

DAY ONE

Session 2

Context, Rationale and Terminology

Instructions to Facilitators

Distribute notebooks to participants to file the materials of the week.

SESSION 2

10:45 – 13:00 Context, Rationale and Terminology

RATIONALE

Almost every participant will come to this workshop with a different idea of what “long-term” means, what a “program” is, and what constitutes “planning.”

It is important to explain that no particular term or definition is absolutely correct (including those presented in the workshop), but that agreement on terms must be reached in order to achieve communication and understanding during the rest of the workshop.

Participants also need to understand where the proposed method of long-term program planning operates in the overall framework of planning and program formulation.

They need to distinguish long-term program planning from other activities in terms of the organizational context, level of detail, and time frame involved.

The long-term program planning method is the framework for the rest of the workshop’s activities and the structure that you should refer back to during the sessions.

OBJECTIVES

By the end of this session, the participants will be able to do the following:

1. Discuss the terms used in program planning
2. Explain how long-term program planning fits into agricultural research planning and program formulation
3. Relate the process of long-term program planning to their own experiences with planning
4. Identify problems within their own programs that can be solved or ameliorated by long-term program planning.
5. List some of the specific benefits of using the process suggested.

Use overhead 1.2.2 to present the objectives of Session 2

PROCEDURE

Learning Strategies: presentation and group work.

PRESENTATION

(experience) Give a brief presentation on Terminology, Context and Rationale of results-oriented program formulation. Distribute handout 1.2.1 before your presentation. Use overheads 1.2.1 through 1.2.16 to support this presentation. At the end of the presentation, make sure the participants have handout 1.2.2 in their hands. Ask if the participants need any clarification. (30 minutes)

EXERCISE 2

Exercise 2. Program formulation: Reflecting on your own experience (1 hour and 40 minutes).

(experience) Distribute handouts 1.2.3 and 1.2.4. Handout 1.2.4 gives clear instructions for the exercise. Go over the instructions with the participants step by step. Ask if any clarifications are needed. Emphasize and remind the participants about the time. (5 minutes)

1. Divide the participants into four groups and ask each group to elect a rapporteur. (5 minutes)

Phase 1. Group work (45 minutes)

2. *(experience)* The groups discuss the set of questions provided to them. (40 minutes)
3. *(experience)* As the groups work, circulate from group to group to check progress. Also clarify any concerns they may have while working. Be sure that the groups are aware of the time remaining for this exercise.
4. Ask the rapporteurs to write the results on a flipchart for presentation during the next phase. (5 minutes)

Phase 2. Reporting and discussion (40 minutes)

5. *(process, generalize)* Invite the rapporteurs to present their groups' results to the audience. Each rapporteur has about five minutes to present. Facilitate a brief discussion. (35 minutes)
6. *(process, generalize)* At the end of this exercise, provide feedback on the content of the presentations. Ask questions such as "How did you feel doing this exercise?" and "What did you learn?" to allow discussion of the process. (5 minutes)

Closure (5 minutes)

CLOSURE

(application) Ask the participants "What might you do differently in your job as a result of what you have learned?" Ask volunteers to give examples. Close the session.

Context, Rationale and Terminology

(Summary of presentation)

Research Program Formulation as an Integral Part of Planning

Research Program Formulation is the second level of planning, also known as the tactical planning level (Figure 1). The outputs of strategic planning are a list of prioritized research programs and indicators for impact assessment and monitoring and evaluation. Program formulation is concerned with planning each of the prioritized programs as an integral part of the process of operationalizing the strategy. Program formulation ends with the identification of projects and the indicators for impact assessment, monitoring and evaluation at that level of planning. In the program formulation module only one of the programs will be further developed as an example. However, within an organization, all the prioritized programs would have to be planned as they are necessary for achieving the mission. This may take a long time for all the programs to be planned, depending on how they are scheduled.

Long-term program planning is one part of the overall agricultural research planning process and addresses the content of agricultural research. Other components of an agricultural research plan address the policy and strategy, the organizational structure, and the development of human, physical and financial resources.

Program formulation is clearly linked with the design of both the agricultural research policy and the strategic plan. In these different steps, the principal subjects of research for the research institutes, universities, departments within a ministry, public corporations, and the appropriate amount of resources are defined. As a result, when program formulation starts, the subject and resources are approximately known¹.

To put program formulation into context, it is necessary to consider the time frames of the different planning levels:

- *Research policy design and strategic planning (5 years)* define the goal, vision, and the mission of research and indicate which institutes are involved, the amount of resources that can be mobilized, and (most importantly for program formulation) the principal subjects (e.g., commodities, regions, production systems) that will be addressed (for example “PNG National Agriculture Development Plan 2007-2016²).

¹ Asopa, V.N. and G. Beye. 1997. Management of Agricultural Research: A Training Manual. Module 2: Research Planning. Food and Agriculture Organization of the United Nations: Rome.

² Department of Agriculture and Livestock 2007. National Agriculture Development Plan 2007-2016. March 2007. Independent State of Papua New Guinea.

Planning Level					M&E and Impact Assessment Tools		Responsibility
System-wide Planning	Strategic Planning	Program Formulation	Project Planning	Activity Planning	OVI	MOV	
System Goal ↑					Increased incomes; Reduced hunger; Reduced poverty	National stats reports, WB data; Household poverty survey reports	
System Purpose ↑	Organizational Goal ↑				Indicators for contribution of organization to system goal	Organizational reports	Min of Agric
System Outputs ↑	Organizational Purpose ↑	Program Goal ↑			Indicators for program contribution to organizational goal	Program reports; Program evaluation reports	DG of Res & Ext Org
Agencies	Organizational Outputs ↑	Program Purpose ↑	Project Goal ↑		Indicators for project contribution to program goal	Project reports; Project evaluation reports	Prog Leader
	Programs	Program Outputs ↑	Project Purpose ↑	Activity Goal ↑	Indicators for activity contribution to project goal	Project reports	Project Manager
		Projects	Project Outputs ↑	Activity Purpose ↑	Indicators for individual's contribution to activity goal	Activity reports; Monitoring reports	Activity Leader
			Activities	Activity Outputs ↑	Indicators for individual's contribution to activity purpose	Indiv. scientist progress report	Indiv. Scientist
				Individuals			

Figure 1. Program Formulation as an Integral Part of Planning

- *Long-term program formulation* (3 – 5 years) stops at the identification of projects, the human resources requirements and indicators for impact assessment and M&E. The process involves the scientists who will work on the program and the stakeholders. Long-term program planning takes eight to ten years to achieve all its objectives, depending on the type of program. Less time may be needed for annual crop production; more time may be needed for perennial crops, livestock, or natural resource management. It is important to note that planning time frames are tending to get shorter, but these principles still hold.
- *Project planning* starts where long-term program formulation stops. The project proposals corresponding to the projects identified during program planning are developed by the researchers. These proposals give details on the methodology, activities, resources, expected results and indicators for monitoring and evaluating the project results. The duration of a project varies. For agronomic activities this might be three to four years, whereas eight to ten years may be necessary for breeding activities. For perennial plants and for animals the duration can be much longer. Project planning is initiated by the researchers. It is different from medium-term programming, which in general corresponds to a government planning period.
- *Annual work plan* describes the activities, experiments and/or studies as well as the resources necessary for the following year. This exercise, conducted on the level of the research station or the laboratory, is initiated by the researchers and reviewed by program managers.

Program Formulation within the Innovation Systems Paradigm

Innovation system defined

An innovation system is defined as a network of organizations, enterprises and individuals focused on bringing new products, new processes and new forms of organization into economic use, together with the institutions and policies that affect the system's behaviour and performance³. The innovation systems concept embraces not only the science suppliers but the totality of the interaction of actors involved in innovation. It goes beyond the creation of knowledge and includes factors affecting demand for and use of knowledge in novel and useful ways.

Implications of the innovation systems paradigm on program formulation

Program formulation depends on the strategic planning level, which, in turn, depends on the paradigm adopted by the research organization. The paradigm shapes the vision and mission of the organization to which the programs should contribute.

The innovation systems paradigm starts from the premise that research should ultimately result in people-level impact. Therefore, the impact pathway of such research needs to be clearly defined. It is important to note that people-level impact is not necessarily looking at the ultimate beneficiaries only, for example smallholder farmers or some disadvantaged group. Research may be targeted at scientists, who in this case become the people who should feel the impact of the research.

³ Rajalahti R, Jansen W and Pehu E 2008. Agricultural Innovation Systems: From diagnosis toward operational practice. Agriculture and Rural Development Discussion Paper 38. Agriculture and Rural Development Department, World Bank.

During program formulation it is important to not only define the technical content of the program, but to also define the indicators that will be used to assess impact, monitor, steer and evaluate the program. The indicators are the basis for a monitoring and evaluation system and subsequent impact assessment. Therefore, indicators must be defined as part of the planning process rather than as an afterthought.

What Are the Characteristics of a Good Research Program?

- Research should be *effective*: it responds to national, sub-regional, regional or even global development objectives and to users' needs for new technologies.
- Research should be *efficient*: objectives are realistic in terms of resources (the program does not try to cover more objectives than resources permit); resources are allocated on the basis of relative importance of reaching objectives. An inefficient research program diminishes the resources.
- Research should be *necessary*: it builds on past research and opportunities for borrowing technologies from outside have not been overlooked.
- Research should be *comprehensive*: all experiments and studies necessary to reach the objectives have been included, even if these may have to be done outside the organization. Within the innovation systems paradigm, it may be necessary to bring in other partners or stakeholders if the necessary competencies are not found within the program or organization. The Innovation Systems perspective recognizes the importance of agricultural research systems which encompass the continuum from "conception to consumption". This involves including the relevant actors at various stages of the technology development and implementation process.

"Innovation takes place within a social system in which research and researchers are only a part. Other essential components are the networks of actors that provide communication channels linking organizations and individuals. Such networks can be both formal and informal. Informal links are particularly important, as they foster trust between the various parties. This results in both parties knowing each other's needs, and knowing the nature and quality of the goods and services on offer. It reduces risks, and may even do away with the need for costly contracts. Each factor can contribute to lowering the transaction costs of the interactions....."⁴

Terminologies Used in Program Formulation

1. *Planning by objectives* is a systematic step in planning research activities for a given domain. This step determines which intermediate research objectives are necessary to achieve the overall goal, identified for the domain.
2. A research program for a domain envisions the development of new technologies in view of an optimal and sustainable exploitation of the potentials of the domain. The potentialities are characterized by, for example:
 - increased cultivated area

⁴ Barnett, A. 4 April, 2005. Sci Dev.Net

- yield increase
 - cost reduction
 - improved quality of products
 - reduced loss after harvesting
 - increased added value of products
3. The increase in the value of the potentials faces some constraints which can be of a diverse nature:
- technical: low productivity of cultivated varieties, no rational methods of rain water management
 - linked to the environment: erosion, risky rainfall patterns, low soil profiles
 - socioeconomic: civil strife, high transaction costs
 - institutional: inadequate credit system, no institutional development, poorly resourced transfer of technology system
4. Constraints can be classified into two types
- *Biophysical* constraints
 - *Non-biophysical* constraints that can be solved by interventions in other areas of development
 - AR4D recognizes that both constraints need to be considered for people-level impact
 - Partnerships are one way to do this
5. A research program may be focused on a thematic area related to people-level impact, disciplinary area or geographical location
- FPDA's thematic areas:
 - Productivity Improvement
 - Scaling & Sustainable Production
 - Marketing Systems
 - Information Management & Communication
 - Regulatory, Legal & Policy Environment
 - Institutional Capacity Strengthening
 - Focus is determined by paradigm
6. A program may be carried out by a single institute. However, collaboration between a number of institutions is encouraged in the Innovation Systems perspective (e.g., research institutes, universities, departments within a ministry, public corporations). These partners may share responsibility for a program, and, in so doing, reduce costs, foster shared perspectives and increase sharing of knowledge.
- 7.. A program is composed of research projects (which may also be called areas, themes, or thrusts, etc., according to the countries and institutions involved).

Projects are in turn made up of activities, such as experiments and studies. A program dealing with a group of commodities may have a sub-program for each commodity, with each sub-program having its own projects.

8. Previously the term *accompanying measures* described the non-researchable constraints that were merely recommended to the decision makers, which would assist

in the adoption of the technologies generated by the different research projects of the program. Examples of such accompanying measures were:

- implementation of an extension campaign
- implementation of input markets
- professional organizations
- development of infrastructure

However, within the Innovation Systems perspective, it is these very issues that agricultural programs are obliged to emphasize in their complete program design and implementation if they are to be effective and achieve people-level impact. Whether scientists should be responsible for these actions is debatable, but they could, for example, be part of a team managing these “non-researchable” aspects of the program to ensure continuity and impact within what is becoming known as Public-Private Partnerships (and in some cases, Community, Public, Private Partnerships)⁵⁶.

Program Formulation Steps

1. Given a decision at the strategic planning level to undertake a particular program, there are eight steps for long-term program planning (see Figure 2):
 - i) Analyze the subject of the program and the development objectives of the domain.
 - ii) Analyze constraints and opportunities.
 - iii) Review previous research.
 - iv) Determine research objectives and strategies.
 - v) Identify projects.
 - vi) Prioritize projects.
 - vii) Conduct a human resources gap analysis.
 - viii) Make recommendations for implementation and institutionalization of program planning.
2. This method is iterative rather than a rigid sequence. It may be used to plan programs focused on commodities, groups of commodities, agro-ecological zones and production and marketing systems.
3. Constraints to agricultural development are too complex to be fully comprehended from any one vantage point. Researchers, developers, policymakers, producers, and processors each have their own perspective and understanding of problems and their causes. As specialists, we are all “blinded” in the sense that we only see things in terms of our own discipline.

⁵ Hall, A.J., V. Rasheed Sulaiman, N.G. Clark, M.V.K. Sivamohan and B. Yoganand. 2002. Public-Private sector interaction in the Indian Agricultural Research System: An Innovation systems perspective on institutional reform. Chapter in Byerlee, D. and R.G. Echeverria (eds) *Agricultural Research Policy in an Era of Privatization: Experiences from the Developing World*. CABI.

⁶ Hall, A.J. and B. Yoganand. 2004. New institutional arrangements in agricultural research and development in Africa: concepts and case studies. In Hall, A.J., B. Yoganand, V. Rasheed Suliaman, R. Raina, S. Prasad, G. Niak and N.G Clark. (Eds) *Innovations in Innovation: Reflections on Partnership and Learning*. ICRISAT, Patancheru and NCAP New Delhi, India

4. All those with an interest in the implementation and outcome of the research program should be represented (or consulted) in program planning. Depending on the particular program, group members might be a mix of:
 - researchers and managers
 - national or regional policymakers
 - development agency staff
 - commodity producers
 - processors
 - providers of farm-related services
 - market actors and
 - commodity organizations.
5. Without a group planning process, you might leave something important out of your program, or your program may focus its resources on the wrong problems.
6. Participation of all those with an interest in program planning ensures comprehensive and unbiased analysis of constraints, builds consensus on research objectives and research priorities, reinforces support of policymakers and developers for implementation of the research program and increases chances of research results being rapidly transferred to extension services.
7. The role of planners is to facilitate the group process, collect and synthesize data in preparation for group working sessions and assist in writing group findings.

ZXExercise 2. Program formulation: Context analysis

(group work)

Phase 1. Group work (45 minutes)

1. Form four groups. Each group elects a rapporteur.



2. Share your experience in research program formulation with the other members of the group. Ask the following questions to facilitate your interaction and the context analysis. Use handout 1.2.4 to write down the answers. (40 minutes)
 - i) How have you or your organization considered the Millennium Development Goals, the Pacific Plan 2006-2015, the PNG Medium Term Plan and the PNG National Agriculture Development Plan 2007-2016 goals as a guide for research program formulation?
 - ii) How are programs organized in FPDA?
 - iii) Are there any multi-institute programs at FPDA? If yes, describe one or two examples.
 - iv) What are the three major criticisms that you have heard on the research program formulation process in FPDA?
 - v) Mention three actions to overcome these criticisms through long-term program planning.
3. The rapporteur writes a summary of the discussion on the flipchart. (5 minutes)

Phase 2. Presentation and discussion (40 minutes)

4. The rapporteurs present the results of the groups' discussions to the audience. Each rapporteur has five minutes to report. (20 minutes)
5. The facilitator invites the participants to discuss the content of the presentations. (15 minutes)
6. The trainer asks feedback on the content of the presentations welcomes few lessons learned and closes the session (5 minutes).

DAY ONE

Session 3

Sub-sector Review, Analysis of Development Objectives and Consultation of Stakeholders and Clients

Instructions to Facilitators

SESSION 3

14:00-15:30 Sub-sector Review, Analysis of Development Objectives and Consultation of Stakeholders and Clients

15:30 – 15:45 Tea/Coffee Break

15:45 – 17:15 Session 3. (Continued)

RATIONALE

Participants need a more detailed description of each step of the method of research program formulation, starting with the first step. This step, from which all the others emerge, is the basis of the method.

OBJECTIVES

By the end of this session, the participants will be able to do the following:

- Explain why sub-sector review is a necessary step in long-term program planning
- List the types of information that should be included in the sub-sector review
- Identify stakeholders and clients to be included in program formulation

Use overheads 1.3.1 and 1.3.2 to present the objectives of Session 3.

PROCEDURE

Learning Strategies: presentation and group work.

PRESENTATION

(experience) Give a brief presentation on Sub-sector review, analysis of development objectives and consultation of stakeholders and clients. You will find the information in handout 1.3.2 very useful to support your ideas. Distribute handout 1.3.1 (summary of overheads) before your presentation. Use overheads 1.3.3 through 1.3.23 to support this presentation. The PNG Agriculture Issues and Options 2006 report by NZIER will be available as additional reading material in the CD-ROM. This document could form part of the sector review by FPDA and other NARS organizations.

In addition, encourage participants to review the Millennium Development Goals, the Pacific Plan 2006-2015, the PNG National Agriculture Development Plan and other relevant literature.

At the end of the presentation, make sure the participants have all handouts in their hands. Ask if they need any clarification. (30 minutes)

EXERCISE 3

Exercise 3. Interacting with new actors (2 hour 25 minutes).

1. (*experience*) Distribute handouts 1.3.3. and 1.3.4. Handout 1.3.3. gives clear instructions for the exercise. Go over the instructions with the participants step by step. Ask if any clarifications are needed. Emphasize and remind the participants about the time. (5 minutes)
2. *Divide* the participants into four groups and ask each group to elect a rapporteur. (5 minutes)

Phase 1. Individual (35 minutes)

3. (*experience*) Each participant is given six cards. On two of these they need to write two new actors that they have thought of that they may need to engage with in program planning. These should be new role-players that they had not thought of before. On the next two cards, they should write down two innovative ways of engaging with these two new actors. How would they solicit information from these parties, if it were difficult for them to bring all the various role-players together at one planning event participant? On the last two cards, each participant should write down on the first card one challenge he/she would face as a researcher (IR) to embrace the proposed *commodity mix* approach. On the second card, each participant should write down a clear action that he/she would take to overcome/minimize this challenge. The proposed action should be under his/her control. (20 minutes)
4. (*process*) Collect the cards, and start grouping them on the wall (15 minutes).

Phase 2. Group work and discussion (1 hour 45 minutes)

5. (*Generalize*) Discuss the results of the clusters, the issues and implications raised by the involvement of stakeholders in the program planning process and in the use of the *commodity mix* approach to respond to the farmers' needs. Ask them to use worksheet (handout 1.3.4) to take notes of their insights during this exercise.

6. Ask the participants what new ideas they have obtained from the group contributions on how to obtain the required information for the “Stakeholder and Client Consultation”?
7. Invite feedback on the exercise and ask a few volunteers to share the lessons learned. Encourage them to make notes for use in the PAPA exercise in the last day.

CLOSURE

Closure (5 minutes)

1. (*application*) Ask the participants “What might you do differently in your job as a result of what you have learned?” Ask volunteers to give examples.
2. Make a transition to the next session.

OBJECTIVES

17:15 – 17:30 Feedback on the Day’s Activities

By the end of this session participants will be able to do the following:

- Provide feedback on the day’s activities.
- Fill out PAPA (stage 1)

PROCEDURE

Learning strategy: individual exercise.

FEEDBACK

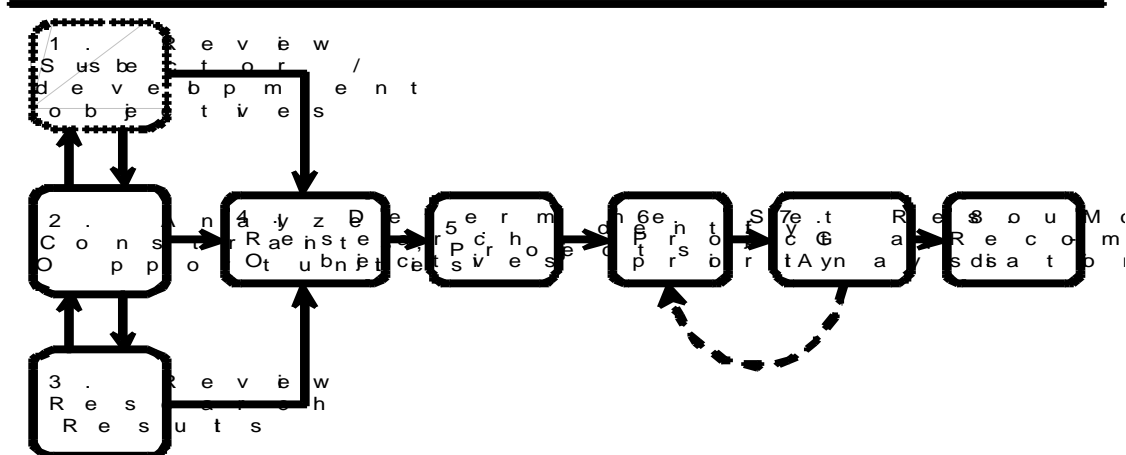
Ask participants to highlight positive and negative points of the day, noting areas that may need additional attention in the workshop. Participants can describe some strengths and weaknesses of this day on handout 1.3.5 (5 minutes).

Participants will also fill out the PAPA form provided by the facilitator (10 minutes).

Sub-sector Review, Analysis of Development Objectives and Consultation of Stakeholders and Clients

(Summary of presentation)

Program Planning Steps



Step 1. Sub-sector Review

1. Sub-sector or sub-system review?
 - Although a sub-sector may be named after a dominant commodity, it is more of a sub-system in that the producers of such a commodity also produce a range of other products⁷. These form the commodity mix that such farmers would have to optimize in order to meet their food security and income needs. While the interest of a NARS organisation may be focused on a single commodity, the producers of this commodity will have interests going beyond the single commodity. Therefore, the sub-sector review should go beyond the single commodity to include all the other issues that are of relevance to the producers in order to identify areas of intervention or development domains. Successful delivery of the aspirations of the clients in such sub-systems would require that the NARS organisation partners with others with an interest and competency in the other commodities.
2. A sub-sector review is composed of several parts:
 - Policy and development context as set out by Government and the organisational strategic plan:
 - Government defines the sector and sub-sector development objectives, policies and the regulatory framework.
 - Policies and development objectives provide guidelines to research managers on areas of focus.
 - In setting policies, governments need access to good quality and relevant policy analysis. The competencies for this are not normally resident in government departments and may have to be outsourced through partnership arrangements.

⁷ Nandwa S M 2004. The Kenyan Farmer: Characterizing the Client. In *Transformation of Agricultural Research Systems in Africa. Lessons from Kenya*. Editors Ndititu C G, Lynam J K and Mbabu A N. Michigan State University, East Lansing.

- Examples of policy issues include import tariffs and their impact on different stakeholders; pricing policies in relation to import parity prices; marketing conditions; and participation of stakeholders in formulating the research agenda.
- Agro-ecological diversity⁸:
 - Agro-ecological diversity related to effects of climate, soils and biological factors define suitability of growing different commodities within the sub-system.
 - Agro-ecological factors can be used to define agricultural potential or productivity indices for different commodities.
 - The country can then be zoned based on these potentials as a critical step in identifying demand for research solutions.
- Demographic diversity:
 - Population growth and density are directly related to potential agricultural carrying capacity as determined by agro-ecology.
 - Locations with high agricultural potential are likely to be heavily populated but also tend to respond to investment in inputs, have higher productivity and agricultural incomes than the marginal areas.
 - Should such areas take up most of the agricultural research investment because of the potential response? This will be influenced by equity issues but also allow researchers and policy makers to calculate the opportunity cost of equity-based policies in order to make informed decisions.
 - Priorities for most smallholder farmers in both high and low agricultural potential areas are mixed and deal with both specialized cash commodities and non-specialized and low input commodities with site-specific issues which are better dealt with under a systems rather than a commodity approach.
 - The focus should be on the complementarities of cash, dual and/or food commodities within a system rather than competition.
- Market development
 - Areas with developed marketing infrastructure tend to result in lower costs of marketing transactions due to improved road networks and better access, infrastructural development and availability of inputs, among others.
 - Market development is directly related to increased intensification and specialization of production, promoting monocultures, with higher technology adoption rates driven by perceived high rates of return to investment.
- Characterization of the client
 - Characterization of the client should be done through the eyes of the client, in this case the different types of farmers and related actors along the value chain.
 - Based on agro-ecological zoning and the crops and/or livestock that can be grown, define the principal production systems based on the percentage of income and household food supply derived from the main commodities.
 - The commodities in the production system or sub-system define the optimization mix and provide an indication of the partners necessary to address

⁸ Omamo S W, Walsh M and Argwings-Kodhek G. 2004. Diversity and Dynamics in Kenyan Agriculture: The Challenge for Agricultural Research Policy and Management. In *Transformation of Agricultural Research Systems in Africa. Lessons from Kenya*. Editors Ndititu C G, Lynam J K and Mbabu A N. Michigan State University, East Lansing.

the demand for services by such clients in order for them to meet their food security and income needs.

- The commodity-based mix may be further stratified by wealth ranking, describing the characteristics and proportion of client households in each category.
 - Development domains
 - The outcomes of the characterization process are development domains representing clusters of agricultural actors with similar interests and aspirations in relation to the context of the overall development process.
 - Such actors would be inclined to partner around common interests, resulting in an optimization of returns to all.
 - Each of these development domains will have different objectives to which each of the programs may contribute, depending on their state of development and needs.
 - The specific objective of each program within a development domain will constitute a sub-thematic objective and sub-thematic area.
 - Subsequent analysis to identify projects for prioritization will take place at the sub-thematic level.
3. What tools can researchers use to conduct the sub-sector review?
- Information on development objectives may be obtained from international, regional, national and sector planning documents such as the United Nations Millennium Development Goals (MDG)⁹, the Pacific Plan¹⁰, the PNG Medium Term Development Strategy (MTDS)¹¹ and the National Agricultural Development Plan (NADP)¹², sub-sector development plans and NARS organisational strategic goal and objectives.
 - Information on agro-ecological and demographic diversity, marketing infrastructure development and local and export markets is available from various public and sub-sector sources.
 - Remote sensing tools such as Geographical Information System (GIS) can be used to layer different types of data to produce maps in order to identify different types of clients in space and time as a basis for determining different development domains.
 - The development domains represent the main areas of focus for research for which problems and opportunities can be identified, leading to research projects.
 - Opportunities for value creation and the need for partnerships are identified through proxies such as marketing infrastructure development.
 - The information from GIS is then used, together with development objectives, policies and organisational strategic plan, to prioritise potential projects.
 - Development objectives guide the program planning process to remain focused towards true “higher order” goals.
4. Involving stakeholders and clients in program planning¹³

⁹ Von Braun, J., M.S. Swaminathan and M.W. Rosegrant. 2004. Essay: Agriculture, Food Security, Nutrition and the Millennium Development Goals. IFPRI.

¹⁰ Pacific Islands Forum Secretariat 2006. The Pacific Plan 2006-2016. Suva, Fiji.

¹¹ The Government of Papua New Guinea 2007. The Medium Term Development Strategy, 2007-2011 (MTDS)

¹² Department of Agriculture and Livestock 2007. National Agriculture Development Plan 2007-2016. March 2007. Independent State of Papua New Guinea.

¹³ Lundgren, A.L. et al. 1994. Planning and managing forestry research; A self-learning course. Module 5. Developing the research program. St. Paul Minnesota, USA: University of Minnesota, College of natural Resources, Department of forest Resources.

- Stakeholders involved in program planning in forest crop research, for example, might include public officials, governing bodies, public land managers, interest groups, small farmers, indigenous peoples, extension agents and organizations, industries and businesses based on forest crop products, the general public who use forest crop products, other research organizations, educational institutions, and international donor and technical assistance agencies. Those role-players who are specifically important for market access should be included: farmers, local consumers, processors, wholesalers, retailers and trade officials^{14,15}
- It is important to involve representatives of all key stakeholder groups in program planning. While strategic planning provides overall direction for a research organization, more detailed input is needed to work out a specific research program. In some countries, certain stakeholder groups in forest crop research are organized into research advisory boards, councils, or committees that meet periodically to develop recommendations to forest crop research organizations on priorities and programs. If a country has no forest crop research council or similar advisory groups, it is important to actively seek input from key stakeholders and incorporate them into the decision making process. Including such groups in the program planning process and accommodating their interests as much as possible will enhance the ability of a research organization to generate financial and political support. Their participation will ensure that the research program of the organization will be more client-focused.
- The involvement of clients ensures their contribution in the analysis of constraints and the formulation of strategies and, also, ensures that all aspects of a problem are dealt with. The relevance of the program's output is enhanced, as it will be closely linked to the needs of the users. It provides a forum for research to improve its responsiveness to development goals. Above all, direct participation enables clients to build the commitment necessary for program implementation at a later stage and provides a structured framework for two-way communication between any two groups.
- Clients of research in the wider context fall under the following categories:
 - Producers
 - Agro-processors
 - Consumers
 - Scientists
 - Policymakers
 - Other private sector actors (e.g. financial service providers, pharmaceutical companies, etc)
 - Extension services
 - Local government

¹⁴ Orden, D. H. Lofgren and E. Gabre-Madhim. 2004. Trading Up: How International Trade and Efficient Domestic Markets Can Contribute to African Development. 2020 Africa Conference Brief 5.

¹⁵ Hartwich, F., W. Janssen and J. Tola. 2003. Public-Private Partnerships for Agro-industrial Research: Recommendations from and Expert Consultation. ISNAR Briefing Paper 66. August, 2003.

Exercise 3. Interacting with new actors: Stakeholder, client and partner consultation to embrace the *commodity mix* approach

(Individual and group exercise)

Phase 1. Individual (20 minutes)



1. Reflect on the content of the presentation and focus on the importance of a sub-system in which the *producers* of a commodity also produce a range of other products. Remember that these form the *commodity mix* that such farmers would have to optimize in order to meet their food security and income needs.
2. You will be given *four* cards.
3. On *one* of the cards: Using only one or two words, write down a stakeholder, client or role-player that you feel may be important in your program planning process, with whom you will be complementing or sharing your activities in the *commodity mix* (that you have never considered involving before) to respond to the farmers' food security and income needs. Think of any role-player that may assist in defining your research agenda more clearly, or a role-player that will help your research to achieve definite impact.
4. On the next card: Write down a method you may use to involve the one stakeholder in your program planning process which will facilitate partnership and the understanding and acceptance of the *commodity mix*. It is clear that you may not be able to invite all role-players to a single program planning event. How would you go about soliciting information regarding the perspectives, strategies, concerns, or "research wish-list" or "research priorities" from this stakeholder?
5. On the last *two* cards: Write down on the first card one challenge for you, as researcher (IR), to embrace the proposed *commodity mix* approach. On the second card, write down a clear action that you would take to overcome/minimize this challenge. Your proposed action should be under your control.
6. Hand your cards to the facilitator.

Phase 2. Group work in plenary and discussion (1 hour 45 minutes)



8. The facilitator will cluster the cards on the pin-board or wall by themes with the help of the group.
9. Discuss the results of the clusters, the issues and implications raised by the involvement of stakeholders in the program planning process and in the use of the *commodity mix* approach to respond to the farmers' needs. Use worksheet (handout 1.3.4) to take notes of your insights during this exercise.
10. What new ideas have the contributions from the group given you on how to obtain the required information for the "Stakeholder and Client Consultation"?
11. The facilitator invites feedback on the exercise and asks a few volunteers to share the lessons learned.

Strengths and Suggestions for Improvement

Please list up to three things you liked from day one

1.
2.
3.

Please list up to three suggestions that will help to give you more of what you liked

1.
2.
3.

Guidelines to Provide Feedback on the Workshop

1. The module

Content

- usefulness/relevance
- amount of information

Structure

- sequence
- duration
- balance between Facilitators' and trainees' participation
- instructions to Facilitators
- visual aids
- handouts, exercises
- extra readings
- PAPA
- evaluation

2. Process: training techniques and direction

- usefulness/relevance/effectiveness
- group interaction
- clarity of questions/exercises instructions
- opening and closure of the days

3. Facilitators', facilitators', and trainees' performance

- presentation/communication skills
- interaction/effective participation
- punctuality/interest/commitment/willingness to facilitate learning/willingness to participate
- other attitudes

4. Logistical support

- organization
- accuracy
- punctuality
- willingness to assist participants
- services provided in general

5. Workshop environment

- physical (training facilities, training material, hotel facilities in general)
- psychological (personal feelings such as self-motivation, interest, satisfaction, self-achievement)
- social (development of friendship, relaxed, comfortable among participants, etc.)

6. Workshop results/outputs

- personal and professional assessment
- recommendations

7. General comments

