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Priority Setting within Networks: Experiences from East and Central Africa

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Setting priorities for a regional network involves identifying a research agenda that will achieve set objectives with the available resources. This paper is based on the experiences of seven networks that are part of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). Each network spans 10 countries within the region, and each has embarked on a comprehensive priority setting exercise to define a new research agenda. This reflects a need to respond to revised objectives within the new 'Consolidated Conceptual Framework' of ASARECA, and the increasing coordination role played by ASARECA.

With ISNAR support, the networks adopted a standardized stepwise priority-setting procedure in order to achieve comparable results. As they covered a range of issues (natural resource management, crops, policies, and information) and were at different development stages, the procedure had to be adapted to the needs of each network, but it always consisted of the following seven steps: (1) establish a priority setting committee; (2) review the research domain; (3) analyze constraints; (4) evaluate existing research results; (5) define research projects; (6) set priorities of research projects; and (7) make recommendations for implementation. As a result of this process, each network developed a new research agenda based on wide stakeholder participation.

In using the priority-setting approach, the networks learned a number of lessons such as a) preparation and implementation are to be scheduled and timed appropriately; b) an 'optimum,' rather a 'maximum,' level of stakeholder participation should be identified; c) it is important to determine which information is relevant and to use the selected data effectively; d) careful identification and clear definition of the most suitable candidate projects must precede any priority-setting effort; e) the outcome of the priority-setting process should be implemented; f) be flexible and imaginative, but remain practical; and g) never forget that priority setting is a continuous learning process!

The outcome of the process being positive, ASARECA is now planning to implement similar procedures that take into account the lessons learned, for each of the remaining 12 networks.

Introduction

The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) is an organization of the National Agricultural Research Institutes (NARIs) of 10 countries: Burundi, D. R. Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. It aims to increase the efficiency of agricultural research in the region so as to facilitate economic growth, improve food security and enhance export competitiveness through productive and sustainable agriculture. ASARECA carries out its activities through 19 regional research networks, programs and projects.¹

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In 2003, seven of these networks² implemented a priority setting process to determine a new research agenda and to realize the mission and strategic objectives of ASARECA. These networks are the

1. In the following we refer to '19 networks'. However, there are some distinctions to be made. Whereas networks presume national capacity to conduct research, programs presume a limited research capacity in the national agricultural research systems (NARS). In programs, emphasis is put on capacity development in addition to the collaborative research that is carried out. Projects address short-term objectives and are intended to wind down when these are met.

2. While five of these are networks, two, namely ECAPAPA and the Biotechnology Initiative, are programs.

Biotechnology Initiative, EARRNET, ECABREN, ECAPAPA, FOODNET, PRAPACE and RAIN/AFRICALINK (see Table 1). Four of these networks are issue-oriented and have mandates for post-harvest, policy, information and biotechnology issues. The other three are commodity-oriented networks and have mandates for potato/sweetpotato, root crops and beans.

This paper is based on the experiences of the seven networks in setting a new research agenda. It describes the need for and process of priority setting, the implications on their research agenda and the lessons that have been learned. Conclusions focus on the outcomes of the process.

The need for setting priorities

ASARECA was created in 1994 as an Association of NARIs governed by a Committee of Directors of 10 national agricultural research institutions supported by an Executive Secretariat. It has grown in size and function during the past 10 years. While the same 10 nationalities make up its membership, the number of its networks has grown from 4 – originally funded by USAID – to 19 – funded by many different donors. Eleven of these are currently operational while eight are emerging and just beginning to operate. Each network is governed by a Steering Committee, composed of

Table 1: ASARECA Networks Implementing the Priority Setting Process

Network name and acronym	Area of specialization	Established	Technical backstopping	Major donor
Regional Potato and Sweetpotato Improvement Program in Eastern and Central Africa (PRAPACE)	Crop – potato and sweetpotato	1 st generation	Centro Internacional de la Papa (CIP)	United States Agency for International Development (USAID)
Eastern Africa Rootcrops Research Network (EARRNET)	Crop – cassava	1 st generation	International Institute of Tropical Agriculture (IITA)	USAID
Eastern and Central Africa Bean Research Network (ECABREN)	Crop – beans	1 st generation	Centro Internacional de Agricultura Tropical (CIAT)	USAID
Eastern and Central Africa Program for Agricultural Policy Analysis (ECAPAPA)	Cross-cutting – agricultural policy analysis	2 nd generation	ASARECA (Secretariat)	USAID
Post-harvest Processing Network (FOODNET)	Cross-cutting – marketing and post-harvest research	2 nd generation	IITA	USAID
Biotechnology Initiative	Biotech – biotechnology and biosafety	Emerging	ASARECA (Secretariat)	USAID
Regional Agricultural Information Network (RAIN) AFRICALINK project	Cross-cutting – information and communication	RAIN – emerging; AFRICALINK – 2 nd generation	ASARECA (Secretariat)	European Union (EU)

Note: First-generation networks already existed before ASARECA came into existence, while second-generation networks are those established in the 1990s.

representatives of national, regional and international agricultural research programs based in the region, while the network itself provides the Secretariat and coordination facility. ASARECA is highly respected by donors, member national agricultural research organizations, and research partners. It has become a major forum for researchers and research investors to discuss strategies, broker support and exchange experiences, leading to greater understanding and adjustment to change in the research and development environment.

If ASARECA is to help manage innovation and guide the evolution of agricultural research in the region, it needs to develop its own institutional capacity. ASARECA's leaders have therefore embarked on a comprehensive program of strategic planning and priority setting, developing a long-term strategic plan for the association and its system of regional networks in March 1997. Though the report was published the same year, it took the Secretariat three years to launch the process of putting the strategic plan into action at the network level. At the same time, ASARECA was growing fast, being joined by an increasing number of networks and receiving greater donor support. It therefore became necessary to update the conceptual framework in line with current thinking on impact orientation. This process led to the development of the 'Consolidated Conceptual Framework' (CCF), which was designed to work towards increasing economic growth, improving social welfare, enhancing productivity, adding value and increasing competitiveness of the regional system, while maintaining the quality of the environment.

Following approval of the CCF in January 2003, ASARECA decided to implement a number of activities within the institutional planning process. There was a need to internalize the current CCF at the network level, so each of the networks would develop their respective conceptual frameworks in harmony with the overall CCF. Then, using these frameworks, each network would update its respective strategic plan. Thereafter, with the clarified vision and strategy, each network would carry out priority setting processes to define the specific research agenda, bearing in mind the resources available. This activity was particularly relevant for the emerging networks and those launching new phases.

The process

The objectives of the priority setting process were (1) to choose research projects that would make the greatest contribution to the network objectives and ASARECA's goals and (2) to use a similar approach across all networks to ensure comparability of results. Research projects are defined as 'a coherent set of research interventions necessary to meet a certain research objective(s) and are to be completed in a given time' (Michelsen 2003). A project is usually applied to a specific constraint, for example, breeding for virus resistance, integrated pest management (IPM) for whitefly control or

policy design to improve market access. Regional priorities are best expressed as a list of the projects that are most likely to overcome the key agricultural development constraints in that region. Research priorities thus express the need for innovative interventions that will lead to sustainable and equitable agricultural development.

The priority setting process began with a major ASARECA stakeholder meeting in January 2003, when the CCF was approved. At the same time, further agreement was reached on the criteria for priority setting within the ASARECA networks and the weights for these criteria. A planning meeting of the 19 network coordinators followed in March 2003, when a stepwise procedure and methodology developed by ISNAR for regional networks was agreed upon to guide the process of setting priorities within the ASARECA networks (Michelsen 2003).³ While a 'standardized' process for all networks was a way to achieve comparable results, the procedure and methodology also had to be adapted to the specific situation of a wide range of networks focused on different aspects of natural resource management, crops, policies, information, etc. The networks have very different mandates and are at different stages of development; some were established in the mid-1980s, while others are just getting started. Furthermore, the approach had to take account of the research for development paradigm, implying that research is not an end-product but has to contribute to development by being relevant to its users. The approach also had to encompass the production-to-consumption framework, which implies that the focus of the network research agenda has to change from production constraints to interventions along various points in the evolving market chain. It was also expected that the new research agenda would show a clear link to the conceptual framework of ASARECA and that cross-cutting issues between the networks would be addressed.

Based on these guidelines, each of the seven ASARECA networks that received funding for the priority setting process followed a seven-step procedure, which was implemented over a five-month period. Figure 1 shows the sequence of steps.

Step 1: Establish a network committee for priority setting

A network priority setting committee is responsible for organizing meetings and consultations, preparing background information and completing the priority setting process. In general, these committees comprised the network coordinator, a socio-economist and a professional with a technical background. Each network developed a detailed work-plan and budget and, depending on the need, external support was provided for each of the steps. External support was provided by a Coordination Committee led by ISNAR. It kept a link with ASARECA and helped exchange information

3. The procedures are based on the work of Collion and Kissi (1994) and Janssen and Kissi (1997).

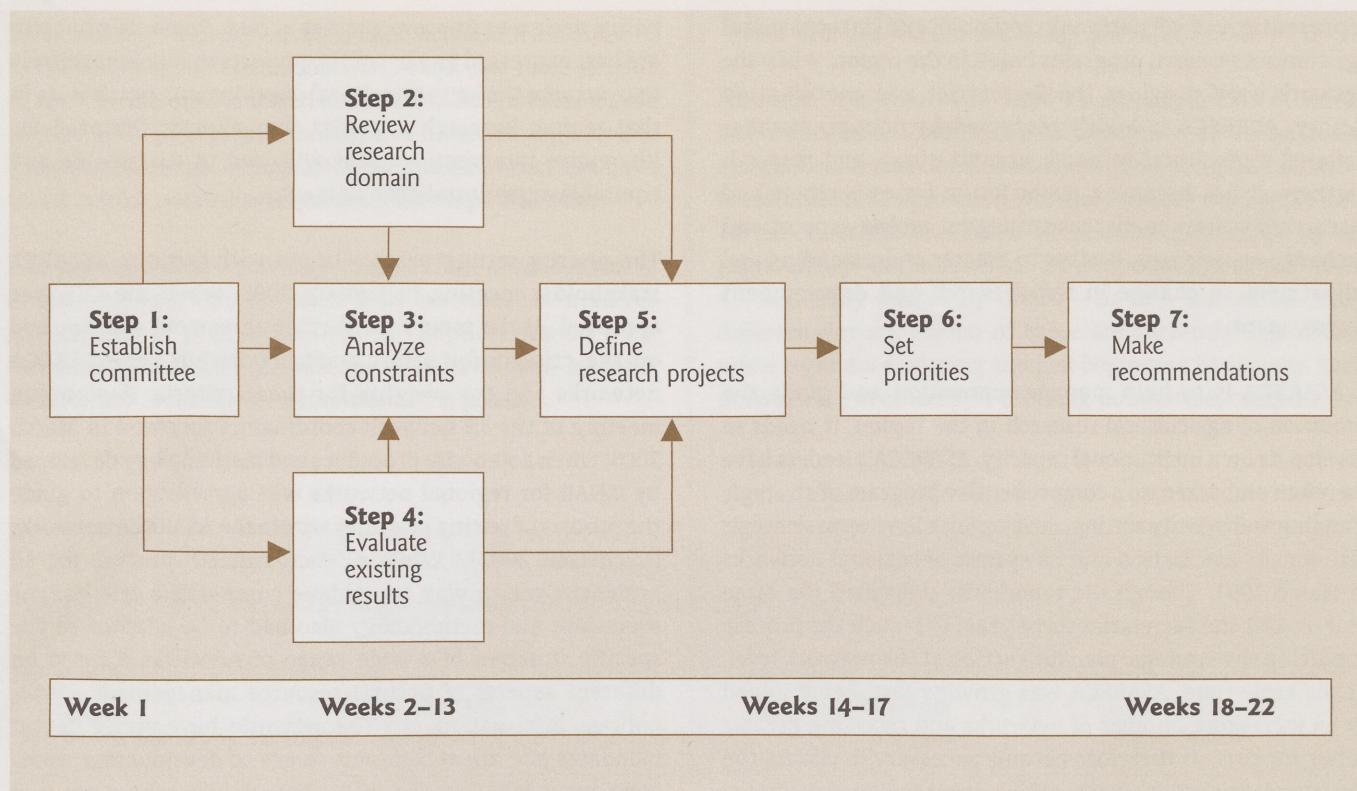


Figure 1: Seven-step procedure for priority setting

between different networks. It also provided technical backstopping, i.e. organized training workshops, provided information, reviewed priority setting documents, identified resource people and monitored progress.

Step 2: Review research 'domain'

In this step, a sub-sector review was undertaken to provide information on the relevance and role of the network in the regional context and to identify the research 'domain' (i.e. the theme or commodity) and the target groups within the network coverage area. Different types of network each have different definitions of 'domain'. However, in all cases, the research domain analysis described key agricultural system facts and trends of direct relevance to the mandate of the network. The analysis also provided a written report on the policy, technology, market, environment and socio-economic factors and trends of relevance to defining the network's potential contribution to ASARECA's regional agricultural development goals.

Step 3: Analyze constraints

Each network's research for development agenda needs to respond to problems and opportunities that are voiced by the stakeholder community. A constraint is defined as a situation or factor that prevents production potential from being fully achieved. It can be economic (related to prices and markets), technical (related to availability of appropriate technologies

or methods) or biological (related to agro-climatic conditions). The objective of this step was to develop a coherent set of constraints, to identify causal effect relationships among them, and to define the central constraints and opportunities to be addressed. Seven criteria were suggested and used by some of the networks for ranking the constraints, including regionality, number of target beneficiaries, benefits accrued by removing the constraint, availability of capacity to remove it, costs involved, gestation period and contribution towards ASARECA's goals.

Step 4: Evaluate existing research results

This step focused on evaluating the results of existing research into the central constraints identified in the previous step. Efficient research networks base their research design on what is already known and do not inadvertently repeat research already done elsewhere. By going through this step, duplication of effort can be avoided and gaps can be identified – which may become themes for future intervention. This step resulted in a document that helped the priority setting committees properly define the scope of projects, helped them to take advantage of past research efforts and allowed them to identify key knowledge gaps for the priority constraints identified.

Step 5: Define research projects

Based on information collected in Steps 2-4, each priority setting committee defined several candidate projects that

aimed to address specific objectives (defined as the future status that researchers hope to achieve through their work). At this stage, it was not necessary to identify very concrete projects and the expected number was between 10 and 20. Although a research intervention should focus on one constraint, some constraints are best addressed by an integrated agenda of several research interventions. Closely related or logically sequenced research interventions form a research project. Research projects must not be defined too broadly since evaluation of their benefits may become very difficult. Consensus on the chosen candidate projects was reached during workshops with significant stakeholder participation. They were attended by the steering committee members of the network, a representative of the ASARECA secretariat and other key stakeholders of the networks.

Step 6: Set priorities of research projects

During these workshops, which lasted about five days and were facilitated by external consultants, participants also focused on prioritizing the selected candidate projects. Finite resources available to the network usually imply that only a limited number of the identified research projects can be implemented. A simple scoring approach was used, based on five ASARECA-wide criteria: (1) economic growth, (2) social welfare, (3) quality of the environment, (4) regionality and (5) capacity building. In addition, 'core' sub-criteria were identified to be used by all networks in order to obtain some consistency of approach. For example, the 'core' sub-criteria for economic growth were a) increasing value of production (farmgate), b) increasing value added (post-farm) and c) increasing smallholder income. Each network defined its own weights for each of their sub-criteria. However, in the interest of cross-network comparability, it was specified that the sum of sub-criteria weights used by the network had to add up to the ASARECA-wide weight for that criterion.

Each project was scored by judging its potential to generate beneficial outcomes with regard to each sub-criterion. Scores ranged from -5 to +5. The scores were then weighted with the defined weights and added to arrive at an overall score for each project. Finally, the overall priority rankings of the various research projects were discussed and modifications were made to account for any considerations that could not be included in the previous steps. The result was a list of projects ranked from highest to lowest priority. It is expected that available resources will be allocated to the higher priority projects that have the highest expected impact.

Step 7: Make recommendations for implementation

As a final step the network committees prepared a report that highlighted the priority projects and formulated recommendations for implementation. This document included the

network agenda and validation of the agenda by stakeholders and research managers. The document also explained the principles of operation that will be adhered to during project implementation and stated what impact is expected if the network successfully implements its new agenda. The report has been used to secure approval for network activities by ASARECA and is becoming a cornerstone in the public presentation and justification of network activities in relation to all stakeholder groups.

At each stage in the priority setting process it was important to keep in mind the mandate of ASARECA. Key considerations in constraint analysis and project portfolio selection were:

- Does the project address a priority problem of the beneficiaries which is well defined, clearly identified and supported by available data?
- Does the project address the constraints that lead to the problem in an integrated way and does it contribute to broader development goals?
- Is the project in line with the current ideas and paradigms for results-oriented research and development (R&D)?
- Does the project contribute to ASARECA's CCF and strategic objectives?
- Is the project appropriate for the network (rather than other institutions) to address? Does the network have a comparative advantage in this situation? How does the network link with national and international institutions? Justify why the project should be handled on a regional basis.

The experiences of ECABREN and PRAPACE, presented in Boxes 1 and 2, show how the priority setting process was implemented.

A new research agenda

All seven networks implementing the priority setting process developed a new research agenda for the next five years. The project rankings allocated during the network stakeholder workshops were used as the basis for this new research agenda. Each of the seven networks identified between nine and 28 candidate projects. These were prioritized during the stakeholder workshops and between three and eight of them were ranked as high priority.

The main implications for the new network agendas are:

- The agenda was developed with wide stakeholder participation. Diverse stakeholder groups contributed to all steps of the process leading to widely accepted

Box 1: The Priority Setting Process in ECABREN

Pyndji Mukishi

Analysis of the bean production-to-consumption chain revealed several critical problems related to production, processing, marketing, consumption/utilization and policy. Only when these constraints are addressed will the bean sector be able to contribute substantially to alleviating the food insecurity and the malnutrition that affect millions of people in the region. Inadequate institutional capacity to address the needs of the bean sector and a non-conducive policy environment for bean production and commercialization are two overriding policy and institutional constraints that need attention. Stakeholder consultation revealed the following research and development issues that would improve bean value, productivity and competitiveness:

- developing soil and water management options for improved crop productivity
- introducing appropriate climbing bean varieties for various agro-ecological zones
- promoting integrated pest and disease management options
- developing varieties with drought tolerance and with resistance to multiple constraints
- making quality seed available and accessible
- promoting extension services and information
- improving post-harvest technologies
- advocacy for formation of farmer and trader organizations
- undertaking market studies to identify opportunities
- developing varieties with improved micro-nutrient levels, especially for vulnerable pregnant women and children.

These issues are related to ASARECA's CCF and constitute critical research and development topics that should be emphasized in the near future. The complex nature of the problems calls for strong partnerships amongst research institutions, policy makers, local and international NGOs, private and public sector, farmers, traders and consumers. Only then will the persistent problems of low income, food insecurity, malnutrition and environmental degradation facing small-scale farmers and urban consumers be solved. Networks and their partners in the national research institutes should put more effort into developing and strengthening partnerships, networks and links as well as promoting enabling policies, strengthening stakeholders' capacity and facilitating end users' access to information.

priorities. This increases the potential impact of activities.

'It was a good idea to involve all the concerned stakeholders in the process because this created a sense of ownership and a sense of understanding that whatever agenda the program has is a result of the views and thoughts of the stakeholders. It is evident that after having conducted this process, stakeholder participation in the activities of FOODNET is not going to remain the same.'

Shaun Ferris, FOODNET.

- The scope of the network research agenda widened. Stakeholders from each network highly ranked projects that go beyond production issues and address research

for development objectives. The use of the production-to-consumption paradigm generally led to greater emphasis on policy and institutional constraints. For example, the three crop-oriented networks highly ranked two to four projects related to non-production issues.

'Cross-cutting concerns appeared to be a prerequisite for success in the networks. For instance, unless capacity building within the National Agricultural Research Systems (NARS) is addressed and the research agenda is largely dictated by market demands, the PRAPACE network is unlikely to be successful in undertaking the research for development agenda and will not achieve its desired objectives and impact. The approach adopted to address the entire production-to-consumption continuum has helped the network

Box 2: The Priority Setting Process in PRAPACE

Berga Lemaga

PRAPACE reviewed the research domain of potatoes and sweetpotatoes by analyzing the commodities' production characteristics, production trends, socio-economic contributions, marketing chains, utilization, major achievements and institutional support available to the potato and sweetpotato sub-sector. The review clearly showed that constraints to the sub-sector were numerous and spanned the entire production-to-consumption chain. Altogether, 131 root constraints or factors were identified, each one with potential for a sub-project. By ranking the constraints (scoring them against common criteria) the number was reduced to 42, then, at the stakeholders workshop, to 16.

We believe that using pre-set criteria is a useful and relatively unbiased approach that can be used to single out the most important projects. PRAPACE being a regional network, it was imperative to identify criteria that would address regional interest, add value at the national level, contribute to achieving PRAPACE's strategic objectives and agree with the CCF of ASARECA.

The criteria set and weights apportioned by ASARECA stakeholders, which largely reflected the ASARECA CCF, were used. However, since these criteria were general, it was important to identify sub-criteria. These were discussed and endorsed by stakeholders and were clearly defined so that stakeholders understood them without ambiguity.

Finally, the selected 16 projects were evaluated based on their impacts on the sub-criteria. The impacts can be negative, neutral or positive. In order for stakeholders to understand the impacts, they have to be supplied with sufficient, reliable, pertinent and easily understandable information on the projects. However, it was difficult to do this to our satisfaction, due mainly to lack of time. The projects were classified high, medium and low priorities. Five projects in the production-to-consumption category were ranked the high priority, seven the medium and four low priority. It was recommended that in the coming five years PRAPACE consider sub-projects with high and medium priorities only.

From the PRAPACE experience, it would appear that the following features will help projects to stay regionally focused and help networks achieve their strategic objectives:

- appropriate regional criteria with apportioned weights
- good information on the impact of projects on each sub-criterion
- an easy to follow scoring method
- a well-balanced mix of stakeholders.

to identify more realistic priorities that will go a long way to meeting research for development needs.'

Berga Lemaga, PRAPACE.

- Although the scope is widened, networks will focus on a limited number of projects – those having the highest potential impact and that address key regional constraints. This makes coordination easier and increases the overall impact of the network.
- There is a greater focus on issues that are relevant at regional level and where the network has a comparative advantage.

- Selected projects should be those that will potentially contribute the most to ASARECA's objectives.
- The new research agenda facilitates the establishment of cross-cutting linkages between the networks.

Box 3 illustrates the experiences of RAIN/AFRICALINK in setting up a new research agenda.

Lessons learned

Implementing the same priority setting approach across the seven networks has generated much useful information. Here,

Box 3: The New Research Agenda in RAIN/AFRICALINK

Dorothy Mukhebi

Following the seven-step priority setting exercise, RAIN identified four priority projects:

- Building skills in information and communication management (ICM)
- Improving accessibility and availability of relevant agricultural information for research for development
- Facilitating the generation, packaging and dissemination of agricultural information content
- Improving the targeting of information and communication to different user groups.

As the network is in the process of developing a Strategic Plan, these projects will form part of the network conceptual framework. The main outputs expected from these priorities are:

- Information professionals and scientists will acquire new ICM skills, enabling them to improve the analysis of information needs, increase access to outside information sources, generate information themselves, develop new information products and disseminate them to users.
- Policy makers and senior managers will commit to improving the career structures and conditions of service of ICM staff.
- New opportunities will arise for scientists to produce and disseminate information.
- An agricultural information strategy for the region and individual ones for the respective countries will be produced.

To undertake planned activities under each project, RAIN will develop strategic and innovative partnerships with national, regional and international organizations involved in ICM. The objective will be to improve the coordination of ICM activities in the East and Central Africa region as well as to create synergies between them. An important challenge for RAIN is to define a unique niche for its activities. The network therefore needs to:

- continually ask itself and its stakeholders: 'how are we different?'
- strive to become known as a network with a regional focus and with regional activities (rather than simply a provider of services to national organizations)
- create cross-national synergies in all the activities it is involved in.

Stakeholders in RAIN have high expectations for this new network and it is important to be realistic in meeting these expectations. RAIN cannot do everything, but the priority-setting process is an important first step in giving focus and direction to the network's initial programs and activities.

we summarize some of the key lessons and illustrate them with specific network experiences.

Lesson 1. Preparation and implementation are to be scheduled and timed appropriately

All key actors involved, i.e. the networks, their stakeholders (including donors) and assisting agencies have to be ready for the process and should agree upon an implementation plan. The timing of the process should then be consistent and fit in with other key institutional management activities such as annual or five-year plans, strategic planning and

program evaluations. A strategic plan followed by a priority setting exercise should be done after a major program evaluation.

Time constraints during the planning and implementation of the priority setting process can have a significant effect on its outcomes. Time pressures can help to avoid endless processes but sufficient time should be allocated if the process is to succeed. Figure 1 gives an indication of the time needed for each step and the experience shows it is possible to complete the whole process in the suggested five-month period. However, because the steps of the process build on each other, delays will automatically be transferred to the

next level. It is important that specific guidelines and procedures for each network (including data and information requirements) are available in advance so the network coordinators can prepare for the process. If background materials are not distributed before a stakeholder workshop, review and feedback will be limited and the definition of projects can be rather poor. This will ultimately affect the future research agenda of the network, which is a sub-set of these projects.

'In general, the priority setting exercise came at the right time – just after the network held a mid-term review of our progress. Often, it is easy to get lost while executing activities of a dynamic and sensitive program such as FOODNET. This is exacerbated by the expectations of numerous stakeholders. It was felt that the process helped to stop, look back, and then refocus attention on the key activities that would lead in the desired direction.'

Shaun Ferris, FOODNET.

'Considerably more preparation time than was available was needed given the large volume of information that was required for the review of research domain, constraint analysis and evaluation of research results (Steps 2, 3 and 4 of the priority setting process).'

Isaac Minde, ECAPAPA.

'The time allocated for the implementation was very short. The coordinator had little time to inform the key stakeholders about the exercise. Many participants came not knowing what to expect and could not focus quickly on issues. The exercise got off to a slow start as the first few days were spent trying to inform and bring participants up to the same level.'

Bill W. Khizzah, EARRNET.

Lesson 2. An 'optimum' rather than a 'maximum' level of stakeholder participation should be identified

Significant stakeholder participation throughout the process was important and contributed to the success of the exercise. All participating groups, i.e. subject matter experts, network coordinators and members of the network priority setting committees, national focal representatives and coordinators, NARI sector professionals, donor agencies and representatives from CGIAR centers, made their contributions to the process, shared their experiences and helped achieve the objectives. All participants showed a good level of commitment, interest and enthusiasm. But there is also a clear limitation to stakeholder participation and it is important to find the optimum – not maximum – level of participation of stakeholders. It must be clearly determined who participates and who does not, and at what level and what stages. The key criterion should be that the stakeholder brings useful information and knowledge, demonstrates commitment and cooperates in implementing the new agenda.

'At the beginning of the exercise, some stakeholders felt "uncomfortable" with the whole process. But by the end of the priority setting process, there was a feeling of ownership and commitment. This was also an opportunity to build partnerships with the various stakeholders. Such partnerships are critical in running a network like RAIN and will help to improve communication channels.'

Dorothy Mukhebi, RAIN/AFRICALINK.

'There were some difficulties in getting a wider cross-section of stakeholders to participate in the priority setting process. More time should be allocated for the exercise to allow the recruitment of more contacts and broader stakeholder categories. The result of having a stakeholder representation heavily skewed in favor of scientists is that the priorities selected also reflected this disciplinary bias. Thus, it is critically important to involve a wider cross-section of stakeholders in the priority setting process to ensure that the production-to-consumption value chain is adequately represented.'

Pyndji Mukishi, ECABREN.

'This was the first time in over five years that stakeholders discussed priorities for ECAPAPA. The exercise was organized around a workshop with significant stakeholder participation. It provided an opportunity for stakeholders' demands and preferences to be discussed at a table together. A consensus was reached on what should be done and why.'

Isaac Minde, ECAPAPA.

Lesson 3. It is important to determine which information is relevant and to use the selected data effectively

Before starting the process, it is necessary to think hard before deciding a) what data and analyses are relevant and b) how the information is to be used. Data and information requirements were a key issue throughout the process. Setting priorities across countries increased the risk of data gaps so that attention had to be given to the collection and presentation of data, as well as to the question how to handle situations in which the required data was not available. There where the necessary data was actually available in the region, use of this data was often limited. As it turned out, most of these data appeared to make sense at the commodity and factor level, but not as much at the thematic level within each network. Also the results of modeling the impact of an assumed X% increase in productivity on total economic value, equity, spill-over across the regions, etc. were not very useful without more information on the likely cost and institutional complexity of achieving those results. However, it remains important to make the process as objective as possible and to avoid individual bias. By combining the quantitative approach with participatory approaches, some of the limitations can be addressed.

'Prior to the priority setting, several discussions on data and data sets took place. At the end, it turned out that the priority setting did not benefit significantly from these data sets.'

Isaac Minde, ECAPAPA.

'Reliable data in the production-to-consumption continuum is very scarce. The available data are not of high quality; they are location-specific and hence it is difficult to get a representative picture. On the other hand, at the macro economic level, getting disaggregated data or information is difficult. The data available are very general and not reliable either.'

Berga Lemaga, PRAPACE.

Lesson 4. Careful identification and clear definition of the most suitable candidate projects MUST precede any priority setting effort

It is important to ensure that candidate research projects are accurately defined for the priority setting exercise, as these will determine the network's future research agenda. This is probably the most difficult and the most crucial step. Priority setting committees of the networks and stakeholders could not always distinguish themes from programs and sub-themes from projects and activities in a systematic and logical manner. It is very difficult to achieve consensus on which research projects were to be candidates for prioritization as network operators generally have little experience with this process. There is also a need to clarify key terms such as 'sector review' and 'research domain'. It is important to have clear definitions and joint understanding of these terms.

Other inconsistencies can occur when defining the candidate research projects. Project descriptions were not always clear in relation to the production-to-consumption framework, the research for development paradigm and the regional perspective. Apparently these frameworks introduced dimensions that were unfamiliar to both the priority setting committee and the stakeholders. In addition, the sequence of the different elements along the production-to-consumption chain was not always clear. Finally, research projects should not have been considered if they did not lend themselves to regionally coordinated frameworks.

In some of the priority setting steps, such as constraints analysis and defining research projects, having a multidisciplinary team with a background in production-to-consumption value chains helped in formulating or defining research projects of regional importance. This was in line with the network strategy plan to initiate and support only regional R&D activities to achieve greater impact in the region.'

Pyndji Mukishi, ECABREN.

Participants had difficulties in defining the right projects and it took time to get to a consensus. Stakeholders had no experience of the differences between themes, programs, sub-themes, projects and activities.'

Bill W. Khizzah, EARRNET.

Lesson 5. The outcomes of the priority setting process should be implemented

Interpreting the results of the priority setting process reflects the difficulty of saying 'no'. Networks and their stakeholders felt very strongly that all projects are important. However, the idea of going through this process was to identify the projects that have the highest potential impact according to the stakeholders. Allocating the available resources of a network to a limited number of projects increases the chance of significant impact. It is important to show that priority setting feeds into processes of budgeting and resource allocation. Donors should be encouraged to provide additional financial resources for projects that are expected to have the highest impact.

'Prioritization does not mean that some projects are less relevant than others. It simply means that the allocation of limited resources should be first to the HIGH priority projects and, if additional funding is available, it should go to the MEDIUM priority projects.'

Pyndji Mukishi, ECABREN.

The priority setting process guided the network's future strategic plans to contribute to the ASARECA strategic plan and to refine some of the procedures agreed upon.'

Berga Lemaga, PRAPACE.

Lesson 6. Be flexible and imaginative, but remain pragmatic and practical

Designing projects in response to constraints is a process based on subjective judgements. Success depends on broad stakeholder participation and full use of available knowledge to define the projects and prioritize them. The priority setting process attempts to introduce objectivity as much as possible and tries to avoid individual bias. It is, therefore, important to continue to collect relevant information to make the process more objective. But it is not only quantitative data that counts – both qualitative and quantitative data are equally important. Objectively oriented approaches and participatory approaches need to work hand-in-hand. Our advice is to be flexible and imaginative, dream, but stay pragmatic and practical as well.

'It was difficult to show how a policy program can directly contribute to economic growth, social welfare, environment, etc. So we developed pathways that showed, via indirect routes, how an activity would contribute to development objectives or criteria.'

Isaac Minde, ECAPAPA.

Lesson 7. Never forget that priority setting is a continuous learning process!

Setting priorities is not a static process. Time is needed to establish and develop relationships with stakeholders. It is also a learning process. Partners need to learn how to communicate and understand each other. The priority setting process is built on the 'analyze-formulate-evaluate-analyze' sequence that is needed for planning any major human undertaking. Although we clearly defined a first and a last phase for setting priorities, the learning process is continuous.

The exercise was a great learning experience and provided the network with an opportunity to organize its projects in a framework that is impact oriented.'

Christopher Ngichabe, Biotechnology Initiative.

Conclusions

The priority setting process involved a wide range of stakeholders and produced valuable outcomes. Using a similar approach across seven quite diverse networks provided a good context for systematic, methodical and transparent examination of the objectives and programs of each of them. This was done in consultation with subject matter experts, representatives from the national programs, private business people, farmer representatives and other stakeholders, thus gaining a wide perspective and ensuring continued support. As a result, the networks thought seriously about the CCF of ASARECA and thus their relevance to the institutional mission. Future network projects will cover production-to-consumption issues by focusing on research for development and will be guided by impact concerns. Resource scarcity will force them to focus their agenda on a selected number of projects. Through priority setting, the work of the networks will become more relevant to the end users and thus contribute to the overall economic, social and environmental impact of research in Eastern and Central Africa.

Based on these positive experiences, ASARECA is now planning for the remaining 12 networks to implement the same procedures, taking into account the lessons learned. Many country representatives also expressed interest in repeating similar processes in their respective national programs. However, given the different objectives of the priority setting process and the specific circumstances of different countries, other approaches – such as cost/benefit analysis, economic surplus methods and analytic hierarchy processes – might be more appropriate (Mills 1998). The same applies for setting priorities across all ASARECA networks – a process that raises additional issues. It is important to choose an approach that fits the problem, the available information and the decision-making context.

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