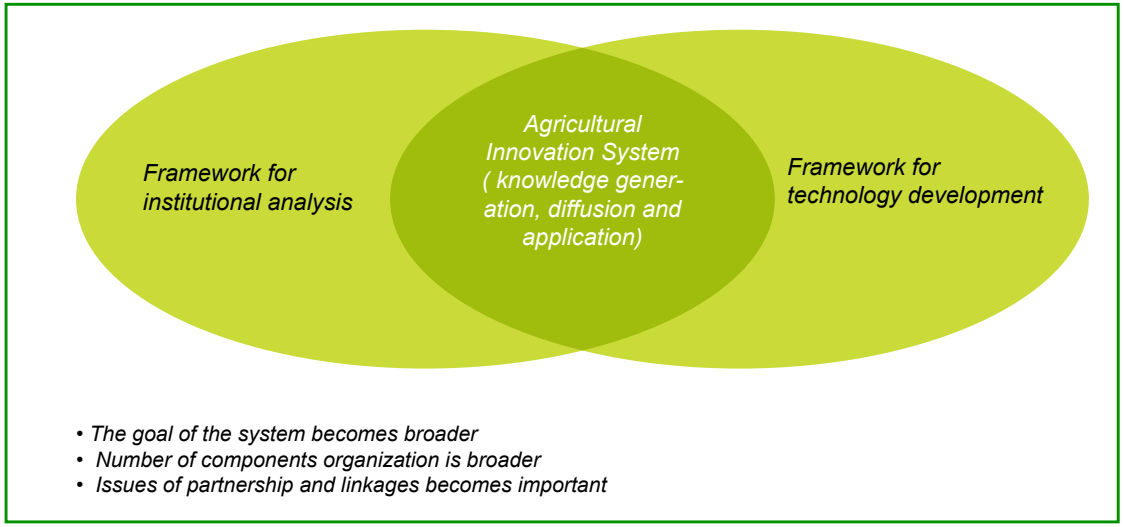
1. Understand the evolution and application of innovation systems thinking in ARD
2. Clearly understand different concept used in agricultural systems and their real meaning.

Key Training Notes

System thinking in Agricultural Research and Development - ARD

- A system is a collection of related elements that must function in a coordinated manner to achieve a desired result. It consists of interlinked subsystems
- The whole is greater than the sum
- Inter-related parts drive the system

Application of system thinking to Agriculture



- Feedback loops are central to the system behavior and are circular rather than linear in nature
- It provides a framework for technology development and dissemination.
- Organizational analysis within the re search and development continuum.

Definitions

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

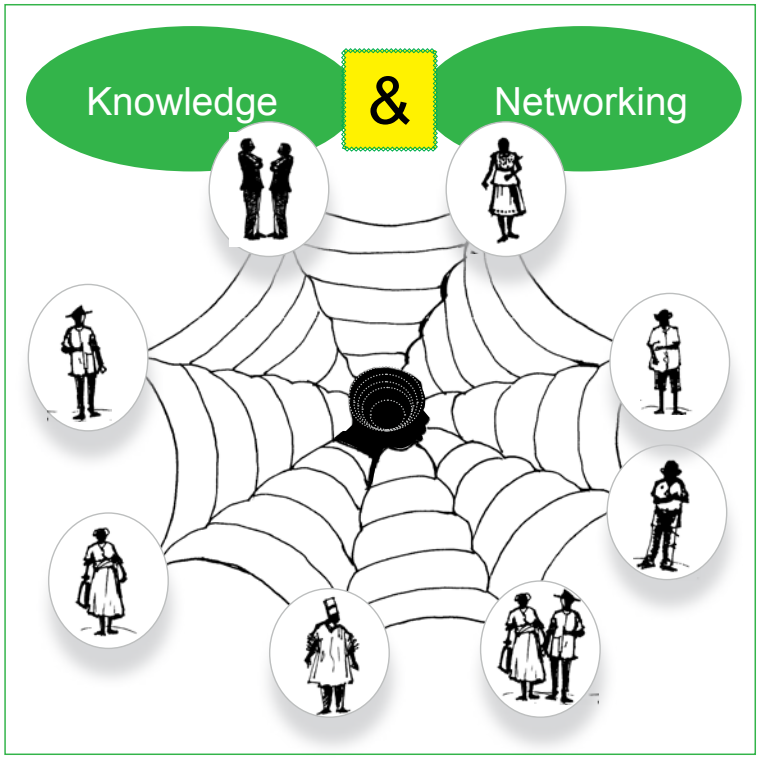
— economically successful use of invention is innovation, to delivers social and economic change.

Note: Knowledge cannot be regarded as innovation unless it is transformed into products and processes that have social and economic use.
In its broadest sense, innovation covers the activities and processes associated with the generation/production, distribution, adaptation and use of new technical, institutional, organizational and managerial knowledge.

Innovation

Could be in different dimensions: product innovation, process innovation, management and organizational innovation and service delivery innovation
Two important factors are…
Value of knowledge increases with its use, and exchange can only be realized in a cooperative environment
Organizations and Institutions
Organizations are entities created by individuals to support the collaborative pursuit of specified goals. Formal organization is that kind of cooperation that is conscious, deliberate, and purposeful

Institutions are the 'rules of the game' which prohibit, permit, or require certain actions. Whether formal or informal, they are recognized and generally followed by members of the community



Networking Communities of Practice is similar to a spider –web that connects all stakeholders.

Innovation is economically successful use of invention is innovation, to delivers social and economic change.

Note:
Knowledge cannot be regarded as innovation unless it is transformed into products and processes that have social and economic use.

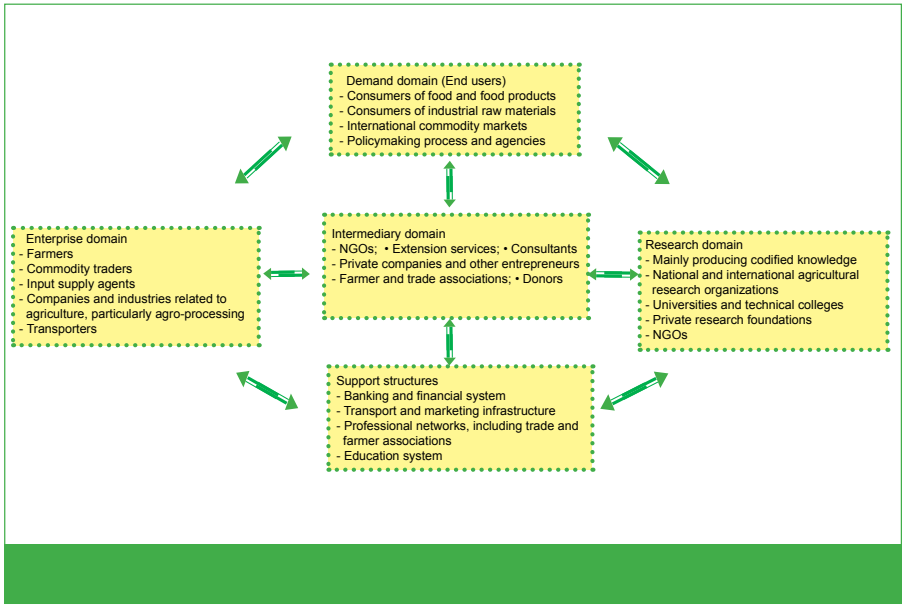
What is the Innovation System?

- 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.

It is not a theory, but an organizing principle

It Can be defined at different levels
It is an analytical construct
Agricultural Innovation System
A collaborative arrangement bringing together several organizations and individuals working towards a desired change in agriculture can be called Agricultural Innovation System (AIS) and Illustrated as follows.

Agricultural Innovation System



Attributes of Agricultural Innovation System

An innovation system incorporates:

1. The invention system, as well as
- the complementary economic processes required to turn invention into innovation and subsequent diffusion and utilization
2. Innovation systems do not occur automatically .
- the problem situation defines a particular innovation opportunity
3. Innovation systems are created for a purpose.
4. They will change in content and patterns of interaction as the problem situation evolves and
5. They are constructed at micro and macro levels.

Although the innovation system can be defined at different levels (national, sectoral, commodity and problem/intervention), the most relevant innovation system is the one that is constructed to address a particular problem.

Key features of Innovation Systems

1. Focuses on innovation as its organizing principle
2. Makes the distinction between 'organizations' and 'institutions' explicit.
3. Learning and role of institutions are critical
4. Partnership and networks are integral parts
5. Escapes the polarized debate 'demand driven' vs. 'supply push' for technologies.
6. Efficient information flow and the absorptive capacity of individual agents are crucial.
7. Leads us to new and more flexible organization of research and new type of policy making for science, technology and innovation.
8. Combinations of technical and institutional innovations.
9. Shifting roles of information producers, users and transfers of knowledge dependent on a need basis .

Factors contributing to adoption of Agricultural Innovation System

A number of factors contribute to the adoption of agricultural innovation Systems, viz.,

- Successful application of the concept in the industrial sector.
- Inadequacy of the existing framework to be all inclusive in terms of coverage.
- Inadequacy of the linear model to explain the process of innovation.
- Increased demand for demonstrated developmental impact — Impact orientation

Activities that could lead to innovation

1. Provision of research and development
2. Competence building
3. Formation of new product markets
4. Articulation of quality requirements ema nating from the demand side
5. Creating and managing organizations and institution.
6. Networking through markets and other mechanisms
7. Incubating activities
8. Financing

Conclusion

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 framework.

Group Activity 6 : *The Innovation Systems Approach*

Participants should go into their working groups. Each group should appoint a Facilitator

ASSIGNMENT

1. Discuss and prepare answers to the following questions in relation to your organization

a) Discuss how the innovations system concept is applied in ARD activities in your organization

b) Do you think that adopting the 'innovation system' approach will make the research processes more effective, efficient and impact-oriented? Please explain.

c) Identify three important changes needed to facilitate the application of innovation systems approach in your organization.

2. Each Working Group Facilitator to writes the results of the group work on the flipchart

3. Working Group Facilitators will present the working group report to the plenary

4. After all the presentations hold a general discussion session to synthesize and harmonize the Working Group reports

5. At the end of this exercise the Trainer will give general comments and feedback on this exercise.

Background Reading

Understanding Systems thinking and the Innovation Systems Approach to Agricultural Research and Development in Africa

The agricultural development process in Africa has witnessed the design and implementation of different projects with different approaches to deliver project interventions. Sometimes, these are very succinctly clarified and understood and effectively implemented and sometimes they are not. Many of these approaches have been introduced across the divides in an effort to achieve specific project objectives particularly in expectation that innovation would stimulate the desired improvements in agriculture development situation on the continent. The Humanitarian Innovation Fund (HIF) for example, administers its grants resources based on the perceived stages in the innovation process and the stage in which it wants to intervene on behalf of its clients. The HIF grant award recognizes five different stages in the innovation process which serves as a basis for its processing and tracing the progress of innovations.

The agricultural innovation system is a concept that when fully understood could enhance its implementation for project impacts. Unfortunately, not very many development practitioners are well acquainted with this concept to facilitate its use in driving efficient agricultural development process. Agricultural innovation may be regarded as the process of creating and putting into use a combination of knowledge from many different sources or the use of new ideas, technologies or ways of doing things to bring about significant changes in the life of all those involved in the process. It is the process of application of new or existing information in a different manner to create new knowledge that enhances the socio-economic wellbeing of the actors. Accordingly, innovation is a new technology, invention or a better way of applying or utilising existing information or knowledge to generate socio-economic impacts.

According to HIF, the innovation process is a dynamic one that focuses on the creation and implementation of new or improved products and services, processes, positions and paradigms. Successful innovations are those that result in improvements in efficiency and /or social-economic impacts.

This understanding of innovation attempts to succinctly clarify what may be termed as innovation, and examines the process that successful innovations may pass through from conception to scale-up. It also stresses the importance of recognizing that novelty in itself is not good enough and that innovations should rather be judged on the basis of their contributions to improvements in efficiency and social outcomes.

Innovation as an application of new knowledge and/or a combination of new and existing knowledge for economic gains is driven by investment in research and development. Extension and education is important to facilitating the process. However, today's challenges and rapidly changing contexts require a more flexible approach that fits into changing conditions and that enables all related actors to generate, use and apply knowledge as it relates to the changing contexts in which the actors are operating. This is the essence of inclusiveness in the development process. Innovation would therefore become effective when old and new knowledge is generated, shared and applied during the interactions by the different entities (individuals, organizations, institutions) to bring about efficiency and socio-economic impacts. In this respect, the innovation system would seem to be a collection of related elements that must function in concert to continuously improve performance. An innovation system will contain feedback loops crucial to the system behavior and that permits the system to function in a self-sustaining manner and managed in such a way as to inform what needs to be improved upon.

The Innovation Process

The innovation process may be compared to the process of evolution as it is fundamentally a dynamic process of improvement and

adaptation which strengthens organizations as well as individuals' ability to survive and thrive. The complexity and unpredictability of innovation notwithstanding, a successful innovation process is usually seen as proactive rather than reactive, and may, according to HIF, include some or all of the following five key elements:

1. Recognition of the specific challenge to be addressed or the opportunity to be seized in relation to the desired agricultural improvements been pursued.
2. Invention of a creative solution, or novel idea, which helps address a problem or seize an opportunity.
3. Development of an innovation by creating practical, actionable plans and guidelines.
4. Implementation of a innovation to produce real examples of changed practice, testing the innovation to see how it compares to existing solutions.
5. Diffusion of successful innovations – taking them to scale and leading to wider adoption outside the original setting.

Nevertheless, it must not be suggested or assumed that all innovations follow the linear process. Instead, the so-called clearly defined stages are at best broad and overlapping phases through which many innovations pass. In reality, progress is iterative and frequently non-linear – some innovations might never get past the early phases, and others might be discarded and later revived only after a fortuitous event or different application. There is no set path for innovation, and most innovation processes feature moments of fortunate happenstance or randomness and good or bad fortune.

According to HIF, the '4Ps' model developed by John Bessant and Joe Tidd provide a powerful tool for analysis of the above understanding of innovation. It builds on the hypothesis that successful innovation is essentially about positive change, and puts forward four broad categories where such change can take place:

- 'Product innovation' – changes in the things or outputs (products/services) which an organization offers
- 'Process innovation' focuses on the changes in the ways in which products and services are created or delivered
- 'Position innovation' – changes in the context in which the products/services are framed, and communicated
- 'Paradigm innovation' – changes in the underlying mental models which shape what the organization does.

Product Innovation

Perhaps the most commonly understood form of innovation is that which introduces or improves a product or service – a change in what is offered to end users. A good example of product innovation is the 'Mamera'drink produced from plantain by enterprising actors in the innovation platform in Uganda (Adewale, A.A. et.al, 2013).

Process Innovation

Innovations can also focus on processes through which products are created or delivered or the process that brings about more efficiency in the conduct of agricultural business. For example, the integrated agricultural research for development using the innovation platform (IAR4D) is a process innovation that has enhanced the conduct of agricultural research and development activities.

Position Innovation

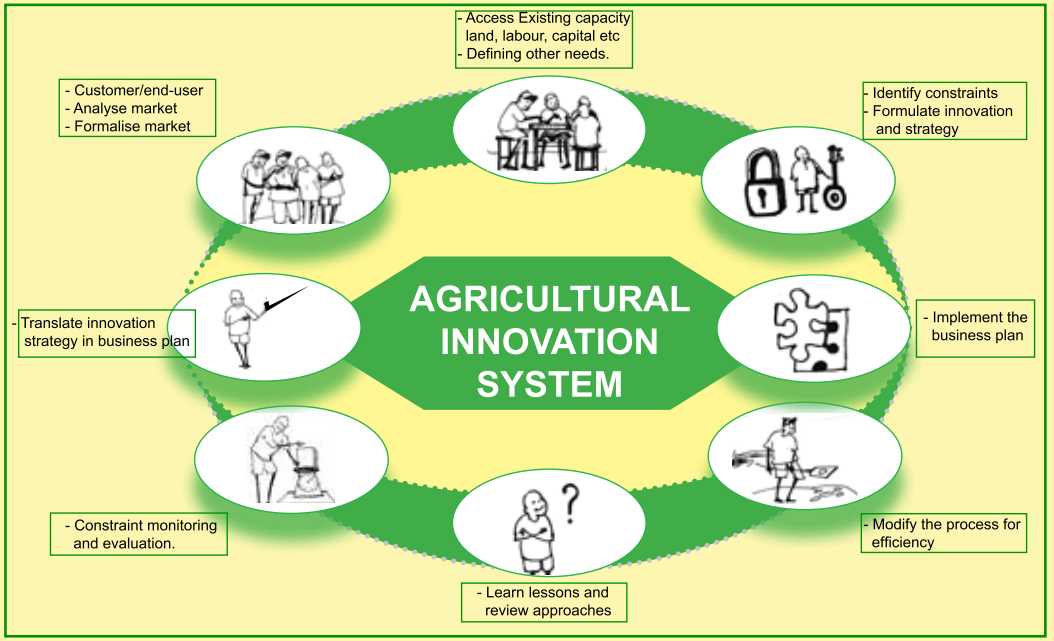
Position-based innovations are considered as changes in how a specific product or process is perceived and how they are used.

Paradigm Innovation

The paradigm innovation defines or redefines the dominant paradigms of an organization or entire sector. Paradigm-based innovations relate to the mental models which shape what an organization or business is about. Examples of paradigm innovation in agricultural development may be an increasing emphasis on local ownership and leadership of development processes and interventions.

The innovation process has some key or

essential elements to make it effective; like the individuals and organizations involved, the interactive learning that takes place and results in the development of new products and the institutional relationships that govern how these interactions and processes take place. It is good to recognize the need to be satisfied and people and technologies to accomplish the innovation process as well as the resources to make things happen. Agricultural innovation process is therefore those systems that result in the effective flow of knowledge to bring about efficient and increased food production to enhance food security and socio-economic benefits for all the actors involved in the process. The systems often contains institutions/or organizations, individuals actors (researchers, extension workers, farmers and other producers) and the resource investments needed to make the innovation happen. The process may be depicted as in the figure 1 below:



The definition of the customer refers to definition of the consumers' need.

Module 3 The Concept of Integrated Agricultural Research for Development (IAR4D)

Introduction

What does this Module cover?

This Module introduces participants to the concept of Integrated Agricultural Research for Development, IAR4D. The concept of IAR4D is clearly defined as well as the operational principles of IAR4D.

Objectives

On completion of this Module, training participants will;

1. Understand the peculiarities of the IAR4D concept.
2. Understand the underlying principles which govern the functioning of IAR4D and the delivery of innovations.

Key Training Notes

Understanding Integrated Agricultural Research for Development, IAR4D :

- 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
- IAR4D is designed to overcome the shortcomings of the traditional R&D systems.
- IAR4D concept entails a multi-sectorial, multi-stakeholders orientation to agricultural problem diagnosis, and draws on integrated approaches using 'hard' and 'soft' sciences to provide solutions, while maximizing the available resources
- IAR4D is premised on the innovation systems approach and requires systemic interaction among all stakeholders along commodity value chain or production system.

Pillars of Agricultural Research for Development

Four main Pillars characterize IAR4D. The following diagram illustrates the Pillars of IAR4D

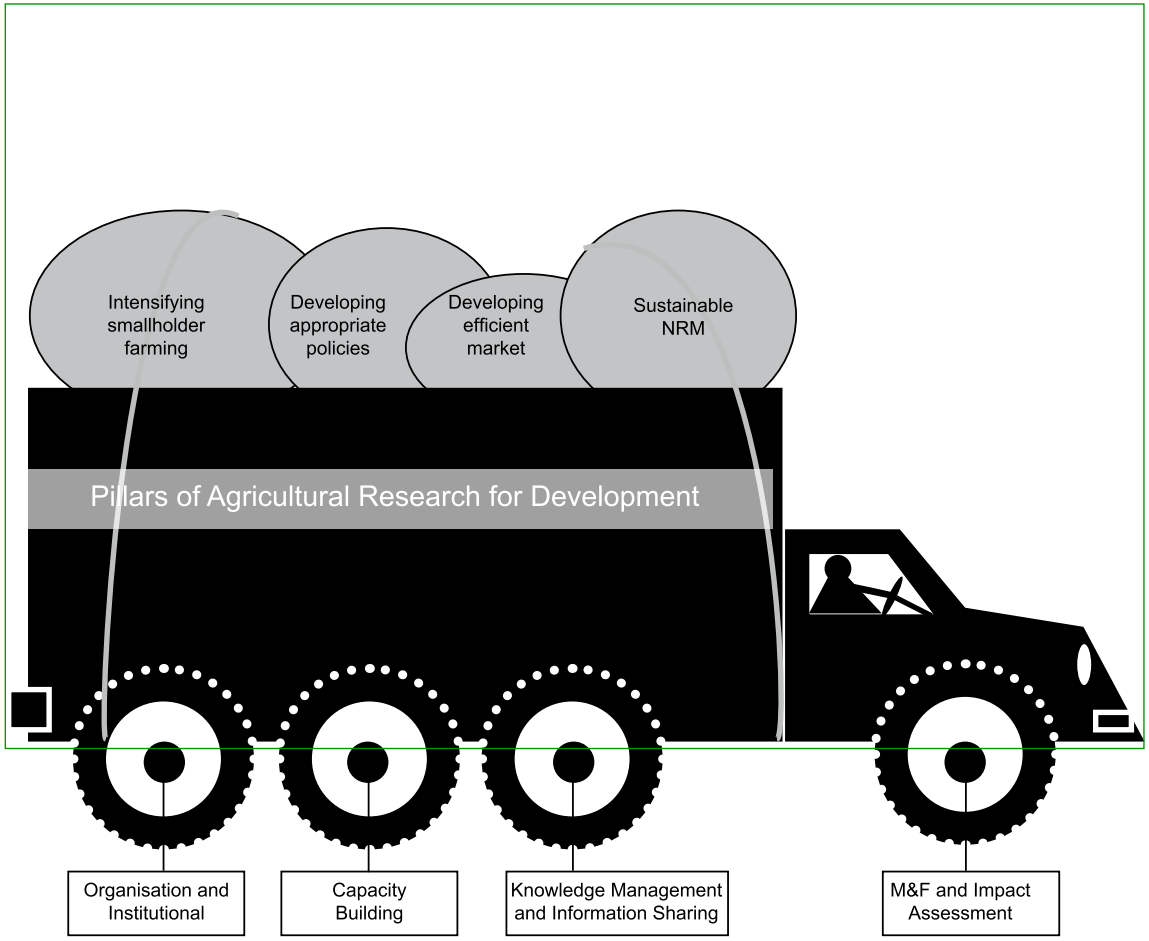
Major thrusts of IAR4D concept

- Set of principles for conducting research for development
- New research agenda that addresses interaction between Natural Resources Management (NRM), productivity, agricultural markets, policies, and product development.
- Consideration for cross cutting research issues viz., Gender, nutrition, mechanization and climate change.
- Institutional change for new partnerships involving all stakeholders in the agricultural innovation system

Operational principles of IAR4D

Principle 1

- IAR4D proposes to carry out research in a demand driven mode and the impact of such endeavors will be measured in terms of meeting the demand.



Principle 2

• IAR4D is a multi-stakeholder - approach; as such, it accommodates and gives adequate recognition to the complexities of the situations that affect sustainable production, marketing and utilization of each commodity in designing a solution.

Principle 3

• IAR4D will engage stakeholders beyond the rural communities to ensure their intellectual contribution to innovation and also secure their sense of ownership of the research products.

Principle 4

• IAR4D will involve the policy makers at different levels of governance in research, to diagnose problems, generate solutions, facilitate implementation and appreciate the need for policy and infrastructural development.

Principle 5

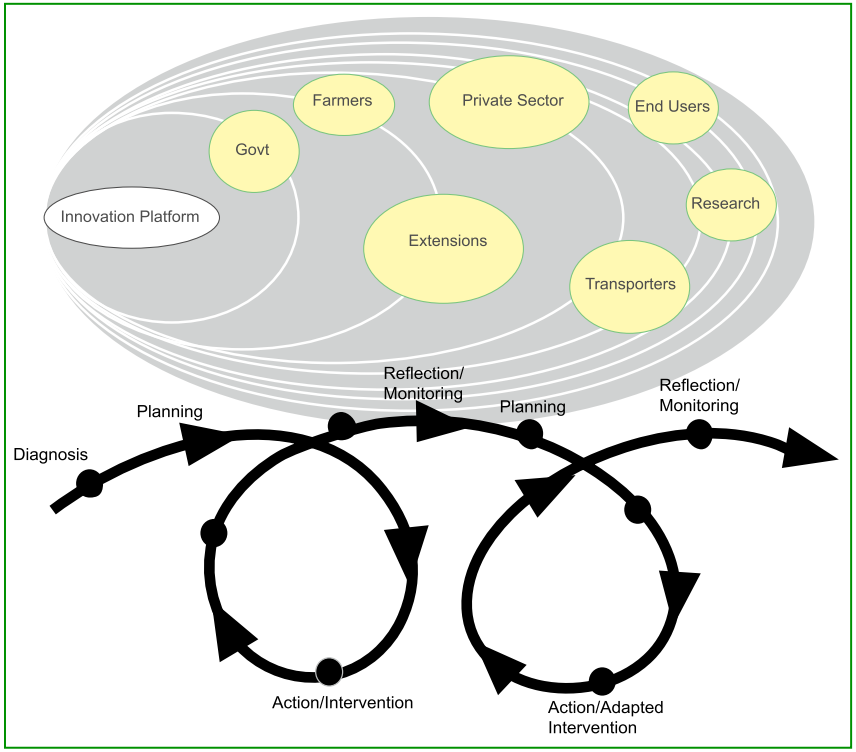
• IAR4D will adopt the innovation systems approach and create innovation platforms on which stakeholders will interact to jointly identify problems, device solutions, imple ment solutions and evaluate the cycle.

Principle 6

• IAR4D integrates research with develop ment along the value chain with;

Peculiarities of IAR4D Concept

1. IAR4D simultaneously addresses research and development as a fused continuum for generation of innovation.
2. All stakeholders in an Innovation Platform have contributions and benefits which sustain their interest and continued participation
3. Innovation generated using IAR4D concept will benefit all stakeholders on the Innovation platform.
4. IAR4D engages the policy makers at different levels all along the process of R&D till innovation is generated.
5. IAR4D demands investment by partners, which is followed by returns on the investment.
6. IAR4D ensures a smooth public-private partnership in ARD.



Integrating Research into IAR4D

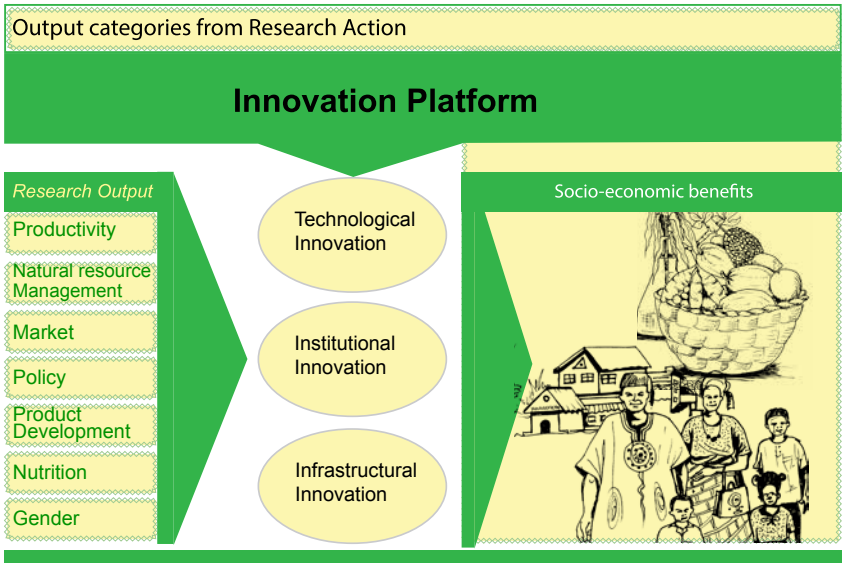
- IAR4D integrates research along seven cardinal focus but all revolving around the commodity system as shown in the following diagram

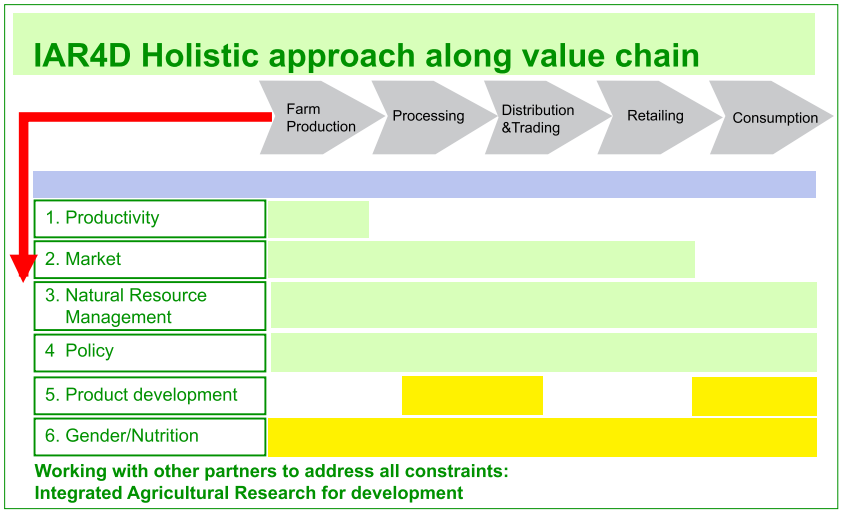
- IAR4D adopts the holistic approach along the agriculture value chain illustrated in the following diagram

Output categories from the Research Action

IAR4D is suitable for Africa for the following 6 core reasons

1. All inclusive partnership arrangement to address technological and non-technological issues.
2. IAR4D links all kinds of research endeavors (blue sky, strategic, basic and adaptive research) for the benefit of the farmers.
3. IAR4D ensures an effective engagement and capacity strengthening of the NARS.
4. IAR4D delivers benefits through its unique partnerships.
5. IAR4D easily achieves a change in mindsets of the stakeholders.
6. IAR4D fits in within the CAADP framework for continental agricultural development.





Background Reading

The Concept of Integrated Agricultural Research for Development, IAR4D.

The concern for research outputs to produce tangible developmental outcomes, in Africa, has been expressed by policy makers, donors and many scientists themselves. The institutional orientation to research and the approaches adopted for application of research outputs has not particularly assisted in regularly show-casing any of such research outcomes, if and when available. This concern caught the interest of the Forum for Agricultural Research in Africa (FARA) which resolved to do something differently to ensure that research outputs create development outcomes.

Soon after the inauguration of FARA in 2002 and following intensive consultations with its principal stakeholders; the scientists across the world, several constraints were identified including; poorly developed agricultural markets, inappropriate policies and natural resource degradation as well as low productivity, poor product development, inadequate nutrition and gender inequality. FARA recognized the need to treat these issues in a holistic manner and thus sought for an approach that will represent a shift in paradigm to bring about the required development in an integrated manner.

The integrated agricultural research for development (IAR4D) was thus proposed as a new, holistic way to tackle these constraints. The IAR4D was intended to break from the conventional linear approach of agricultural research and development by engaging multi-stakeholder actors along the commodity value chains. The IAR4D approach, as a concept aims to foster synergies among disciplines and institutions to commit to change in the way research and development is practiced by all actors, from farmers to researchers and policy makers at national and international levels such that a holistic view is taken to address AR4D issues across Africa. Fortunately, the Sub-Saharan Africa Challenge Program (SSA CP) coordinated by FARA, accepted the challenge to prove the concept of IAR4D as a new approach to research and development. The mission of SSA CP was to add value to, and enhance the impact of, on-going agricultural research for development in SSA. Its aim was to provide examples of how processes for systemic innovation can be organized among researchers, practitioners, policy makers, market chain actors and rural communities (Adekunle et.al, 2013). The ultimate goal or purpose was to use IAR4D to improve rural livelihoods and increase food security and sustainable natural resource management throughout the sub-Saharan Africa (SSA).

What is IAR4D?

The IAR4D is an innovation system based approach that involves multi stakeholders' collaboration and partnerships towards resolving the multi-faceted challenges in agricultural research and development and thereby promote improved livelihood of the stakeholders, especially the smallholders agricultural practitioners. It is a continually evolving concept that relies on active interactions among actors to identify, analyse and prioritise challenges, and find and implement solutions using feedback, reflection and lesson-learning mechanisms from different processes. This requires drawing on the knowledge of the relevant actors at each stage. The IAR4D enables the creation of a network of actors that facilitates learning and resolution of technical, social and institutional constraints that limit the potentials for growth in AR4D. The key purpose of IAR4D is to generate and/or facilitate innovative solutions to address challenges in AR4D rather than mere research products or technologies. Often, as the IAR4D involves complex mechanisms and interactions, it could facilitate fundamental changes in the broader policy and institutional framework. The approach largely builds on the experiences of previous approaches, including integrated soil fertility management (ISFM) and integrated natural resource management (INRM), and encompasses market and policy domains (von Kaufmann 2007).

The concept of IAR4D is that of an action research that engages several relevant stakeholders as it integrates the technological, natural resource management, policy and institutional dimensions in resolving a development challenge. The goal is to find an innovative commercial, social and institutional solution in responding to agricultural development challenges in the face of changing market and policy conditions. Its strength lies in its ability to engage policy and market, in addition to fostering systemic linkages among actors under diverse contexts. Therefore, the approach enables actors to have a stake in the process of generating, disseminating and using knowledge for socio-economic gains.

The IAR4D seems to be an iterative process that makes the hazarding of a precise definition difficult. This notwithstanding, Hawkins et al. (2009b), summarized the concept as comprising a set of individual and organizational behaviors that promote the integration of stakeholder concerns, knowledge, actions and learning around a theme of mutual interest. FARA (2007) in one of its publications describes the concept as an action research approach for investigating and facilitating the organization of groups of stakeholders (including researchers) to innovate more effectively in response to changing complex agricultural and NRM contexts for improved developmental outcomes. In general terms, IAR4D is regarded as a broad set of processes that, through their interactions, lead to the generation and use of knowledge (Hawkins et al. 2009b).

In this publication, IAR4D is considered as a framework for engagement and partnership by multi-stakeholders actors along the commodity value chain for the purpose of learning and sharing information and knowledge that may be innovatively applied in specific and/or broad terms to resolve challenges to increase productivity and enhance the livelihoods of the concerned actors. It is an innovation process that seeks to empower actors in technical, social and economic terms and in such a manner that they are never left worse off than when they were first expose to it.

As an integrated approach, the IAR4D shortens the period it takes for actors in research and development to achieve meaningful outcomes as benefits for adoption. It is an approach that allows for quick diagnosis of challenges as well as exposes opportunities for enterprising actors to explore and development products and services that promote visible means of livelihoods.

The following features are characteristic of IAR4D:

- IAR4D is a living approach and it brings together a number of good trends and ideas.
- IAR4D is about change and innovation as an outcome of application of knowledge, technology and inventions to generate socio-economic benefits.
- IAR4D places research as one of the components contributing to the development process,
- IAR4D focuses on processes and performance rather than on products (technologies, policies); to put it another way, improved processes lead to the ultimate product, termed innovation.

The concept and practice of IAR4D goes beyond its acceptance as new approach to doing things to include changes in personal skills, mindsets and attitudes of actors as well as the organizational practices and culture, and the ways in which these organizations interact to achieve the desired outcomes, as part of the wider 'innovation system'.

Some IAR4D Principles

Some of the guiding principles that have sharpened the concept of IAR4D as an approach to practicing agricultural research and development are highlighted below.

i. IAR4D integrates the perspectives, knowledge and actions of different stakeholders around a common theme or 'entry point'. As an integrating framework, IAR4D must, based on analyses of the research and development challenge identified by one or more stake-

holders, enable engagement by actors around a mutually accepted theme as an 'entry point'. Collect action on the identified critical challenge or entry point by stakeholders recognizes that a broader working alliance is needed to resolve the concerned challenge and subsequently achieve the desired development impact. The interests and actions of the different stakeholders are diverse, ranging from information and technology to business, politics, policy, finance, organization and management. While there may exist or there may be potential links among these interests, the framework provides a basis for strengthening and/or creating such links to guarantee the accomplishment of the desired outcomes.

ii. IAR4D integrates the learning that stakeholders gain from working together. Given that all stakeholders in an innovation system have relevant knowledge based on their past experiences and current roles, such knowledge is potentially available to all the stakeholders through interactive learning and joint actions. In addition to being a concerted action process, IAR4D is also a mutual and interactive learning process, with stakeholders learning from each other and from their joint experiences. For this social and experiential learning to be effective, it requires a conscious and interactive process of planning, action and reflection, monitoring and evaluation, and subsequent re-planning. Reflection is particularly crucial; participating stakeholders become engaged in analysing the outcomes of their own behaviour and the processes in which they are involved.

This 'learning cycle' is fundamental to the IAR4D approach and it focuses primarily on the processes that the stakeholders follow as they interact with themselves, rather than on the specific solutions to the research and development challenges. Learning takes place at individual, organizational and institutional levels. At the individual level, participants become aware of how their own personalities, attitudes and mindsets may affect their interaction with others and what adjustments they needed to make to enable them learn more effectively. At the organisational level, group members of organizations collectively learn how their administrative and management practices and incentive structures, affect or limit the interactions between individuals within the organization and between the organization and other stakeholders. At the institutional level, individuals and organizations collectively learn how they can interact to facilitate innovation. Here individuals and organizations learn how to collectively create an enabling environment that encourages interactions, and how to share information and manage knowledge across networks. As well, local systems learn from other local systems (e.g., through national learning platforms), and national innovation systems learn through international platforms. The theory of adult and experiential learning as well as experiences with knowledge management, action research, farmer field schools, learning cycles and learning alliances all support this principle of integration of learning.

iii. IAR4D integrates a holistic analysis of change. This principle is premised on the general and current concepts of sustainable development and multi-functional agriculture that require such inter-linkages for development. The interlinked dimensions include economic growth (linking farmers to markets), conservation of natural resources (soil fertility, biodiversity and limited carbon dioxide production), social inclusion and equity (pro-poor development) and food security. Integrating analysis, action and change across the different dimensions will reveal the impact of IAR4D in terms of response to poverty reduction and pro-poor development. The principle is supported by the theory of rural livelihoods as well as experiences with INRM, value chains, social equity and gender frameworks, inter-disciplinary research and development, and agricultural development.

iv. IAR4D integrates analysis, action and

change at different levels of spatial, economic and social organization. This principle draws on the notion of an agricultural innovation systems perspective that implies that research is not the only driver of development, as was implied in the 'national agricultural research system' perspective, or that it even has the central role, as was still implied in the wider 'agricultural knowledge and information system' perspective. Agricultural innovation is an emergent property of the broader 'innovation system'. The agricultural innovation systems perspective sees research as only one of the sub-processes of a framework that encompasses the value chain and the knowledge and information system, as well as policies and institutions that determine the interactions between the components. To be effective at promoting innovations, IAR4D therefore needs to promote change and enhance learning throughout the innovation system, at all levels of organization.

These IAR4D principles imply a new way of doing research and development. The approach involves four dimensions: (a) intensification of subsistence oriented smallholder farming systems; (b) prudent management of natural resources while intensifying their use; (c) development of more efficient markets; and (d) creation of enabling policies. To foster the integration of the various dimensions of agriculture development, IAR4D requires additional supportive mechanisms in terms: (i) promotion of organisational and institutional changes to enable cross-disciplinary research and development and multi-institutional collaborations; (ii) capacity building for project teams, farmers and scientists; (iii) information and knowledge management; and (iv) continuous monitoring and evaluation with a systemic approach to impact assessment.

Module 4 The Concept of Innovation Platforms

Introduction

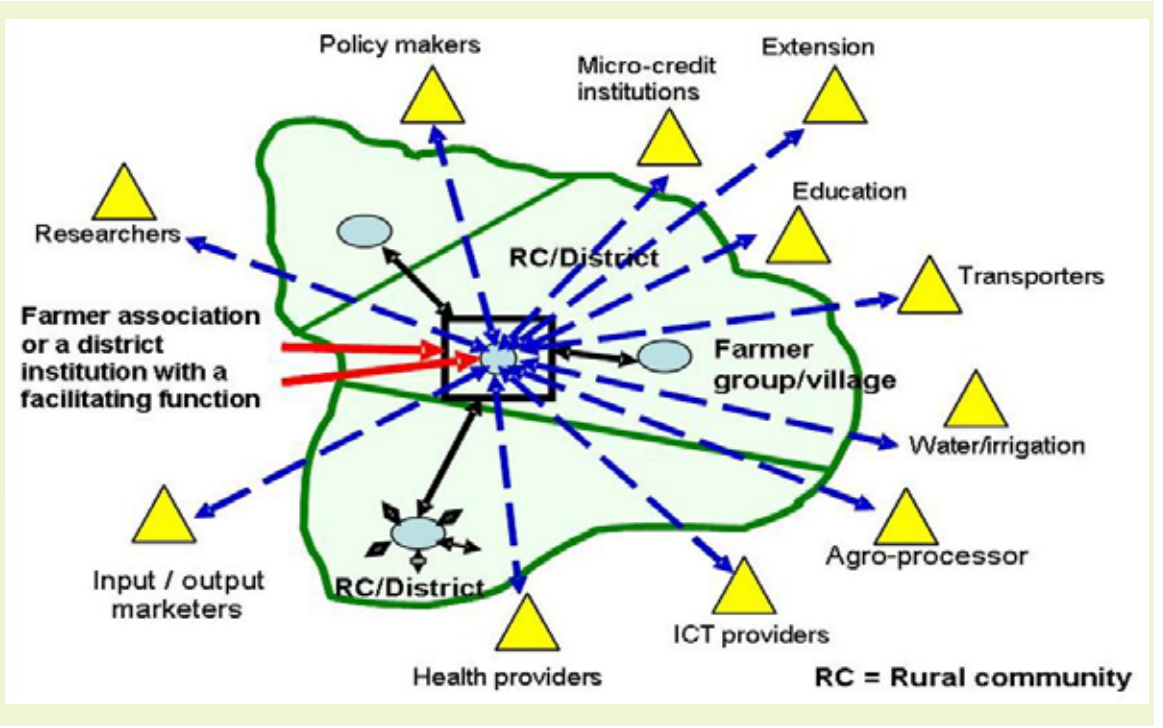
What does this Module cover?

The concept of Innovation Platforms in agriculture is explained in this Module. We present the accepted FARA definition of an Agricultural Innovation Platform and describe the functions and types of Innovation Platforms.

Objectives

On completion of this Module, training participants will;

1. Understand the concept of Innovation Platforms in agriculture.
2. Describe the functional types of Innovation Platforms.
3. Describe the structure and functions o an innovation Platform.



Key Training Notes

What is an Innovation Platform? Some Definitions

- The current FARA's operational definition of the Innovation Platform varies. Innovation Platform is defined as "a physical, virtual, or physico-virtual network of stakeholders which has been set up around a commodity or system of mutual interest to foster collaboration, partnership and mutual focus to generate innovation on the commodity or system" (Adekunle and Fatunbi 2012).
- Innovation Platforms is also defined as a network of partners working on a common theme and using research knowledge in novel ways to generate goods or services that benefit all, especially the poor. (FARA, 2014 MTH)
- Platforms are multi-stakeholders fora for information sharing and knowledge exchange along a commodity value chain with a view to enhancing agricultural productivity and socio-economic well-being

of the actors. It represents organizational model for stimulating innovation and development in agriculture and related sectors.

- Interactions amongst stakeholders in innovation platforms lead 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.

An agricultural Innovation Platform thus constitutes a forum established to facilitate interactions and learning amongst diverse stakeholders, in a selected agriculture value chain, joint exploration of opportunities and investigation of solutions leading to the promotion of agricultural innovations along the target agriculture value chain.

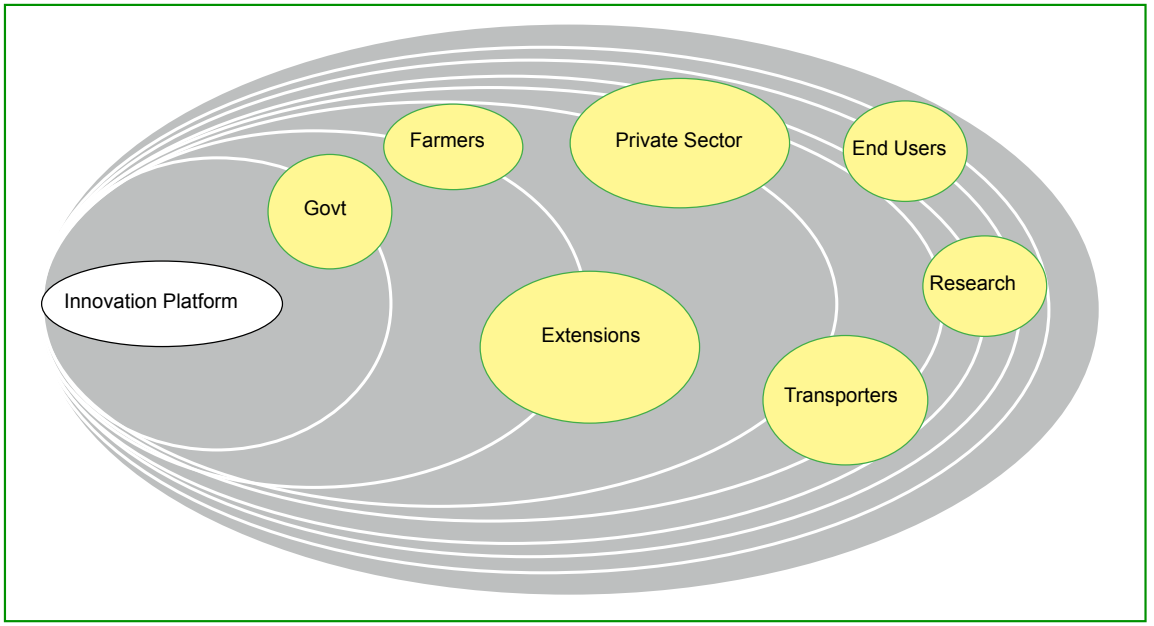


Illustration of the structure of an innovation platform

Interactions in an Innovation Platform

- Gainful interaction and participation in an Innovation Platform can be described by the following diagram

Functional types of Innovation Platforms

1. Strategic Innovation Platforms, (SIP)

Strategic Innovation Platforms 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,(OIP)

Operational Innovation platforms are set up at community/ grassroots level to respond to target commodity or system of production need for specific market. Operational Innovation Platforms do respond to the strategies developed by the strategic innovation platform. Groups of Operational Innovation platforms are also called Innovation Clusters (IC) which are based on each sector of the agriculture value chain in different communities. Innovation Clusters may be set up to respond to the same output market or to respond to multiple output markets. ICs may also be set up along different agriculture commodity chains to facilitate operations.

Group Activity 6 – *Features of an Innovation Platform*

Participants should go into their working groups. Each group should appoint a Facilitator

ASSIGNMENT

1. *Write on a flip chart, different definitions of an Innovation Platform in agriculture.*
2. *Discuss and list the major features common to all the definitions of innovation platforms.*
3. *List the major types of Innovation platforms and the differences between Strategic and Operational Innovation Platforms*
4. *Each Working Group Facilitator to writes the results of the group work on the flipchart*
5. *Working Group Facilitators will present the working group report to the plenary*
6. *After all the presentations hold a general discussion session to synthesize and harmonize the*
7. *Working Group reports: At the end of this exercise the Trainer will give general comments and feedback on this exercise.*

Background Reading

The Concept of Innovation Platforms in Agriculture

Introduction

In agriculture, innovation is a process of ensuring that new knowledge or a product is converted into use by interested persons or communities to result in some form of socio-economic benefits. Innovations are vital for agricultural development, particularly to address issues of food insecurity, chronic hunger, poverty and the achievement of sustainable livelihoods in rural African communities.

FARA's concept of Innovation Platforms is defined within the framework of agricultural research and development. Innovation Platforms are characterized in the context of FARA's programs, through elaborating on the purpose and vision, as well as the distinguishing features of innovation platforms

Definition of Agricultural Innovation Platform

The current FARA's operational definition of the Innovation Platform varies. Innovation Platform is defined as "a physical, virtual, or physico-virtual network of stakeholders which has been set up around a commodity or system of mutual interest to foster collaboration, partnership and mutual focus to generate innovation on the commodity or system" (Adekunle and Fatunbi 2012).

It is also defined as a network of partners working on a common theme and using research knowledge in novel ways to generate goods or services that benefit all, especially the poor. (FARA, 2014 MTH) Thus Agricultural Innovation Platforms are multi-stakeholders forum for information sharing and knowledge exchange along a commodity value chain with a view to enhancing agricultural productivity and socio-economic well-being of the actors. It represents organizational model for stimulating innovation and development in agriculture and related sectors.

An agricultural Innovation Platform thus constitutes a forum established to facilitate interactions and learning amongst diverse stakeholders, in a selected agriculture value chain, through participatory diagnosis of problems or needs, joint exploration of opportunities and investigation of solutions leading to the promotion of agricultural innovations along the target agriculture value chain. According to Nederlof et al (2011) Innovation platforms can also act as spaces for knowledge exchange leading to actions without the need for research or researchers, although research is vitally important for the proper functioning of innovation platforms. However, it should be stressed that to be effective, an agricultural Innovation Platform needs to have multi-stakeholder base with good provision for inclusiveness of actors to guarantee socio-economic benefits and improved livelihood for the actors.

Purpose, Vision and Agenda for Innovation Platform.

Innovation Platforms are set up to function as spaces for exchange of knowledge, and learning among a wide range of actors leading to the development of actions that address identified constraints in an agricultural system.

The vision of innovation platforms is to improve agricultural research delivery through engagement of all relevant and interested stakeholders who interact and play their respective roles in the innovation process.

Operationally, innovation platforms bring together multiple actors along an identified agricultural commodity value chain to address challenges and identify opportunities to generate innovation. The approach creates a network of partners who develop the capacity to consider and act on the technical, economic, social, institutional, and policy constraints in an environment. The network also facilitates research and learning that not only generates new knowledge, technologies or products but also enhances better application of existing knowledge thereby ensuring that the old or new products of research are appropriately utilized for the benefit of all members of the platform.

Thus, Agricultural Innovation Platforms work to harness innovations related to technology processes, institutional and social-organizational arrangements, which are promoted through partnerships along and beyond agricultural value chains. Partnerships in innovation platforms are fostered to engage all the actors with special mix of skills which are complemented with functional expertise since the new ways of working require a mix of scientific, technical, managerial and entrepreneurial skills (World Bank 2011)

According to Brigit Boogaard et al (2013), innovation platforms are a worthwhile idea because meaningful change happens in networks of interdependent actors, who cannot change if others do not simultaneously change. And innovation depends on different stakeholders (e.g. farmers and relevant parties in a value chain) who adopt different practices in a concerted manner – based on some kind coordination, agreement and mutual expectation.
The agenda for innovation platforms varies considerably depending on the specific common interests of the platform partners. For example platforms can help deal with complex issues through coordinated action by multiple stakeholders, who help overcome institutional and other barriers hampering development, where competition or conflict is likely to occur, and where there is space for experimentation (Duncan et al. 2013).

A variety of functions have been ascribed to Innovation Platforms, these include, for example:

- supporting the operationalization of research and development
- contributing to improving the relevance and impact of research
- contributing to increasing returns on investment in agricultural research for development
- stimulating and strengthening interaction between multiple stakeholders
- linking different stakeholders to achieve a common objective
- contributing to jointly identifying and solving complex problems
- providing enabling environments for innovation and
- contributing to overcoming institutional barriers and creating institutional change

(ref: Lundy et al. 2013; Adekunle and Fatunbi 2012; Lema and Schut 2013; Homann-Kee Tui et al. 2013; Tenywa et al 2011; Nederlof et al. (2011)

Characteristics of an Agricultural Innovation Platform

Agricultural Innovation Platforms can have formal contractual arrangements for progress as it engages private-sector actors, policy makers, and others as part of the development process. This type of arrangement ensured a good combination of public investments and regulations with the commitment of private stakeholders to innovation in a fair, inclusive and equitable manner.
FARA recognizes two main types of agricultural innovation platforms at two levels, namely (i) Strategic Innovation Platforms and (ii) Operational Innovation Platforms. Every country requires both types of innovation platforms. (Adekunle, Fatunbi, and Jones 2010)
Strategic Innovation Platforms (SIP) are established at higher levels of governance and management where agricultural strategies are formulated for agricultural development in specific domains. SIPs function by responding to the policy and strategic needs as 'point of entry" and an be set up at national or sub-regional levels to cover districts, local governments, or regions as may be required. The targets for strategic innovation platforms include the chief executives of stakeholder organizations, such as national agricultural research, universities, agricultural extension, input agencies agricultural financing agencies, processing, transporting businesses, marketing and farer associations as well as meteorological stations. Strategic innovation platforms provide the forum for discussions to promote innovation along targeted agriculture value chains or system, and facilitate the operations of other innovation platforms at lower levels

Operational innovation Platforms (OIP) are established at community or grassroots levels and have a different focus from strategic innovation platforms. Operational Innovation Platforms function within the production units of the agriculture value chains, for example production, processing, packaging, transportation marketing. These types of innovation platforms source membership from similar organizations with strategic innovation platforms, but target frontline staff in those organizations who facilitate operations at grassroots levels. Although members of operational innovation platforms are not chief executives, they have responsibilities for activities within the mandate of chief executives of organizations. Partners in operational innovation platforms participate in platform activities because of the relevance of their expertise to addressing the specific topic of concern to the innovation platform. Groups of Operational Innovation platforms are also called Innovation Clusters (IC) which are based on each sector of the agriculture value chain in different communities. Innovation Clusters may be set up to respond to the same output market or to respond to multiple output markets. ICs may also be set up along different agriculture commodity chains to facilitate operations.
As the partners on an IC review implementation of their business plan, the composition of membership of the IC may be changed in terms of expertise and participating institutions. The operations of an IC are aligned with market chains and are enhanced through the application of information and communication tools which facilitate communication amongst the IC members. The major difference between Strategic and operational innovation Platforms is that while strategic innovation platforms have responsibility for determining the future strategic direction of activities on the platforms and later facilitate platform operations by providing relevant members from their institutions to join the IC at the community or grassroots levels. Members of the Innovation Clusters, actually conduct hands-on activities in the platform by diagnosing, exploring and investigating solutions and determining their successful adoption.

The configurations of agricultural innovation platforms vary in the pattern of organization and operations; for example according to the theme, sector or (combination of) commodities covered, e.g. livestock, crops, or natural resource management. Variations are also evident in terms of status, formalization, and modes of communication (Nederlof et al. 2011).
Some Innovation platforms function by organizing regular formal meetings with a steering body (president, vice-president, etc.). In other cases platforms use less formal communication channels (e.g. exchange visits) and operate at rather irregular frequency.

Module 5 Value Chain Concept in an Agricultural Innovation Platform

Introduction

What does this Module cover?

This Module covers the topic of Value Chains in agriculture. We define and explain the meaning of the term Value Chain in Agriculture, describe the usefulness of value chains and the process of value chain analysis in agriculture.

Objectives

On completion of this Module, training participants will;

1. Understand and define the concept of Value Chain in agriculture
2. Be able to explain the meaning of Value Chain in agriculture
3. Describe the usefulness of value chains and
4. Outline the process for conducting Value Chain analysis

Key Training Notes

The Concept of Value Chain in agriculture

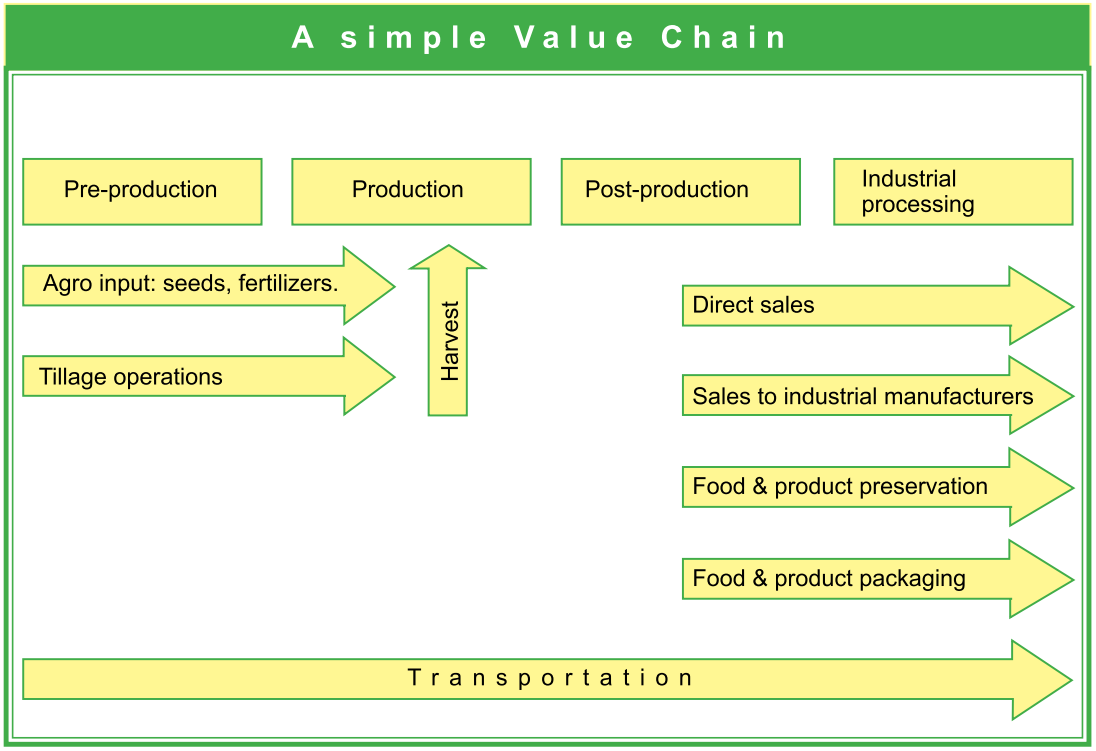
Value chain is the**:** sequence of value-adding activities, from production to consumption, through processing and commercialization (Kaplinsky and Morris, 2001)whole process of a product from its conception, through the different phases of production, to its end use and beyond (Cunningham ,2001; Pietrobelli and Soliola, 2008).

What Value Chain is all About

A 'value chain' in agriculture describes the range of activities and set of actors that bring agricultural product from production in the field to final consumer's table, wherein at each stage value is added to the product.

Concept of Value Chain: Can be defined using the "farm to fork" thinking. It is defined as a set of processes and flows – from the inputs to production to processing, marketing and the consumer. The following diagrams illustrate the concept of value chains
A simple value chain in agriculture can be described by the following diagram.

Example of a Simple Value Chain



Value Chain Analysis

What is value Chain analysis?

- It is an approach that analyzes a production unit or process in a market chain—from input suppliers to final buyers—and the relationships among them.
- It analyzes the factors influencing performance, including access to and the requirements of end markets; the legal, regulatory and policy environment; coordination between firms in the industry; and the level and quality of support services.

Usefulness of Value chain analyses

- Value chain analysis is a useful analytical tool that helps understand overall trends of industrial reorganization and identify change agents and leverage points for policy and technical interventions.
- Break the value chain into its constituent parts in order to better understand its structure and functioning.
- Identify chain actors at each stage and discerning their functions and relationships; determine the chain governance, or leadership, to facilitate chain formation and strengthening
- dentify value adding activities in the chain and assign costs and added value to each of those activities.
- Identify the flow of goods, information and finance through the various stages of the chain
- Evaluate each stage in order to detect problems or identify opportunities to improve the contribution of specific actors and the overall performance of the chain.

Example of Value Chain in Rice Production system

Conducting Value Chain Analysis

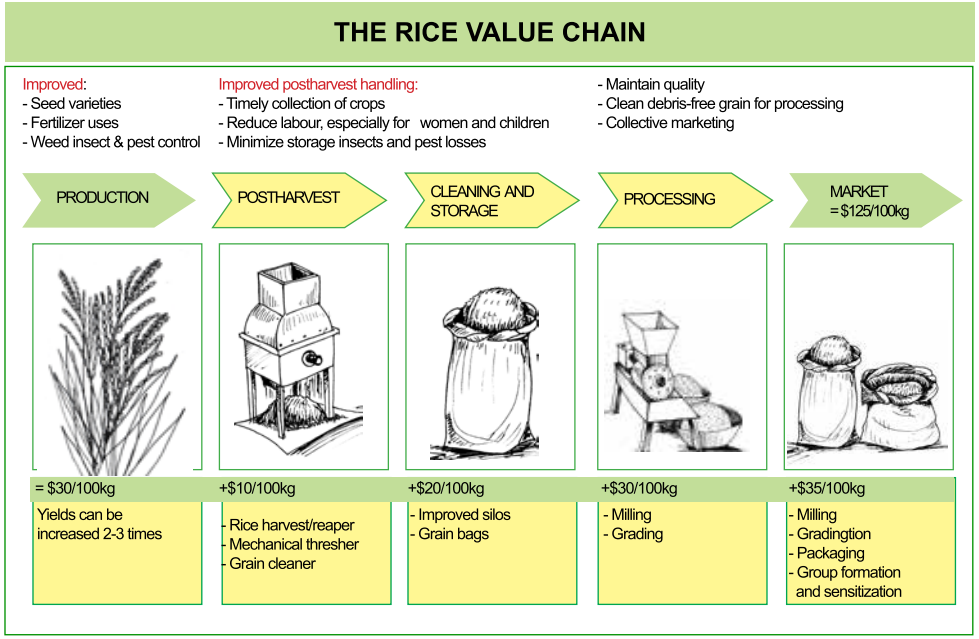
Value chain analysis requires *four interconnected steps:*

1. Data collection and research.
2. Value chain mapping
3. Analysis of opportunities and constraints,
4. Vetting of findings with stakeholders and

Recommendations for future actions

Steps used in Value chain analysis

- Activity Analysis
- Value Analysis
- Evaluation and Planning



Background Reading

Understanding Value Chains in Agriculture

The agricultural value chain can be defined as the set of step and processes that a commodity goes through from its production to consumption. Apparently most agricultural commodities are the primary products and will often go through different processing before it is finally consumed. The linkage of these processes and the value that is added to the primary commodity is described as the value chain. There are various definitions with more elaborated details on the intricacies of the chain, but essentially, value chain is thought of as the set of activities, services, and products that a commodity goes through till it reaches the final consumer.

The value chain analysis is a business tool that elaborates the factors that affect the profitability of the different enterprise required in the complete production of agricultural commodities. The value chain analysis could provide the following information;

1) The movement of the commodity from the producers to the final consumer.
2) The economic relationship among the different enterprise actors involved in the commodity process.
3) The patter of change in the activity and economic process including the weakness and opportunities to ensure efficiency and profitability.
4) Identification of treat the entire value chain.
5) The determinants of share of the profits by the different actors and the quantum of value added to the commodity.

The value of the value chain analysis in the innovation systems approach to agricultural research as development is its ability to ensure the generation of innovation and its accompanied socio-economic benefits. The issues of increase in productivity and competitiveness of the commodities prominent in the value chain endeavor. Thus the business component of the agricultural activities viz, the availability of market, the supply chain, the input and output market efficiencies, the infrastructural availability and conversion of market opportunities to effective demands becomes a priority in value chain consideration. Thus when using value chain approach within the innovation systems thinking, an holistic view is employed right from technology development to ensure that cost and benefit issues have their interplay is a profitable manner.

The consumers demand is also accorded a priority as well as the needed partnerships and strategic alliances. The effectiveness of the partnerships will directly affect the competitiveness of the value chain, through the facilitation of effective market information, credit facilities and other business support to ensure innovation.

In contrast to the linear mode for agricultural research and development, the innovation systems approach embraces the complementary processes that ensure that technologies are not only developed but translated to socio-economic benefits. The objectives of the innovations systems approach viz., poverty reduction, employment generation, food security, agricultural and rural development and economic growth are bust realized within the framework of a well-developed value chain.

Agricultural innovation systems can operate at the individual, farm, community, regional, national, or international levels. Value chain analysis could also identify leverage interventions at similar levels. It is noteworthy, in particular, that innovations in a value chain should not be limited to improving the performance of existing chain actors, but also to expand opportunities for the poor smallholders who may otherwise be left out from benefiting as actors in the value chain. In this regard, an ideal innovation or set of innovations in a value chain is one that improves the competitiveness of the chain and ensures fair distribution of returns among chain actors. Knowledge creation and exchange is facili-

tated by the interaction of the stakeholders on an innovation platform. The knowledge is further applied to achieve economic, social and environmental returns on investments. Information flow among the stakeholders triggers innovation on the chain. The Innovation capacity of the actors on the value chain determines the ability of the chain actors as a group to innovate and respond to changing needs and conditions. As such the total sum of the individual innovation of the chain actors determines the innovation capacity of the chain.

Innovations in a value chain refer to technological and institutional issues on the different nodes on the chain or the chain as a whole. While institutional innovations refer to the rules and organizational arrangements within the structure, stakeholders and entities. Technological innovations refer to the strength of sciences embedded in the different technologies to deliver higher returns to investment. Improvement in the performance of the value chain depends on the ability of the chain actors to acquire, absorb, disseminate and apply new technological, and institutional and infrastructural inventions in a continuous manner. Hence, the innovation process in value chains should embrace continuous improvements in product design and quality, changes in organization and management of operations, institutional development in input supply and procurement, marketing, and associated business development services, and modifications in the production and post-harvest processes.

In conclusion, the Integrated Agricultural Research for Development Concept (IAR4D), built on the innovation s systems approach is built on the value chain configuration and embraced the value chain analysis is engaging actors on the Innovation platform which is its operational frame. The generation of innovations on the innovation platform is in turns dependent on the effectiveness of the value chain.

Further reading

Webber, C. M and. Patrick L (2010). Building competitiveness in Africa's Agriculture: a guide to value chain concepts and applications.
The International Bank for Reconstruction and Development/The World Bank PP 204.

Module 6 Mainstreaming Business as a Component of an Agricultural Innovation Platform

Introduction

What does this Module cover?

The development and implementation of a business plan is an important activity in the operations of an Innovation Platform. This Module covers the topic of mainstreaming business plan in the operations of an innovation platform. The contents include definition of a business plan, the principal components of an agricultural business plan and elaboration of different models of agricultural business plans.

Objectives

On completion of this Module, training participants will;

1. Understand the meaning of Business Plans as major components of the operations of Innovation Platforms
2. Be able to describe the components of an agricultural business plan
3. Describe the process of developing a business plan for an innovation platform

Key Training Notes

1. Industry Overview of Agricultural Business

Every idea or concept should be challenged to determine whether or not it has a reasonable chance of success. Consider these questions as you challenge your idea:

(a) Are there global or international issues that will affect my business?
(b) Are there national or interprovincial issues that should be focused on?
(c) Are there regulations or restrictions that can positively or negatively impact on my project?
(d). Identify major trends affecting the industry.
(e). Try to determine strengths, weaknesses, opportunities, and threats in the industry that will impact on your agri-business.

2. Agricultural Business

What is an Agricultural Business (Agribusiness)?

- Definition: Agribusiness describes all activities that is required to produce and provide agricultural commodities to the end user(goods and services)
- It includes input sales, crop production (farming and contract farming), distribution, farm machinery sales and hire, processing, seed supply, as well as marketing and retail sales of commodities.

Dimension of Agricultural Business

i. Production Dimension

All cost and revenue for production of com modities.

Cost

- Land
- Labour
- Machineries
- Consumable inputs (Seeds, agrochemicals, packaging materials etc.)

Revenue

- Sales of raw commodities
- Sales of processed goods
- Sales of by product

ii. Commodity Marketing

- All cost and revenue for the sales of com- modities and products.
- Cost
- Transportation
- Packaging
- Warehousing
- Retail facilities
- Labour / entrepreneur
- Insurance
- Tax
- Revenue
- Sales of commodities or products

Changing thought of farming

Farming for food
• Subsistent agriculture
and poverty

5 years ago

Farming for cash
• Implication on food security thinking.
• Categorization of commodities as
food crop or cash crop.
• Transformation of African smallholders
systems to business enterprises.
•Sustainable livelihood and Poverty
reduction

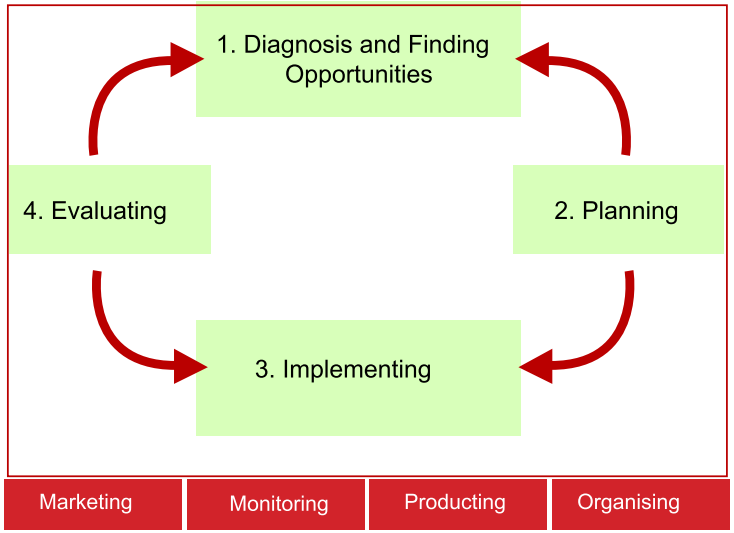
Today

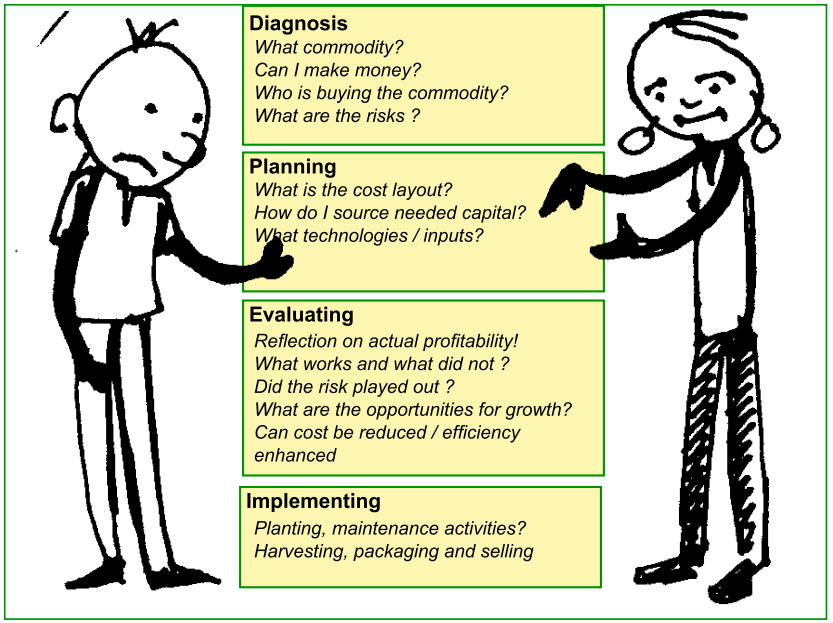
3. Changing thoughts of Farming as a Business

4. Essential Phases of a Farming Business 1

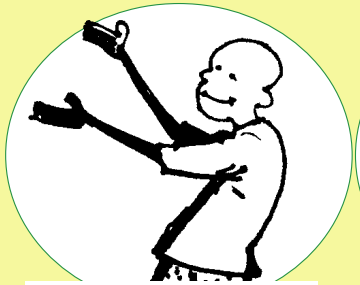
The changing phases of a farming business can be described as follows:

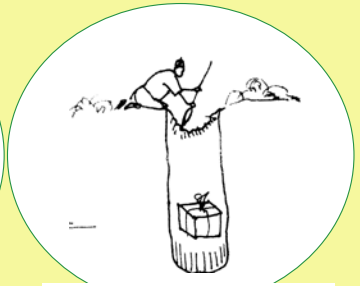
The farm business cycle






Initiative


Problem Solving


Commitment


Information


Seeking Opportunities


Goal Setting

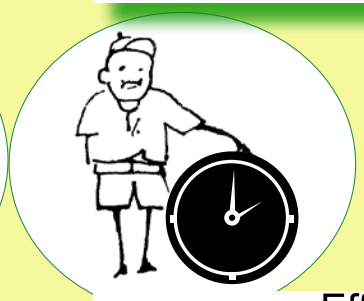

Networking


Quality


Confident


Persistent


Risk-taking


Efficiency


Systematic Planning

Essentials of farming as a Business

5. Intricacies of a Farm Production Business

Farm business refers to the whole farm as a business.
Together all enterprises make up the farm business as a whole.
Farm enterprises refer to the individual enterprises of the farm.
Each crop or kind of livestock produced is an enterprise.
Each of these enterprises has unique demands that must be met to yield profit .

Defining Profit.

Key factors that can be used to define profits in a business are;

Income: Money received from selling products and the value of produce consumed. (Note that farm income comes from the value of all the products produced on the farm).

Cost: Money spent to produce and market products; the value of all things used to produce products on the farm.

Profit: Money left over from income after the cost are deducted.

Defining Profit

Accounting Profits (Net Income)
Accounting profits provide you with an intermediate view of the viability of your business. Although one year of losses may not permanently harm your business, consecutive years of losses (or net income insufficient to cover living expenditures) may jeopardize the viability of your business.

Economic Profits

In addition to deducting business expenses, opportunity costs are also deducted when computing "economic profits". Opportunity costs relate to your money (net worth), your labor and your management ability. If you were not farming, you would have your money invested elsewhere and be employed in a different career. Economic profits provide you with a long-term perspective of your business.

Defining Profit.

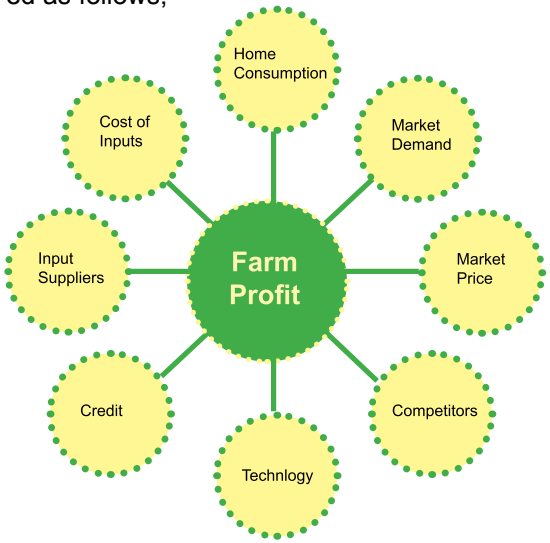
Understanding Profit
Future Value of Money

$$FV = PV(1+I)^N$$

FV = future value
PV = present value
I = interest
N = number of periods

Example

If Capital is
$ 100,000, what will the value be after 2 years investment.
FV= PV (1+i)n
= 100,000 (1+0.045) 2
=109,202.5
…gain is $ 9,202
Factor in the inflation rate
Current rate is 1.6%
109,202 (0.016),
= 1,747.27
Value =109,202.5 – (1,747 x 2)
= 105,704
…gain is $ 5,704 in 2 years
Factors that could affect Profits are elaborated as follows;



Factors that could affect Profits

Entrepreneurship Constraints

Subsistent farmers

- Knowledge and access to information
- Access to livelihood assets
- Capacity to invest in technology
- Credit worthiness
- Networking capacity

6. Agricultural Business Models

What are Inclusive Business Models
Inclusive business is a private sector approach to providing goods, services, and livelihoods on
a commercially viable basis, through people at the base of the pyramid by making them part of the value chain of core business as producer, Suppliers, distributors, retailers, or customers.

Importance of inclusive Business Models in Africa

1. Strong rights to resources – land and water
2. Diminish conflicts with local community
3. Promotion of 'win-win' solutions – Africa's Green Revolution need to engage smallholders in the mainstream economy!
– Investors increase profit, contribution to national economy
– Communities – shareholders, direct employment, access markets
4. Agreements – clear rights and obligations of the parties, milestones and monitoring
5. Social and environmental safeguards
6. Corporate Social Responsibility can be part but not central to the business model.

Possible Variants of inclusive business model in agriculture

1. Joint venture
2. Contract farming or outgrowers
3. Management contract
4. Supply chain relations
– Plus business links outside agricultural production – eg. processing, packaging, transport and other services
– Diversity within each type
5. Combination of types
1. Joint-ventures
1. Joint-ventures – co-ownership, shared risks and benefits, decision making and dividends in proportion of equity share
- Representation of minority shares and influence
- Agribusiness reduce political risk and increase supplier motivation, possible help with branding and reputation
- Challenges and opportunities
– Capacity and genuine voice
– Valuation of community assets and definition of shares in the business
– Share beyond production to value addition activities
– Risk assessments
– Coexistence, immediate livelihood benefits.
2. Contract Farming / Out growers
Formal and informal supply agreements between suppliers and buyers
- Prices of inputs and outputs, credit, delivery dates, quantities and qualities
- Secure market for suppliers, access to credit, farmers maintain land ownership
- Efficiency, inclusion and transaction costs
- Monopsony

Variants

– Centralized model – company control, large number of smallholders
– Nucleus Estate Model – company has a plantation to secure supply of raw materials, satellite growers second stage involvement, small number of farmers
– Multipartite Model – Government agencies, private companies and farmers; different entities in different areas of value chain
– Informal Model – SME and farmers, seasonal, minimum support (except grading)
– exploitative and high risk of default
– Intermediary Model – subcontracts, missing direct link, dilution of standards, credibility and honesty of intermediaries affects prices to farmers.

Opportunities and challenges

– Well established, high value crops (perishable and non-perishable)
– Negotiation power, clarity on terms of relationship
– Enforcement- contract default, – supplier and buyer dishonour agreement

3. Management Contracts

Management contracts – lease or tenancy, 'stewardship' managing land on behalf of owners; profit sharing
– Tenant farming – subset of management contracts
– Smallholders working in land of large scale agribusiness; fixed rental fee
– Value of asset is key

4. Upstream & Downstream Business Link.

Upstream and downstream business links
– separate ownership of assets;
Opportunities beyond direct agriculture production.

5. Farmer Owned Businesses

Farmer owned businesses – associations
– scale up land and investments, link with corporate business along the value chain.

Best practices?

- Need to be designed!
- All models can be deliberately changed to suite the powerful party
- Checks and balances need to be put in place!

Not a recipe, but It certainly helps!

1. Business models for sustainable development: It should deliver economic, social and environmental benefits through core business activities rather than philanthropy
2. Value proposition (tangible results from goods or services) Social, Economic and Environmental values.
3. Build capacities and strategic alliances with other enterprises, government agencies and development practitioners
4. Involve local communities as partners and co-designers - local buy-in and ownership
5. Significant investment in terms of time and resources is essential. Early investments pay off and achieve sustainability in the long term.
6. Trade-offs among different partners
7. Goals are established and addressed. Conflicting goals are common in agricultural businesses; the entrepreneur is expected to seek viable compromise solutions.
8. Ongoing monitoring and evaluation should be built into the business model.

7. Basic Analysis in Agricultural Business

Objective of a Business Plan

The primary objective of an agri-input business plan is to project the financial needs and make arrangements to secure financial and other requirements necessary for the implementation of the business plan.

Framework for Business Plan Strategy Development

The steps to be adopted are itemized below.

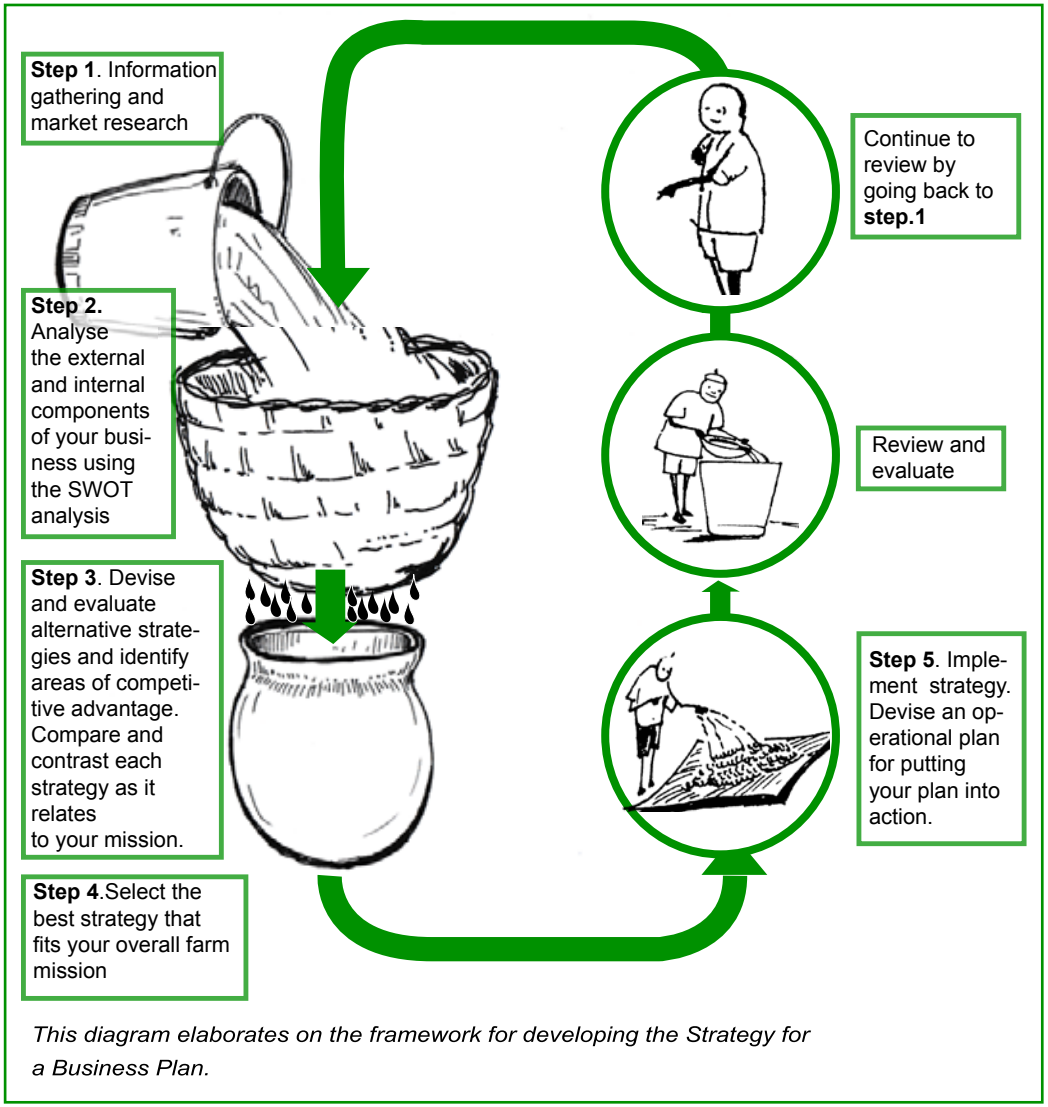
Step 1: Gathering Information and Market Research.

- Market Research: Research your current and potential markets to identify
– trends, competitors, needs and buyers.
- Focus groups, demographics, surveys, observation, interviews

NOTE: Never rely only on your opinion of what the market wants. Bullet #2 represents a number of tools to consider for your research. FOCUS GROUPS - a small group of potential consumers; DEMOGRAPHICS – US Census is a great resource; SURVEYS – consider an incentive to increase survey response rate; OBSERVATION – what are people buying, what are competitors offering: INTERVIEWS – other business owners and sales representatives may be able to provide information on what has or has not worked.

Step 2: Analyzing the external and inter nal components of your business using the S.W.O.T. analysis

- S.W.O.T. is an acronym for:
– Strengths
– Weaknesses
– Opportunities
– Threats



This diagram elaborates on the framework for developing the Strategy for a Business Plan.

NOTE: Strengths and weaknesses are internal sections to the organization and provide insight into what components provide competitive advantages. Threats and opportunities are external to the farm and can not be changed, therefore the farm MUST change with and react to these factors.

Strengths and Weaknesses

• Evaluation of the Internal Environment
– Financial resources
– Management capability
– Human resources
– Location
– Facilities

NOTE: Areas of exploration of strengths and weaknesses include financial resources, management capability, human resource capability, age of equipment, available facilities, production process, land capability, location.

Threats and Opportunities

• Evaluation of the External Environment
– Competitor analysis
– New/expanding markets
– Regulations
– Technology
– economics

NOTE: Opportunities and threats include new markets, expanding markets, government regulations or incentives, new technology, increasing competition, lower or higher barriers to entry and economic conditions

S.W.O.T. Analysis

Use this Chart to summarize your S.W.O.T. Analysis

Internal Strengths:	Internal Weaknesses:

External Opportunities	External Threats:

Step 3: Creating alternative plans of action and identifying areas of competitive advantage.

1. Align– Internal Strengths with External Opportunities
2. Generate a plan of Action
3. What is unique, what is your competitive advantage, what will your consumers value

NOTE: Compare and contrast the competitive advantages each strategy may offer and then select the best. This should be an ongoing creative process. If you find this phase difficult, break apart the process beginning with information discovery then focus on marketing strategy.

Step 4: Selecting the best plan that fits your overall farm mission.

- It is now time to select the plan that best fits your overall farm operation
- Keep in mind SWOT
- Can you see yourself doing this in 5-10 years?
- Include marketing, production, finances and management along with your competitive advantages.

NOTE: At this point you may want to come back and complete this after analyzing the marketing and financial.

Step 5: Implementing and evaluating the strategy.

- How are you going to get it done!
- Following the financial plan there is a section that focuses on implementation

8. Marketing Plan

- Market research – Completed during the SWOT analysis
- Target Market - It is important to understand who is purchasing your products so that your marketing efforts will reach that segment. You cannot be everything to everyone. In order to effectively market, you need to cater your product and services to the set of customers who will see value in the product you are offering.

Who are your market targets?

- A target market can be developed by:

– Demographics – age, gender, family size, education, occupation

– Geographic – location, city, urban, rural Psychographic – behavioral patterns, lifestyle similarities, common interests, beliefs and hobbies

NOTE: The marketing plan is much more than just the advertisement of your product; it is the entire plan of how to convey value, both real and perceived.

Identifying your target market enables you to appropriately sell to them and your marketing efforts with be more effective.

Marketing Strategies

- The Elements of marketing in agriculture

– Product
– Price
– Place
– Promotion

a. **PRODUCT**

- What sets your product apart from others? What are the products main attributes
- Includes – Market research, logos, slogans, sizes and packaging
- Physical/service
- Features vs Benefits

b. **PRICE**

- How much value does your product offer? How are you going to make pricing decisions?
- Cost of production
- Break-even point
- Market position
- Re-price and evaluate
- Perception
- Location
- Supply and competition.

NOTE: To determine your price start with cost of production and break even price. If you are selling in a niche market your product may not be the lowest price, and it doesn't need to be.

c. **PLACE**

- Where will you sell your product?

Where does your target market shop?

- Locations and logistics

- Transportation and distribution

NOTE: The internet has provided a whole new opportunity in selling to a customer in another state, region even country; and delivering door to door.

d. **PROMOTION**

- Where is the best value for your promotional money and efforts and how will you determine if they are working?
- Unpaid – Positive, PR, newspaper
- Paid – Advertising, publicity, sales promotions
- Be creative!

NOTE: Promotion of a product should be designed for your target market. Think creatively about how you promote your product.

Creating a Marketing Budget

- Research
- Communications
- Networking
- Promotions
- Advertising
- Public Relations
- Distribution

NOTE: Costs related to the above, measuring quantity and cost. Research includes: hired sources, and publications purchased. Communications includes: promotional brochures, media, web design & maintenance. Networking includes: memberships & affiliations, events, subscriptions. Promotions includes: giveaways, discounts & special offers. Advertising includes: brochures (Development & production), logos/labels, packaging, signage, mailings, media & newspaper ads. PR includes: charity events, employee promotions, sponsorships and advertising. Distribution includes: shipping & transportation.

Enterprise Analysis and Plan

- Divides costs and returns for each farm enterprise
- Helps to determine the productivity of enterprises and if a farm should continue or change enterprises.

NOTE: One farm may consist of many different enterprises, i.e. a retail produce market, hay sale, or petting zoo. Accurate record-keeping of existing enterprises and detailed projections of planned enterprises is imperative.

Financial Plan

- Very important and necessary component of the business plan

– Balance Sheet – Net Worth
– Cash Flow – Liquidity
– Income Statement – Profitability
– Pro Forma Statements

NOTE: Financial statements help you determine your farms net worth, liquidity & profit-

Enterprise Analysis Plan

Gross Revenue: The total sales of product or services from the enterprise. Revenue can be calculated with the followings formula: Price x Units sold = Gross Revenue

Variable Cost: Cost items that vary with production volume. Examples of such items include fertilizer, seed, fuel, electricity, piece-work labor charges, pesticides, packaging cost, and custom charges.

Fixed Cost: Those cost that you will incur regardless of whether you produce any output. These costs are determined using the DIRTI 5 method which includes Depreciation, Interest, Repairs, Taxes, and Insurance. Often a piece of equipment or building will be used for more than one enterprise. In these cases it is important to estimate the percentage of use for each enterprise and allocate the cost accordingly.

Net Income: Net income is the money after subtracting variable and fixed cost. This is the bottom line. NET INCOME = Gross Revenue – (Variable + Fixed Costs)

ability; make important production, financing & investment decisions; help with credit & lending applications; develop budgets for each farm enterprise.

BALANCE SHEET – a detailed listing of assets, liabilities & net worth at a given point in time. Net worth is the best measure of a farm's financial position. CASH FLOW – liquidity only includes cash income or expenses therefore determine the ability of your farm to generate enough cash to meet financial obligations without disrupting the normal operation of the farm. INCOME STATEMENT – profitability is the summary listing of income, expense and, ultimate, profit of the farm in a calendar year.

Balance Sheet

- Summarizes Assets, Liabilities (Debt), Net Worth
- Net Worth = Value of Assets – Value of Liabilities
- Current (< 12 months), Intermediate (1-10 years) Long Term (>10 years), Non-farm
- "A Balance Sheet is a snapshot of the farm's financial position"

NOTE: Net worth is sometimes referred to as owner's equity.

Cash Flow

- Summarizes all cash in-flows and out-flows for a period of time.
- Checkbook Accounting

– In-Flows – crops & livestock sales, receipts, sale of capital assets, borrowed money
– Out-Flows – production, capital expenditures, loan payments, living expenses
– Important on farms because of seasonality

- Projected and Actual Cash Flow

NOTE: Projected cash flow estimates the expected cash inflows and outflows during a specific accounting period. Actual cash flow is the actual inflows and outflows incurred and the two are compared. Use the ending year's actual cash flow statement to establish the coming year's projected cash flow statement.

Income Statement

- Summary of revenues and expenses for a specific time period.
- Revenue – Receipts from sales, government payments, dividends.
- Expenses – Production expenses, interest, taxes, insurance, loans.
- Inventory Changes – Accrual adjustment
- Depreciation and Capital Adjustments
- Revenue – Expenses = Net Income

Main purpose is to determine how much income was generated by the farm operation

NOTE: Income statements are prepared by using either the cash or accrual accounting methods. The accrual method ultimately gives a more accurate picture of farm profit.

Projected Financial Statements

- Lender, farm operation or other factors may require projected financial statements
- To do this review enterprise budgets and financial statements.

NOTE: Being conservative and realistic in your projections will help your business in the long run.

Implementation Strategy

- Research completed, finances secured.

Time to implement

– Production
– Management
– Marketing
– Human resources
– Finance and accounting

NOTE: The implementation plan includes a timeline, your ultimate "To-Do List"

Exit Strategy

- Agriculture includes many risks. These should be considered
- What are your exit signals

– Farm profit
– Set age
– Estate plans and farm/business transfer
– Change of markets
– Property value

NOTE: The exit strategy should include this set of criteria that SIGNAL to you that it's time to consider exiting the business.

Human Resource Plan

- The people to be part of your plan
- Does not matter how large or small your business
- Parts of the Human Resource Plan
  - Position and duties
  - Organizational chart
  - Skills and capacity development

NOTE: In addition to job responsibilities and assignments a human resource plan identifies the legal and liability issues involved with having employees. You must review Maryland's employee laws and what may apply to your business.

Position and Duties Include

- Position or name of who is responsible
- Duties and responsibilities of the position
- Skills and talents
- Salary and wages
- Works schedules
- Seasonal, part time, full time Skills and Training
- Continuing education and advancement in technology is very important
- Includes
  - Skill Needed
  - Training available
  - Who in the platform is responsible

Resource Inventory

- Gathering resources whether physical or an expertise is very important
- Resource Inventory Includes
  - Building and facility requirements
  - Building and structure inventory
  - Equipment inventory

NOTE: Inventorying is important because unnecessary and expensive purchases can over extend a business.

Building and Facility Requirements

- Physical Resources
  - Land, Livestock, Equipment, Facilities, Transportation
  - Expertise
  - Computers, marketing, record keeping, production
- Others Resources
- Comprehensive analysis is required in a functional business plan.
- Otherwise true profitability may not be realized.

9. Starting an Agri-business

Will require the following;

- General knowledge of the specific agriculture industry.
- Recognition of your business opportunity or advantage.
- A market for your product and a thorough understanding of that market.
- Technical knowledge of crop production practices and/or livestock production.
- Financial resources to develop your operation.
- The necessary business management skills.

What is a Business Plan?

- A business plan is an effective management tool that outlines how you intend to run your business and profit from it.
- The business plan covers what you intend to do with your business and how it will be done.
- The process of writing down what is involved in bringing your idea to reality requires dealing with the why, what, who, how, where, when, and how much of your venture.
- Writing a business plan forces you to take a deep look at your idea and how you will turn it into a business.
- Doing so helps you recognize areas that need rethinking or support.

Why Business Plan?

- A business plan helps provide direction by making you document what you want out of the business.
- Third, a business plan prompts you to think about the future.
- Finally, a business plan will help you communicate your idea.

Where to obtain information to prepare a business plan?

- Research for the proposed business.
- Interviews with relevant Producers
- Extension Specialists
- Personal Work Experience
- Industry Consultants
- Library Research
- Trade Suppliers
- Trade Magazines and Journals
- Demographic Studies
- Industry Associations
- Newspapers, Radio and Television programs

Components of a Business Plan

Normally, a business plan is made up of the following sections:

Section 1 Business Description
Section 2 Market Characteristics
Section 3 Competitor Assessment
Section 4 Marketing Plan
Section 5 Operating Plan
Section 6 Financial Plan
Section 7 Executive Summary

Elements of a Business Plan

Ownership and Management

- In this section, describe the ownership of your venture, and explain how the business will be managed on a day-to-day basis.
- For instance, if your venture will operate as a partnership, then explain who the partners are and how management decisions will be made and disagreements will be resolved
- Managers of a venture are responsible for turning an idea into a successful business.

Special issues to note:

i. Innovation Platforms operate in the con text of Partnerships
ii. The components of a business plan cover an array of topics typical to all ventures. However, what you write in your business plan will depend heavily on how you in tend to use the plan.
iii. One use is as a feasibility study—a way to help explore an idea to find out if it makes sense.
iv. Another is as an operating guide—a plan that details how a new venture will progress and operate.

Group Activity 7 - *Preparing an Agricultural Business Plan*

Participants should organize themselves into their Working Groups. Each group should appoint a Facilitator

ASSIGNMENT
With reference to a selected agricultural commodity in your Working Group

1. *List the distinct characteristics of the agricultural business terrain in the African country of the selected agricultural commodity?*

2. *Prepare a Business Plan for successful production and marketing of the selected agricultural commodity*

3. *Each Working Group Facilitator to writes a brief report of the group work on the flipchart*

4. *Working Group Facilitators will present the working group report to the plenary*

5. *After all the presentations hold a general discussion session to synthesize the major outputs of this exercise*

6. *Working Group reports: At the end of this exercise the Trainer will give general comments and feedback on this exercise.*

v. Another way a business plan can be used as a financial proposal—a plan that communicates how an investor's financial support will be rewarded
vi. Planning is a continuous process. Once you have written your business plan, you should not consider it finished.
vii. It is a document that will guide the formation and growth of your business you should continually revisit it, especially if the market or your initial assumptions should change.
viii. If the changes are significant, then you should be prepared to revise or even scrap your plans.

Background Reading

Integrating Business into an Innovation Platform

Agriculture in Africa is in a transition phase to yield its potentials in fostering sustainable social and economic wellbeing on the continent. This observation is premised on continued population growth and lifestyle changes combined with urbanization, which is putting pressure on current food supplies at the same time that global productivity increases. Efforts are geared towards shaping Africa agriculture to respond to these pressures.

The sector has gained considerable global and national attention since the turn of the millennium, particularly after the 2007-2008 food price crisis; the result of which the sector is attracting the policy and investment support it requires from governments and development organizations, to ensure food security and economic growth. Given the Africa relative abundant land resources and its unrealized productivity gains; debarring its potentials as a major source of future food and industrial raw material supply. Africa is deemed as the continent to lead the rest of the world to achieving food sufficiency. Conscious of the need to feed an increasingly urbanized population, as well as the opportunity to develop agro processing industries, African governments have giving some attention to rapidly increasing agricultural production.

In Africa, the smallholder farmers contribute over 80 per cent of food and agricultural production on the continent. This brings into focus the need for governments, development organizations as well as big businesses to support smallholders to become less subsistence-based and more entrepreneurial by tailoring production to market forces. The smallholders, also called small-holder farmers, are farmers who own small plots of land often less than one hectare on which they grow subsistence crops and one or two cash crops relying almost exclusively on family labor. This means that continued small-holder production growth, to sustain the increasing demand for food and fiber, will require increased investments in intensification. In other words, for smallholders to increase production without additional land and without major increases in labor and other external inputs, they will need to increase their own, productivity through- greater capital and technology investments. In fact, many smallholders in Africa are producing on poor, fragile and partly degraded soils; they lack access to affordable and appropriate inputs including quality seeds, fertilizer and pest control measures, leaving them with very low yields. In addition, the absence of accessible storage and warehousing facilities means that the farmers are naturally susceptible to post harvest losses and or loss in income due to market forces. Often they have to travel long distances to markets, while poor infrastructure in many rural areas result in very high transport costs. Furthermore, they do not have adequate access to research or extension services, and often lack information about prices which, combined with their weak bargaining position, often result in them not achieving optimal prices for their output. Smallholders are typically poorly served by finance providers, with little access to credit or savings and insurance instruments. Small-scale producers tend to have little say in decisions that affect them and no scope for influencing research or policy agendas.

Another challenge confronting smallholders, despite growing demand in domestic and global markets for high quality and well processed agricultural commodities include; rapidly changing market demands that make the available market increasingly inaccessible to many small-scale producers. With the world focusing on Africa to ensure that food security becomes a reality, empowering Africa's smallholder farmers with improved farm technologies and practices, adequate training and financial support, among others, is the surest way out of global food insecurity.
The carve of the IAR4D concept and the

innovation systems approach to generate real impact from agricultural research give good attention to the profitability of the entire value chain through the enhancement of the different processes. Although a handful of the stakeholders on the innovation platform are not directly on the value chain as a node, but they exert external influence on the chain. Real impact from agricultural research and development is only feasible where commercial opportunities are maximized through the conversion of market opportunities into effective demand.

The translation of the subsistent Africa smallholders into small and medium scale enterprises is imperative in this regards. Such translation will start by stimulating a change in mindset of the smallholders and creation of an enabling environment for business around agriculture. The innovation platform makes this possible by working in a commercial mode and facilitating market development. Apparently, the upgrading of the smallholders farming into business will require substantial capacity development efforts to instill skills in developing and managing business, partnerships, improved production practices, technology handling as well as financial management.

The issue of profitability of agricultural enterprise is directly linked to the competitiveness of commodities produced in terms of quality and prices. Competitiveness can be achieved with the use of the best bet technology packages to ensure high productivity, low use of external inputs and reduced drudgery. Right investment into appropriate mechanization is also vital to achieve price and quality competitiveness. Use of machineries often ensured speed and accuracy when carrying out agricultural operations, it also reduce drudgery and saves time. Competitiveness in terms of price also responds to availability of affordable financing, this is partly a policy and partly institutional issue. Where the interest rate on agricultural loan goes beyond 10% it has been observed that profitability and competitiveness becomes more difficult.

Market control and price regulation is another factor in ensuring profitability of agricultural production at the local level in Africa against the imported commodities. Most of the commodities that are imported into Africa countries are produced in well advanced countries with mechanized agriculture and high technologies on large hectares of land. Under this condition, the economy of scale is well maximized and price per unit item is well reduced from the interplay of the different factors. To ensure the upgrade of Africa. smallholders into business in the short run, protective incentives should be provided for the commodities of the smallholders to keep them in business profitable.

The innovation platforms provides the opportunity to leverage the different factors that ensure business development and sustainability in agriculture, from partnership formation, knowledge exchange, linkages with policy makers, public and private sector partnerships, harnessing affordable financing, facilitating access to market etc.

Module 7 Setting up an Innovation Platform

Introduction

What does this Module cover?

This Module describes the procedure for setting up and managing agricultural innovation platforms. Remember that an Innovation platform is the operational frame for IAR4D.

Objectives

On completion of this Module, training participants will;

1. Acquire knowledge on the step by step procedure to establish an agricultural innovation platform.
2. Understand the strategies for the engagement of the non-traditional ARD partners and how to achieve their effective contribution to ARD.
3. Know about the rules for effective operation of an innovation platform.

Training Notes

Guidelines for setting up a functional Innovation platform

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

i. It must have cohesion
ii. Unite the stakeholders on the commodity where they have mutual interest.
iii. The platform must have potentials to meet the interest of stakeholders on board.
iv. All stakeholders must have a definite contribution to make and benefit to derive from the platform.

Steps in Setting up an Innovation Platform

The following steps can be adopted in setting up an agricultural innovation platform.

Step 1: Establish the location of Innovation Platform activities

This should be carried out with analysis leading to;

i. Identification of opportunities and challenges in agricultural productivity.
ii. Socio economic circumstances
iii. Natural circumstances viz., soil factors, climatic characteristics etc.
iv. Economic potentials eg market access, linkages with outside world, availability of infrastructures (road network, electricity, telephone etc.

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

i. The commodity should be identified; this could be influenced by the strategic innovation platform operated by the government or the government research institute.
ii. Agriculture Value chain analysis should be conducted to

a) Identify chain of actors
b) Challenges and opportunity for innovation.
c) Productivity, Natural Resources Management, policies, market, product development.

Step 3: Identification and validation of stake holders

The following features should be considered in the 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.

Innovation Platforms vary in the degree of formality. Informal Innovation Platforms may have loose regulations guiding the operations,
Formal Innovation Platforms develop a set of well-articulated guidelines.

Step 6: Facilitation of stakeholders' interactions.
It is anticipated that that the facilitation of the Innovation Platform should be devolved to the national agricultural extension system; However, any of the stakeholders could initiate an Innovation Platform and facilitate the process.

Step 7: Develop and implement business plan.
All stakeholders in an Innovation Platform have equal rights to decision on the platform; therefore the innovation Platform Business Plan should be agreed upon by all members of the platform.
Implementation of the Business Plan 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.

Group Activity 8 – *Setting up an Innovation Platform*

Participants should organize themselves into their Working Groups. Each group should appoint a Facilitator

ASSIGNMENT

1. *Write on a flip chart, the steps to be followed in setting up an Innovation Platform*
2. *Discuss and list the main criteria for identification of stakeholders for an Innovation Platform*
3. *Select a particular agriculture production system and design the structure of an Innovation Platform for this system*
4. *Each Working Group Facilitator to writes a brief report of the group work on the flipchart*
5. *Working Group Facilitators will present the working group report to the plenary*
6. *After all the presentations hold a general discussion session to synthesize the major outputs of this exercise*
7. *Working Group reports: At the end of this exercise the Trainer will give general comments and feedback on this exercise.*

Background Reading

Features of an Agricultural Innovation Platform

Introduction

The engagement of a multitude and diverse variety of stakeholders, who have different objectives and expectations tend to complicate the setting up and successful management of Agricultural Innovation Platforms. Therefore the setting up of agricultural innovation platforms requires very careful thought and coordinated planning of the various steps and procedures. Furthermore, different methods can be adopted for setting up agricultural innovation platforms according to the focus and agenda of the platform. Whatever system is adopted, agricultural innovation platforms must be well set up and articulated to meet the common interest of the partners and stakeholders that are involved.

Characteristics of an Innovation Platform

An effective Innovation platform should be established to demonstrate the following qualities:

i. Common understanding of the agenda around which the interest of the actors are harnessed.
ii. there should be cohesion
iii. stakeholders should achieve general consensus on the target commodity of mutual interest
iv. the platform should be organized to satisfy the interests of the stakeholders
v. all stakeholders in the platform should contribute to the operations of the platform and derive benefits from the platform
vi. Good facilitation that would ensure that actors contribute their best in the mutual interest of all.

Stakeholders Roles in Innovation Platforms

Stakeholders on the Innovation Platform are representative of the partner institutions as well as the actors on the platform.

Innovation Platform Partners are representatives of various institutions whose mandate impacts on the agenda or purpose of setting up the IP. As the main objective is to enhance knowledge and skills for increased agricultural productivity resulting in socio-economic benefits, the key partners are usually Research, Extension Service, Input Supply, Marketers, Transporters, Policymakers, Processors, Farmers' organization, NGOs, Credit Providers, and Information Service Providers. They generally provide strategic direction to the IPs in trying to ensure that their actions meet with the strategic positioning required for agriculture development in that country.

Specifically,

1. The Agricultural researchers on the Innovation Platforms are to ensure that the technologies and innovations practiced on the platform are technically up-to-date to bring about the desired result or outcomes. They also observe and note the challenges with these technologies and the general situation with a view to refining and restructuring the institutions research direction and approach to guarantee that the research outputs would meet the needs of the actors in the field.

2. The Extension Service roles are to ensure that the technologies and innovations are technically feasible and relevant, socially acceptable and inclusive and that the methodologies for promoting learning and adoption are suitable as well as guide the processes that will facilitate that the actors received the outmost benefits from their efforts.

3. The Inputs Suppliers partner on the platform to guide about the available inputs as well as learn about the required one and where they may be needed so as to enable them to appropriately support increased productivity efforts and enhance their businesses.

4. Marketers guide actions on the platform to ensure that what is produced meets the requirements of the consumers. They also provide guidance to stakeholders on the various regulations that might enhance or impede actual marketing of produce and products of the IPs.

5. The roles of NGOs on the platform would vary depending on the area of focus of such NGOs. It could be to facilitate approaches that would enhance skills in participation and social inclusion, empowerment with micro-credits, group dynamics, etc.
6. The Policymakers' role is advisory to ensure that no policies of government are breached as well as to be informed and to learn new ways to reform policies and ensure that policies address the reality of the situations on ground.
7. Credit service providers like banks and micro-finance institutions play the role of learning and ensuring the provision of support to address the real needs on the ground. Their services become more targeted and results oriented.
8. The information service providers ensure appropriate interactions on the platform and proper communication of platform activities to the outside world using appropriate media.
9. The farmers or producers' organization ensures proper Organisation of their members to ensure that they derive the most benefits from participation in the platform activities.
10. The Innovation Platform actors are those members of the platform who are directly involved in the application of knowledge and skills gained on the platform to resolve the challenges faced or those who explore the opportunities identified to increase agricultural productivity and their socio-economic well-being.

Module 8 Managing an Innovation Platform

Introduction

What does this Module cover?

This Module describes the elements for the management of Innovation Platforms and especially creating the enabling environment for innovation to happen in platforms. In this Module, we also provide crucial information for understanding the functioning of innovation platforms.

Objectives

On completion of this Module, training participants will;

1. Understand that effective leadership and efficient management are crucial for creating and operating successful innovation platforms.
2. Efficient managements of innovation platforms creates the enabling environment for innovation in platforms
3. Successful operations of an Innovation Platform depend on formation of groups and effective management of conflicts within groups.
4. The success of innovation Platforms depends on Team Work

Key Training Notes

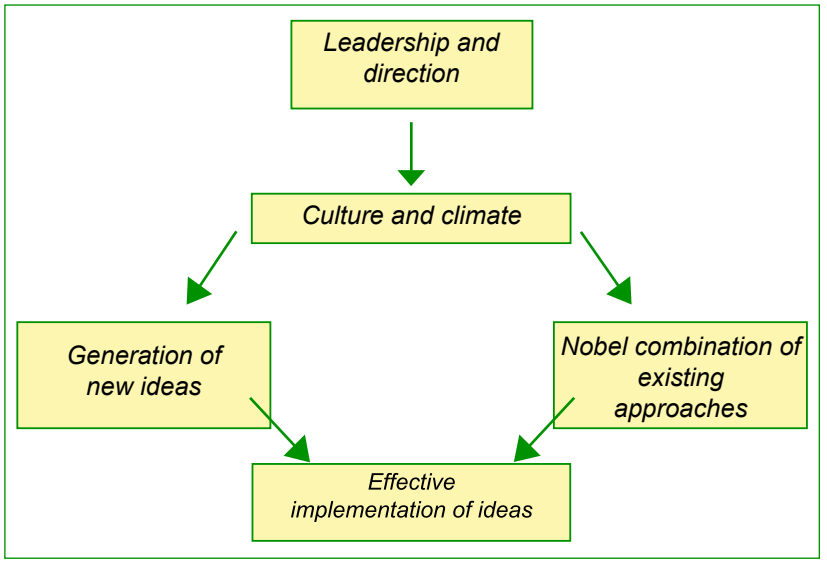
1. Creating an environment for Innovation on the Platform

To foster innovation on the IP the following are important;

- Create a culture that aims to meet the needs of all stakeholders.
- There should be an Increasing emphasis on long-term thinking and strategies for achieving those.
- Mindset change for innovation should start with leaders who provide strong direction for innovation and establish organizational climates that are conducive for innovation

Steps for developing environment for innovation

The steps for developing the conducive environment for innovation on an innovation platform can de described in the following diagram.



Leadership role on an innovation platform

Leadership means:

- Developing a vision
- Turning vision into workable agendas.
- Communicating these agendas to others in a way that results in excitement and commitment.
- Creating a climate that encourages problem solving and learning.
- Making sure that everyone persists until the agendas are actually accomplished.

Leadership and Direction in an Innovation Platform

- Innovation leaders articulate a clear vision for innovation — they provide a consistent and focused direction to which employees can link their own contribution to organizational objectives.
- The way that people work and work together, is also a defining feature of innovative leader.
- People need to have the space to work together, share ideas and challenge old ways of thinking.

Generation of new ideas and novel combination of ideas:

- Ideas fuel innovation
- Innovation is often costly and require resources
- Accept a reasonable degree of risk
- Old ideas may serve as raw material for new ideas
- Translate ideas into business practice
- Being creative in the abstract and being an innovationist in the concrete

Factors contributing to successful innovation in an Innovation Platform

- Much better understanding of user needs and emphasis on satisfying them
- Good internal and external communication, willingness to take on external ideas
- Treating innovation as a corporate task — developing process and structures to int grate development, production and delivery activity.
- High quality resources and level of commitment
- Implementing careful planning and project control procedures.

Factors that could hamper Innovation in an Innovation Platform

1. Not creating a culture that supports innovation
2. Not getting buy-in and ownership from stakeholders
3. Not having a widely understood, system-wide process
4. Not allocating resources to the process
5. Not tying projects to organizational strategy
6. Not spending enough time and energy on the fuzzy front-end
7. Not building sufficient diversity into the process
8. Not developing criteria, metrics and M&E into the system.

2. **Group Dynamics**
   Innovation Platforms consist of groups of interacting and collaborating partners, and the success of operations depends largely on the dynamics of the groups, and especially on effective management of conflicts within the groups.

Definition of group dynamics:

- The study of human behaviour in a group/ Innovation Platform;
- Refers to social process by which people interact in a group environment;
- Understanding of the influences of personality, power and behaviour on the group process for effective working;
- Understand the social processes that impact on individual, group development and performance;
- Understand better how to strengthen organizations-IPs

Types of groups,

- Formal - deliberately formed to perform specific tasks with a structure, rules, regulations to guide behaviour;
- Informal - emerge naturally in response to organizational or member interests.

Group structure based on stakeholder analysis:

- Ensures that all relevant skill combinations are included;
- Enables analysis of impact of a poor performer on IP achievement (M&E, Business plan, SHG, Markets etc);
- Inclusion of a combination of leaders and followers;
- Provides for examination of the potential for personality conflicts;
- Enables assessment of impacts of member diversity.

Size of group / No of members of Innovation Platforms influences

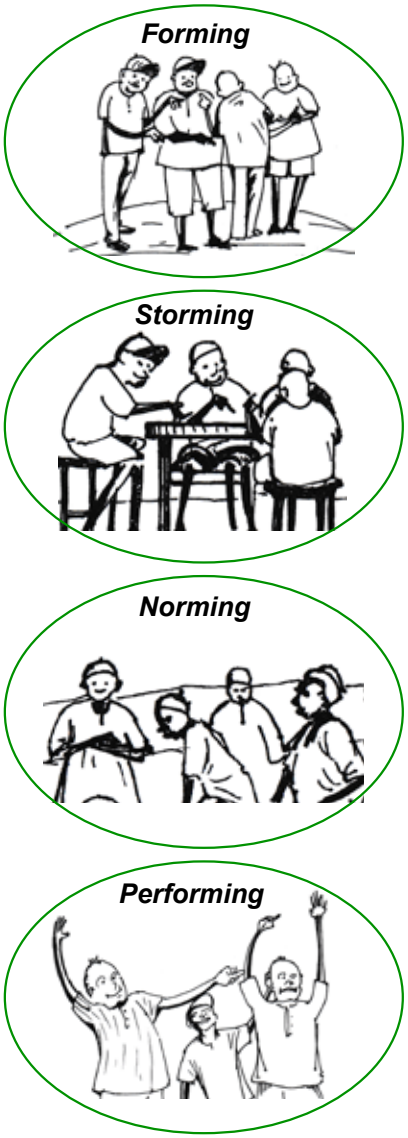
- Individual actor expression of viewpoints;
- Development social relationships between IP members;
- Participation of different actors;
- Ability to recognize individual talent & contribution.

Stages in Groups development

- Forming – establishment (dependence);
- Storming – finding position-fights in relation to roles & responsibilities, rules and procedures, individual recognition (counter dependence-conflicts);
- Norming - issue resolution, develop social agreements, cohesion, establish group norms and settling down (interdependence);
- Performing - mutual assistance, creativity, understanding goals and roles (independence).

Action by Trainers/Facilitators

- Conduct detailed stakeholder analysis to ensure that the size of the Innovation Platform optimizes social process.
- The governance structure of the Innovation Platform should define and establish clear roles and duties.
- Conduct periodical analyses of personality, power and behavior on the group process and performance.
- Implement strategic capacity building program based on group dynamics.



3. **Management/Resolution of conflicts in an Innovation Platform**

Definition of Conflict

- Conflict is any situation in which interests or desires of one actor differs from those of another actor;
- Conflict resolution refers to the transformation of relationships in a particular case by the solution of the problems which led to the conflictual behavior in the first place." (Burton,1990).

Characteristics/Facts about Conflicts

- "Whenever you're in conflict with someone, there is one factor that can make the difference between damaging your relationship and deepening it. That factor is attitude." –William James
- "Faced with the choice between changing one's mind and proving that there is no need to do so, almost everybody gets busy on the proof." -John Kenneth Galbraith.
- I say this to your shame. "Can it be that there is no one among you wise enough to settle a dispute between the brothers?" 1 Corinthians 6:5 [KJV Bible]
- Conflict will always exist between actors and it is a healthy sign not a negative process.
- Conflict reflects dynamics not necessarily always negative- just like sensation of pain in body;
- Innovations are generated and fostered when actors are able to challenge one another's ideas in a supportive environment;
- Effective facilitators have the skills to manage the conflict process and transform disputes into innovations.

Common causes of Conflicts

- Poorly defined goals (Increase yields by 60%, farm income by 50%, pushing 25% of poor HHs above poverty line, reducing malnourished children by 30% & restoring 40% of degraded land)
- Unclear roles & expectations not met;
- Task interdependencies: Dependency on one another to "get the activity done"- delays/outstanding work;
- Poor communication- misunderstandings;
- Competition for scarce resources/ benefits along chain;
- Lack of cooperation/trust;
- Divergent points of view on style, values (e.g. OA);
- Personality conflicts

Categories of Innovation Platforms related conflicts

- Inter-personal: between individuals due to differences in their goals or values;
- Inter-group: between two or more teams, groups, task forces;
- Intra-group: within a group or team;
- Inter-organizational Conflict: arises across organizations.

Managing Conflicts

Healthy management

- Disputes that handled in a supportive environment that foster the generation of new ideas or innovations;
- Tension that signals a growing problem that requires attention.

Damaging management

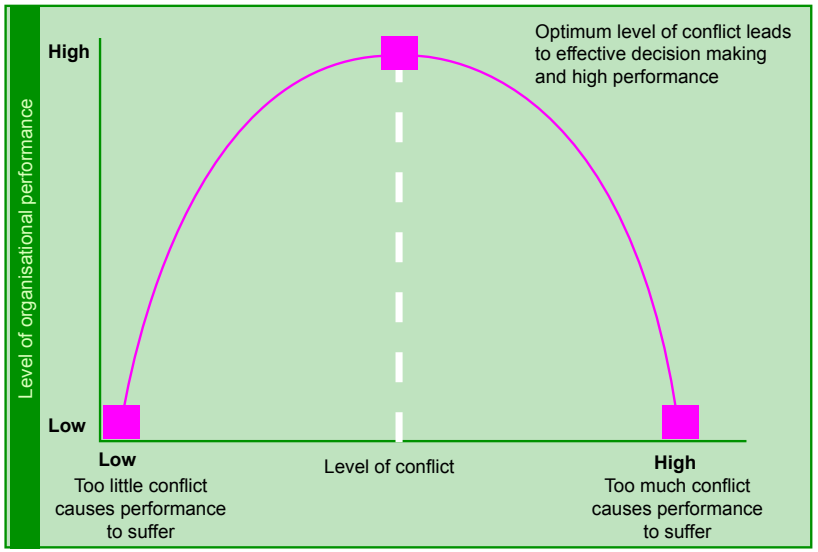
- Lack of Mutual Respect
- Yells
- Indulges in personal attacks- "you"
- Withdrawn & Silent
- Forms gossip/whining cliques.

Consequences of Conflicts growth

- Stress
- Poor attendance of meetings
- High turnover
- De-motivation
- Low productivity
- In extreme instances, unresolved conflict can lead to violent or aggressive situations.

Effect of Conflict on Innovation Platform performance

The following diagram describes the effects of conflicts on the performance of Innovation Platforms. Carefully explain this diagram to your training participants.



Steps for Conflict Resolution

1. Clarify what the disagreement is;
2. Establish a common goal for both parties;
3. Discuss ways to meet the common goal;
4. Determine the barriers to the common goal;
5. Agree on the best way to resolve the con flict;
6. Acknowledge the agreed solution and determine the responsibilities each party has in the resolution.

What society teaches about methods of conflict resolution?

- "Two heads are better than one." (Collaborating)
- "Kill your enemies with kindness." (Accommodating)
- "Split the difference." (Compromising)
- "Leave well enough alone." (Avoiding)
- "Might makes right." (Competing)

Methods of resolving conflicts.

Key Points to Remember

i. Peace is not the absence of conflict but the ability to manage it!
ii. Well managed conflict stimulates competition and can be a powerful source of motivation.
iii. Conflicts can be prevented by:
- Hold regular IP meetings
- Allow open expression by actors
- Agreeing on objectives
- Having a clear and detailed action plan
- Distributing tasks fairly
- Never criticize actors publicly on the IP
- Always be fair and just with different actors
- Being a role model.

Method of Resolving Conflicts

	I win	I lose
You Win	Win-win Accommodation/collaboration	Win-lose(competition)
	Compromise	
You Lose	Win-lose (Competition)	Lose-lose Avoidance

Wisdom notes that there is no one way to resolve a conflict and often facilitators will need to utilize multiple methods in order to reach a resolution.

Group Activity 9: *Managing an Innovation Platform*

Organize participants into their Working Groups. Each group should appoint a Facilitator

ASSIGNMENT

1. Discuss and Write FIVE main reasons why an innovation platform should establish a Management structure

2. Who should lead the platform?

3. List the factors that could kill an innovation platform

4. List the major the factors that could kill innovation in a platform. How can these factors be neutralized?

5. Suggest the key Rules that can govern the operations of a successful innovation platform

6. Each Working Group Facilitator to write the results of the group work on the flipchart

7. Working Group Facilitators will present the Working Group report to the plenary session

8. After all the Working Group presentations, hold a general discussion session to synthesize and harmonize the

9. At the end of this exercise the Trainer gives general comments and feedback on this exercise.

Group Activity 10 : *Conflict Resolution in an Innovation Platform*

Organize participants to work in their working groups. Each group should appoint a Facilitator

ASSIGNMENT

1. Identify FIVE causes of conflict within Innovation Platforms

2. List the characteristics of Conflicts in Innovation Platforms

3. Using a particular case study describe the steps used in resolving specific Conflicts in an Innovation Platform

4. Each Working Group Facilitator to writes the results of the group work on the Flipchart

5. Working Group Facilitators will present the working group report to the plenary

6. After all the presentations hold a general discussion session to synthesize and harmonize the reports of the Working Groups

7. At the end of this exercise the Trainer gives general comments and feedback on this exercise.

Background Reading

Management of the Innovation Platform (IP) Process

Source: A Guide for Developing and Managing Agricultural Platforms
Felister Wambugha Makini, Geoffrey Mbutia Kamau, Margaret Nafula Makelo and George Kiuri Mburathi (2013).KARI, Nairobi Kenya ACIAR Australia

Importance of management in an Innovation Platform

The management or governance of Innovation Platforms is essential for sustainability and success. It is important to note that managing an Innovation Platform is not meant to ensure similarity of interests among actors, but rather to guide diverse objectives into a common vision, uphold transparency, gender and policy issues.

Main challenges in managing Innovation Platforms

The overall challenge in managing an IP is to ensure a progressive process with sustainable reciprocal benefits. Attendance and commitment of platform members is a major challenge. Existence of platform long after the stipulated period ('project' period) largely depends on the ownership entrenched in actors in the early stages. A Platform may evolve based on circumstances, for example coffee IP to banana or dairy IP but structures may remain.
An Innovation Platform cannot function while actor objectives are competing. For instance, a stockiest aiming to make profit may not share an IP with an NGO that is promoting free inputs.

Spoiler factors, such as sudden change of agenda among actor(s) or death of a key participant can derail progress. This can be overcome by ensuring that core businesses are diversified, or transformed through democratic dialogue that may include a memorandum of understanding (MoU), and linkages among actors. Rules and regulations should not be set hurriedly as their acceptability is not everlasting, especially when new actors join. Therefore it is important to ensure consultation process is set so that conflict resolution processes are inbuilt, rather than to assume that rules are always enforceable.

Learning and feedback among relevant actors do not spontaneously happen. This inhibits knowledge creation essential to fuel innovation, especially because vital lessons are never utilized. Learning improves when both failure and success are embraced, and underlying causes assessed and findings shared collectively. This requires a gifted facilitator who will make aware and clarify what benefits accrue to whom, where and when. Learning improves confidence and change of mind-sets, which are perhaps the two most important processes in an Innovation Platform.

Formidable obstacles impede continuous transition from potential to real benefits, from one level of success to the next. To mitigate against such, it is important to ensure that after meetings there is a small representative group or committee that addresses the question "what next?".
The timing of meetings is seamless rather than pushing for regularity. This is achieved by scheduling meetings to follow logical sequence of targets. Actors need to agree on a functional communication strategy so that they maintain awareness of IP functions and individual tasks.

Different expectations are managed by seeking ways of eliminating hidden agendas, for example, 'confidential' matters are eliminated by asking questions openly. IP leaders should be known personally and promises should not be made on behalf of one's institutions before consulting with relevant decision makers. There is need to deal with sensitive issues informally.

Documentation on the functioning and dynamics of the IP entails a clear strategy. It is not spontaneous. It involves auditing the full range of benefits including financial and material factors. The findings must be shared so that the lessons are distilled for accountability among all actors to allow flexibility in decision making. Knowledgeable IP actors will know why change is a must and how it should happen, by analyzing what went right or wrong by linking to participatory monitoring and evaluation.

Innovation Platforms are set up to pursue diverse actor ambitions. The stronger the ambitions, the more driven the actors. The more actors realize ambitions, the more they trust the IP process. Trust brings about devotion that drives innovation. However, ambitions must be pursued without upsetting progressive relationships, or without creating extra complexities that delay generation of benefits among IP actors.

Actors need to understand the full range of benefits, such as enhanced knowledge, superior market intelligence, reduced input prices, strengthened smallholder organization, upgraded networks, improved attitudes about development processes, reformed service delivery, changes in stereotypes among actors, new market opportunities, better productivity, and advanced income sources.

The Innovation Platform leadership needs to skilfully interpret collective vision by illustrating how such benefits accrue at different times. IPs cannot produce equal benefits, but rather equitable returns dependent on objectives and inventive effort.
Transparency stems largely from openness. It must be seen to function through efficient information sharing, dialogue, business relationships rather than mere familiarity.
Leadership in IPs should not be position-based, but rather task-oriented. This will therefore change depending on the need/expertise required. There could well be several levels of leadership complementing each other.

Finances need to be controlled skilfully. For instance, the IP may explore mechanisms of outsourcing funds. This will require a self-regulating, impartial funds manager who is not the facilitator, lead actor, or convener. This minimizes conflict of interest, improves efficiency and net benefits, even if management costs increased marginally.

Module 9 Monitoring and Evaluating the Performance of an Innovation Platform

Introduction

What does this Module cover?

In this Module, we focus attention on the procedures for monitoring and evaluation of the activities in an Innovation Platform. First we define the terms monitoring and evaluation, followed by a description of the process adopted in monitoring and evaluation of innovation platform activities

Objectives

On completion of this Module, training participants will;

1. Understand and describe the concept of a project and project cycle.
2. Define monitoring and Evaluation and distinguish between monitoring and evaluation
3. Describe the types of Evaluation and the uses of Monitoring and Evaluation .

Key Training Notes

Monitoring and evaluation is an integral component of the innovation platform operations especially formation, functioning, outputs and outcomes. It is vitally important and essential to monitor and evaluate activities in innovation platforms in order to be assured that the objectives are achieved and that partners in the platform obtain the expected benefits of participating in the platform. Monitoring and evaluation at the Innovation Platform should be an integral part of a larger monitoring and evaluation framework that governs the operations of the innovation platform.

Definitions of Key Monitoring and Evaluation (M & E) Terms

Monitoring – is the routine tracking of the key elements of the Innovation Platform activities and overall program performance through regular surveillance systems, reporting and record keeping. The key question to be answered through monitoring is “are the activities in the Innovation Platform being implemented according to plan to meet the objectives outlined?”

Evaluation - measures how well the Innovation Platform activities have met expected objectives and the extent to which changes in outcomes can be attributed to the interventions from the Innovation Platform. The key question to be answered through evaluation is “to what extent have the outputs and outcomes from the Innovation Platform operations met and satisfied the expectations of the partners in the Innovation Platform?

Inputs – are the actual resources used to implement Innovation Platform activities.

Outputs – these are the immediate results obtained from the Innovation Platform activities.

Outcomes- outcomes are the significance

of the Innovation Platform activities and outputs on the beneficiaries. For example, outcomes will include (i) changes in the attitudes and performance of farmers after participating in Innovation Platform activities (ii) understanding of the concepts of integrated agricultural research for development IAR4D and innovation Platforms (iii) increase performance of agricultural activities, for example in terms of production, processing, storage, marketing linkages and income generation. Indicators- these are carefully identified and selected simple quantitative or qualitative measures of program performance that detail the extent to which program results are being or have been achieved. Indicators are measured at beginning and end to evaluate whether the outcomes were reached.

Impact – the impact is the extent to which implementation of Innovation Platform activities have influenced the livelihoods of beneficiaries in the long term.

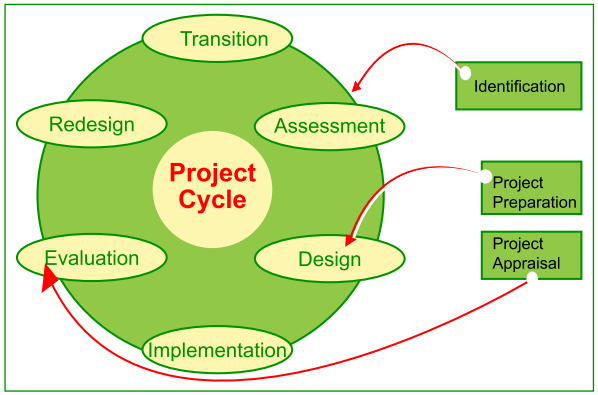
Framework for Monitoring & Evaluation- the Project and Project Cycle

A well formulated project is a suitable framework for monitoring and evaluation; so what is a Project?
Define a Project – a unique set of activities with

- Rationale
- Goals
- Objectives
- Beneficiaries
- Expected outputs
- Action plan
- Limited time frame
- Logical framework and
- Budget

Business project cycle

A business Plan is developed in the context of the project cycle illustrated as follows:



1. Monitoring

Monitoring involves;

- Looking into the process, approaching the target, ensuring the right selection of beneficiaries
- Ensuring that procedures are according to the project work plan
- Meeting targets - activity monitoring ensuring that targets are met
- Continuous information gathering/ analysis/ and reporting for informed decision making
- Ensuring that the project program is going in the right direction as planned in the project document
- Systematic recording of the following;

- Observations
- Information gathering
- Analysis
- Reporting and documentation
- Reflection and
- Action.... re-planning of project activities for improved delivery

Definition

Monitoring is " observing and recording whether right things is being delivered to the right people at the right time in a right way – process"

Monitoring IS NOT –

i. Policing
ii. Criticizing or Complaining or Blaming
iii. Pointing out (but it is highlighting)

The Goals of Monitoring

i. To ensure that the inputs, activities and outputs proceed according to the project work plan
ii. Determine whether the inputs are optimally utilized
iii. Ensuring that all activities are carried out by the right people and on schedule
iv. To provide records of inputs, activities and outputs
v. To warm of deviations from project objectives
vi. To assist managers in making informed decisions
vii. Monitoring should take place at and be integrated into all stages of the project cycle.

What to Monitor

i. Focus on key needs of management and different stakeholders
ii. Maintaining minimum accountability and transparency standard
iii. Key outputs of the project and program.

2. Evaluation

What is Evaluation?

Evaluation is described as judging, appraising,determining the worth, value or quality of a project to make informed decisions in terms of

- Relevance
- Effectiveness
- Efficiency
- Sustainability
- Impact

Relevance means – the extent to which the objectives of a development intervention are consistent with the requirements of beneficiaries, and partners and donor policies
Effectiveness means – doing the right things
Efficiency means – doing things right
Sustainability means- meeting needs without compromising the ability of beneficiaries and future generations to meet their needs (project will continue after donor intervention)
Impact means – Positive or negative, direct or indirect long-term impact produced by a development intervention
What Information does Evaluation Provide?

1. **Strategy** – Are the right things being done?
   - Rationale or justification
   - Impact
2. **Operations** – Are things being done right?
   - Effectiveness in achieving expected outcomes
   - Efficiency in optimizing resources
   - Client satisfaction
3. **Learning** – Are there better ways?

- Alternatives
- Lessons learned

Forms of Evaluation

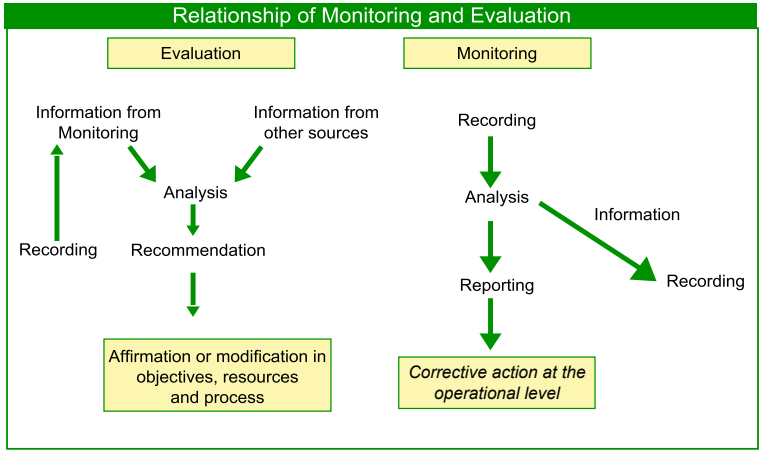
1. Formative Evaluation – evaluation intended to improve performance, most often conducted during the design and/or implementation phases of programs or projects
2. Summative Evaluation – A study conducted at the end of an intervention to determine the extent to which anticipated outcomes were produced.

Types of Evaluation

1. Participatory Evaluation – evaluation in which representatives of agencies and stakeholders work together in designing, carrying out and interpreting evaluation
2. Process based Evaluation – an evaluation of the internal dynamics of a project, its policy instruments, its service delivery mechanisms, its management practices, and the linkages among these
3. Outcome based Evaluation – involves asking if the organization is doing the right activities to bring about the expected outcomes
4. Self Evaluation (360 degree evaluation) – evaluation by those who are entrusted with the design and delivery of a project
5. Goal-based Evaluation – evaluating the extent to which projects are meeting pre-determined goals/impact.

The following diagram describes the relation ship between monitoring and evaluation.

Explain this diagram to the training participants.



Characteristics of Monitoring and Evaluation.

During implementation Before and After
Continuous Periodic;

Key Uses of Monitoring and Evaluation

- Improve performance of ongoing projects
- Accountability
- Warn of deviations from project goals
- Review inputs, activities and results
- Performance reporting
- Decision making
- Improving performance
- Periodic review
- Improving planning

Monitoring	Evaluation
Objectives	
To track changes from baseline	To validate what results are achieved, and how and why they were or were not achieved
conditions to desired incomes	
Methodology	
Tracks and assesses performance through analysis and comparison of indicators over time	Evaluates achievements or outcomes by comparing indicators before and after intervention. Involves value judgement, relies on monitoring data and information from external sources
Characteristics	
Continuous and systematic by project managers and key partners	Time bound, periodic, in-depth Internal and external evaluators and partners
Uses	
Alerts managers about problems in performance, provides options for corrective actions and helps demonstrate accountability	Provides managers, donors, stakeholders, with strategy and policy options, provides basis for learning and demonstrates accountability
WHY?	
Observe, Check, Record, Account	Judge & Value, Asses
Day to day decisions	Major decisions
Provide Information for evaluation	Provide information for future planning
WHEN?	
During implementation	Before and After
Continuous	Periodic

Group Activity 11 – *Preparing indicators and an M & E Protocol for an Innovation Platform*

Organize participants to work in their working groups. Each group should appoint a Facilitator.

ASSIGNMENT

1. Select a particular case study of an Innovation Platform

2. Prepare a schedule of Monitoring and Evaluation for the project cycle of the Innovation Platforms

3. Discuss the indicators that should be used for monitoring and evaluation of activities of the Innovation Platform. Make a list of these indicators

4. Each Working Group Facilitator to writes the results of the group work on the Flipchart

5. Working Group Facilitators will present the working group report to the plenary

6. After all the presentations, hold a general discussion session to synthesize and harmonize the reports of the Working Groups

7. At the end of this exercise the Trainer gives general comments and feedback on this exercise.

Background Reading

Monitoring and Evaluation of Agricultural Innovation Platforms

Introduction

Monitoring and evaluation (M & E) are complementary concepts that have found great acceptance in today's development arena across the various divides. M & E now forms a critical component of most, if not all, development projects and program and even in the conduct of institutional activities. The M & E as it is fondly known have become useful tools of engaging the interest and satisfying the yearning of stakeholders in the administration especially of development interventions.

The term "monitoring and evaluation" is usually used together even though they do not mean the same thing. They are two distinct concepts that complement each other so much so that they now become inseparable in their use in the organizational setting.
Monitoring and Evaluation
Monitoring is the systematic collection, analysis and subsequent use of information collected to enhance the implementation of projects and programmes as well as in the conduct of institutional activities. Monitoring is aimed at improving the effectiveness and efficiency of projects or programmes or organizations. It is usually based on the targets set and the activities planned at inception or before commencement of implementation. Monitoring helps to keep track of activities been implemented and lets management know whether things are going well and to enable it take mitigating actions when things are not going right. If carried out properly, it becomes an invaluable tool for good project management and it provides a useful basis for evaluation.

Monitoring is useful in

- Effective decision making – to support efficient implementation processes.
- Learning from past actions – to ensure that what is planned is what is been implemented.
- Accountable use of resources – value for money.

Evaluation is the objective assessment of the implementation of project or programme or the conduct of an institution through critical analysis of the information collected during monitoring or specifically for that purpose at completion of the project or programme implementation. It is a comparative analysis of actual project outcomes/impacts against the planned or expected ones. It looks at what was planned to be achieved against what was actually accomplished and how this was done. This is to determine whether activities and outcomes of the project or programme meet the desired objectives and purposes of their implementation. Evaluation may be formative or summative. It is formative when it takes place as the project is being implemented or the organization is running with the intent of improving the way the project is being implemented /organization is functioning. Evaluation is summative when it is carried out to draw lessons from a completed project or from an organization or institution that is no longer functioning.
Usually, evaluation exercises are conducted to ascertain the relevance, effectiveness, efficiency and sustainability of the project or programme outcomes and whether the desired impacts have been made.

The M & E processes should enable:

- the effective governance of projects an programmes
- the demonstration of value for money
- continuous learning resulting in sustainable improvement
- a transparent conduct of project, or programme or institutional activities from inception to completion
- the determination of the realization or otherwise of the project or programme outcomes and benefits.

In many organizations, M & E is not seen as

a management tool but as a requirement of funding partner. Be that as it may, the primary use of M & E should be for the organization or project to see if and how it is making progress against the objectives, whether it is working effectively and efficiently, and to learn how to do it better. Plans are essential but they are not cast in stones. If they are not working, or if the circumstances change, then plans should change as well. M & E help the project or organization know when plans are not working, and when circumstances have changed thereby giving management the information it needs to make decisions about the project or organization, the changes that are necessary to be made in terms of the strategy to adopt to ensure the right accomplishment of the project objectives and the expected outcomes and impacts. It is not bad to get something wrong but it is extremely wrong not to learn from past mistakes and to take corrective measures to improve on performance. This is the whole essence of M & E to projects and programmes and institutions.

Although monitoring and evaluation is not a magic wand to wave and make project and institutional challenges to disappear overnight, it helps to identify challenges militating against success and suggest solutions to resolve the challenges and ensure that implementation is on track and that at the end the end the desired change is realized. Besides, monitoring and evaluation also help raise questions about assumptions and strategy; help reflection on the direction to go and how to get there and provides information and insight about the project/programme/institution. It encourages management to act on the information provided and the insight given and thereby increases the likelihood of making a positive difference in the development situation.

Types of Monitoring and Evaluation

Monitoring is usually an internal process function in any project or organization intended to generate information that will enable better management decision for enhanced project, programme or institutional performance. Evaluation on the other hand is external and in most cases terminal to the project and usually may not be of immediate significance to improving the project performance but drawing lessons for future improvement of similar projects /programmes /institutions.

Evaluation can thus be conducted in several ways leading such types of evaluation as

Self-assessment: This is carried out by the organisation or project to ascertain how it fared so as to learn and improve future processes and practices. It requires a great deal of honesty to do this effectively and for it to truly be a learning experience.

External evaluation: This is an evaluation done by a carefully selected team outside to the project implementation. This is usually by way of consultancy. The evaluation team is considered to have an unbiased assessment of what transpired in the project during its implementation and judges how the project was implemented and whether the expected outcomes/impacts were made and the lessons that should be learnt in the process.

Whether the evaluation is internal / self-assessment or external, the approaches that may be adopted in the actual conduct of the exercise can be participatory monitoring and evaluation (PME). The PME involves as many people as is possible that have direct stake in the work that was done. These may be project staff, beneficiaries and other actors working together to determine the project outcomes /impacts. There are several participatory approaches that can be adopted such as Rapid Rural Appraisal (RRA); usually for rural development projects, Participatory Learning and Action (PLA), etc.

Interactive evaluation: involves active interaction between an outside evaluator or evaluation team and the organisation or project being evaluated. Sometimes an insider may be included in the evaluation team.

Indicators

As the name implies, indicators are pointers to show the direction to what is intended to be achieved while carrying out a particular course of action. They are landmarks which tell that the implementation process is going in the right direction or not. They reflect the planned activities to be carried out and they are stated as the workplan is drawn. Indicators may be stated in statistical terms like numbers and percentages or qualitative terms like the level, extent of progress made.
Monitoring and Evaluation of Innovation Platforms (IPs)
Once the IPs have been established and even in the process of establishment, the monitoring and evaluation system need to be put in place to guide the operations of the platform. The plan of activities of each IP should provide for
What is to be done; should relate to or reflect the agenda of the IP and the mutual interest of the actors.
Who is to do it – identifies the roles and responsibilities of the various stakeholder partners and actors on the platform and whether the action is to be taken by an individual or a team.
How the specific activities may be carried out; determines the specific steps to take for example whether it will be by direct effort of members or to outsource to those more endowed to do the assignment.
When these activities are to be carried out reflects the timing of operations.
Where the activities are to be done – within the platform, immediate community or outside the community, and the
Resources required in accomplishing the assignments; this mostly refers to the budget of time, money, materials and even the human capacity requirement to get the job done.
When the plan of action of an IP is made in this manner, it becomes easier to develop specific indicators that may be monitored to ascertain the level of work being done per given period of time.

The indicators that may be monitored in the organization of an IP could vary from ;

- Number of partners – representatives of research, extension, policy, credit institutions, and information services, NGOs, etc.
- Number of actors – farmers, processors, marketers, input dealers, transporters, etc.
- Proportion of males to females as well as that of the youths, etc.
  For a production or cultivation oriented IP, activities that may be regularly monitored may include
- Number of actors generally and per activity area,
- Disaggregated number of actors – male, female, youths.
- Number of other actors reached indirectly; through promotional activities like field days, agriculture fairs, etc.
- Area cultivated to given crops; by direct actors on the platform and those influenced by promotional activities (indirect actors),
- cost of labour engaged
- the types and quantity of inputs required,
- time of specific operations,
- yield figures - quantity produced per unit area,
- Quantity consumed, sold, discarded, processed, etc.
- amount realized from sale of produce,
- Improvement in incomes and the living standard of stakeholders
- Other relevant information that may be of interest to actors and partners on the IP.

In monitoring of IP activities, the actors and partners may decide on the M & E approach to take depending on the intensity of monitoring action required. However, it would be preferable to always adopt a participatory method that would encourage inclusivity and joint learning by actors and partners. It may be advised that each platform operators form an M & E team that will conduct or facilitate conduct of regular and systematic monitoring of the IP activities to guide its operations and enhance decision making in the conduct of the Innovation Platform operations.
As regards evaluation, each IP should provide for the regular evaluation of its complet-

ed or some of its ongoing activities depending on the specific objectives it wants to achieve. The approach to the conduct of such an exercise should depend also on the objective to be achieved which will then inform the level of detailed information the exercise would seeks to obtain. This would then determine how it will be done and who should be involved. In all M & E exercises, it would be preferable to use participatory approach to enhance joint learning and action.

Key Principles of Monitoring and Evaluation in Innovation Platforms

Extracted from
A Guide for Developing and Managing Agricultural Platforms Felister Wambugha Makini, Geoffrey Mbutia Kamau, Margaret Nafula Makelo and George Kiuri Mburathi (2013) KARI, Nairobi Kenya ACIAR Australia

The key principles that should govern the integration of monitoring and evaluation of the platform activities should ensure that all stakeholders in the platform benefit from the platform activities through the learning mechanisms that have been put in place.

Learning

A system should be put in place to ensure that learning is integrated into activities of the platform and that periodically the platform stakeholders meet to reflect on the functioning and outcomes of the platform. To ensure this, an external facilitator (also called a learning facilitator) should be engaged initially for the activity-based learning but should disengage and only facilitate the periodic based learning.

Behavioral Change

Learning is directly associated with the behavioral change in two aspects of the platform. At one level, learning happens as each platform activity occurs and with each periodic reflection activity and it should be integrated in such a way that the attitudes of the stakeholders are noted. This behavioral change is expected to occur at the individual actors, organizations, households and system levels.

Relevance and Responsiveness

The monitoring and evaluation system of the platform should be relevant and responsive. For this to happen, the system should be developed by the actors of the platforms themselves in a participatory manner that ensures joint planning and visioning at the beginning of every cycle. The facilitator should be able to facilitate the development of the indicators that the platform will use to show progress or changes at the platform level. Tools used to collect data should also be developed jointly with stakeholders. A data collection system should be developed in such a way that data are collected, synthesized and fed back to the platform stakeholders. As the platform evolves and matures, some of the original objectives of the platform may have been achieved. With the help of the learning facilitator it is important that new objectives, indicators and tools are developed by the IP stakeholders. The learning facilitator may facilitate the use of inbuilt systems such as observation and the use of a system to ensure regular reflection and learning by for example tracking changes in the stakeholder participation and activities that happen at the platform level.

Module 10 Guidelines for Planning and Conducting Training in an Innovation Platform

Introduction

What does this Module cover?

The contents of this Module deal with training operational matters. We have included this Module in this resource manual to provide some suggested guidelines on how to plan for conducting group training courses in IAR4D in Innovation Platforms

Objectives

On completion of this Module, training participants will;

1. Understand the process of planning for training in IAR4D in Innovton Platforms
2. Be able to describe the stages in the process of planning training in IAR4D in Innovation Platforms
3. Efficiently plan and conduct group training courses in IAR4D in Innovation Platforms.

Key Training Notes

These training notes identify the key aspects that should be addressed when planning for and conducting group training courses in IAR4D in Innovation Platforms. Use these notes only as a guide to help you plan and implement training successfully.

Steps in designing and planning training

Step 1

Identify training needs and target audience for training

- Identify the training needs
- Specify Objectives of training
- Who will be trained? Characterize the intended training participnts

Step 2

Prepare a Training Proposal

The training proposal should outline, in detail, the justification for training and how the training activity will be implemented. The Training Proposal is used for seeking and allocating the necessary financial and other resources for conducting the training activities.
Design the tentative content of the training proposal as follows:

- Title
- Justification
- Objectives
- Target
- Number
- Location of training
- Training Content – the Topics
- Pattern of training
- The Training Faculty- Resource Persons
- Duration
- Expected outputs
- Method of Evaluating Training
- Training Budget – see details given below

Preparing the Training Budget

The budget for the training should outline essential items to be provided for to successfully conduct the training; these items should include:

i. Training Participants Costs – travel, accommodation, meals(including tea/coffee breaks and refreshments),stipend, medical insurance and medical care,
ii. Technical Resource Persons Costs – travel, daily subsistence allowance & accommodation, professional fees for days worked
iii. Training Logistics- cost of training rooms, local transportation for training team, audio-visual equipment rental,
iv. Training Administration Costs - Secretarial services, administrative assistant
v. Training Materials Costs – Stationery, Training Package, Name badges, Flip charts, markers, Clips, Reference materials, hard and electronic copies
vi. Miscellaneous Costs – general bulk provision for incidentals

Step 3

Planning Training

Technical and Operational issues

- Identify and assign a Focal Person to coordinate the arrangements for the training course
- Set up an ad-hoc training committee to plan

the training course activities
- Discuss Technical issues to be covered during training
- Design the Training content to be relevant to the target training audience
- Determine the Criteria for selecting training participants
- Identify appropriate Resource persons to provide technical input in the training topics in the course content
- Decide on the mode of training delivery – allocate time for presentations/discussion, practical working group sessions and any field visits if necessary
- Assemble the training team and assign specific responsibilities to members of the training team

Administrative issues

Discuss in the training team and decide on the following Training logistics;

- Classroom facilities
- Accommodation
- Transportation
- Administrative and Secretarial support
- Catering
- Medical Clinic Services
- Welfare & publicity

Step 4

Pre-course Arrangements Issues

- Advertize the training course to elicit applications from prospective training participants
- Selection of participants – set up a selection committee to examine the applications and select relevant participants who satisfy the criteria specified for the training.
- Prepare Invitations and end to selected participants, giving adequate time for them to prepare to attend the training
- Prepare and send Contracts for resource persons selected
- Provide Information to Training Participants and Resource Persons about the training course;

Conducting and Managing Training

Key issues to be given special attention

- Classroom configuration
- Daily programming
- Climate setting
- Ice Breakers
- Time management
- Group dynamics
- Participants contributions
- Training delivery
- Audio-visuals
- Training materials – notes, practical hand-outs
- Publicity
- Opening and Closing ceremonies
- Certificates – to be specially designed for the particular training.

Evaluating Training

Conduct two major training evaluations, namely;

i. daily evaluation of training
ii. end of course evaluations
iii. design appropriate instruments for con ducting these evaluations

Evaluate Technical Content of the training

- Depth of coverage
- Relevance to needs of participants
- Practical exercises
- Time management
- Pattern of delivery
- Performance of resource persons

Evaluate Overall management of training

- Training facilities
- Pre-course administration
- Information management
- Accommodation
- Transportation

Reporting the Training

Reports to be prepared

i. Progress reports on planning of training
ii. Technical Report at end of training
iii. Compilation of course notes
iv. Administrative and Financial Report

After training: Post-training course issues

i. Prepare Training Course Reports to be submitted to the Director/Head of your institution and to the donor that provided financial support for the training event
ii. Develop training materials, manuals, Guides other training resource materials - if necessary, *design training follow up activities.*

Acronyms and Abbreviations

ARD	Agricultural Research for Development
AIS	Agricultural Innovation Systems
FARA	Forum for Agricultural Development in Africa, Accra Ghana
FSP	Farming Systems Perspective
IAR4D	Integrated Agricultural Research for Development
IC	Innovation Clusters
IP	Innovation Platform
INRM	Integrated Natural Resource Management
M & E	Monitoring and Evaluation
NERICA	New Rice for Africa
NGO	Non-Governmental Organization
NRM	Natural Resources Management
OIP	Operational Innovation Platform
OFAR	On-farm Adaptive Research
OFR	On-Farm Research
SSA	Sub-Saharan Africa
SIP	Strategic Innovation Platform
SWOT	Strengths, Weaknesses, Opportunities, Threats.

Glossary of Innovation Platform Terms

Here are commonly accepted definitions of key terms used in IAR4D and Innovation Platform communication.

Endeavour to pay sufficient attention to training participants understanding these terms and the context in which they are appropriately used

Agricultural Innovation System (AIS):
"A set of interrelated components (i.e., individuals, organizations, public agencies or institutions) working through collaboration and competition to generate, diffuse and utilise knowledge and technology that have (economic) value within the agricultural sector." (J. Sumberg 2005)

Innovation Platform Business Plan:
An Innovation Platform Business Plan is an effective management tool that outlines how partners in the platform intend to run the agricultural business developed by the platform and profit from it.

Innovation:
The process of application of new or existing knowledge in new ways and contexts to do something better. (C. Leeuwis 2013)

Innovations:
Products arising of innovation process and may be technological, social or institutional. This may be a new production method, a new working modality of an institution to enhance effectiveness, or new ways of organization by stakeholders or stakeholder group.

Innovation processes:
Activities and processes associated with the generation, dissemination, adaptation and use of new technical, institutional and organizational knowledge, skills, and resources to the benefit of all stakeholders in the partnership (adapted from Adekunle and Fatunbi 2012:

Innovation platform:
"a physical, virtual, or physico-virtual network of stakeholders which has been set up around a commodity or system of mutual interest to foster collaboration, partnership and mutual focus to generate innovation on the commodity or system" (Adekunle and Fatunbi 2012) .

Strategic Innovation Platform (SP):
Innovation Platforms set up at higher levels of governance and management hierarchies, where strategies are determined for the development of agriculture in the domains of coverage. Strategic Innovation Platforms could be set up at national or sub-national levels covering regions, districts, local governments or prefects. (Adekunle,A A,A.O Fatunbi and M P Jones 2010)

Operational Innovation Platform (OIP):
Innovation Platforms that are set up at community/grassroots levels, with different focus from strategic platforms. Membership of Operational innovation platforms target frontline staff from organizations which facilitate operations at the grassroots levels of their organizations. Operational Innovation Platforms respond to the strategies set by strategic innovation platforms and transform the strategies into operations which lead to higher impact. (Adekunle,A A,A.O Fatunbi and M P Jones 2010)

Innovation Cluster (IC):
A group of Operational Innovation Platform set up at the community/grassroots level. Innovation Clusters may have the similar agencies or common memberships and may be set up to facilitate operations along different commodity chains (Adekunle,A A,A.O Fatunbi and M P Jones 2010)

Integrated Agricultural Research for Development, (IAR4D):
An innovation systems based approach that involves multi stakeholders' collaboration and partnerships towards resolving the multi-faceted challenges in agricultural research and development and thereby promote improved livelihood of the stakeholders, especially smallholder agricultural practitioners. It is a continually evolving concept that relies on active interactions among actors to identify, analyse and prioritise challenges, find and implement solutions using feedback, reflection and lesson-learning mechanisms from different processes.

Recommended Resource Materials

We provide a list of resource materials where you can source important information to complement the training notes in the Modules. We advise that you endeavor to obtain these materials for your training reference collection.

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Agricultural Innovation Platforms: FARA's Framework for Improving Sustainable Livelihoods in Africa
FARA Accra Ghana

Felister Wambugha Makini, Geoffrey Mbutia Kamau, Margaret Nafula Makelo and George Kiuri Mburathi (2013). A Guide for Developing and Managing Agricultural Platforms. KARI, Nairobi Kenya ACIAR Australia

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Ann Hope and Sally Trimmel (1984). Training for Transformation: A Handbook for Community Workers,
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West Africa Rice Development Association, WARDA, Bouake Cote d'Ivoire 1991. Training of Agricultural Trainers - Course
Notes and Handouts.

Key Support Institutions and Donors

SSA CP Key Support Institution

FARA
Forum for Agricultural Research in Africa

CGIAR

EUROPEAN COMMISSION

SSA CP Donors

NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

WORLD BANK

IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

Government of the Netherlands

DFID
Department for International Development

DANIDA

About FARA

The Forum for Agricultural Research in Africa (FARA) is the apex continental organization responsible for coordinating agricultural research for development (AR4D) in Africa so as to increase its efficiency and effectiveness. It serves as the entry point for agricultural research initiatives designed to have a continental reach or a sub-continental reach spanning more than one sub-region.
FARA serves as the technical arm of the African Union Commission (AUC) on matters concerning agricultural science, technology and innovation. It provides a continental forum for stakeholders in AR4D to shape the vision and agenda for the sector and to mobilize them to respond to key continent-wide development frameworks, notably the Comprehensive Africa Agriculture Development Program (CAADP) of the African Union (AU) and the New Partnership for Africa's Development (NEPAD).

FARA's vision

Reduced poverty in Africa as a result of sustainable broad-based agricultural growth and improved livelihoods, particularly of smallholder and pastoral enterprises

FARA's mission

Creation of broad-based improvements in agricultural productivity, competitiveness and markets through strengthening of the capacity for agricultural innovation across the continent
FARA's value proposition:
Strengthening Africa's capacity for innovation and transformation by visioning its strategic direction, integrating its capacities for change and creating an enabling policy environment
FARA's strategic direction is derived from and aligned with the Science Agenda for Agriculture in Africa (S3A), which is, in turn, designed to support the realization of the CAADP vision of shared prosperity and improved livelihoods.

FARA's programme is organized around three strategic priorities (SPs), namely:

- Visioning Africa's agricultural transformation through foresight, strategic analysis and partnerships to enable Africa to determine the future of its agriculture, using proactive approaches to exploit opportunities in agribusiness, trade and markets, taking the best advantage of emerging sciences, technologies and risk mitigation practices and approaches, and harnessing the combined strengths of public and private stakeholders.
- Integrating capacities for change by making different actors aware of each other's capacities and contributions, connecting institutions and matching capacity supply to demand, so as to create consolidated, high-capacity and effective African agricultural innovation systems that can use institutional comparative advantages to mutual benefit while strengthening individual and institutional capacities.
- Enabling environment for implementation, initially through evidence-based advocacy, communication and widespread stakeholder awareness and engagement to generate enabling policies and institutions, then by ensuring the stakeholder support required for the sustainable implementation of program for African agricultural innovation.

Key to these outcomes is the delivery of three important results, which respond to the strate gic priorities expressed by FARA's clients.

These are:

Key Result 1: Stakeholders empowered to determine how the sector should be transformed and to undertake collective actions in a gender-sensitive manner .

Key Result 2: Strengthened and integrated continental capacity that responds to stakeholder demands in a gender-sensitive manner

Key Result 3: Enabling environment for increased AR4D investment and implementation of agricultural innovation systems in a gender-sensitive manner.

FARA's development partners are the African Development Bank (AfDB), the Canadian Department of Foreign Affairs, Trade and Development (DFATD), CGIAR, the Danish International Development Agency (DANIDA), the UK's Department for International Development (DFID), the European Commission (EC), the governments of the Netherlands and Italy, the Norwegian Agency for Development Cooperation (NORAD), the Australian Agency for International Development (AusAiD) and the World Bank.




A Resource Manual for Training in Integrated Agricultural Research for Development (IAR4D) in Innovation Platforms

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