SACCAR
Workshop to elaborate and agree upon a Methodology to Identify National Agricultural Research Priorities in the SADC Region

Maputo, Mozambique, 20 – 21 November 2000

Workshop objective
The first strategic thrust of SACCAR’s Strategic Plan for Research and Training Coordination and Integration, is to “Assist NARS to set up national priorities and use them to identify regional priorities”. The main objective of this activity is to ensure that the methodology used in identifying national research priority is the most appropriate and that realistic comparisons can be carried out. Another important objective is to contribute to a prioritisation system that allows the limited amounts of money available for agricultural research and training to be spent on the most important problems for the farmers and the society, both on short and long term.

The workshop was attended by 24 participants from the SADC Member States except South Africa, Seychelles and the Democratic Republic of Congo. The delegates presented brief overviews of the stages and methodologies used for their NARS.

It was clear from the above discussions that all member states had moved from an ad hoc system of prioritising to a system which includes priorities guided by policy documents or farmers’ needs, (usually a combination of both); participation of stakeholders; the use of production and economic data, and in some cases the use of weighting and scoring methods. In most countries there has been a gradual evolution from a commodity or discipline oriented approach, to development oriented systems or zonal approaches.

Input from ISNAR
Dr Warren Peterson from ISNAR made a presentation on Priority Setting for Agriculture at National and Provincial level. He discussed the reasons for priority setting; characteristics of priority setting; criteria for selecting methods; programme and project priority setting; scoring criteria; conditions for success; and new concerns. According to Dr. Petersen research has lost credibility amongst donors and governments and for this reason, priority setting has become crucially important. Equally important is impact analysis and targeted publishing of research results to policy makers. Researchers are not communicating the value of their work to society.

Standardisation of a priority setting methodology
The stated objective of the workshop was to agree on a standard methodology for priority setting at the national level, so that it could merge seamlessly with a regional priority setting methodology. The participants recognised the usefulness of standardisation, primarily because of the way it would facilitate cross-country comparison and co-operation; lead to better resource utilisation in terms of manpower; enhance accuracy in the determination of regional priorities; and make it easier to facilitate the process across the region, and mobilise additional resources.
There was however consensus that there were strong arguments against a standard format, particularly related to the diversity of policy objectives and agro-ecological regions, available skills, resources, and available data.

Nonetheless, there was a strong positive attitude towards achieving compatibility within the region, that it was decided to settle for “compatible individuality”. The rest of the workshop was therefore spent on designing a regional framework into which national priorities can feed, and which may act as a role model for member states.

The following components were agreed upon as the building criteria for national priority setting.

**Methodological principles**

- *Appropriate stakeholder participation at all levels of priority setting.* The workshop did not get as far as defining the stakeholders at the different levels. A general observation was that producers should be involved at district level, using participatory methods (PRA, RRA, etc). At higher levels scientists and policy makers play the dominant role. Related to the issue of stakeholder participation, it was emphasised that they should participate instead of just being consulted.

- *Scoring is the preferred method of ranking priorities.* It was agreed that regional priority setting should be done on the basis of scoring according to weighted criteria. It is quick and easy to apply, adaptable to a diverse range of objectives, and largely logic dependent. Scoring will be applied differently in the three categories: (i) projects focusing on agro-ecological systems; (ii) commodity research projects and (iii) non-commodities projects and services. Weighting criteria will obviously vary according to category, but this was not further unpacked at the workshop.

- *Periodic priority setting* at national and regional level.

- *Gradual adoption* of the scoring method at national levels.

- *Setting a time frame* for a series of activities to enhance priority setting at national and regional level.

**Data structure**

In order to expedite easy comparison among logically grouped projects, the format for organising the programmes and projects need to be standardised. The workshop agreed upon the data structure as shown below. The details in terms of programmes and projects need to be further developed by SACCAR (on the basis of the Long Term Strategy and Five Year Plan) for comments by member states.

The various programs or projects may be classified in *focus areas*, as for example:

- *Technology development and transfer*

- *Socio-economic development*
• Agro-ecosystem management
• New frontier sciences
• Policy issues

These focus areas may be given different weighting depending how important they may be considered by the various provinces or countries as shown in the example in Table 1.

Criteria for scoring
There seemed to be consensus on the three main criteria whereby projects should be scored. These were:

1. Efficiency (50%)
The efficiency parameter usually carries most weight in priority setting. It refers to the impact of research on the ‘national welfare’. In the case of commodity research it may e.g. be calculated from the value of production, area planted to the crop, percentages change in yield expected from research, probability of success, rate of adoption by producers. Some of these indicators can be calculated from existing data, but others require a subjective value judgement.

2. Feasibility (25%)
Feasibility is determined quantitatively and qualitatively on indicators such as research costs, research facilities, scientific expertise, and time frame.

3. Policy objectives (25%)
Policy objectives in the region will usually involve issues such as sustainability (the contribution of research to protect the natural resource base for future generations), food security (the contribution of research to food availability), equity (the distribution of research benefits), impact on farmer cash incomes, and potential for increasing export earnings. Another policy objective may be capacity building (training & infrastructure creation).

To illustrate the need for further refinement, consider the output from the two group sessions. One of the groups suggested the following breakdown for commodity research projects:(note that they attached a weight of 30% for feasibility as opposed to the 25% which was agreed upon).

Efficiency (50%):

- Value of production (20)
- Expected % change in yield (10)
- Probability of success (8)
- Expected adoption rate (7)
- Potential for spill-over to other projects and/or countries (5)

Feasibility (30%)

- Research costs (including personnel) (15)
Research facilities (infrastructure) (10)
Scientific expertise available (5)

Policy objectives (20%)

Food security (5)
Equitable distribution of benefits across gender and economic status (5)
Contribution to poverty alleviation/ increase farmer cash income (5)
Export earnings (5)

The other group listed different indicators, and went a step further by constructing a matrix with relative weights for research focus areas (Table 1). The objective of weighting is to provide a guideline as to the way the budget should be divided between focus areas. This could obviously vary from country to country, and from national to regional projects. Technology development is a high priority at national level, but for a regional project, some of the other focus areas may be as important.
TABLE 1. A MATRIX FOR SCORING PROJECTS/PROGRAMS (Example).

<table>
<thead>
<tr>
<th>Criteria(^2)</th>
<th>Weight</th>
<th>Focus area(^1)</th>
<th>Technology development &amp; transfer</th>
<th>Socio-economic development</th>
<th>Natural resource management</th>
<th>New frontier science</th>
<th>Policy issues</th>
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<tbody>
<tr>
<td>Efficiency</td>
<td>0.50</td>
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<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
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<td>Value of production</td>
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<td>% Change in yield</td>
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<td>Feasibility</td>
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<td>Policy objectives</td>
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<td>Sustainability</td>
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<td>Farmer cash income</td>
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\(^1\) Could vary quite substantially from country to country.
\(^2\) The components listed here may contribute differentially to the different focus areas.

The three criteria, efficiency, feasibility and policy objectives, should be applied to all programmes and projects, regardless of their category. However, the contribution that various factors make to a criterion (e.g. efficiency) will differ significantly according to the category; or even programmes within categories of research. Much more discussion and groundwork is therefore required to arrive at good weights and measures before a credible scoring system can be implemented. Take for example “efficiency” as applied to commodity research. A list of indicators of efficiency has to be identified and ranked subjectively according to their relative importance. The 50 points (out of a hundred) for efficiency is then allocated according to these rankings.

**Short-term process:**
The main objective here is to keep the momentum going. The proposed way to do this is to use currently available national information for regional priority setting, in order to enhance the image of regional research, which would expedite scientific partnerships and funding. The
target date to achieve this was stated as 1 May 2001, although there was considerable doubt expressed during the plenary discussion whether this was achievable.

**Longer-term process:**
The longer term process have the objectives to (i) build capacity for priority setting, (ii) standardise the methodology as far as possible, and (iii) implement regular reviewing to accommodate changing circumstances.

**Concluding remark**
By the very nature of the complexity of the task it could not realistically be expected to achieve more in a two-day workshop than to agree on the need for regional priority setting and establish a common approach with regard to some major principles of national and regional priority setting. The action plans elaborated by the participants is a clear indication that these two objectives have been achieved, and that a process has been set in motion which will in time enhance the methodologies for setting priorities, with the expected result of significantly increasing the benefits from research, for the whole region.