

Technology Uptake and the Rationalization of ASARECA

An Assessment of the Technology Transfer Project

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Executive Summary

The original purpose of the consultancy was to assist in the formulation of a technology transfer strategy for the Networks, Projects and Programmes (NPPs) of ASARECA. However, the TOR were subsequently amended to include a review of the functions, mandate and organizational structure of ASARECA (in effect an examination of efficiency and effectiveness within the organisation). The work plan consisted of eight stages to be carried out between May and October 2002. Stages one and two consisted of establishing contacts with key stakeholders, visiting relevant donors etc in Europe and carrying out a review of relevant literature; an interim report was presented on this preliminary work.

The third stage consisted of a visit to East Africa and discussion of the interim report with a wide range of interested parties. This final report represents stage eight of the exercise and includes comments made on the draft report by members of the Secretariat and other interested parties.

Because of the diverse nature of the review the report is presented in four parts. Part A deals with the lessons learned from the literature and series of visits, Part B deals with the technology transfer elements of the TOR and Part C covers the review of ASARECA. Part D presents a list of the issues arising from the review for consideration by the CD and the conclusions and recommendations. It also considers linkages between the different parts of the report.

Part A is divided into sections that deal with the lessons learned from Phases 1 and 2 of the Technology Transfer Project (TTP), recent ASARECA meetings, lessons from the literature and visits to donors etc. and concludes with a section dealing with the implications and “messages” for ASARECA arising from the work of stages one and two. Donor funded research programmes (including TTP) have spent considerable time and effort designed to understand and improve the uptake (transfer) of the outputs of agricultural research. This effort has been driven by the desire of governments, regional bodies such as the Forum for African Agricultural Research (FARA) and donors to increase the impact of agricultural research in terms of economic growth and poverty reduction. There is no doubt that the pressures to deliver impact are growing and the “new thinking” arising from research on uptake mechanisms calls for a more holistic approach in which all of the factors needed to support successful uptake are in place from the outset. In practice this means that more effort should be directed towards the application of knowledge rather than the generation of new knowledge and researchers must ensure that the skills and expertise associated with successful uptake are in place. In practice this calls for a greater involvement of partners than has previously been the case.

ASARECA has made considerable progress in terms of agricultural research and these new approaches are understood and appreciated but the application has been patchy (most have been the subject of discussion in various meetings). What has perhaps been lacking is the concerted application of the new thinking. It is noteworthy that the various visits revealed strong support for ASARECA and the progress made to date but a number of suggestions emerged which could improve efficiency and effectiveness and these have been incorporated into the report

Part B which draws upon the examination of Phases 1 and 2 of the TTP and the conclusions of Part A, concentrates on a strategy for improved uptake of research outputs or impact and the design of a new project that would foster uptake (or transfer). Emphasis is placed upon the need to improve uptake and the means and mechanisms that might foster the process. An outline strategy is presented and the tools available to ASARECA with which to implement the strategy are examined. Improved efficiency and effectiveness measures, as considered in Part C, are important together with the use of the EU/RSP funding for competitive grants; the latter can be an effective tool for introducing and managing change. Alternative project support mechanisms are also considered including the use of funds allocated under the EU/RSP for technology transfer. A proposal is presented for the use of these funds and possibly future funds from other donors. The proposal includes the provision of a Facilitator in the Secretariat whose main task will be to mainstream technology transfer/uptake needs across all Networks. A description of the proposed activity is presented as Appendix 7.

Part C concentrates on the lessons learned from Parts A and B and how they might be applied within ASARECA in order to improve the efficiency and effectiveness of the operation. Much of the early success of ASARECA as an Association can be attributed to the nature of the Constitution but with the substantial expansion of activities and funding it is argued that changes are desirable in order to improve effectiveness and deliver impact. Proposed changes include greater participation by stakeholders, rationalization of the networks, a greater management role for the Secretariat, improved reporting and accountability and a clarification of roles and responsibilities. Specific changes are also proposed to amend the function, mandate and structure of the organisation and it is argued that ASARECA is perceived externally as an institution rather than a loose Association and changes to the Constitution, Bye-laws and the Memorandum of Agreement should be considered.

Part D presents the overall conclusions and recommendations of the review and a list of the issues for consideration by the CD. An attempt is also made to link the conclusions of the different parts of the review and illustrate how the proposed changes should add to the effectiveness of ASARECA and its contribution to agricultural development in the region.

Acronyms and Abbreviations

A-ARRNET	ASARECA Animal Agriculture Research Network
AFRENA	Agroforestry Research Network for Eastern and Central Africa
AHI	African Highlands Initiative
AKIS	Agricultural Knowledge and Information Systems
ARS(s)	Agricultural Research System(s)
ASARECA	Association for Strengthening Agricultural Research in E. and C.Africa
BARNESA	Banana Research Network for Eastern and Southern Africa
CABI	CAB International
CD	Committee of Directors (of ASARECA)
CG/CGIAR	Consultative Group for International Agricultural Research
CGS	Competitive Grant System
CIAT	Centro Internacional de Agricultura Tropical
CIMMYT	Centro Internacional de Mejoramiento de Maíz y Trigo
CIP	Centro Internacional de la Papa
COMESA	Common Market for Eastern and Southern Africa
CORNET	Coffee Research Network
DFID	Department for International Development
EAC	East African Co-operation (based in Arusha, Tanzania)
EAPGREN	Eastern Africa Plant Genetic Resources Network
EARO	Ethiopian Agricultural Research Organisation
EARRNET	East Africa Root Crops Research Network
EC	European Commission
ECART	European Consortium for Agricultural Research in the Tropics
EDF	European Development Fund
ECARSAM	Eastern and Central Africa Regional Sorghum and Millet Network
ECABREN	Eastern and Central Africa Bean Research Network
ECAMAW	Eastern and Central Africa Maize and Wheat Research Network
ECAPAPA	Eastern and Central Africa Programme for Agricultural Policy Analysis
ECSARRN	Eastern, Central and Southern Africa Rice Research Network
EU	European Union
FOODNET	Postharvest and Marketing Research Network for E and C Africa
FARA	Forum for African Agricultural Research
IARC	International Agricultural Research Centre
ICRAF	International Centre for Research in Agroforestry
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDRC	International Development Research Centre
IFPRI	International Food Policy Research Institute
IGAD	Inter-Governmental Authority on Development
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
ISNAR	International Service for National Agricultural Research
IVA	Institutional Viability Index
KARI	Kenya Agricultural Research Institute
M&E	Monitoring and evaluation
NAO	National Authorising Officer
NARI(s)	National Agricultural Research Institution(s)
NARS(s)	National Agricultural Research System(s)

NEPAD	New Partnership for African Development
NFM	Network Familiarisation Meeting
NGO(s)	Non-Governmental Organisation(s)
NPP(s)	Network(s), Programme(s) and Project(s) [of ASARECA's portfolio]
NR(M)	Natural Resources (Management)
ODI	Overseas Development Institute, UK
PRAPACE	Potato and Sweet Potato Improvement Programme in E. and C. Africa
PRMP	Programme Review and Monitoring Panel
RAIN	Regional Agricultural Information Network
RAO	Regional Authorising Officer
RSP	Regional Support Programme (under 8 th EDF)
RSU	Regional Support Unit
SFI	Sustainable Funding Initiative
SPAAR	Special Programme for African Agricultural Research
SRO	Sub-Regional Research Organisation
SWN-net	Soil and Water Management Network
TOR	Terms of Reference
TT	Technology Transfer
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
US/REDSO	USAID/Regional Economic Development Support Office
WB	World Bank

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INTRODUCTION

The original purpose of the consultancy was to assist in the formulation of a technology transfer strategy for the Networks, Projects and Programmes (NPP) of ASARECA. However, following early discussion with USAID, the ASARECA Secretariat and the ASARECA/CIP Technology Transfer Project (TTP) the original Terms of Reference (TOR) were substantially expanded to include a review of the functions, mandate and organizational structure of ASARECA. The amended TOR, that place considerable emphasis on efficiency and effectiveness, are presented in Appendix 1.

The Work Plan called for the consultancy to be carried out in 8 stages between May and the end of September 2002. Stage 1 comprised the development of contacts, the collection of documentation and initial discussion with key stakeholders. Stage 2 consisted of a search of relevant literature and contact/meetings with relevant organizations in Europe and elsewhere. The TOR also included the preparation of an analysis of the lessons learned from Phases 1 and 2 of TTP and reporting on relevant experience from other countries and organizations in relation to technology transfer (TT). An Interim Report was submitted at the end of Stage 2.

Stage 3 took place from 2 to 17 July 2002 and consisted of meetings with the Secretariat, NPPs, CG Centres etc; based upon the findings of stages 1 and 2 and the response to the Interim Report. A draft final report was submitted by the end of August 2002 (Stage 4) and amendments were discussed with members of the Secretariat during a short visit to Entebbe. Further amendments were received during the CD Retreat in Kigali at the end of September and these have been incorporated into this, the final report.

From previous work with ASARECA and organizations in East and Central Africa the consultant is familiar with developments in agricultural research including the increasing pressure to deliver impact, the need for institutional reform and the issues surrounding sustainable financing. Attendance at the Third ASARECA NPP Meeting in Nairobi 13 to 17 May provided a very good background to the review and began the process of collecting relevant literature and meeting with key individuals. In addition to many meetings with staff associated with the Secretariat useful contact was made with more than half of the Network Coordinators and most of the CG Centres involved during several visits made to Uganda and Kenya.

Visits made during Stages 1 and 2 included the European Commission in Brussels, ISNAR in The Hague and DFID in London. Contact was also made with USAID in Washington, GTZ in Germany and ODI in London. Direct contact was also made with a number of DFID research managers who have been subjected to considerable change and pressure to improve the uptake of research outputs in recent years. Various other individuals and organizations were contacted by telephone or e-mail in the process of collecting relevant experience. Relevant literature has also been collected by searches on the internet.

There is a wealth of literature of relevance to the TOR and individuals and organizations have supplied many references to add to those already familiar to the consultant. As a result a growing list of reference material has been accumulated- see Appendix 2. While all of the documents listed are relevant several key papers have stood out as being particularly informative in relation to the TOR. These are the following:

1. Why Research Partnerships Really Matter: Innovation Theory, Institutional Arrangements and Implications for Developing New Technology for the Poor. World Development. Vol. 29, No.5 2001.
2. Sustaining Change: Proceedings of a workshop on the factors affecting uptake and adoption of research outputs. NR International. 2000. ISBN 0-9539274-0-7.
3. Public-private Sector Interaction in the Indian Agricultural Research System: An Innovation Systems Perspective on Institutional Reform. In Byerlee, D and R.G. Echiverria (eds) 2001. Agricultural Research Policy in an Era of Privatization: Experience from the Developing World, CABI, Wallingford, UK.
4. ISNAR. Ten Tools for Managing Change in National Agricultural Research Organisations. 1999.
5. Agricultural Knowledge and Information Systems and Poverty Reduction. AKIS Discussion Paper. J.A. Berbegue and G Escobar. 2001.

The “messages” of relevance to ASARECA arising from these documents and contact with other organizations, are considered in the following report. Because of the diverse nature of the TOR the report is presented in four parts as follows:

- Part A Literature and Visits: Lessons Learned
- Part B Technology Transfer
- Part C Review of ASARECA
- Part D Conclusions and Recommendations

PART A Literature and Visits: Lessons Learned

PART A Literature and Visits: Lessons Learned

A1. Lessons Learned from Phases 1 and 2 of TTP

The first element of the TOR refers to “ lessons learned from the work carried out under the Technology Transfer Project (TTP) to date “. Before referring to the lessons it is important to indicate the original climate surrounding the project and its objectives. In the mid 1990s there was a strong perception that technologies developed by research organisations may have been tested with farmers but the overall impact had been limited. Explanations for the limited impact varied from the lack of effective linkages, declining level of support from traditional extension services, inadequate availability of credit and investment, increasing costs etc. Opinions were also expressed that researchers had taken too little responsibility for the next steps in the chain. Means of addressing these constraints were discussed at the original stakeholders meeting for TTP in 1997 (and again for Phase 2 in 2001). Following the conclusions of the meeting the design of the project was based upon the premise that given the funding (in the form of small grants) researchers would have the means and incentives to form the effective partnerships needed to promote the technologies they have developed to a much wider range of farmers. Both Phases 1 and 2 of TTP were based upon this broad premise.

The present exercise is concerned with the lessons learned from TTP rather than the achievements (but see below) and the main source of information was the Report by Muturi *et al* dated November 2001 (Agricultural Technology Transfer Processes and Adoption in Eastern and Central Africa). This consultancy was commissioned by ASARECA/CIP/TTP to identify the key issues in technology transfer in the region based upon the experiences gained from the two phases of TTP (Phase 1 lasted 18 months and funded 16 projects under a USAID/SD grant of US\$ 300,000 and Phase 2, which ended in September 2002, has funded 32 projects through a USAID/REDSO/ESA grant of US\$ 1.5 million). More specific objectives of the consultancy were to:

- Identify, understand and document the major technology transfer processes, achievements, technology uptake pathways used by collaborating partners, problems encountered and lessons learned based on an in-depth analysis of the sub-projects funded by TTP and other similar projects funded in ASARECA member countries;
- Produce an analysis of lessons learned from the past successful transfer and dissemination that can be used as guidelines and recommendations for similar projects in the future; and
- Evaluate the adoption of the technologies that have been promoted, through case studies of funded projects.

Another document that was useful in this regard was the report by TTP for the Third Annual NPP Consultative Meeting held in Nairobi 13-17 May, 2002. The content of these reports was supplemented by discussions with the Project Coordinator and the CIP Regional Representative.

The Muturi report is a substantial document that attempts to answer a number of questions based upon limited information from two projects that were not really designed to address the questions being posed. A key paragraph in the summary of the report reads, quote:

“ So far TTP has concentrated on technology transfer *per se* rather than focussing on the development of innovative transfer mechanisms. In addition TTP has concentrated on a single technology approach which does not encourage joint participation by NPPs. Similarly, marketing, which is an important factor influencing adoption was not addressed in most projects. From the foregoing, therefore, it can be concluded that the project has not found the right balance between learning about the process of technology transfer and the transfer of specific technologies.”

The report also comments on the fact that the selection criteria placed greater emphasis on partnerships than on innovative and experimental approaches and uptake pathways. This may be true but at the time the emphasis was upon the development of partnerships as a means of promoting technology transfer.

In reality, the two phases of TPP were more about the transfer of technologies seen to be available “on the shelf” than about the processes and methodologies associated with successful technology transfer. In effect the report “fell between two stools” and was consequently criticized for drawing incomplete conclusions concerning processes and methodologies. In fact, based upon the two phases of TPP, which were largely technology driven, it was unrealistic to expect substantial conclusions about processes and methodologies despite this being part of the stated TOR.

This is not to say that the two phases of TPP and the report were without value. On the contrary, both can justifiably claim significant achievements some of which are particularly relevant to the current consultancy. The main achievement of TTP was to raise the profile and importance of technology transfer within ASARECA especially among the NPPs, their Coordinators and the various stakeholders. The level of success depended upon the Network but from comments made to the consultant several Networks found the project to be of considerable value. In addition, the two phases of TPP can claim the following as significant achievements:

- Demonstrating that a competitive grant scheme (CGS) can operate successfully in the region and that there is adequate research capacity upon which to base this approach. (This was seriously questioned during the ECART workshops of 1999. It is interesting to note that a similar competitive scheme operated by DFID in Uganda more recently received 407 bids on the first call-of which only 11 were funded; but a second, more targeted call, received 87 bids of which 13 subsequently received funding).
- Successfully funded 32 projects in Phase 2 (from 291 applicants) in six thematic areas covering 10 countries (many of which were judged to have been very successful in terms of uptake of the technology). Sixteen projects were also funded from a separate competition in Phase 1.
- Demonstrated that by bringing together multiple partners the chances of successful technology transfer are significantly improved.

- Shown that if the approach to technology transfer is not holistic then the process is less likely to be successful (this valuable lesson refers especially to the previous lack of attention to marketing needs).

Secondly, the report could have been more definitive in its recommendations and made specific suggestions about changes needed within ASARECA and the NPPs in order to achieve greater uptake of research results. Although not a firm conclusion of the study all of the ingredients were present to show the limitations of the TT approach and the need to move towards a more holistic and integrated approach in order to foster the **uptake** of the research outputs. Many of the comments under conclusions and recommendations are very relevant to the present study and the more important ones are summarised below:

- Projects that had relatively more partners and with capacities to perform different technology transfer functions were more effective;
- The vertical linkages were strong but horizontal linkages tended to be weak or poorly developed (technology and information being passed from research institutions to beneficiaries through a series of intermediaries);
- Projects funded in the future should adopt a more holistic approach including addressing constraints such as the lack of capacity and marketing requirements;
- Future TT activities should have access to specialist expertise in promotion and dissemination methods;
- The poor representation of the private sector in all aspects of TT;
- Overall effort should be shifted towards technology transfer or the **“uptake of research outputs”** rather than technology generation;
- The need for greater cooperation/collaboration between NPPs in terms of TT.

If there are any funds remaining when TTP comes to an end in September 2002 they could usefully be used to publish a simple brochure outlining the successes of the two phases of the project, the lessons learned, and, more importantly, point to the way forward. From the lessons learned from TTP it can be concluded that further effort is needed within ASARECA to promote the uptake of research outputs and this should be the first call upon the funds allocated to TT under the EU/RSP (see PART B).

The report also comments on the selection criteria used for choosing the projects to be funded and refers to the relatively low number of points awarded for uptake pathways being already identified. This is an easy comment to make with the benefit of hindsight but at the time of project design the priority in finding effective pathways to get improved technologies to farmers was seen to be the development of effective partnerships and some 36% of the marks were allocated to partnerships (as opposed to 6% for uptake pathways) This is a reflection of the weighting given to partnerships and uptake pathways between 1997 (when TTP was designed) and the Review (2001). Nevertheless, it is an important comment in terms of the future conduct of ASARECA and the need to demonstrate the impact of research. This topic will be one of the important aspects of the present study since impact and the uptake of research results are the current priority (usually at the expense of knowledge generation).

This point illustrates the importance of the selection criteria and the guidelines that accompany them as a means of managing change and achieving current policy objectives through the use of a CGS. It also illustrates the care and attention required by the funding agency in the setting of the selection criteria and the associated guidelines. This conclusion has important implications for the CGS under the EC funding since the RSU, in collaboration with the ASARECA Secretariat, must determine the policy priorities before the evaluation criteria and guidelines for the scheme can be finalized. Furthermore, priorities in both the EU and ASARECA are evolving and have changed since the Regional Support Programme (RSP) was designed, and a review of the budget allocations could be desirable in advance of any mid-term review. Certainly there is a strong case for accepting a high degree of flexibility during the early stages of RSP.

It should also be noted that considerable progress has been made with the manual and guidelines for the CGS under USAID funding. At the SRO meeting in Brussels in June 2002 the ASARECA guidelines were accepted as being the model for the other SROs. As a consequence the funds allocated to prepare these guidelines under the EU project may not be required in full but some modification will be necessary especially in relation to the evaluation criteria and marks (to give greater prominence to the need to have uptake pathways in place).

A.2. The Third NPP Consultation Meeting, Nairobi, May 2002

This meeting follows previous meetings held in Madagascar and Dar es Salaam in 2000 and 2001 respectively. The general objectives were stated to be:

- Harmonize and integrate the respective components of ASARECA into a common purpose and shared vision.
- Build necessary partnerships among key stakeholders to ensure delivery of ASARECA's strategic objectives.

In the broader context there was also a desire to harmonize activities with the CGIAR Centres operating in Africa.

The outcome of the meeting will be presented in the formal report but there was a consensus among the participants that the meeting was very successful especially in developing a new Conceptual Framework for ASARECA, initiating a new understanding about collaboration with the CG Centres and conducting an examination of the gaps and constraints that hinder further progress. NPP Coordinators have presented reports to all of the ASARECA Annual Meetings but on this occasion they were presented with a standard format to follow. They all responded but, despite being provided with guidelines, the replies varied enormously in terms of adherence to the proposed contents and the quality of the response. This large variation significantly reduced the value of the exercise. Nevertheless, in support of the objectives of the consultancy, an analysis of the reports was conducted to collect data and see if there were lessons to be learned from this first collective report. The following table presents the analysis.

NETWORK	SUBJECT	ESTABLISHED	STRAT. PLAN	No. COUNTRIES	LINKAGES	CG CENTRE
Commodity						
PRAPACE	Potato and sweet potato	1982	No	10	9	CIP
BARNESA	Bananas	1994?	No	10 (two external)	8	INIBAP (IITA)
EARRNET	Root crops	1986	No	6	5	IITA
AARNET	Livestock	1997 (New)	Yes	10	?	ILRI
CORNET	Coffee	2002 (New)	Yes	8	5	CABI
ECAMAW	Maize and wheat	1996	Yes	9	5	CIMMYT
ECSARN	Rice	2002 (New)	No	9 (two external)	7	Sekoine U
ECARSAM	Sorghum and Millett	2002 (New)	No	8	7	ICRISAT
ECABREN	Beans	1996	Yes	9	7	CIAT
NRM Group						
SWN net	Soil fertility	2001 (New)	Yes	10	4	ICRISAT
AHI	Highlands Initiative	1995	Yes	5	7	ICRAF

TOFNET	Agroforestry	1988(Afrena) 2001 (New)	No	6	8	ICRAF
EAPGREN	Genetic Resources	1997 (New)	No	7	5	IPGRI
Strategic						
RAIN (was Afica Link)	Information	1998 (New)	Yes	8	6	CTA &ICRAF
FOODNET	Marketing and Post-harvest	1998?	?	?	Many	IITA
BIOTECH	Biotechnology	1999 (New)	No	10	0	?
ECAPAPA	Policy	1997	No	10	11	
TTP	Technology Transfer	1995	No	10	3	CIP
Str. NARS		1998	No	10	2	ISNAR

Because of the variation in the reports the analysis was not especially useful but points of interest include the following:

- Of 19 Networks only 7 have developed a formal strategy. However, some are new and several others have relevant planning documents) but it is surprising that several of the well established Networks do not have a strategy document.
- According to the analysis most Networks have linkages to several others but the reports indicate that many of the linkages are weak and poorly developed (planned linkages by the new Networks were included). FOODNET, ECAPAPA and PRAPACE appear to have the strongest linkages.
- All Networks involve at least five countries.
- The gaps and weaknesses in most cases refer to marketing, poor horizontal linkages, the need for closer collaboration and the need to move towards an R4D approach.
- Several references are made to the need for more systems-based approaches;
- Weak links to the private sector and the need to pay greater attention to marketing are recognized as constraints to the uptake of research outputs;
- Several references are made to the need to improve linkages between the NPPs;
- Reference to the availability of technologies ready for uptake (or TT) is a recognition of the weakness of existing mechanisms;
- Several references are made to the breakdown of traditional mechanisms for TT (eg. extension services).

The separation into commodity group (9), NRM group (4) and Strategic Institutional Support (6) is artificial and was chosen specifically to ease the business of the meeting in Nairobi but it clearly illustrates the diversity and complexity of the NPPs. There has been some debate within ASARECA about reducing the number of NPPs on the basis of subject, geography etc. but no conclusions have been reached. This issue is considered later in the report but possibilities include combining some of the commodity groups into clusters (eg cereals and other crops), combining RAIN with TTP in the future and the NARS Strengthening project to be part of the Secretariat. CORNET is the odd man out in the commodity group while AHI and FOODNET also stand out as being different – but fulfilling a very important function (for a consideration of the rationalization of the Networks see section C.3.4.)

As indicated above, considerable progress was made at the meeting in terms of the future role of ASARECA, the Consolidated Conceptual Framework and the agreement for greater cooperation with the CG system are good examples. In relation to the TOR for this study the most relevant activity was the deliberations of the Working Groups on Commodities, Natural Resources Management, Gaps and Constraints and especially Strategic Institutional Support. Many of the issues about the future mandate, structure and governance were discussed during these sessions. Because of the value of the conclusions and recommendations of this meeting in relation to the objectives of the study an examination of the results of ASARECA meetings held over the previous two years was conducted. The resulting table, which is presented in Appendix 3, indicates the progress/action taken following earlier meetings in Madagascar, Mombasa, Dar es Salaam and the recent meeting in Nairobi.

A cursory examination of the table indicates that progress following these meetings has been slow and patchy. Most of the “gaps” identified by the working groups in Nairobi had been raised at earlier meetings but little action had followed. In effect these meetings resulted in a number of important operational and policy decisions but implementation has been slow, ineffective or ignored. Some real progress has been made on selective items but for most of the recommendations that were intended to improve **efficiency and effectiveness** little has changed although it should be recognised that many of the proposed changes are part of a process rather than specific actions. Specific items include reporting format, improving horizontal linkages between NPPs, cross-cutting issues, impact assessment, performance monitoring, priority setting and impact orientation.

This analysis clearly illustrates the difficulties of trying to set up planning, monitoring and evaluation and general management arrangements for a loosely confederated set of work programmes, each with its own work plan and governance structure. This is one of the major challenges facing ASARECA, and especially MEAPU within the Secretariat with their limited resources. Potential mechanisms for improving efficiency and effectiveness are considered in PART C.

A.3. Lessons from Literature, Visits etc.

It is worth recording that all of the donors, organizations and individuals contacted expressed support for the review and the future well-being of ASARECA. There was much common ground in the views expressed and a brief review of each visit/meeting during Stages 1 and 2 is presented in Appendix 4. In summary, the important conclusions for ASARECA are as follows:

- **Donor funding in the future is likely to be linked directly to effective uptake pathways and the ability to demonstrate impact (this has been the case for some time but the pressure is growing and frustration at the perceived lack of progress is leading to the diversion of funding to other sectors such as health or education);**
- **A shift in funding allocation from knowledge generation to uptake and impact (ie TT) is likely (and necessary if impact is to be achieved);**
- **Research effort should be organised around the problems faced by farmers and not restricted to artificial divisions between commodities;**
- **Networks should adopt a more holistic, systems approach that combines research with uptake mechanisms, market requirements and the partnerships needed to ensure successful application;**
- **The private sector should feature much more in future research programmes;**
- **Future research should be more multidisciplinary, involve far more partnerships and uptake pathways must be clearly identified from the outset;**
- **Integration and collaboration between research programmes and partners is more likely to achieve demonstrable impact.**

As evidenced by the volume of literature there has been considerable research on the subjects of technology transfer, uptake and impact in the last few years. Several new approaches have been proposed that consider knowledge generation and innovation concepts derived from other sectors (eg. Manufacturing) and apply them to agricultural research. Interestingly, a farming systems approach which was the “new thinking” of the early to mid 90’s is now seen to be too limiting in terms of successful uptake or technology transfer. The literature refers to the innovation systems approach, production to consumption, partnerships for innovation, value chains, livelihoods approach, impact orientation, market chains etc. This “new thinking” about agricultural research is healthy and stems from the desire to be more **effective** in terms of impact. Little is to be served here by describing each concept and approach because there is much common ground that may be summarised as - **the need for a more holistic approach which involves all of the partners needed to ensure effective uptake**. Furthermore there is a lot in common with the changes proposed and the views expressed by donor organizations as reported above. This all-embracing and over- simplistic conclusion calls for some explanation.

The conclusions of recent studies are that scientific researchers have been reluctant to step outside of their traditional role and become involved in activities that foster the application of their research efforts. Examples are the market chain approach (commonly applied to high value crops) where innovations in production technology need to be matched with support and knowledge about market access, quality control from the farm to market, packaging etc. Similarly the uptake of technologies requires working relationships with non-scientific groups and institutions such as NGOs, CBOs, farmers groups and the private sector. The scientific research community must adapt to these new roles and requirements if the outputs of their research are to have real and lasting value.

Comparisons with other parts of the world can also be informative. The first point to make is that the rationalization of agricultural research organisations is a global phenomenon; it is not restricted to Africa. Restructuring of agricultural research institutions has been underway in Latin America, Asia and Europe for the past ten or twenty years. In Latin America, where the process began (early 1980s), government financial crises forced NARS to open up to private, University and NGO alliances, generate income from the sale of services and reward productive scientists. Support for the transition process was provided by development banks and, although the process has been described as “a blessing in disguise” it was a slow and painful process. In Asia, Malaysia is a good example of the dynamic development of an R&D programme that developed without donor assistance and led to a major increase in economic growth. In India, where considerable rationalization has taken place, state research systems now provide the main benefits. However, in both Latin America and Asia the agricultural science base was much stronger than that in Africa and it has been argued that the organisation of agricultural research systems in Africa has been a process of matching limited resources to the scale of the problems being faced. There are also examples from Latin America, where the founders of organisations analogous to ASARECA have accepted a reduction in authority by including a broader range of actors in order to improve the relevance of the organisation.

Much of the “new thinking “ in agricultural research is emerging from India (see the Introduction and Appendix 1) from a combination of ICRISAT, DFID and the Indian

Council for Agricultural Research (ICAR); research activities and the recent papers by Hall *et al* are especially relevant. The ICAR was reorganised in the late 1960s with a strategy focusing on food security but it was only after the liberalization process began in 1991 that it was recognised that large public sector organizations such as ICAR must change. The shift towards privatisation, decentralization and competitiveness were the driving force to redefine roles, reduce bureaucracy, improve efficiency, M&E and commercialisation. This is now developing as a more holistic approach that includes a broader range of actors including the private sector.

The “new thinking” also encapsulates the references in the literature to “knowledge triangles” (research, extension and education) and agricultural knowledge and information systems (AKIS). The latter concept views agricultural research and extension as necessary but, by themselves, insufficient elements in complex innovation-orientated institutional arrangements. A quote from a recent paper by Hall *et al* will serve to support the argument:

In contrast to the conventional linear notion of the relationship between research and economic production it is observed that innovation takes place chiefly as a result of iterative relationships between those engaged in knowledge creation (research) and those engaged in knowledge application (economic production). In many countries not only have these tasks been viewed in the past as completely separate, they have also been viewed as predominantly the purview of public and private sector agencies respectively. In contrast, successful innovation systems are judged to be those where productive relationships have developed between research and non-research organisations and between public and private organisations. These relationships are important as they facilitate the knowledge flows that underpin creativity.

This reference to the literature and changes in other parts of the world is important to illustrate that the pressures on agricultural research in Africa are part of a global trend that is now very apparent in Africa. The lessons from elsewhere would suggest that change is inevitable and should be seen as an opportunity rather than a threat. The increasing pressure on agricultural researchers to increase their contribution to poverty reduction and economic growth are a concern for both governments and donors. Visits and meetings held as part of the study were mainly with donor representatives but there is growing evidence of concerns by African governments as evidence by developments such as NEPAD and the World Summit on Sustainable Development (Johannesburg, August 2002). For example, the African Heads of State involved with NEPAD have selected agriculture as one of their six priorities and the focus of activities will be on six issues:

- The problem faced by rural populations in getting access to markets and the climate required for investment in agriculture relative to people living in urban areas;
- Inadequate and inefficient agricultural systems;
- Low purchasing power of rural people;
- Climate uncertainty and lack of access to irrigation;
- Weak institutional support (eg. research and extension services);
- Inadequate attention by donors and multilateral institutions to the agricultural sector

A summary of the “messages” stemming from this new thinking and the possible consequences for ASARECA are presented below:

- Without the ability to demonstrate uptake and impact, research organizations cannot count on future funding.
- An enormous amount of effort has been directed in recent years towards understanding the reasons behind the limited success in achieving impact through the application of research generated technologies (substantial literature);
- The processes and methodologies that foster and promote uptake are better understood and current research is throwing up a variety of approaches to address the problem (TT, Production to Consumption, Innovative Systems, Impact Pathways etc);
- All of these new approaches have a good deal in common, namely, that previous poor performance is due to a linear approach (ie. primarily relying on research/ extension linkages) and the future must be more systems based and holistic (involving more disciplines, more specialist partners and covering all of the steps needed to determine research needs, generate technologies and achieve uptake through the involvement of whatever skills and expertise are needed to achieve success).
- In effect the scientific community must change and accept that they are only one piece of the puzzle or one cog on the wheel. In future scientists must become less demanding of the resources available and accept the crucial role of other actors. This is not to imply that their role is less important but they must recognise that successful application of their work demands the inclusion of other skills and expertise.

These changes will have serious consequences because the funding for one part of the puzzle, namely technology generation, will be reduced to fund the roles of the other actors. This shift is already evident in DFID where, in the second half of the research strategy, over 60% of the funds allocated for research in developing countries are being spent on promotion, dissemination and uptake mechanisms rather than the generation of new knowledge. However, there will be a continuing need for balance between the generation of knowledge and its application.

A.4. Implications for ASARECA

Stages 1 and 2 of the study were concerned with an examination of the literature and obtaining the current views of donors, organisations and individuals on the “new thinking” about agricultural research and what the future might hold for research organisations such as ASARECA. The “messages” for ASARECA were summarised above; additional issues arising from the visits and discussions with donors, research managers, NPP Coordinators and other relevant bodies, which have a direct bearing upon the objectives of the consultancy, are summarised below:

- **The current structure and governance is not representative of all stakeholders (NARS, Civil society, private sector, farmers etc). There is need for greater external advice at both the CD and NPP levels.**
- **The current structure and constitution could be said to be limiting vision and hindering the pursuit of regional as opposed to national objectives.**
- **Access to specialist expertise on dissemination, promotion, and especially marketing is needed; there may be a need to access new skills and expertise and have greater linkages to the private sector.**
- **The CD should determine policy for execution by the Secretariat (more delegated authority).**
- **The development of new partners by ASARECA and most NPPs.**
- **Action to be taken to make the research agenda more demand-led or client orientated (as per 1997 strategy but poorly implemented to date)**
- **Need to perform and monitor performance (use of the CGS to implement changes such as uptake pathways in place). The policy is in place but implementation has been slow.**
- **Technology transfer (uptake of research outputs) to be given equal priority to technology generation (also need to investigate previous supply driven technology and extent to which this can contribute to impact).**
- **The rationalization of the NPPs to achieve gains in efficiency (eg. less meetings) and effectiveness (a more holistic approach).**
- **The introduction of some form of systems approach as opposed to a commodity based approach. The organization of research on a commodity basis is logical from a research perspective but this approach may hinder uptake and application of the research outputs.**

In relation to the final bullet it can be argued that uptake is perfectly feasible within a commodity-based approach provided that the commodity to consumption chain as a whole features in the research ie.the uptake pathway is in place. Nevertheless, a systems based approach is more compatible with the actual situation at the farmer level. In practice both approaches are feasible given the necessary resources, good participation and time to become effective.

None of these issues are new to ASARECA. Most were discussed in the working groups at the recent NPP meeting in Nairobi. For example, the group dealing with strategic interventions, in the summary of the way forward, referred to the following:

- The need to redefine the role of the Secretariat
- The need to revise the 1997 Strategic Plan;
- Review and rationalize the roles and activities of the NPPs;
- Review the governance of the NPPs and the composition of the steering committees;
- The need for greater focus on priority issues and;
- The need to broaden the skills base in order to be more effective.

The interim report of June 2002 attempted to demonstrate that ASARECA has to introduce change in order to respond to the new climate surrounding agricultural research in the context of economic growth and poverty reduction. Many of the changes are already under discussion as illustrated by the meeting in Nairobi. However, it is one thing to discuss change and quite another to agree which changes are to be introduced and how to introduce them. These issues are considered in PART C of the report.

In terms of the technology transfer element of the TOR it will be important to draw a distinction between the previous supply driven approach and the extent of the technologies remaining “on the shelf” that are deserving of further effort on uptake, and the introduction of a new approach across the entire organization. The future strategy for uptake and the use of donor funding is considered in PART B of the report.

PART B TECHNOLOGY TRANSFER

PART B Technology Transfer

B. 1. Background

The historical context of funding for TT is important in relation to the objectives of the study. Both Phases of TTP were based upon the premise that agricultural researchers have developed many technologies with potential impact, but that their transfer to farmers, processors and other users has been hampered because research organizations have not developed effective linkages with extension, NGOs and private enterprises. The goal was to encourage the building of partnerships between research organizations and NGOs, the private sector etc. to get proven technologies "off the shelf" and into the hands of a wide range of farmers, processors etc. The strategy employed was to create the opportunity for institutions to apply for competitive grants that would provide an incentive for researchers to work together with other partners to effect the transfer of promising technologies.

The USAID funded TTP Phase 1 started in 1995 and ended in September 1997; funding amounted to US\$300,000. Following a favourable review the project was extended to a second phase for 3 years with a US \$1.5 million grant from USAID. This project started in 1998 and was scheduled for completion in September 2001 but a one year, no-cost extension was granted so that the project ended on 30th September 2002 (with a final meeting planned for 9 to 11 September).

During the year 2001 there were several developments including the approval of the EU funded RSP that includes € 420,000 for TTP (then scheduled to commence in October 2001). A draft proposal for a Phase 3 project was prepared to include EU and USAID/REDSO funding over 5 years up to 2006 and the consultancy review of Phases 1 and 2 (the Muturi report) was submitted in November. An advisory group of regional stakeholders was convened to consider the way forward on TT and they recommended to the CD that a consultant be commissioned to undertake a comprehensive study on the subject. TOR were prepared which led to the study covered by this report.

During the design of the EU funded RSP it was assumed that the funds allocated to TTP would supplement and extend the USAID/REDSO funded Phase 2. For this reason no funds were allocated for the Co-ordination Unit for years 1 and 2. Because of the substantial delays in implementing the RSP the proposed phasing is now redundant.

This background information is important in the sense that the work plan for the EU grant has to be redesigned and it was always the intention to combine two sources of funding for the future work of ASARECA on TT. To this redesign must now be added the "new thinking" identified under the study and the recommendations of the evaluation report by Muturi *et al* both of which have been summarised in PART A of the report. A combination of the lessons learned from the two exercises provides a number of factors that have to be taken into account in the future design of a TT project (or better described as uptake of research outputs):

- In the future all projects by research organizations seeking donor funds must be designed to demonstrate uptake and impact;
- Considerable effort has been directed in recent years towards understanding the reasons behind the limited success in achieving impact through the application of research generated technologies. In future a greater proportion of the available resources should be directed towards uptake and impact rather than the generation of new knowledge;
- The processes and methodologies that foster and promote uptake are better understood and current research is throwing up a variety of approaches to address the problem (TT, Production to Consumption, Innovative Systems, Impact Pathways etc) All of these new terms have a good deal in common namely, that previous poor performance is due to a linear approach (research/extension) and the future must be more systems based and holistic (involving more disciplines, more specialist partners and covering all of the skills and expertise needed to achieve successful uptake);
- In effect the scientific community must change and accept that they are only one piece of the puzzle or one cog on the wheel. In future scientists must become less demanding of the resources available and argue in favour of their needs. They must also accept the crucial role of other actors if the application of research is to be more substantial than in the past;
- In order to achieve a more holistic approach it will be necessary to form partnerships to obtain the skills and expertise needed to ensure successful uptake and impact.

The review of Phases 1 and 2 of TTP was criticised for drawing too few conclusions about the processes and methodologies associated with successful technology transfer. As argued in PART A, Phases 1 and 2 were not really designed to identify successful uptake pathways or learn lessons about what are the processes and methodologies most likely to achieve success. It can therefore be argued that any new project dealing with TT or uptake mechanisms should be designed to explore potentially successful processes and methodologies. Certainly the logical framework for the EU RSP would support this argument (Result area – establish the determinants of successful technology transfer from an analysis of a wide range of ASARECA case studies and disseminate findings – with verifiable indicators being set accordingly). However, from the review of recent literature carried out under the study and the discussion with a range of research managers, as summarised in Appendices 2 and 4, there is considerable evidence that successful uptake mechanisms are now better understood. Successful TT or uptake mechanisms will vary with the nature of the technology resulting from research but certain critical elements are known as follows:

- **Uptake mechanisms must be identified from the outset;**
- **A more holistic and systems approach is desirable;**
- **Partnerships should be established to provide a multidisciplinary approach;**
- **Scientific skills and expertise are only part of those needed for success;**
- **Marketing needs have been sadly neglected in the past;**
- **Sources of investment finance are often important (eg in production to consumption chains).**

In the opinion of the author if these elements are taken into account in the design of research projects, including those funded under the CGS, then little is to be gained by designing a new project whose purpose is solely to identify potentially successful processes and methodologies. What is required is a mechanism to foster the application of these principles and assist the Networks (through advice and funding) to incorporate them into research proposals and work plans (see the review of ASARECA-PART C).

B 2 Allocation of Resources

One of the “messages” stemming from the discussions and meetings reported above (PART A) is the shift in funding from knowledge generation to the dissemination and application of that knowledge. The example given in PART A stems from DFID where research managers are spending over 60% of the available funding on direct and indirect support to uptake with a shrinking proportion of the funds being committed to the generation of new knowledge. This policy could have serious long-term consequences but the pressure to demonstrate impact is pushing ever more firmly in this direction. What is the current position in ASARECA?

In an attempt to address this question several NPP Coordinators were approached. All confirmed the trend towards devoting more resources to application resulting from donor pressure but there is considerable variation. For example, FOODNET argued that 100% of the available funding is directed towards the application of research outputs rather than the generation of technology. In ECABREN the assessment was that 15 to 25 % of funding is directed towards TT but the comment was made that this is much higher than was the case a year or two earlier. In the case of PRAPACE one of the sessions during a Steering Committee Meeting was used to address the question. Each country representative was asked to make an estimate for potato and sweet potato separating ASARECA funding from overall funding. The results are presented at Appendix 5.

Overall some 30 to 40% of funds were estimated as being spent on activities associated with TT or the uptake of research results. There was some debate about whether on-farm trials constituted research or application and it can be argued that the figures represent an over-estimate but there was a consensus that the proportion has increased in recent years. The marked variation between countries and donor versus national funding arises from research managers making choices about the use of available funding.

The list of activities being used to promote research uptake included everything from field days to radio programmes to links with the private sector. The discussion on future needs identified the importance of marketing, more funding to promote transfer and the growing importance of partnerships.

B 3 Considerations for the Future

The review of TTP Phases 1 and 2 (the Muturi report) suggested that the objectives of any new project should be:

- To develop, document and disseminate innovative methodologies for the transfer of specific technologies in the region;
- To facilitate establishment of effective partnership arrangements for transfer and adoption of technologies;
- To document lessons learned for scaling-up of proven transfer processes;
- To develop training and dissemination materials and;
- To facilitate joint participation of several NPPs and foster close linkages between the sub-project grantees and relevant networks.

The report also considered a number of options for the future institutional arrangements for executing TTP activities within ASARECA. These included:

- Continue with CIP as the executing agency;
- Management by a consortium of IARCs;
- Establish a core position within the Secretariat;
- Distribute the available resources across the NPPs;
- Attach the project to a NARI.

These suggestions have been considered in the context of the current study paying additional attention to the literature survey, discussion with donors etc and what might be described as the “new thinking” in relation to the uptake of research outputs. While many of the suggestions remain valid the inescapable conclusion of the present study is that changes in approach are needed if ASARECA is to achieve impact and the successful uptake of research outputs that both donors and national governments desire. Much has been learned about the processes and methodologies which foster successful uptake and the emphasis for ASARECA should be to apply these lessons rather than invest heavily in an examination of potentially successful mechanisms, especially since some of the NPPs have begun to adopt more market orientated partnerships in order to promote better uptake. The issues which call for particular attention are the need for an holistic approach (defined as the whole being greater than the sum of the parts), attention to marketing issues and the careful selection of partners who can provide the skills and expertise required to ensure successful application of research generated technologies.

For the remaining sections of this report **reference will be made to the uptake of research outputs rather than technology transfer** since this is felt to be more compatible with current thinking and is more descriptive of the aims of the exercise.

The following two sections of the report will deal with a strategy for the promotion of research uptake and external support to promote the uptake of research. In both cases the arguments presented will be closely linked to the contents of PART C of the report that deals with the future mandate, structure and organization of ASARECA. The interaction between the conclusions reached in PARTS B and C of the report will be presented in PART D.

B 4 Strategy for the Promotion of Research Uptake

The development of a strategy includes the following steps:

- an assessment of the current position,
- a projection of the desired position in the future and;
- an indication of how to progress to the future position over a stated period of time (say 5 years).

The timing of this exercise is considered to be opportune partly because of the new style of management being introduced by the Executive Secretary and partly due to the commencement of the EU funded RSP. There is no doubt that ASARECA has been very successful since it was set up in 1994; because of the Constitution based upon an Association of individuals (the 10 CDs) ASARECA has been able to avoid many of the political pitfalls that have affected other similar bodies. ASARECA has been in a position to make decisions and, as a consequence considerable progress has been achieved. ASARECA is now well established, is respected in the scientific community and, most importantly, has obtained the support of major donors as evidenced by the substantial funding now available for conducting agricultural research in the region. The major donors are USAID and the EU but there are many other contributors. The RSP is especially relevant because it is a five-year programme with substantial funding (€ 29 million) and there are associated performance indicators which will be used to assess success or failure.

ASARECA is at an important crossroads. Having become established, developed a reputation and secured considerable funding ASARECA will be judged in the future by the extent to which it delivers improvements in economic growth, poverty reduction etc. To quote the overall objective of the RSP:

To contribute to regional economic growth and improved prosperity by developing and disseminating agricultural and agri-business technologies which respond to prevailing and future economic opportunities, as well as maintaining the long term sustainability of the agricultural resources base.

The present study has confirmed that the pressure from donors to deliver impact, which has been obvious for some time, is increasing to the extent that future funding will be linked directly to the ability to demonstrate impact. The ability to demonstrate impact is complicated by many factors not least of which is the availability of data on the current position against which to judge progress. In strategic terms this baseline data and the assessment of impact, is important to ASARECA and MEAPU is the group responsible. However, the main focus of the present exercise is the uptake of technologies generated through the research carried out by the NPPs.

In summary, the present position of ASARECA can be characterised as a body that is well established, has a strong capability to catalyse and coordinate agricultural research in the region and has considerable funds at its disposal. The challenge over the next five years is to ensure that these resources are used **efficiently and**

effectively in order to achieve the level of impact now demanded by the funding agencies (including both donors and national governments). The aim of the strategy is to ensure that in five years time ASARECA is in a strong position to illustrate the impact of its research portfolio and thereby secure funding for future activities at both regional and national levels. The CD and the Secretariat carry a considerable responsibility in this respect.

Before considering the transition from the current position to the future objectives it is necessary to examine the success of the uptake mechanisms to date including the progress made during Phases 1 and 2 of TTP. Research carried out under the auspices of ASARECA has undoubtedly had an impact upon the agricultural sector in the region but it is very difficult to measure. There are many examples of on-farm trials and pilot projects that show that specific technologies can make a major difference. The problem has been that they are not being adopted by enough farmers or processors to meet development needs and goals. **What is required is for ASARECA to broaden the scope within which research is planned and evaluated with technology uptake as a more prominent feature.**

The two phases of TTP have also been successful in specific instances as indicated in PART A. However, there is also no doubt that many of the technologies developed in recent years have not been applied and this is the basis for the argument that greater attention must be paid to uptake mechanisms. An illustration of this point is the list of approximately 90 technologies available for “transfer” or uptake that was prepared at the meeting in Nairobi (May, 2002) although many of these referred to methodologies and policies rather than technologies.

Any strategy designed to achieve greater uptake must therefore take into account not only the future mechanisms that might be applied to improve uptake but also those technologies “on the shelf” that resulted from earlier research efforts. Put another way, the outputs of previous research that may have been technology or supply driven should not be ignored even though the future research programme is to be more demand or client driven.

Before moving on to the changes that might foster and promote better uptake it is necessary to consider the overall Strategy for ASARECA, namely the 1997 Strategic Plan that was developed by a working group commissioned by the CD. The Plan was a major piece of work considered by many at the time to be far sighted and making a major contribution to the establishment and acceptance of ASARECA. The stated strategic goals, objectives and mission were as follows:

Strategic Goal

The primary goal is to enable agricultural research in the ECA sub-region to play a leading role in promoting market/income generation orientated agriculture.

The secondary goal is for ASARECA to serve as the main forum where strategies and ideas for agricultural research and their relationship to agricultural developments in the sub-region are conceived and exchanged.

Strategic Objective

Promote regional economic growth by developing, introducing and disseminating agricultural technologies which both create markets and respond to prevailing and future economic opportunities for new technologies as well as maintaining the long-term sustainability of the agricultural resource base.

Mission

To strengthen and increase the efficiency of agricultural research in the ECA sub-region and to facilitate the achievement of economic growth, food security and export competitiveness through productive and sustainable agriculture

The future strategy was intended to cover a ten-year period up to 2007 in three phases. The first phase would be devoted to reviewing and revising existing regional research programmes, the second would concentrate on generating market driven technologies and the final phase will represent a shift in emphasis to dissemination and the refinement of the technologies produced. Under this proposal by 2002 the emphasis should be shifting towards dissemination that is very much in line with the present study and the need to place greater emphasis on uptake. However, since the Strategic Plan was developed in 1997 much has changed within ASARECA, in the region and in the donor community. For example, it is debatable whether the market orientation that was given great prominence in the Plan has in fact been achieved over the past five years. Some NPPs have made progress in this direction but comments from several NPP Coordinators suggested that this goal has been diluted and the regional remit of ASARECA has been neglected with the pressure being directed downwards in support of the NARIs. More recently, through several meetings, emphasis has been placed on impact orientation rather than market orientation. In short, there has been considerable progress since 1997 but not necessarily in line with the priorities set by the Plan possibly because priorities have changed in the meantime.

At the CD meeting in Mombasa in February 2001 there was a recommendation that priority setting should be carried out on a regular and systematic basis and strategic planning for the overall ASARECA portfolio should be conducted every five years. This argues for a review or revision of the 1997 Strategic Plan at the present time but during the recent NPP meeting in Nairobi a Consolidated Conceptual Framework for ASARECA was agreed. This framework, which is presented in Appendix 6, is seen as

a major step forward in terms of strategic planning. The three pillars of the framework are:

- Demand driven technologies utilized;
- Enabling Policy Environment for Agricultural Transformation in ECA established;
- Performance driven institutional arrangements in place.

The first pillar refers to technology generation and dissemination as well as an understanding of the market place; the aims are directly related to the wish to improve uptake and impact (the third pillar being directly relevant to the objectives of PART C of this report). However, while this framework is an important step it does not consider what actions are needed to achieve these objectives. Hopefully this document will make a significant contribution to a strategy for improved uptake but it is not an overall strategy for ASARECA. Bearing in mind the new Conceptual Framework it is a **recommendation** of this report that ASARECA should consider a review or revision of the 1997 Strategic Plan to take account of the changed circumstances since 1997. As inferred by the CD meeting in Mombasa there is a need to reconsider the priority activities of ASARECA.

B.4.1 Stakeholders Symposium, September 2002.

The Symposium was held in Nairobi and the first session included a presentation of the experiences of TTP and the conclusions of the study that is the subject of this report. This was followed by presentations on individual projects funded by TTP during the two phases. The proceedings were organised by a facilitator and the conclusions reached by various working groups were presented in Plenary session with a final session that considered the way forward for technology transfer or research uptake within ASARECA.

The proceedings will be published but there were a number of issues directly relevant to this report which are summarised here. Many examples were presented of successful technology transfer and there were clear indications of the increasing use of multidisciplinary approaches and the value of partners to provide the skills and expertise not available within the scientific community. It was also apparent that the neglected areas to date have been marketing and understanding of the market place along with a very limited involvement of the private sector. From the presentations it was also clear that **different technologies require different transfer approaches and there are multiple uptake pathways depending upon the subject and nature of the research.**

The issues arising from the meeting of relevance to the future impact of ASARECA and this report can be summarised as follows:

- Greater attention should be paid to marketing and market issues;
- Attempts should be made to increase the involvement of the private sector;
- Horizontal linkages and coordination should be strengthened;
- It is more productive to work with farming communities than with individual farmers;
- There is a need for training in transfer/uptake skills;

- Greater effort is required at the project planning stage in order to foster greater uptake and impact;
- Mechanisms are needed to fund those projects that are showing promise at the time the initial research funding ends (ie sustainable or continuity funding).

The importance of these conclusions and their relevance to the review of ASARECA are considered below. **In effect more effort is needed on the uptake of research in order to achieve impact and this must be the responsibility of ASARECA as a whole including the Secretariat and all of the operational Networks rather than just a project such as TTP.**

Having examined the general strategic background and determined the objectives of a strategy to improve uptake it is appropriate to examine the tools at the disposal of ASARECA that can contribute to achieving greater impact within five years.

B 4.2 Management by the Secretariat and NPP Coordinators

As indicated earlier the ASARECA portfolio has shifted towards market orientation and the increased allocation of resources for application and uptake activities but the process has been slow and very variable across NPPs. The proposed strategy for improved uptake relies heavily upon the NPP Coordinators and the members of the Secretariat (especially MEAPU) to ensure that the new policy emerging from the Conceptual Framework and the work on impact orientation is applied across all NPPs.

However, the ability to introduce and manage the changes needed is directly related to the review of ASARECA that is the subject of PART C of this report. For example, the following changes considered in PART C, which are directly related to improved efficiency and effectiveness, have a direct bearing upon the drive to improve uptake and impact:

- Greater delegated authority for the Executive Secretary and the Secretariat;
- The allocation of additional resources;
- NPP Coordinators being directly accountable to the Secretariat;
- Extended participation by stakeholders at both CD level and NPP level (including the private sector and regional trade interests);
- Improved horizontal linkages between Networks;
- The rationalization of Networks to improve linkages and coordination (including linkages to the CG system);
- The adoption of performance driven approaches;
- The constituent NARIs of ASARECA also need to place greater emphasis on uptake.

Thus the best tool available to ASARECA to improve uptake and impact is the application of better management practices by the Secretariat, especially MEAPU. The conclusions of this part of the report should therefore be considered in the light of the proposed improvements in efficiency and effectiveness that are presented in the following review of the organisation (PART C).

B 4.3 Competitive Grants Scheme (CGS)

During the preparation of the RSP the inclusion of substantial funding to be allocated on a competitive basis was seen as a mechanism to promote change. Now that the RSP is operational this mechanism can be implemented as a very useful tool to stimulate change including the promotion of uptake and impact. It is strongly **recommended** that the guidance notes and evaluation criteria to be applied to projects submitted for funding be tailored towards achieving ASARECA policy objectives especially the move towards greater uptake and impact.

In practice the RSP includes funding for a consultancy to design the operational procedures and this exercise is scheduled to take place during the first year of the Programme. This exercise will be heavily influenced by the considerable work already carried out under USAID funding (ie. guidelines and a manual already exist) and the EU consultancy should concentrate on tailoring the documents already produced. The latter include a proposed marking system for the assessment of concept notes which seek funding; at present these marks do not give sufficient weight to uptake mechanisms.

The evaluation criteria should be substantially amended to give greater emphasis to uptake mechanisms and appropriate partnerships being in place from the outset. This action will send a powerful signal to all applicants that uptake and impact are critical performance indicators that are important to the future well-being of research in the region.

B 4.4 Project Support

A further tool available to promote uptake of research outputs is the use of donor funding including the € 420,000 allocated for TTP in RSP and other potential donors including USAID/REDSO. The TOR for this study include making recommendations on the most effective means of using the EU funds and to consider the necessity, feasibility and description of a five year USAID funded project in support of uptake (or the TT function). This requirement is considered in the following section.

B 5 External Support to Promote Uptake of Research

B 5.1 Background

A number of options including those presented in the Muturi report (see section B.3 above) were explored with the objective of promoting improved uptake throughout ASARECA including the prospects for a third phase of TTP. A number of guiding principles were applied as an aid to determining the support that might be most effective; these were:

- Project support has to be considered in the context of the organisational changes proposed as a result of the study (see PART C);

- The “new thinking” referred to in PART A has to be incorporated and it should not be necessary to design a new project solely to investigate successful processes and methodologies;
- While the main objective is to introduce a new approach to uptake and impact technologies developed to date should not be ignored (so called “on the shelf”);
- The need to foster partnerships as a means of securing the skills and expertise needed to support successful uptake should feature strongly;
- Technical expertise and funding should be directly accessible to NPPs with a minimum of bureaucracy;
- The conditions applied to the TTP funding allocated within RSP;
- The need to allocate more resources to uptake pathways as opposed to the generation of new technologies.

B 5.2 Conceptual Approach

Bearing in mind the views expressed by NPP Coordinators, members of the Secretariat and the conclusions of the TTP Stakeholders Symposium it is a **recommendation** of the review that ASARECA should pay greater attention to the uptake of research outputs as a means of improving impact. The most effective way to promote uptake mechanisms is debatable but all Networks should devote greater effort to this activity and support should be provided by the Secretariat. In effect the greater effort on planning to achieve impact and the monitoring of performance to achieve impact are functions of MEAPU within the Secretariat. However, all Networks must pay greater attention to uptake mechanisms and an expanded role for the Secretariat, apart from increased planning, could be a facilitating and coordinating role designed to foster uptake and impact. It is difficult to see how this added role could be carried out with the existing resources and, in this sense the uptake function should be considered in the light of the overall review of ASARECA and the Secretariat.

Promotion of the uptake function should be made a responsibility of the Secretariat in view of the growing importance to demonstrate impact but the means of achieving this objective are open to question. Options include the continuation of TTP, the development of a new project specifically to promote uptake and partnerships and the provision of additional resources within the Secretariat to enable execution of this additional function. Continuation of TTP has been ruled out under the present funding arrangements but funding for this activity is included in the EU/RSP project. In order to achieve success it would be desirable to have a full-time Facilitator in the Secretariat who would drive and own the process; such an individual would require skills and expertise outside of the normal scientific expertise involved in ASARECA. In addition it would be very beneficial, within the available funding, if this Facilitator could assist NPPs for activities directly associated with uptake. The latter could include any of the constraints identified in the gap analysis carried out at the Nairobi meeting including the identification of suitable partners, marketing studies, dissemination activities, use of the media (eg. the use of local radio), the acquisition of new skills and expertise, links to the private sector, promotion events, the identification of sources of finance etc. In fact any activity that can be demonstrated to foster greater uptake would be considered for support with the Facilitator having the

responsibility for deciding which proposals to fund (the Facilitator would have to meet laid down performance criteria and he/she would need to have appropriate skills and experience). It is relevant to note here that the inputs needed to foster uptake go well beyond the activities taking place within FOODNET although clearly there are important linkages and lessons.

The Facilitator would be responsible to the Executive Secretary. He/she would work with the Networks and advise on uptake mechanisms, the identification of suitable partners etc. and manage any available funds for which all NPPs can apply. Success would be dependant upon the personality and experience of the Facilitator and the changes proposed in the review of ASARECA (PART C). The latter are intended to foster greater interaction and feed-back between the Secretariat and the NPP Coordinators.

Subject to agreement by ASARECA, and conformity with the EU procedures under development by the RSU (ie. the preparation of a work plan), the new facility could start in the near future based upon the TTP funding within RSP. The € 420,000 would be used to launch this new facility including the recruitment of a Facilitator and provide some operational funds. However, this level of funding would be insufficient to achieve the desired impact in terms of research uptake and additional funding should be sought. The EC/RSP funding could be considered as bridging or seed finance to initiate the facility but further donor funding will be needed to achieve significant impact. The outline of the proposed facility and the use of the EC funding is considered further in Appendix 7.

This concept is **recommended** to ASARECA as a means of improving the uptake of research outputs. The proposed title of the new activity is Promotion of Research Uptake (PRU).

This new facility will have a close affinity to RAIN that will also be based in the Secretariat. Both projects are involved in the dissemination of information and there is merit in an early discussion to consider close cooperation between the two projects. In the context of the rationalization of the Networks these two projects might be combined in the future.

B.6 Conclusions

The proposed strategy and mechanisms for promoting the uptake of research outputs as outlined in the report should provide a sound basis for the five-year work plan on technology transfer referred to in the TOR. Acceptance of the proposals by ASARECA should enable the organisation to become more effective and achieve the impact that everyone involved desires.

PART C REVIEW OF ASARECA

PART C Review of ASARECA

C. 1 Introduction

PART A of the report dealt with the lessons learned from a review of current literature and meetings with research managers, donor representatives etc. PART B of the report deals with a strategy for the uptake of research and impact (or technology transfer) and this part deals with the remainder of the TOR, namely a review of the functions, mandate and organizational structure of ASARECA (TOR at Appendix 1).

To set the scene for this review it is appropriate to summarise the sources of information upon which the review is based and the “messages” derived from earlier sections of the report (PARTS A and B) that have a direct bearing upon the functions, mandate and organization of ASARECA. The sources of information included the following:

- Interviews with members of the Secretariat, NPP Coordinators, CD members, representatives of CG Centres etc.
- Discussion and visits with donors and various research managers.
- Analysis of the record of various meetings held by ASARECA (eg. NPP meetings – see Appendix 3).
- Selected minutes of CD meetings held since 1998.
- Discussion with the consultant carrying out the PIVA on ASARECA.

Much of the earlier content of the report is very relevant to the review, especially the views of certain donors and the shifts in emphasis occurring in the conduct of agricultural research. The main points of relevance are summarised below:

- The “new thinking” about agricultural research and the growing pressure from governments and donors to demonstrate impact;
- The need to improve representation and participation by stakeholders (eg. Civil society and the private sector);
- The need for a more holistic and systems approach if uptake and impact are to be improved, this will involve new partnerships and skills beyond the scientific community;
- ASARECA is an Association of NARI Directors but is perceived externally as a regional institution;
- Because of its success and expansion (eg. the EU/RSP) the Secretariat has increasing difficulty in servicing the demands placed upon it with the current structure and resources available.

The TOR refer to the need to review the Memorandum of Agreement, the Constitution and the Bye-laws of ASARECA but following a discussion with the Executive Secretary it was agreed that the review would concentrate on the changes needed to improve the efficiency and effectiveness of ASARECA. Where these changes had implications for the Memorandum of Agreement, Constitution etc. they would be addressed and suggested changes would be presented as an Addendum to the report (Appendix 8). An examination of the minutes of CD meetings was very valuable in revealing the significant amendments that had been made to the Bye-laws

since 1998. The author was provided with a copy of the Memorandum of Agreement, Constitution and Bye-laws that supposedly included all changes made up to August 2001. However, it soon became apparent that this is not the case and changes approved by the CD have not yet been incorporated into Constitution or the Bye-laws. It is also relevant that a review of the Constitution was proposed at the tenth meeting of the CD in 1998.

One further point is worthy of emphasis. Appreciation of the need for change is not new in ASARECA. Most, if not all, of the various NPP and CD meetings have considered possible changes as a means of improving efficiency and effectiveness although these may not have been the terms used. This review has sought to assemble the issues considered by various internal meetings and added others derived from external sources and presented them collectively for consideration by the Secretariat and the CD.

C 2. Challenges facing ASARECA

The need for change should be seen as an opportunity rather than a threat and many of the issues and challenges facing ASARECA stem from the success of the association over recent years, especially the success in attracting donor funding and the consequences in terms of resources, facilities etc. The need for change and the challenges facing ASARECA, as perceived by the review, are presented below:

1. The “new thinking” about development and the contribution of agriculture. This includes the continuum from research to impact, the need for a more holistic approach (holism- the theory that certain wholes are greater than the sum of their parts), the greater role of civil society and the private sector and the frustration of donors in terms of limited impact. A related aspect is the growing importance of enterprise development and trade issues by donors as a means of achieving development goals such as economic growth and poverty reduction.
2. Physical factors such as drought and the need to protect the environment and manage the natural resources more effectively are imposing additional burdens on the research community. Climate change and the likely effects upon the region are also of growing concern.
3. The ability of science to deliver the needs of society. On the one hand new topics such as biotechnology offer considerable promise but on the other hand society is becoming more demanding and suspicious (eg. the debate over genetically modified crops).
4. Political changes in the region such as the EAC and COMESA could have beneficial effects but the decline in Government funding for research and especially extension are having serious consequences. For example, in marked contrast to the past many of the extension services in the region are dysfunctional while others are still receiving considerable government support. This situation argues in favour of the transition from a research association to an organization involved in R4D (as discussed at the recent meeting in Nairobi)

5. The views expressed by Coordinators, members of CG institutions and staff within the Secretariat were revealing. NPP Coordinators expressed frustration at the lack of any feed-back on reports, too many meetings, lack of clarity on respective roles and responsibilities and the subjugation of the regional role of ASARECA compared to national interests. Views and opinions emerging from within the Secretariat included frustration at the lack of authority, inadequate resources to complete effectively the assigned tasks, lack of clarity concerning respective roles and a serious lack of administrative capacity.
6. ASARECA according to the constitution is an Association (definition - an organized body of persons) but it is widely perceived (both internally and externally) as an institution (definition – established law, custom or practice of persons). Formally the Secretariat includes two posts (Executive Secretary and Finance Officer) but in practice more than 20 people occupy three buildings in Entebbe. In addition, ASARECA is acting as an implementing agency for substantial funds provided by a range of donors. In effect the Constitution no longer represents the actual situation and ASARECA is accepted as a legal entity by bodies such as FARA and the African Union (formerly the OAU); one of the criteria for defining an institution. Documentation concerning the legal status of ASARECA includes the MOU with the Scientific, Technical and Research Commission of the OAU (paper CD/01/17.4) and the Trust Deed that registers ASARECA as an NGO in Uganda and allows the organisation to enter into contracts and agreements in its own right (CD 00/14/5).
7. In addition to the review under report there are other exercises underway all of which have organizational implications. These are the Institutional Viability Assessment (IVA) study by USAID, the ISNAR study on NARS and the IFPRI work on Impact Assessment. The outcome of these exercises need to be coordinated in terms of the CD Retreat but more importantly the implications for ASARECA as an organization need to be considered collectively.
8. Other challenges are associated with global and regional political issues including globalization, follow-up to the World Summit in Johannesburg, the progress of NEPAD and FARA and the developing collaborative arrangements with the CG system.
9. **Above all is the need for ASARECA to deliver (ie. demonstrate impact) following the very successful period of attracting donor support**

Arising from the arguments presented above the review must address some of the guiding principles of ASARECA that form part of the Constitution and have been reconfirmed on several subsequent occasions. These principles must be re-assessed if ASARECA is to respond to the issues presented above and become more efficient and effective. The principles referred to are:

- For the association to be “lean and mean”;
- Decentralised management is effective;
- The core business is technology generation.

During the early years of ASARECA the “lean and mean” argument was very sound but problems have arisen with every step of expansion and growth. The principle cannot be challenged but a redefinition would be more appropriate in the current situation; there is a need for the organisation to be efficient but it is also important that the resources are provided to carry out the tasks assigned in an effective manner. In other words the role and responsibilities of the Secretariat should determine the level of physical and human resources required. In recent years various financial devices have been used to cover the cost of the expansion and at present the source of finance for personnel, vehicles, rent, drivers, gardeners etc is complicated to say the least. This is not to trivialise the importance of containing operational costs or the importance of longer-term financial sustainability (a major issue) but in terms of effective management the current structure, roles and relationships leave much to be desired. A **conclusion** of this review is that efficiency and effectiveness would benefit from the recognition that ASARECA is an established institution and should be structured and staffed in line with the responsibilities being placed upon it. In terms of core financing and long-term sustainability, attention should be paid to securing donor and other funding (such as the EU endowment fund) and expanding the principle of generating income from the provision of services (including services provided to the Networks). Because of the high standing of ASARECA, donor funding in the short to medium term should be assured, and a strategy for long-term sustainability should be pursued vigorously.

Decentralised management is related to the lean and mean concept but as the review has concluded the relationship between the Networks and the Secretariat is neither efficient nor effective. Although NPPs submit reports on a regular basis they all, without exception, referred to the lack of any feed-back from the Secretariat or the CD, either on policy issues or reported progress. In similar vein MEAPU has made progress with selected NPPs but only on the basis of goodwill and they believe the application of policy would be far more effective with a degree of authority over the Networks. Most telling of all is the fact that with the implementation of the EU/RSP the number of Networks will increase to 19, this will dramatically expand the calls upon the Secretariat (including ECAPAPA). In effect ASARECA has a distinct responsibility to manage the government and donor funds being used for agricultural research and this responsibility increased substantially with the implementation of EU/RSP (which in practice turns ASARECA into an implementing agency). In summary accountability of the Networks to the Secretariat is an important issue that is now being addressed (see section C.3.3).

In terms of the conclusions of the review the statement that the core business of ASARECA is technology generation is too limiting. The new thinking about development and the need for more holistic and systematic approaches argues strongly for ASARECA to address the research to impact continuum if it is to secure donor funding in the future. This is also compatible with the debate in Nairobi about R4D and the whole of the discussion surrounding TT/uptake in this report (PART B). The uptake of research outputs and achieving impact is dependant upon ASARECA devoting more attention and resources to the application of research, promotion of uptake and the development of the partnerships needed to provide the skills and expertise required to ensure successful uptake.

C 3 Possible changes to improve efficiency and effectiveness

Section A.4 of PART A summarised the implications for ASARECA of the literature review and meetings with donors and other organizations. Additional issues have been raised in the preceding section when considering the challenges faced by ASARECA. This section will examine these issues and make recommendations about changes in the methods of operation in order to improve the efficiency and effectiveness of ASARECA.

C.3.1 Stakeholder participation

At the foundation of ASARECA it was recognized that the Association of NARI Directors did not effectively represent the NARS in the ten countries and for this reason the eleventh member of the CD was introduced as a Dean of Agriculture from the region. Other institutions and the private sector are not adequately represented and this arrangement needs to be considered further and means found to involve NARS in a more meaningful way.

The 1997 Strategic Plan and all subsequent ASARECA meetings have supported the argument for greater representation at both the CD and NPP levels. This view has certainly been supported strongly by the findings of the current review and it is **recommended** that changes be considered that will extend stakeholder participation. At the NPP level considerable progress has been made and many Steering Committees already include a broad spread of interests but some could go further especially in terms of participation by trade and private sector interests (the latter is difficult but has been achieved in some cases and is almost mandatory for research managers in some countries). However, there is a need to consider client representation at the CD level as a means of stimulating uptake and impact orientation. This could also be used as a mechanism for promoting the regional role of research in relation to trade (a subject of growing importance to both governments and donors). For example, the inclusion of a representative from the East African Community (EAC) or COMESA could have considerable benefit.

The aims and objectives of COMESA are to facilitate the removal of structural and institutional weaknesses of member states so that they are able to attain collective and sustained development. In practice the important aspects are the free movement of goods and tariff and non-tariff trade barriers. One of the complications is that there is no common membership between the various regional bodies, for example ASARECA has 10 members, the EAC has 3, COMESA has 20 and IGAD has 7.

It is **recommended** that the CD changes its name to Board of Directors, which is more in tune with modern thinking and the external perceptions of ASARECA, and establish an Advisory Body to include representatives of NARS, NGOs, regional trade, the private sector and donors. This body could be loose and flexible rather than fixed and cater for co-opting specific individuals as required although it is envisaged that permanent representatives could include COMESA, the EAC, IGAD the EU and USAID. Article 29 of the Bylaws indicates that – “The ASARECA Advisory Committee shall be formed in accordance with article 18 of the Constitution of the Association. It shall be a consulting organ for medium and long-term planning”. It is

understood that this Advisory Committee was not formed but it is catered for in the Constitution.

This change would not affect the authority of the CD nor dilute the importance of the national institutes but would respond to external pressures and improve the effectiveness of ASARECA as an organization.

C.3.2 Delegation of authority

Closely related to the argument above in favour of greater stakeholder participation is the case for increasing the delegated authority of the Executive Secretary. If the CD is to act as a Board of Directors that determines policy then the Executive Secretary should be given greater responsibility for implementation of the work programme. It is **recommended** that this delegation of authority be agreed by the CD since it is a logical step and is a direct response to the comments received during the review that NPPs never receive any feed-back from the CD. In future the Executive Secretary would have a management responsibility and with the other staff, such as MEAPU, would be seen to have the authority to make management decisions that will improve efficiency and effectiveness.

From the various meetings of ASARECA (that are summarised in Appendix 3) a range of policy decisions have been agreed but implementation has been relatively poor. The announcement of the changed role of the Executive Secretary could have a significant impact upon effectiveness since there will be a mechanism for applying policy with inbuilt penalties and means of assessing performance. Such an announcement would also confirm the management role of the Secretariat, as already perceived by many, and indicate that the constitution of the association is no longer valid and should be amended.

The Executive Secretary is the Regional Authorizing Officer (RAO) for the RSP and this will add to his duties. Working with the RSU team there is the need to respond to the performance indicators of the project (objectively identifiable indicators – or OVIs) as indicated in the logical framework. Each of the twelve results identified under the Programme have OVIs many of which relate to improved uptake and impact and are therefore compatible with the recommendations of this report.

C.3.3 Reporting/Accountability of the Networks

During one interview the comment was made that the Networks act as free agents and more accountability is needed. This is an exaggeration but accountability is an important issue and the relationship between the Networks, the Steering Committees and the Secretariat are the cause of much tension especially in terms of the balance between building strong regional programmes on the one hand and the pressures to fill the gaps in national funding on the other. The Coordinators report to ASARECA, their own Steering Committees, the principal donor and to the IARC where they are based.

The new NPPs to be funded under the EU/RSP will be covered by agreements that make them accountable to the Secretariat. It is **recommended** that all NPPs should be accountable to the Secretariat by instituting similar agreements to those prepared by

the RSU for the new Networks. NPPs such as ECAPAPA, RAIN and TTP are already associated with the Secretariat and it is understood that the USAID/REDSO funded Networks (PRAPACE, ECABREN, EARNNET and FOODNET) will be made accountable to the Secretariat by October 2003. This accountability will reinforce the management role of the Secretariat and provide the authority needed to improve effectiveness in terms of planning and performance indicators as desired by the Secretariat. Having a uniform accountability regime across the Networks would also foster the reporting arrangements in terms of uniformity as proposed at several meetings of ASARECA.

The proposed changes would also place the responsibility upon the Secretariat to respond/ comment on the annual reports submitted by NPPs to which the latter complain that there is never any feed-back. Comments by the Secretariat in their role as managers would contribute to improved effectiveness especially if they were critical in cases where uptake and impact issue have been neglected. It is also a suggestion of the review that NPPs in the future be asked to submit quarterly or even monthly progress reports. This is standard practice for most research managers many of which are responsible for far less funding than NPP Coordinators. Such reports can be limited to a single page but they force research managers to concentrate on their objectives and the extent to which their objectives are being met.

C.3.4 Rationalization of Networks

One of the consequences of the rapid growth of ASARECA is the proliferation of Networks many of which are commodity rather than system based. Possibly the greatest consensus of views received during the review was the need to rationalize the number of Networks; this point was made by all stakeholders but probably most strongly by donors since the 19 Networks are perceived as being far too many for an effective operation. More importantly, MEAPU indicated that they currently work with a selection of existing Networks but when all 19 become operational the task will be impossible. The need to reduce the number of Networks and increasing demands upon the Secretariat were recognized in the 1997 Strategic Plan but no action has been taken and the problem has increased. Furthermore, the problem is not limited to the number of Networks; consideration should also be directed towards governance, linkages and the opportunities for efficiency gains.

Another very common view expressed was that there are far too many meetings involving Coordinators and the number can only increase when the EU/RSP funded Networks become operational. Leaving aside the cost in valuable time for all of the meetings the transaction costs are enormous and represent an ineffective mode of operation. The greater use of electronic communication is needed to improve efficiency.

But how to reduce the number of Networks? Firstly it can be argued that there is little evidence that the increasing number of Networks leads to reduced efficiency or effectiveness but this is a common perception and careful monitoring would be advisable. Advocates of a reduced number suggest a maximum of ten Networks but can provide little advice on how to proceed with what would be a complex exercise.

Various approaches (eg. clustering) have been considered based upon geographic or technical criteria but little action has taken place. The cross-cutting Networks such as AHI and FOODNET have made progress in terms of linkages between Networks and the introduction of new partners but most of the commodity Networks have made slower progress (all Coordinators referred to the need to improve horizontal linkages between Networks). Radical or revolutionary changes are unlikely to succeed and evolutionary mechanisms are needed to merge or combine Networks over a period of time. For example, a radical solution would be to merge the two cereals based Networks (ECAMAW and ECARSAM) with one Coordinator and one Steering Committee but with separate programme leaders. An even more radical option would be to combine the grains Networks, namely, ECAMAW, ECARSAM, ECABREN and ECSARRN. Another option would be to form a “super commodity” Network combining several NPPs. These changes could reduce transaction costs, reduce the number of meetings and improve linkages but they are impractical and unacceptable on technical grounds at least in the short term. However, it is **recommended** that informal working groups be set up involving Coordinators and a representative from the Secretariat to explore means of closer cooperation, avoidance of duplication and improved linkages with a view to much better integration of activities in the future. Alternatively, a separate study could be commissioned to examine the options for rationalization. In the light of the views accumulated during this review doing nothing should not be considered as an option.

Another vital area where integration is essential for success is crop/livestock interactions. A-AARNET is already operational but with the EU/RSP funding about to commence there are considerable opportunities for linkages to other Networks. This opportunity must not be squandered and it is recommended that a working group be set up immediately to ensure that project proposals are geared towards a systematic approach (this could include learning from IITA experience in West Africa where the Ecoregional Program for the Humid and Sub-humid Tropics of Sub-Saharan Africa – EPHTA- is researching a variety of agricultural production systems).

Rationalization of the Networks will be difficult but is essential for effective working. When all nineteen NPPs are fully operational the efficiency and effectiveness arguments presented in the report will be magnified substantially. For example, the Secretariat has been stretched working with the existing Networks and will be unable to work effectively with all of the new Networks. Potential solutions include the following:

- greater priority setting for the Secretariat,
- the allocation of additional resources and;
- some movement towards clustering of the Networks.

In the opinion of the author all three will be necessary and it is a **recommendation** that all three approaches need exploration in order to improve efficiency and effectiveness. It is **recommended** that the Executive Secretary convene a working group which, over the course of the coming year, will make recommendations on reducing the number of Networks to a more manageable arrangement.

C.3.5 Linkages and Partnerships

Improved linkages and the greater use of partnerships can make a substantial contribution to improved efficiency and effectiveness. The argument was made in PART A of the report and the main aim – the promotion of research uptake and impact - was argued in PART B. A strategy for improved uptake was presented in PART B and the tools to be employed to improve effectiveness were stated to be, the role of the Secretariat, the use of the CGS and a new facility within the Secretariat (to receive EU and hopefully other donor funding) called the Promotion of Research Uptake (PRU).

C 3.6 Clarity on roles and responsibilities

As indicated in the first chapter of the report (PART A) many comments were received by the consultant about the uncertainty of the respective roles of various stakeholders including members of the Secretariat and the associated Networks. It is **recommended** that a clearer definition of roles and responsibilities could, of itself, contribute towards greater efficiency and effectiveness. At present the Constitution and Bye-laws of ASARECA refer to the functions of the CD and Secretariat and provide a brief description of the duties of the Executive Secretary and the Finance Officer. There is also reference to Task Forces and Task Force Leaders with a list of responsibilities (it is assumed that this refers to what are now called Network Coordinators). There is no reference to the functions and responsibilities of any of the other personnel now associated with the Secretariat. In the case of MEAPU the individual officers have job descriptions but the unit does not.

It is **recommended** that the functions of each group be revised in the light of the changes proposed in this report (including the revised mandate and structure considered below) and function statements for each group are suggested in Appendix 8. Should this recommendation be accepted by the CD there is a strong case for a revision and update of the Constitution and Bye-laws of the Association (Appendix 8 also refers to other changes and amendments, some arising from the review, that should be incorporated into the Memorandum of Agreement, the Constitution or the Bye-laws if a revision is authorised by the CD).

C 4 Institutional Reform Issues

C 4.1 The Evolution of ASARECA

The Foreword to the 1997 Strategic Plan states that “ the establishment of ASARECA was a direct result of the persistent desire of the NARIs (and indeed the wider NARS) in the region to collaborate in agricultural research in order to foster effectiveness, efficiency, responsiveness, complementarity and economies of scale and scope, as well as to strengthen each other”. ASARECA has made substantial progress but the need to improve efficiency and effectiveness, the main aim of this review, is more important than ever.

The considerable success of ASARECA is due in no small part to the Constitution that allowed freedom of action and avoidance of the political and bureaucratic

problems that befell similar organizations elsewhere in Africa. However, it was also argued earlier in the report (PART A) that ASARECA is now perceived as an institution both internally and externally and changes are needed to ensure future success through achieving uptake and impact. Improved efficiency and effectiveness, the subject of this review, are essential if further success is to be achieved in the current environment.

The evolution of ASARECA as an organization is an essential part of this review but two other current exercises are also very relevant. The first is the Institutional Viability Index (IVA) being conducted on behalf of USAID and the second is the study of NARS being carried out by ISNAR. It is inappropriate at this moment to comment but a few general observations will serve to illustrate the importance of linking the recommendations of the three exercises. These observations are based upon the findings of the other two exercises as understood by the consultant at the time of writing.

The IVA index is a snapshot of an organization at a given moment and the analysis attempts to place the organization in one of four categories; start-up, developing, consolidating and mature. The analysis is based upon an assessment of institutional competencies in the areas of governance, operations and management, human resource development, financial resources, service delivery and external relations and advocacy. All organizations evolve differently but a simplistic conclusion for ASARECA is that it would be classed as a developing organization – quote “characterized by rapid growth, high energy and much activity. Much time spent developing the delivery side of the organization and usually lagging behind in administrative functions. High level of learning necessitated by rapid growth”. The consolidation phase is when the lessons of the development phase are incorporated into the organization and emphasis is placed on operations and management, governance, HRD and external relations.

Consequently the development of ASARECA as an organization, as assessed by the IVA tool, supports the argument for change and addressing issues such as governance, mode of operation etc.

A quote from the ISNAR proposal – Restructuring Africa’s NARS: A Critical Review of Key issues and Recent Experience – which was submitted to the Rockefeller Foundation in May 2002, is very relevant to the argument in favour of ASARECA adopting a series of changes at the present time.

“ The demand for agricultural research is changing because society and, above all the agricultural sector, are changing. Urbanization, resource degradation, market liberalization and several other factors are increasing demand for better management of natural resources and for technologies that permit producers to have greater access to growing consumer markets. New, powerful research technologies are becoming more widely available, bringing with them fresh opportunities and challenges in research policy and management. Traditional frontiers between disciplines are becoming less clear. Accepted sectoral divisions are declining in validity. Public sectors continue to dominate NARS in Africa, but with declining abilities to deliver the desired impacts. Efforts to reorganize, rejuvenate, and rationalize these sectors, and especially their roles vis-à-vis private sectors, carry through to NARS”.

It is understood that this review has analysed changes that have taken place by epoch since the 1970s and a summary of the overall conclusions is that scientists were too concerned with status during the 80s and early 90s and they were less interested in their clients and market orientated research. Under pressure from governments and donors changes have been introduced but the pressures are growing, especially from donors, to the extent that changes are being imposed (eg. Uganda and the Ivory Coast). It may be preferable for research organizations to manage change from within and respond to the external pressures in a positive way.

The purpose of referring to the parallel exercises currently taking place is to emphasize that changes to improve efficiency and effectiveness are not only desirable but essential. Furthermore, the overall conclusions of the three exercises point to the need for ASARECA to re-examine its mandate, structure and mode of operation. It is important that the CD consider the implications of all three studies in terms of changes in the mode of operation of ASARECA.

C 4.2 The Mandate of ASARECA

The Memorandum of Agreement refers to the mandates of the CD, Secretariat and Task Forces; there is also reference to a Conference of Ministers that will provide overall guidance to, and legal authority and a political umbrella for the CD. It is understood that this body has not been convened to date and, as indicated elsewhere the avoidance of political complications is one of the reasons for the success of ASARECA. On the other hand the growing importance and recognition of ASARECA as a regional body would support the case for a closer dialogue with Ministers especially considering issues of regional and international trade. It is **suggested** that in the light of the changes proposed by this (and other) reviews and the broader remit inferred by the Consolidated Conceptual Framework, the CD should consider possible mechanisms for increasing the contact with national governments (at PS or Ministerial level) and regional bodies such as the EAC and COMESA.

The Constitution refers to the goals of the Association as follows:

- Developing and implementing a regional strategy for research in the fields of food, agriculture and natural resource management;
- Providing an enabling environment including a policy for agricultural research;
- Recognizing and responding to the socio-economic needs of end-users, and
- Promoting initiatives to access funds for agricultural research on a sustainable basis.

These goals (and statements elsewhere in the Constitution and Bye-laws) need to be reconciled with the Consolidated Conceptual Framework that was discussed and agreed at the NPP Meeting in Nairobi in May 2002 (see Appendix 6). The central aim is to achieve impact and the three strands of the Framework indicate an expanded role for ASARECA especially the reference to R&D as opposed to research. At the meeting there was considerable discussion about ASARECA becoming an R4D organization in view of the disintegration of the extension services in some member

countries. In the context of this review the increased emphasis on uptake and impact, and the activities of NPPs such as FOODNET, support the case for moving away from activities solely concerned with research and the generation of knowledge. Such a fundamental change in the mandate of ASARECA could have serious political implications in the member countries but in terms of skills and the need to promote uptake this change could have considerable benefits. It is **recommended** that the CD consider a formal shift in remit for all NPPs to conduct R and D and consider amending the Constitution accordingly.

One of the considerations if this change is to be formalized is the considerable variation in the member countries. When ASARECA was set up each country had a functioning publicly funded extension service whose role included the dissemination of research outputs. Today the situation is very different with some countries (eg. Sudan and Ethiopia having retained substantial extension capability whilst in others (eg. Uganda and Kenya) the service has either been radically decentralized or replaced in large measure by the private sector. In some countries researchers will have to take on additional roles, either directly or through partnerships, if uptake and impact is to be improved.

C 4.3 Structure

The review has drawn attention to the distinction between ASARECA as an Association, the formal position, and ASARECA as institution, the operational and perceived position. The Memorandum of Agreement under Governance presents a diagram of the structure of ASARECA (see Appendix 9) but the inclusion of the Conference of Ministers and Task Forces, as well as Technical committees reporting to the CD, illustrates the divergence between this structure and the actual mode of operation. A more representative diagram of the current position is presented in Appendix 10 while a diagram including the changes proposed in this review is presented in Appendix 11. The latter diagram is intended to illustrate:

- the proposed changes at the apex of the organization particularly the increased participation of stakeholders by introducing an Advisory Body to the CD (Board of Directors),
- the inclusion of new Networks associated with the Secretariat (RAIN, EAPGREN and Biotechnology) that will add to the problems of accommodation and administration (and responsibility for other Networks from October 2003),
- the inclusion of the new facility on uptake proposed in PART B (Promotion of research uptake) and;
- the two arms of the Secretariat divided between Management and Finance and Administration and the need for additional resources.

This proposed structure incorporates the findings of the review and is more representative of the actual position and the current mode of operation. It is also conducive with the role of ASARECA as an institution rather than an Association and is **recommended** for consideration by the CD. Should the CD accept and implement this recommendation it would be logical to make appropriate amendments to the Constitution, Bye-laws etc.

Additional considerations arising from the proposed structure include the need for additional resources to cope with the tasks being assigned to the Secretariat. There is also the need to consider the trade-off between additional resources to improve effectiveness and the cost implications (both short term and longer term sustainability). For the management arm (see Appendix 11) a case can be made for a head of this group who would be responsible for the operational programme assuming that the Executive Secretary is more committed to policy, funding and political issues (including his duties as RAO for the EU/RSP). In future MEAPU will be responsible for this programme management role with separate arms being responsible for planning and M&E. The Finance and Administration arm, presumably to be headed by the Finance Officer, should separate the financial and administrative functions and an administrative officer should be appointed at an appropriate level.

There are also implications for the smooth and efficient operation of the Networks. For example, the Secretariat based Networks could have a combined Steering Committee and it is understood that an Internal Programme Committee has been proposed to replace several existing Steering Committees. This would certainly be a more efficient mechanism but serious issues of technical competence arise and further consideration is required.

The proposed structure is based upon the conclusions of the review and the drive to improve efficiency and effectiveness especially bearing in mind the major increase in NPPs arising from the RSP and the new networks to be based at ASARECA in Entebbe. Sources of funding for the additional resources need to be explored but it is understood that USAID/REDSO is prepared to consider core funding for the Secretariat and in view of the high standing of ASARECA with the donor community this is more a problem in terms of long term sustainability than short term funding.

C 4.4 The Role of NARIs

Consideration of efficiency and effectiveness cannot be complete without an examination of the constituent NARIs of ASARECA. The national institutions are the foundation of ASARECA and strengthening of national capacity is one of the prime objectives. Continued support through ASARECA funding is critical and other measures include priority setting and the securing of donor funding at the national level but attention to regional priorities and specialization should also be considered.

A powerful argument can be made for selected NARIs to specialise on commodities or topics in which they have comparative advantage for reasons of capacity or geography; examples quoted are for Uganda to take responsibility for research on say bananas and cassava and Kenya to specialise on maize research. Clearly, for this approach to be successful all 10 NARIs must agree and there must be reliable mechanisms for the dissemination of research findings. The difficulties in adopting such an arrangement are the issue of sovereignty, trust, local politics and the understandable concerns of the smaller NARIs that they would ultimately suffer under this type of arrangement. Nevertheless, the potential benefits are so obvious especially in the current climate that it is **recommended** that the CD reconsider this issue in the light of the drive to improve effectiveness and the better use of available financial resources. One possible mechanism might be for the country with comparative

advantage to conduct the more strategic research while the other countries confine the research to the more applied end of the spectrum. Alternatively the smaller NARIs might specialise on niche crops. This type of arrangement could have tremendous benefits provided the parties, and the respective governments (who would have to consent), could agree on the modalities.

The EU/RSP performance indicators refer to the transfer of leadership of some NPPs from CG Centres to NARIs. During the visit to the EC in Brussels the view was expressed that African scientists should be in charge of the NPP work programmes while the supporting CG Centres should act as service providers. This shift to local leadership is also supported in the 1997 Strategic Plan. This issue is not strictly within the TOR for the study but if the management role of the Secretariat is to be accepted by the CD then there is a good argument for the management of selected NPPs becoming the responsibility of the Secretariat rather than a specific NARI. This is especially the case bearing in mind the international status of the Secretariat and the ability to operate throughout the region including experience with the transfer of funds. This arrangement could also be a mechanism for obtaining management funds as income for the Secretariat.

An examination of the comparative advantages between management by the Secretariat as opposed to a specific NARI should be considered.

C 5. Further Actions

Arising from the previous sections, and depending upon the response of the CD to the recommendations made in the report, further work might be needed on the following:

Sustainability of funding; building upon the work carried out under the SFI exploring means of providing long term finance in addition to the EU endowment fund. Attention should focus on charging for services such as management, planning etc that can be paid for from the NPP budgets including government and donor funding. Alternative sources of funding should also be explored including the private sector, especially multinational companies.

Strategic planning; the 1997 Plan has proved to be valuable but, as recognized at various meetings (including the CD retreat) there is a need to update the Strategic Plan and assign priorities for the future bearing in mind the challenges facing ASARECA and the need for greater efficiency and effectiveness (uptake and impact) as indicated in this review.

Depending upon the response to the recommendations of this review there could be a need to revise the Memorandum of Association, the Constitution and the Bye-laws of the Association (some items are referred to in Appendix 8).

The EU/RSP has only commenced recently and any changes to the objectives or overall work plan would normally take place at the Mid Term Review (ie. after two years) but because of the delay in launching the project and the changes that have taken place in the meantime it may be desirable to amend some aspects of the work

(including the performance indicators of the logical framework) much earlier, even before the first visit of the PRMP.

PART D CONCLUSIONS AND RECOMMENDATIONS

PART D Conclusions and Recommendations

This final part of the report brings together the findings of the literature review and visits to donors, research managers etc (PART A), the chapter that covered the technology transfer (research uptake) aspects of the TOR (PART B) and the chapter that dealt with the review of ASARECA as an organization in terms of improved efficiency and effectiveness (PART C). Clearly there are linkages between the three aspects of the report and the conclusions and recommendations, as presented below, should be considered collectively by the CD.

D 1 Overall Conclusions

The review of current literature and meetings concerning the latest thinking about agricultural research was very valuable and provided a solid basis for the review. Considerable effort has been directed towards understanding the reasons for the relatively poor impact of agricultural research in the past and the changes needed to improve uptake and impact. This work has been driven by governments and donors aiming to increase value for money in terms of economic growth and poverty reduction. There is no doubt that the pressure to deliver impact is increasing to the extent that future funding for organizations such as ASARECA will be dependent upon the ability to demonstrate impact. Additional challenges arising from the World Summit for Sustainable Development and NEPAD include a recognition from African countries themselves that greater progress is needed in terms of poverty reduction and economic growth. The scientific community must change to meet these challenges.

In the literature various descriptions have been used to describe the change in approach needed to improve uptake and impact. These include innovation systems, value chains, production to consumption, impact orientation etc. but they all have a good deal in common, namely to advocate a more holistic and systems based approach in order to foster uptake or transfer of the technology. The main changes proposed are for the inclusion of the factors needed to ensure uptake; this may include new skills, better dissemination, appreciation of the market, investment finance etc and usually involves the greater use of partnerships to ensure success. It is important to appreciate that these changes are not new to ASARECA as many were discussed during the Third NPP meeting in Nairobi but the application is patchy and greater overall effort is needed by the Secretariat and NPP Coordinators to introduce a more systematic and client orientated approach. There is also a distinct shift in the allocation of resources from knowledge generation towards the application of knowledge or uptake and impact. This trend is apparent in ASARECA but is in its early stage and the shift should be accelerated.

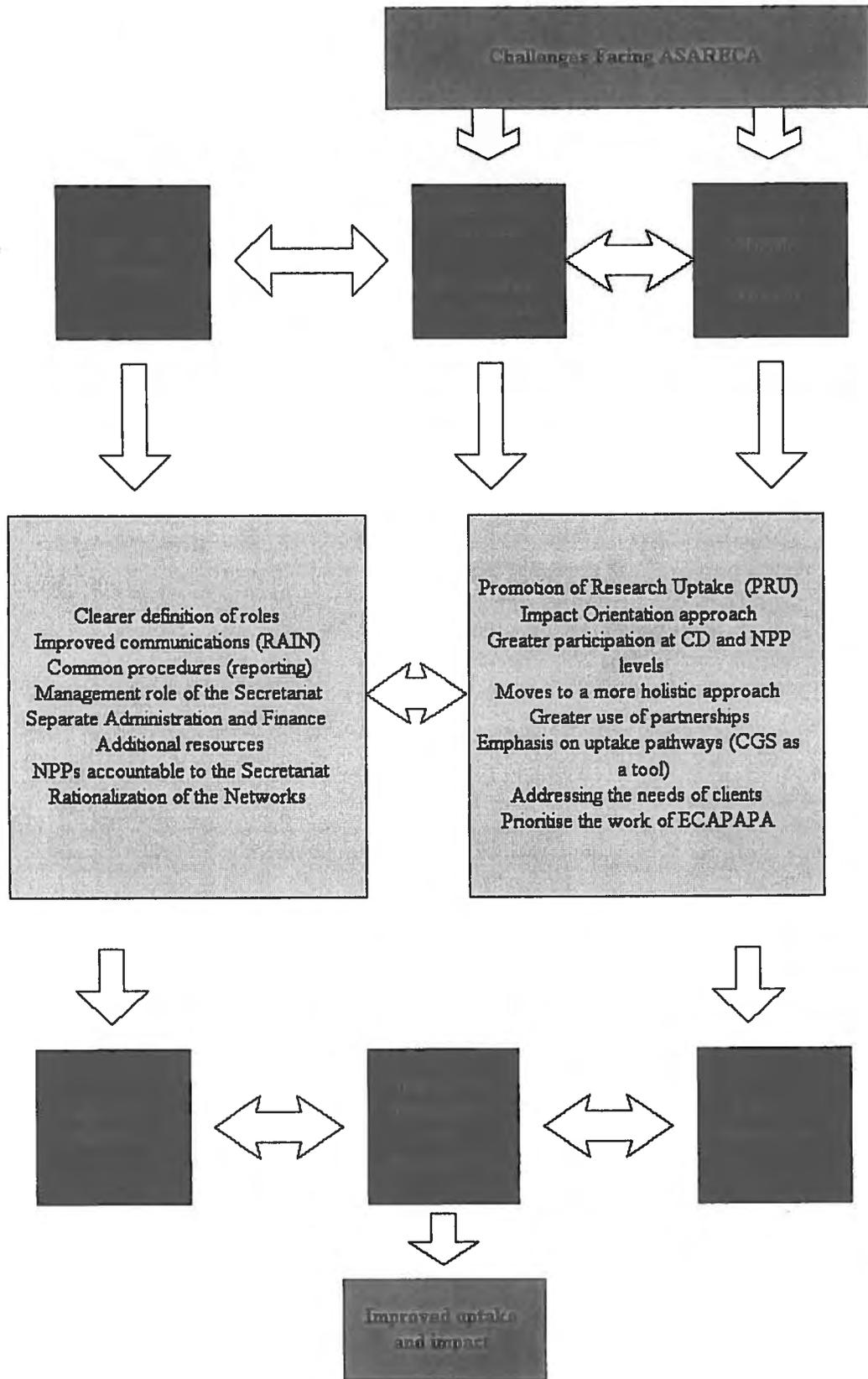
In PART C of the report the challenges facing ASARECA were summarized and the implications and possible changes were considered. Each of the proposed changes was considered in turn and a recommendation made for consideration by the CD. These are presented below but an overall conclusion is the need to consider ASARECA as an institution rather than an Association as at present.

Taking the results of the literature survey, meetings with donors, the lessons learned from Phases 1 and 2 of TTP and discussion with key actors, there are several clear “messages” for ASARECA that have to be taken into account in the consideration of a strategy for technology transfer (uptake mechanisms) and the improved operational efficiency and effectiveness.

- ASARECA has been very successful since it was established in 1994. The emphasis should now be on the delivery of impact. Changes are needed to achieve greater efficiency and effectiveness and some are presented in the report. Conceptually ASARECA has also made good progress on such issues as market orientation and more recently impact orientation but in practice the application has been less apparent.
- Much greater attention should be paid to uptake mechanisms (technology transfer) and proposals are made in the report, including a new project – Promotion of Research Uptake (PRU).
- The changes needed include greater participation by stakeholders, more delegation of authority, rationalization of the Networks and the importance of partnerships and the acquisition of the skills and expertise required to foster uptake and impact.
- Consideration of the structure and mandate of the organization and the resources needed to complete the tasks in hand.
- To apply these changes in order to move towards a more holistic approach as a means of fostering uptake including adopting R&D as opposed to research only.

By way of an overall conclusion of the review the exercise has provided a good illustration of the difficulties of managing/planning/monitoring a collection of loosely linked set of research programmes each with its own work plan and governance structure. The NPPs have approved work plans and the “extra” requirements imposed by the Secretariat are seen as less important. The challenge for the future is for the CD and the Secretariat to operationalise the management measures needed to improve efficiency and effectiveness and thereby demonstrate impact.

In an attempt to illustrate the conclusions and the specific recommendations made in the report a diagrammatic representation of the changes proposed has been prepared. This is presented below:



D. 2. List of Issues

One of the main outputs referred to in the TOR is to raise issues and make recommendations for consideration by ASARECA especially the CD Retreat held in Kigali at the end of September 2002. The issues raised have been presented in PART C (sections C.3 and C.4) but in summary form they are presented below:

- Stakeholder Participation.
- Delegation of Authority.
- Accountability.
- Rationalization of the Networks.
- Linkages and Partnerships.
- Roles and responsibilities.
- Mandate and Structure.
- Role of the NARIs.

These issues were presented for consideration by the CD and detailed argument on each can be found in the text of the report. They should be considered in conjunction with the recommendations presented below. On the basis of the conclusions of the review two other issues should be added:

- Regional added value.
- Uptake of research and Impact.

These issues could form the basis of the preparation of a work plan for ASARECA and the Secretariat for the next five years and be very relevant to the development of a new Strategic Plan for ASARECA.

D. 3. Recommendations

Specific recommendations presented throughout the report are listed below:

1. CGS guidance notes and evaluation criteria to be tailored towards achieving ASARECA policy objectives, especially the move towards greater uptake and impact (see section B.4.2).
2. Acceptance of the proposed strategy for the improved uptake of research outputs (see section B.4.3 and B.5.2).
3. Acceptance of the new proposal for the Promotion of Research Uptake–PRUP (see section B.5.2).
4. Increased participation of stakeholders at the CD level including the establishment of an Advisory Committee (see section C.3.1).
5. The CD to change its name to Board of Directors (see section C.3.1) and accordingly to redefine the role and delegated authority of the Executive Secretary (see section .3.2).

6. All NPP Coordinators to be made accountable to the Secretariat; reporting to be more frequent and in a standard format (see section C.3.3).
7. The rationalization of the NPPs to be declared policy; working groups to be set up with a view to the clustering of Networks and to move from a commodity to a more systematic approach.
8. The resources of the Secretariat will be overstretched when all 19 Networks become operational under the EU/RSP; consideration should be given to setting priorities, the rationalization of networks or the provision of additional resources (see section C.3.4).
9. A clearer definition of the roles and responsibilities of the members of the Secretariat and NPP Coordinators (see section C.3.6 and Appendix 8).
10. The recommendations of this review should be considered together with the recommendations of the IVA and ISNAR/NARS studies (see section C.4.1).
11. Change the remit of ASARECA from research to research and development (see section C.4.2).
12. Acceptance of the proposed new structure for ASARECA (see section C.4.3).
13. Consider the improved effectiveness to be achieved by the specialization of the research roles of the constituent NARI members of ASARECA (see section C.4.4).

D. 4. Further Suggestions

1. The CD and the Secretariat to consider mechanisms for increased contact with government policy makers and bodies such as EAC and COMESA.
2. Consideration of ASARECA as an institution rather than an Association.
3. A review and revision of the Strategic Plan of 1997
4. Depending upon the acceptance of the recommendations of this review a revision of the Memorandum of Agreement, the Constitution and the Bye-laws of the Association should be undertaken to bring them in line with the proposed changes (including amendments already approved by the CD). Some of the changes needed are considered in Appendix 8).
5. Consider the preparation of a Corporate Plan for ASARECA that will cover a revised strategy, changes to achieve impact, financial and human resources and the important issue of sustainability.

APPENDICES

APPENDIX 1 Terms of Reference

BACKGROUND

The aim of the consultancy is to assist in the formulation of a technology transfer strategy for the networks, projects and programs (NPP) of ASARECA. The work commenced on May 15 2002 with an initial visit to Nairobi (and Entebbe) timed to coincide with the Third ASARECA Annual NPPs Consultative Meeting (Hilton hotel, Nairobi, 13 to 17 May 2002). This meeting provided a valuable background to the assignment and highlighted the current debate about the future of ASARECA. As a result of meetings with USAID and the ASARECA Secretariat the original Terms of Reference (TOR) were substantially modified such that the exercise could contribute to the consideration of the functions, mandate and organisational structure of ASARECA. During the visit a budget, timetable and expanded TOR for the consultancy were prepared and agreed as follows:

WORK PLAN

Stage 1 : May 15 to 24, 2002

Discussion with the Coordinator of the TTP, CIP, USAID, the ASARECA Secretariat and various participants at the ASARECA meeting. Collection of reports, documents, contacts etc and preparation of work program.

Stage 2. Research (May – June 2002)

Digestion of documentation, identification of relevant literature and contact/ meetings with relevant organisations in Europe (eg NR International research managers, DFID, European Commission, ISNAR, FAO). Produce an analytical summary of experience and lessons learned from Phases 1 and 2 and the relevance of experience of other countries and organisations in relation to technology transfer. Submit an inception report.

Stage 3. Discussion with ASARECA/NPPs (June/July 2002)

Time spent in Uganda based at ASARECA but also a visit to Kenya. Meetings and exchange of views with key stakeholders in relevant NPPs, CG centres, NARs etc.

Stage 4. Draft Report (July/August 2002)

Draft report to be prepared, submitted and agreed (by e-mail).

Stage 5. Presentation to CD meeting (likely September 2002)

Presentation of findings and recommendations, discussion and feedback from CD meeting.

Stage 6. Final Report

Incorporation of comments from the CD meeting

Stage 7. Present to ASARECA meeting (September/October 2002)

Present and discuss with a view to producing the final report.

Stage 8. Prepare and submit final report (September/October 2002)

OBJECTIVES

The objective of the consultancy is to facilitate and recommend the way forward for the transfer of agricultural technology within the ASARECA sub-region in general and within the ASARECA program of research more specifically. The outputs will be in five parts, namely:

1. Lessons learned from the work carried out under the TTP program to date and experience from elsewhere that might usefully contribute to the ASARECA portfolio of project activities and the future operation of the organisation. An inception report will issue before the end of June 2002.
2. Make recommendations on approaches, methodologies and processes for technology transfer (TT) that could usefully be used by ASARECA. More specifically to:
 - Develop a strategy for technology transfer and the uptake of research;
 - Present options on the structural organisation and placement of the technology transfer function;
 - Recommend means whereby the Competitive Grants System (CGS) of ASARECA can accommodate and promote TT and the greater uptake of research outputs (ie. the use of the CGS to achieve TT objectives);
 - Recommend linkages between the TT function and the evolution of ASARECA as an organisation, considering the background documents from the CD, the on-going PIVA analysis, and interviews with key partners.
3. Review the Memorandum of Agreement (MoA) of ASARECA (September 1994), the Constitution of ASARECA (September 1994) and the Byelaws of ASARECA (September 1994) and make recommendations for changes to ensure that ASARECA becomes an effective and efficient organisation in achieving its mission. This exercise should pay careful attention to the ASARECA Strategic Document and the newly developed and accepted Consolidated Conceptual Framework for ASARECA adopted at the third NPP meeting 13-17 May 2002.

This review should conclude with recommendations on the functions, mandate and organisational structure of ASARECA covering issues such as:

- Mandate of the Committee of Directors (CD);

- Mandate of the Secretariat;
 - Composition of the Secretariat;
 - Governance and mandate of the NPPs;
 - Organisational structure and governance of ASARECA as a whole;
 - Post classification, salary scale and remuneration package for locally and regionally recruited staff (ie. Executive Secretary, Finance Officer, Administrator, MEAPU, ECAPAPA, Network Coordinators and other staff to be included in the organisational structure).
4. To consider and make recommendations on appropriate partnerships in agricultural research, technology transfer and development that will foster the future evolution of ASARECA. Also to propose policy guidelines that will promote such partnerships.
5. To make recommendations on the most effective means of using the funds allocated to TT within the EU program of support to ASARECA; the purpose of these funds being to promote and encourage greater transfer of technology and the implementation of the results of the research carried out by ASARECA. Furthermore, to consider the necessity, feasibility and description of a five year USAID funded project in support of the TT function in the light of the evolving situation within ASARECA.

OUTPUTS

- Concise report on lessons learned from the TTP project considered within the wider framework of TT and the objectives of ASARECA.
- Proposals for the revision of the Memorandum of Understanding, Constitution and Bye-laws of ASARECA.
- Recommendations for the consideration of ASARECA arising from objectives 2, 3 and 4 above; these recommendations to be revised following discussion with the Committee of Directors, the ASARECA Secretariat, the Coordinators of TTP, representatives of the EU and USAID, and key partners in the CGIAR Centres, NGOs etc.
- A five year workplan for TT in ASARECA, to be partially funded out of the EU fund already allocated for TT.
- Summary report of the consultancy as a whole.

APPENDIX 2 Documents Consulted

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APPENDIX 3 Conclusions and Recommendations of ASARECA Meetings

1. First NPP Consultative meeting, **Madagascar**, July 2000
2. First CD Retreat, **Mombasa**, February, 2001
3. Second NPP Consultative Meeting, **Dar es Salaam**, September, 2001
4. Third NPP Consultative Meeting, **Nairobi**, May 2002

Conclusions/Recommendations	Progress/Action Taken
MADAGASCAR	
1. Areas for collaborative activities agreed covering NRM, post harvest, socioeconomics, training etc. Priorities and convenor NPP agreed for each cross cutting issue.	Reviewed after 6 months, convenors lack of time, resources and commitment – too many demands from their direct duties. Little real progress or action.
2. Impact assessment as a planning tool	Significant progress (involving IFPRI and GTZ). Emergence of production to consumption concept and NPPs prepared to collect data for impact assessment but only one network has begun process of collecting data.
3. Performance Monitoring and evaluation. Indicators of success.	Framework agreed for use by NPPs but at their discretion. Secretariat no authority to ensure compliance. To date only being applied by one NPP.
4. Reporting cycle agreed and need for a standard reporting format for all NPPs.	Annual reports submitted but no standard format agreed or applied.
5. Principles for operation of the Competitive Grant Scheme discussed including the process and scheduling.	Substantial progress through Abt consultants. Manual and evaluation criteria produced but needs revision for EC scheme (especially on uptake pathways).
6. Need to improve horizontal linkages between Networks.	Various meetings held since 1997 but little improvement. Few noticeable actions , vertical linkages seen as being more important – not seen as a priority.
MOMBASA	
1. In view of the changing environment it is necessary to hold regular reviews of the organisation and structure to ensure alignment with changing circumstances	No review carried out but current review and PIVA study in progress July 2002.
2. Guiding principle agreed – the need to add value to the nationally implemented programmes. Resource allocation to be	Policy agreed but not translated into action. Slow progress in some NPPs but most still struggling to operationalise this

based on priorities.	concept.
3. Recommendation that priority setting should be done regularly and systematically. Strategic planning for the overall portfolio every five years.	No review since 1997. No action (but conceptual framework agreed at Nairobi 2002)
4. Reaffirmation of the principle of a "lean and mean" Secretariat (but acknowledging the need to relate to current challenges and opportunities).	No change but recognition of possible change in the future.
5. Need for national fora to bring NPPs "under one roof". Secretariat to commission a study on the way forward.	ISNAR study currently in effect – to report to the CD retreat in September 2002 (NARI in each country to convene NARS?).
DAR es SALAAM	
1. Nairobi meeting of June 2001 on Impact orientation. Principles agreed and concept accepted by NPPs (also from Madagascar meeting)	Basis of conceptual framework agreed at later meeting in Nairobi but application to date only by two or three NPPs.
2. Performance indicators agreed for all NPPs at goal, purpose and output levels.	Progress delayed until Nairobi meeting. Indicators need refinement and application across NPPs.
3. Data collection for impact assessment. Recognised as expensive but important. Secretariat to provide a mechanism for the way forward in data collection and to assign responsibilities.	As for Madagascar meeting, lack of resources. Progress patchy
4. Repeat of Madagascar agreement on reporting cycle and format. Agreed that these and planning cycle would be tried and tested.	Still on the agenda but little action.
NAIROBI	
1. Movement by NPPs towards impact orientation and strategic objectives (eg. market orientation and partnerships).	Implementation patchy and only a few networks. How to increase momentum? (CGS)?
2. Move towards "production to consumption" concept.	Very few networks made real progress. (how to increase application?)
3. Technology readily available tabulated. (large pool of "on the shelf" technologies).	Long list but how to achieve uptake? What evidence that these have a ready market?
4. Gaps analysis	Many references to market orientation, weak linkages, poor implementation of strategic plan, need to prioritise etc. All recommendations of previous meetings. (eg. seven NPPs indicate constraints on linkages to other NPPs).
5. Conceptual framework and eight CG themes approved.	

6. Core function of ASARECA is technology generation but utilisation of technology can contribute as a deliverable.	Meaning. Need to improve uptake as a means of achieving impact. Need to change to R4D approach.
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APPENDIX 4 Reports on Visits to Donors and other Organisations

1. European Commission

The timing of the visit was fortunate in that the consultant was able to meet both DG Development (Philippe Vialatte) to discuss research policy and Europeaid (Robert Carreau, Yves Gillet – visiting from Kampala- and his successor, Reme Noe) who are responsible for the EC assistance to ASARECA. The discussions were both pertinent and valuable; documents pertaining to EC policy and strategy regarding Agricultural Research for Development and the CGIAR were obtained.

A multi-donor meeting with the three SROs in Africa is to be held in Brussels 24 to 26 June, 2002. The purpose is to set a common platform for the three SROs and establish the “rules of the game” regarding the relationship between national, regional and global levels in terms of agricultural research. The Commission would like to see the SROs take charge in their respective regions and not be led by the CG Centres; the latter are seen as having a major role in international public goods research (in the event the ASARECA guidelines for CGS were adopted by the meeting). The Commission believes it has no comparative advantage in agricultural research at the national level and will concentrate resources at the regional level with the policy priorities being in line with the Cotonou Agreement, namely poverty reduction but also the development of trade and the increasing importance of the private sector and civil society.

The discussion on the EC funded project with ASARECA concentrated on the use of the Competitive Grants Scheme (CGS) as a management tool, the need to expand and develop stakeholder representation (especially the inclusion of civil society), the need to rationalize the number of NPPs, and the need to develop partnerships as a means of improving uptake and impact. These objectives apply to all three SROs in Africa but ASARECA is the most developed and successful and it was argued that changes are needed if the funds committed to research are to achieve the desired impact in terms of increased productivity, poverty reduction and economic growth. The main suggestions in terms of the current review were:

- **Increased participation by civil society;**
- **Reduce and rationalize the number of NPPs;**
- **Develop partnerships that will foster the uptake of research outputs;**
- **Develop policy criteria and use the CGS to “steer” project proposals in the desired direction;**

However, the most interesting debate was about the approach to technology transfer, the need for scientists to interact with other disciplines (eg social scientists), the importance of marketing and the need for much more interaction with the private sector. **Above all the views expressed suggested that change is needed if the substantial investment in research was to have real impact in the region.** The terms used were technology transfer, production to consumption, innovation systems but what they have in common is the desire to broaden participation and the inclusion of new skills and experience as a means of achieving uptake and impact. Scientists

can only contribute to one portion of this process and for the knowledge generated to be used effectively scientists have to accept the inclusion of other disciplines and expertise. The acceptance of this need and the implementation of broad based approaches will not be easy but must be given the highest priority.

2. UK Department for International Development (DFID)

DFID allocates some US\$ 40 million per annum for natural resources research in developing countries. The funding is divided amongst a number of programmes which are externally managed by UK institutions following a competitive tender (for example NR International manages the crop protection, crop post-harvest, livestock production, forestry and fisheries post-harvest programmes). The programmes are organized on a commodity basis but following a debate about farming systems during the 1990s there is also a Natural Resources Systems Programme that operates independently. For historic reasons livestock production and animal health are separate and fisheries has four programmes; agriculture is covered by four programmes (production, protection, post-harvest and systems).

The direction of the research was determined by a Natural Resources Strategy that was prepared in 1995 and intended to cover 10 years up to 2005 (known affectionately as the yellow brick because of its colour and thickness). This strategic document remains the principle policy document but because of the overall changes in thinking about the UK Aid Programme (the White Paper – Eliminating World Poverty: A Challenge for the 21st Century, 1997 and the second White Paper – Making Globalisation Work for the Poor, 2000) considerable changes have taken place in the execution of the research programmes. A new Strategic document is also in preparation that will have major implications for agricultural research (see below).

Because of the emphasis on poverty and the international poverty reduction targets set by the development community (with a strong input by DFID) all elements of the UK programme are under increasing pressure to deliver value for money and impact for their respective activities. Agricultural research in particular has changed dramatically in order to improve the uptake of research results and demonstrate impact upon poverty – **in effect future funding has been directly linked to the ability to demonstrate impact**. Considerable resources have been devoted both centrally and within the research programmes to examine the entire research continuum covering such issues as the identification of researchable constraints, participation, dissemination, uptake pathways, linkage mechanisms, partnerships and the measurement and monitoring of impact upon the poor. A recent study to be completed at the end of June is reported to be having difficulties in linking agricultural research to direct impact upon poverty.

In relation to the current exercise and information relevant to the future of ASARECA the changes can be divided into **strategic** ie the future allocation and use of funding and **operational** ie changes at the programme management level designed to improve the uptake of research outputs (ie technology transfer) and achieve impact.

The strategic implications are summarised below:

- Future funding will be linked directly to impact and poverty reduction criteria;
- There will be a shift in emphasis (ie. allocation of funding) from the generation of knowledge to dissemination and uptake (ie technology transfer);
- Participation by intended beneficiaries (be they institutions or farmers) is a powerful tool in the drive for impact;
- The generation of knowledge is pointless unless it is applied and uptake mechanisms must be determined prior to the approval of the research.
- The generation of knowledge is taking a poor second place to promotion and uptake (in the latter part of the current strategy the bulk of the funds are being directed towards promotion, dissemination and uptake with very little new research being initiated). There is also an acceptance that additional skills are required for activities such as dissemination and promotion;
- Commodity based research may be logical from a scientific standpoint but it is not effective in terms of uptake and impact. Systems based/ holistic approaches will be pursued in future and resources must be allocated in a multidisciplinary manner to achieve the desired objectives (in effect a greater range of disciplines, especially socio-economic, will be involved in the future probably at the expense of scientific inputs);
- The new strategy will include a major involvement by the private sector. A new programme – Rural Enterprise Development Facility - is under preparation (with links to the Rockefeller Foundation) to the tune of £100m and this will be linked directly to the newly developed Natural Resources Strategy;
- The new Strategy will encompass four equally important themes (research, extension, institutional change and influence upon policy) to reflect the need for a more holistic approach and in recognition of the fact that science working alone has not, and cannot, achieve the desired objectives in terms of poverty reduction.

It is ironic that many of the constraints imposed upon research managers by DFID in the past (eg. funding of training, capacity building, pilot testing, links to the private sector and above all, investment in technology transfer) have been shown to have a severe effect upon uptake. Research managers now have more freedom to use funds for non-scientific activities especially in relation to capacity building, promotion and dissemination.

At the operational level the changes have been a reflection of the change in direction referred to above tempered by the fact that research activities are already funded for several years. The following list presents a collection of changes that have been introduced by different programmes in response to the new directives from DFID:

- Funds have been increasingly shifted to dissemination/uptake activities at the expense of the generation of new knowledge (to the extent that 50 to 60% of available funding will be directed towards non-research activities);
- From 2002 to the end of the current strategy in 2005 the main priority will be uptake, the assessment of uptake and the “upscaling “ of successful technologies;

- There has been a major increase in the collaboration between programmes in an attempt to move towards a more multidisciplinary/systems based approach;
- Contact with the private sector has increased dramatically including representation on Steering and Advisory Committees;
- Considerable effort has been directed towards the development of “tools” to enhance poverty focus. These include the clustering of projects, development of baskets of technology (or toolboxes) which provide options at the field level, expansion and development of partnerships, greater use of the media, identifying the factors which foster uptake and methodologies for upscaling (including research);
- Change in focus from commodities to people;
- The appointment from research funds of specialist skills such as communications and dissemination; also the increased use of web sites, radio etc;
- The use of research funds (or what are called programme development funds) to research those factors which influence uptake and impact and develop novel uptake pathways;
- The development of dissemination and uptake strategies;
- The use of output to purpose reviews (log frame) to assess project progress in terms of uptake;
- Co-funding with other research programmes in order to increase impact;
- A move from a linear technology generation/transfer approach to an innovative systems approach which is seen by one programme as the key to achieving impact;
- An acceptance that technological fixes alone are not very effective, institutional and policy contributions are also required for effective uptake.

3. ISNAR

The visit of 11 June 2002 included discussion with Doug Horton, Anna Wuyts-Furawo and Willem Janssen. They showed considerable interest in the exercise including the extensive TOR and the complexity of the issues involved. The main discussion was about the importance of linkages and partnerships in striving to improve technology transfer. ISNAR does not use the term technology transfer believing that innovation systems is more appropriate because it incorporates recent thinking in terms of the importance of a more holistic approach that incorporates the factors which have been shown to inhibit the uptake of research outputs.

The most useful aspect of the visit was the collection of hard copy and references for literature relevant to the TOR. These are reflected in the list of documents consulted but the most relevant concerned experience in other parts of the world (eg. India and Latin America).

The views expressed were also very relevant. Emphasis was placed upon linkages/partnerships, client orientation and the overall innovative systems approach. The view was expressed that client orientation is essential for the successful operation of the innovation system. It is essential that the clients voice is heard and represented for the uptake of research to be successful and achieve impact – **it was inferred that this is an area where ASARECA needs to change (ie. because of the structure of ASARECA it is difficult for the voice of civil society, Universities and NGOs etc**

to be heard and this could be a significant constraint upon uptake and impact). A suggestion was made for an analysis/diagnosis of the “actors” involved with ASARECA in order to determine if client orientation is being paid sufficient attention.

Two other issues discussed were the value of the CGS as a management tool to introduce changes such as client orientation, dissemination and especially the need for uptake pathways to be determined from the outset of any research proposal. There was also some discussion of the potential for competition between the work programme of ASARECA and those of the individual NARIs.

4. USAID

Information, documents and views were obtained from Diana Putman in Nairobi and Jeff Hill in Washington. The central policy of USAID is to promote economic growth as a means of addressing issues such as poverty, hunger etc. A Strategic Framework for the Future is in preparation and this, together with the World Food Summit and the G8 Meeting to take place soon will determine policy for the next few years.

One new activity – Agricultural Initiative to Cut Hunger in Africa – recognizes that hunger in Africa is one of the most important development challenges and calls for a rapid and sustainable increase in agricultural growth and rural incomes. For maximum impact the Initiative will have six focal themes:

- Scientific and technological applications;
- Efficient agricultural trade and market systems;
- Community and producer-based organizations;
- Developing human capital, infrastructure and institutions;
- Integrating vulnerable growth and countries in transition;
- Environmental management.

IFPRI is playing an active role in the Initiative by providing the analytical support to help guide the process of identifying strategic investment options. A number of IFPRI publications related to this Initiative were found to be useful.

Under the scientific and technological theme emphasis is placed not just on expanding food supplies but also on improved quality, the reduction of post-harvest losses, response to market requirements, raising farm incomes and reducing the cost of food to the consumer.

5. GTZ

Andreas Springer-Heinze indicated that GTZ is preparing a project – Strengthening Impact Orientation of Agricultural Research in Eastern and Central Africa – which is due to commence in 2002. The purpose is to work with national partners rather than regional networks to institutionalize impact assessment and develop linkages between research outputs and changes occurring at the macro level. The background to the project is the concept of Impact Pathways being promoted by Dr Springer-Heinze (including discussion with Isaac Minde of ECAPAPA).

6. Others

The views of selected personal contacts were also sought. These included members of the original ECART team who prepared the EC proposal for funding to ASARECA, several DFID research managers and John Farrington and Rob Tripp of ODI. The views expressed were compatible with those referred to above.

APPENDIX 5

Session on Technology Transfer ,PRAPACE Steering Committee Meeting, June 21, 2002

Country	Potato		Sweetpotato	
	PRAPACE	All Funds	PRAPACE	All Funds
Burundi	60	80	30	80
DRC	50	45	35	13
Eritrea	4	40	-	-
Ethiopa	53	27	70	20
Kenya	5	40	20	45
Madagascar	40	30	50	10
Rwanda	50	60	20	35
Sudan	0	22	0	10
Tanzania	30	45	-	-
Uganda	40	55	33	60
Mean	33%	44%	32%	34%

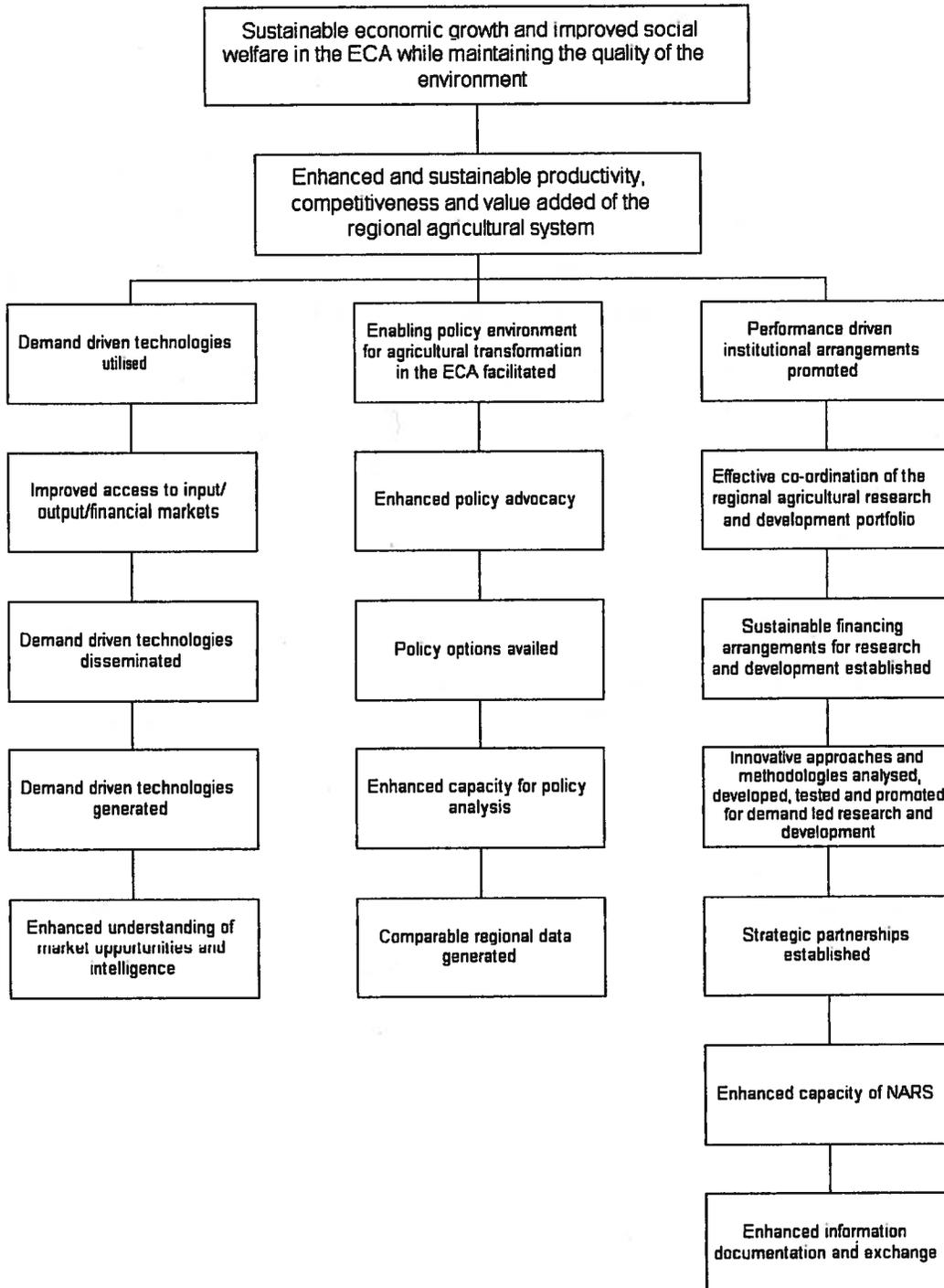
Activities mentioned:

- Seed multiplication
- Farmer Field Schools
- On-farm trials? (should not automatically be categorized as technology transfer)
- Links with processors
- Field Days
- Radio programs
- Bulletins
- TV messages
- Print media
- Farmer training
- Advice/training to NGOs and extension
- T-shirts, posters, etc. (social marketing)
- Demonstration plots
- Village-level processing, demos

Needs

- Funds and methods to monitor impact
- More field demonstrations
- Clear methods to capture data from participatory M&E
- Set up system for tagged funds for technology transfer in PRAPACE
- Set up fund to promote and encourage partnerships
- Policy framework needs to be clarified
- Promote participatory research to foster technology transfer
- Market information, market chains
- Develop and apply process-based indicators
- Promote regional exchange of experiences and lessons
- Promote horizontal linkages among partners, including NGOs and CBOs, within countries and across the region.

APPENDIX 6 Consolidated Conceptual Framework



APPENDIX 7

Promotion of Research Uptake (PRU).

1. Summary

A strategy for research uptake in ASARECA was developed as part of a review funded under the ASARECA/CIP Technology Transfer Project (TTP). The results of this review together with the conclusions of the TTP Stakeholders Symposium (Nairobi, September 2002) provide a strong case for ASARECA devoting an increased effort on the uptake of research as a means of achieving developmental objectives. It is proposed that a Facilitator be hired for three years using the EU/RSP funds allocated for technology transfer/uptake. The overall objective will be to mainstream thinking on uptake approaches and mechanism across the NPPs of ASARECA and within the constituent NARIs of ASARECA. He/she will be based in the ASARECA Secretariat and care will be needed to ensure that he/she has the appropriate skills and expertise required for this demanding role.

2. Background

The second phase of TTP closed at the end of September 2002 and the design of any further activities using funds allocated under the EU/RSP (€ 420,000) was deferred pending the completion of this consultancy study (covering a strategy for technology and a review of the functions, mandate and structure of ASARECA) The conceptual approach to research uptake is described in section B.5.2 of the report); this document describes the scope of the work, the justification, the objectives and considers existing and future funding requirements.

This proposal, which refers to the uptake of research outputs rather than technology transfer, aims to bring together the lessons learned from Phases 1 and 2 of TTP, the conclusions of the consultancy in relation to the “new thinking” on uptake, the conclusions of the TTP Stakeholders Symposium and the proposed changes in ASARECA (arising from this study and the Committee of Directors retreat) that are directed towards improving efficiency and effectiveness. The logic behind the proposal is that uptake has only been partially successful in the past because the factors needed to ensure success (such as non-scientific expertise, market studies, use of the media, private sector partners, inappropriate project design etc.) have been lacking or inadequate. While there are many isolated examples of successful transfer or uptake they have not had the desired impact upon the wider development goals and objectives set by governments and donor organisations. It is likely that funding in the future will be increasingly dependent upon the ability to demonstrate impact (eg. economic growth, poverty reduction etc.) and ASARECA needs to change in order to improve efficiency and effectiveness. The proposal is one of the activities designed to foster this process by improving the uptake and application of research outputs from the Networks and constituent NARIs of ASARECA.

It is important to explain the background to this consultancy and the funding allocated to technology transfer within the EU/RSP. At the time the EU/RSP was designed

(1999) the second phase of TTP was fully operational under USAID/REDSO funding and the intention was to provide EU funding as a supplement to ensure a five-year work programme on technology transfer. A sum of € 420.000 was allocated over five years with no funds being allocated for a Coordination Unit in years one and two (assumed to be USAID/REDSO funding) and the bulk of the funding was earmarked for sub-projects and capacity building. In the event the EU/RSP was delayed for more than two years and the second phase of TTP has ended (September 2002) before any of the EU funding has been approved. Furthermore, USAID/REDSO have indicated that they are not prepared to consider a third phase of TTP along the lines of the earlier work but they are supportive of the need to foster technology transfer/uptake within ASARECA. At the present time, therefore there is a need to consider the most effective means of utilising the EU funding and what additional funding might be needed for this increasingly important issue.

3. Objectives

To promote the uptake of research outputs arising from the work of the ASARECA Networks. The intention is to raise the profile of the subject with Network Coordinators and scientists within the NARIs, persuade them to devote more effort to uptake pathways and mechanisms in the execution of their research and provide advice on topics such as dissemination, promotion, marketing, partnerships, sources of finance etc that are needed to make the uptake process more successful.

4. Scope of the Work

As indicated in section B.5.2 responsibility for promoting uptake should rest not only with the ASARECA Secretariat but also with each Network Coordinator (soon to be 19 in total) and the issue is how to use the available funding to best effect across the entire organisation. The scale of the funds available (€ 420,000) is insufficient for an effective five-year programme as originally intended and it is suggested that the funds be used for specific activities to promote greater uptake but, in addition, to act as a “bridge” or seed funding until additional funds can be secured. How to best use these funds for this purpose is complicated by the need to conform to the procedures associated with the EU/RSP funding, namely the need to produce a Work Plan before the funds are released. Therefore, the proposal will concentrate upon the design of a work programme involving only the available EU/RSP funding.

There are various options that might be considered for raising the profile of research uptake within ASARECA and fostering the uptake or application process, as opposed to the previous activities that have funded the transfer of specific technological innovations. These include the following:

- Working directly with the Secretariat and Network Coordinators to promote the uptake strategy within ASARECA. For example, advising and persuading Coordinators to pay greater attention to uptake and direct more of their available resources to activities that promote uptake (such as supporting the policy of market and impact orientation).

- Providing direct support to fill the gaps in skills and expertise that has been lacking in the past. This may take the form of non-traditional inputs such as market studies, partnerships and media promotion (including the use of local radio) but any proposal that fosters uptake might be considered (for example, several Network Coordinators indicated that a source of funding for direct support to uptake mechanisms would be valuable).
- Developing approaches and methodologies that foster successful uptake. There is now considerable evidence from the literature that there are multiple pathways to successful uptake depending upon the nature of the research. What is important is for the uptake pathway to be considered seriously at the project design and approval stage. Building on lessons from TTP and lessons learned elsewhere in the world, this would involve identifying guidelines or criteria that should be used in developing proposals for research and uptake activities.
- To select a few research outputs that are considered to have a strong potential for successful uptake and concentrate the effort on a wide application to achieve impact. This could include the selection of technologies referred to as “on the shelf” and/or greater effort on what has been described as “upscaling”.
- The continuation of activities similar to those funded under a small grants scheme during Phases 1 and 2 of TTP. However, the current thinking is that this mechanism has not had the desired effect across the Networks of ASARECA.
- Two commodity Networks could be selected that can demonstrate successful uptake or are eager to explore better uptake. The focus could then be on working specifically with them to promote uptake both commercially and at the farm level. Different approaches could be tried and documented in order to identify key factors of success. Assistance could be provided to fill in any gaps (eg. training, market analyses and the identification of partners).
- One weakness identified by TTP was the difficulty in finding relevant and reliable partners for work on uptake. The focus could either be to identify suitable NGO or private sector partners who wish to work with farmers across a range of commodities or the focus could be to identify entrepreneurs who want to work with researchers to produce commodities with the characteristics they require.

With the funds available it will not be possible to conduct all of these activities and there is merit in focussing the activities in line with the resources currently available. It also seems likely that success will be assisted by the use of a full time Facilitator who will be committed to the objectives of the exercise and have the skills and expertise needed to promote uptake (many of which call for a non-scientific background). This facilitation role, working with the Secretariat, Network Coordinators and selected project leaders in NARIs appears to be the most effective use of the available resources. Decisions on the role that is chosen for the Facilitator

will determine whether it makes more sense to place the post in the Secretariat because of possible multiplier effects through working alongside others in the Secretariat (MEAPU, ECAPAPA and RAIN) or located with a Network Coordinator.

The Facilitator appointed to the post should be allowed a degree of flexibility in terms of priority activities but it will not be possible to pursue all of the activities referred to above. Four result areas are suggested for the two-year work programme as follows:

1. To appoint a Facilitator and establish office facilities
2. To identify two or three Network Coordinators interested in promoting greater uptake and advising them on appropriate uptake pathways including “upscaling “ activities on successful technologies in order to demonstrate uptake and achieve greater impact.
3. To work with the Secretariat promoting uptake processes across the ASARECA portfolio including the provision of advice, documenting success and lessons learned and assisting with the approval of work plans and CGS proposals to ensure sufficient attention is paid to uptake mechanisms. Also to assist in the preparation of the new Strategic plan for ASARECA.
4. To use the available funds to best effect and seek additional funding for extending the work plan to five years.

On this basis the duties of the Facilitator can be summarised as follows:

- To promote across selected Networks the greater uptake of research outputs;
- To participate in the ASARECA strategy revision process and to help develop and promote a technology transfer/uptake strategy within ASARECA;
- To assess existing technologies “on the shelf” and, where appropriate, develop means of promoting uptake;
- To advise selected Network Coordinators on uptake mechanisms, pathways etc and assist in the identification of the partnerships needed to ensure successful uptake,
- To investigate additional funding for the promotion of uptake within ASARECA;

For this facility to commence operations a Work Plan must be submitted to the EU/RSU within the Secretariat for approval. Only then can the Facilitator be recruited. The key elements of the Work Plan will be the allocation of the budget, project planning, the logical framework and the procedures for operation of the imprest account. The project description (Introduction, Background, Programme Administration and Activity sections) should be relatively straight-forward. A Work Plan is under preparation as a separate product of the consultancy review covered by this report and it will be submitted to the ASARECA Secretariat.

One of the duties of the Facilitator would be to consider future activities on uptake and impact and monitor funding requirements. For example, some donor agencies are adopting a more multidisciplinary approach to development and funds will be allocated for agricultural research, institutional reform and enterprise development in an integrated manner. There are already indications within some NPPs (eg.

FOODNET) that enterprise funding arrangements (eg. access to credit and investment finance) are major constraints to uptake and future proposals should respond to identified weaknesses in uptake pathways. One possibility is the use of EU regional funds for enterprise development since the procedures only require a request to be submitted by two of the NAO offices in the region. Another possible source of funding is DFID (who are preparing a major enterprise development funding facility).

5. Governance

The Facilitator will be recruited within the region and personal qualities will be as important as his/her technical background. The intention is to introduce some of the skills and expertise needed to promote uptake.

The Facilitator will be responsible to the Executive Secretary and will work closely with the Secretariat team. A Steering Committee is not considered necessary. Financial reports will be submitted quarterly (separately for RSP and other donors) and technical reporting will be on an annual basis.

Performance indicators will be set in consultation with MEAPU with a view to fostering both uptake and impact. Possible candidates for performance indicators include specific technologies applied, number of partnerships developed, media activities, promotional literature etc.

6. Outline Budget (Euro)

ITEM	Year 1(€)	Year 2(€)	Year 3(€)
Facilitator (salary and allowances)	65,000	65,000	65,000
Vehicle and computer	30,000		
Office costs (including rent)	20,000	15,000	15,000
Operating costs (fuel, travel etc)	20,000	20,000	20,000
Support activities (meetings, studies, training)	30,000	30,000	25,000
Total	165,000	130,000	125,000
GRAND TOTAL			420,000

NOTES

- a) It is assumed that the Facilitator will be based at the Secretariat in Entebbe and rent will be payable.
- b) It is assumed that existing transport will not be available and provision is included for both capital and running costs.

7. The way forward

The provision for TTP within the EU/RSP funding is available depending upon the preparation and approval of the Work Plan. Recruitment of the Facilitator can then proceed. However, the way forward will depend upon the content of the approved Work Plan that is currently in preparation. The outcome of the CD Retreat held in Kigali in early October 2002 on the rationalization of ASARECA is also relevant since a review of priorities and the Strategic Plan is envisaged. Depending on the new circumstances the proposed facility within the Secretariat should be implemented as soon as possible in line with the intention to increase uptake and impact throughout ASARECA.

APPENDIX 8 Roles and Responsibilities

NOTE

As part of the examination of potential gains in efficiency and effectiveness the review considered the respective roles and responsibilities of various stakeholders. This issue is reported under section C.3.6 and it was recommended that a clearer definition of the responsibilities of the different groups would be advantageous. Suggested amendments/definitions are presented below, and as indicated in the main body of the report, if these are approved by the CD there is a strong case for incorporating these changes into the Constitution and Bye-laws of the Association. In this event there are several other issues that should be included. These are also referred to in the body of the report and include the following:

- Amendments to the Bye-laws agreed at the tenth meeting of the CD in 1998 concerning Articles 4, 5, 6 and 7 (nomination of an Executive Sub-committee and the management role of the Executive Secretary).
- Reference to the legal status of ASARECA following the MOU with the OAU-STRC.
- Formation of the ASARECA Trust which provides the legal basis for the organization to enter into contracts without recourse to the umbrella provided by NARO (under the Headquarters Agreement).

Committee of Directors

Article 14 of the Constitution refers to the functions of the CD as follows:

- **Act as the principle spokesman for the Association in its external relations, notably with governments, funding agencies and partner institutions;**
- Enter into contracts and agreements with any relevant institution for support to the planning and implementation of regional programmes;
- Guide the implementation of collaborative research programmes in consultation with the donors, the IARCs and any other relevant institution;
- Rationalize regional networks and programmes;
- **Approve and adopt the Bye-laws of the Association;**
- Determine administrative and financial management procedures;
- **Supervise the work of the Executive Secretariat;** Approve work plans, budgets and their financing agreements; Mobilise the financial resources needed to carry out the regional activities and programmes;
- Determine the mechanisms and procedures for monitoring and evaluating the ongoing programmes; **Act as a steering mechanism for all activities of the Association;**
- Mandate independent external financial audits of regional activities for funds from all sources;
- Do anything conducive (or incidental) to the better carrying out of the provisions of the Constitution.

According to the findings of this review these functions require substantial revision. Those items highlighted are considered to be genuine roles for the CD; those not highlighted should be delegated to the Secretariat. An important item to be added would be for the CD to determine policy for the Association (bearing in mind the views expressed by an Advisory Body that represents the interests of NARS and regional bodies involved in trade).

Executive Secretary

The Constitution refers to the functions of the Executive Secretariat only but the Bye-laws (Article 14) give the Secretaries duties as follows:

- Ensure efficient execution of all the functions of the Secretariat specified in article 17 of the Constitution;
- Close liaison with the Chairperson in all matters important to the effectiveness and image of the Association;
- Act as Secretariat for all CD meetings and to represent, if necessary, the Chairperson in contacts with donors, IARCs and other relevant organizations;
- Provide the CD with quarterly financial reports, a comprehensive annual report of activities and;
- Ensure a regular publication of the Association's newsletter.

The findings of the review have argued in favour of greater delegated authority for the Executive Secretary to include management and supervision of the research portfolio as well as the resources within the Secretariat. As recommended in the Strategic plan this would include the initiation as well as the review of proposals for regional collaborative research. Note: the formal document of the Bye-laws does not include the amendment to Article 7 that indicates that the Executive Secretary **shall manage the affairs of the Association under the guidance of the Chairperson of the CD.**

Finance Officer

The Bye-laws of the Association refer to the Finance Officer being responsible for the following:

- To prepare ASARECA annual budgets;
- To prepare quarterly financial statements and cash flows of ASARECA;
- To prepare or update a detailed financial management manual for ASARECA;
- To keep proper books of account;
- To ensure accountability at all levels of financial management;
- To facilitate training in financial management of research personnel engaged in ASARECA projects;
- To supervise and guide all of the staff under him;
- To co-sign financial transactions with the Executive Secretary.

Under the recommendations arising from the review the administrative responsibilities should be added to these duties and the implications of the proposed structure taken into account.

Network Coordinators

The Bye-laws refer to the responsibilities of the Task Force leaders (Network Coordinators?) as follows:

- To chair all meetings of the Task Force and, if required, to assign secretariat responsibilities;
- To ensure that all guidelines issued by the CD with regard to the planning, implementation and reporting of Task Force activities are adhered to;
- To ensure that all functions of the Task Force, as listed in Article 22 of these Bye-laws, are carried out;
- To coordinate the research activities and scientific information-gathering carried out under the programme, with particular emphasis on the maintainance of high standards of quality;
- To help participating scientists to obtain, exchange and disseminate information, and to provide the same assistance in the field of technology transfer;
- To assist participating scientists in the preparation of progress reports and in the publication of their results;
- To monitor programme implementation and to compile for the Executive Secretary and CD the half yearly and annual progress reports;
- To facilitate external reviews of the programmes activities mandated by the CD;
- To prepare and organise the Task Force meetings, field visits, workshops and seminars, and training courses, as well as peer reviews of new activities, in accordance with TF work plans and budgets approved by the CD;
- To maintain contact with relevant national institutions, IARCs, regional and international research institutions;
- To keep the Executive Secretary fully informed of all relevant happenings

Issues to be taken into account in any revision are reporting and accountability to the Secretariat.

MEAPU

The two officers in MEAPU have individual TOR but there is no formal statement for the functions of the Unit. However, the following has been proposed as general TOR:

- Provide assistance to planning ASARECA's research portfolio at all levels (ie strategic, programme planning and priority setting at the NPP operational level);
- Provide assistance in Monitoring and Evaluation of ASARECA,s research portfolio at all operational levels;
- Provide leadership in the running of ASARECA's GCS;

- In collaboration with ECAPAPA and RAIN, develop and maintain appropriate databases for research and development.

Issues to be taken into account include the accountability of the Networks, the proposed new structure, the greater collaboration with ECAPAPA and the relationship to the RSU.

ECAPAPA

ECAPAPA has been mandated by the CD to:

- Strengthen the capacity of the NARS in the region in:
 - Strategic planning and priority setting that integrate the guidelines of existing agricultural policies into their research programmes and project planning to increase the effectiveness and efficiency of the research effort and to raise payoffs from technology development.
 - Managing, utilizing and mobilising of resources directed towards agricultural research, including alternative funding mechanisms and increased justification for resources from the public sector.
- Help improve the regional capacity for agricultural policy research, analysis and formulation by:
 - Engaging agricultural researchers in collaborative work with policy expert personnel and units both within and outside the NARS, thus,
 - Encouraging and assisting the policy making systems in the countries of the region to formulate agricultural policies based on sound research and analysis, which can,
 - Provide policy makers and political leaders with improved policy options and knowledge about the implications of the options for agricultural productivity, overall production, and sustainability of the agricultural production systems.
- Network and coordinate from regional perspective selected policy research and analysis that add value to those activities that can be done nationally.

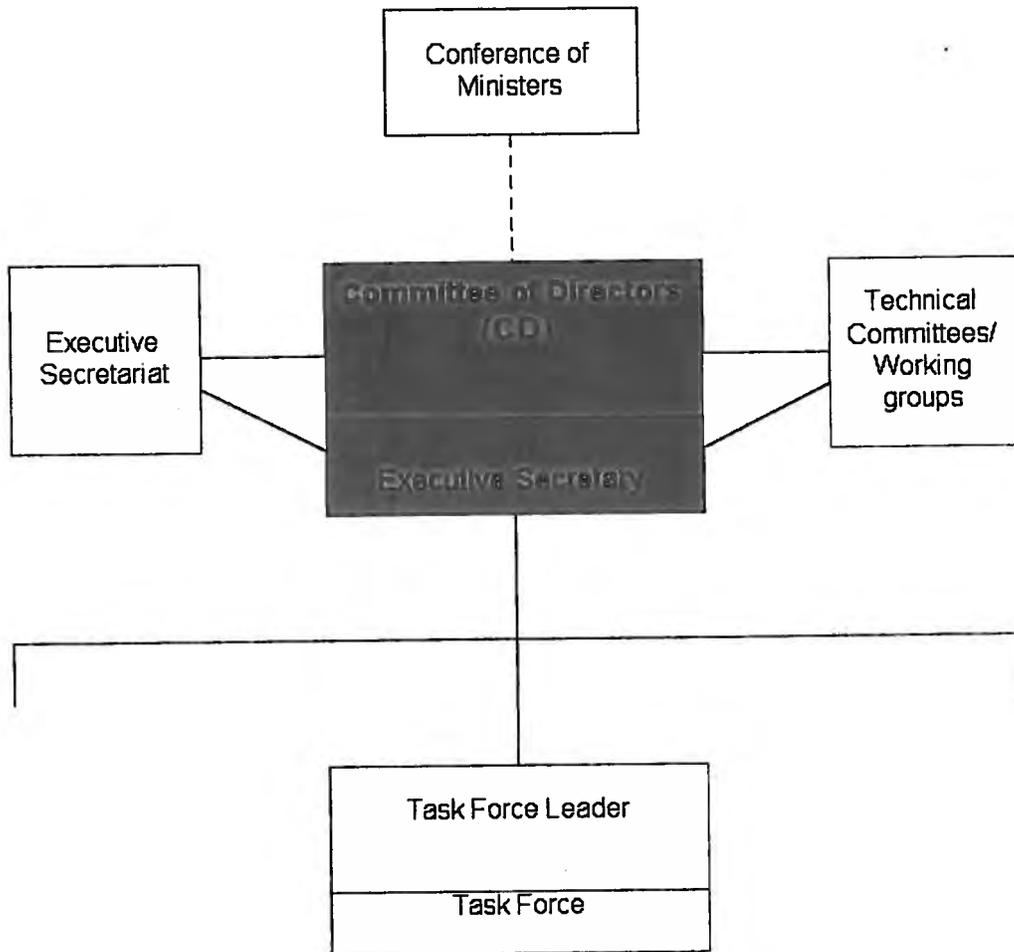
Following an inconclusive Mid Term Review of ECAPAPA in 2001 a review of the Programme is being carried out to determine priorities for the future work plan. A report proposing that ECAPAPA should focus more on policy analysis in the future has been prepared for consideration by the Coordinator. In effect, a review of ECAPAPA is underway that is likely to result in changes to the future programme of work.

RSU

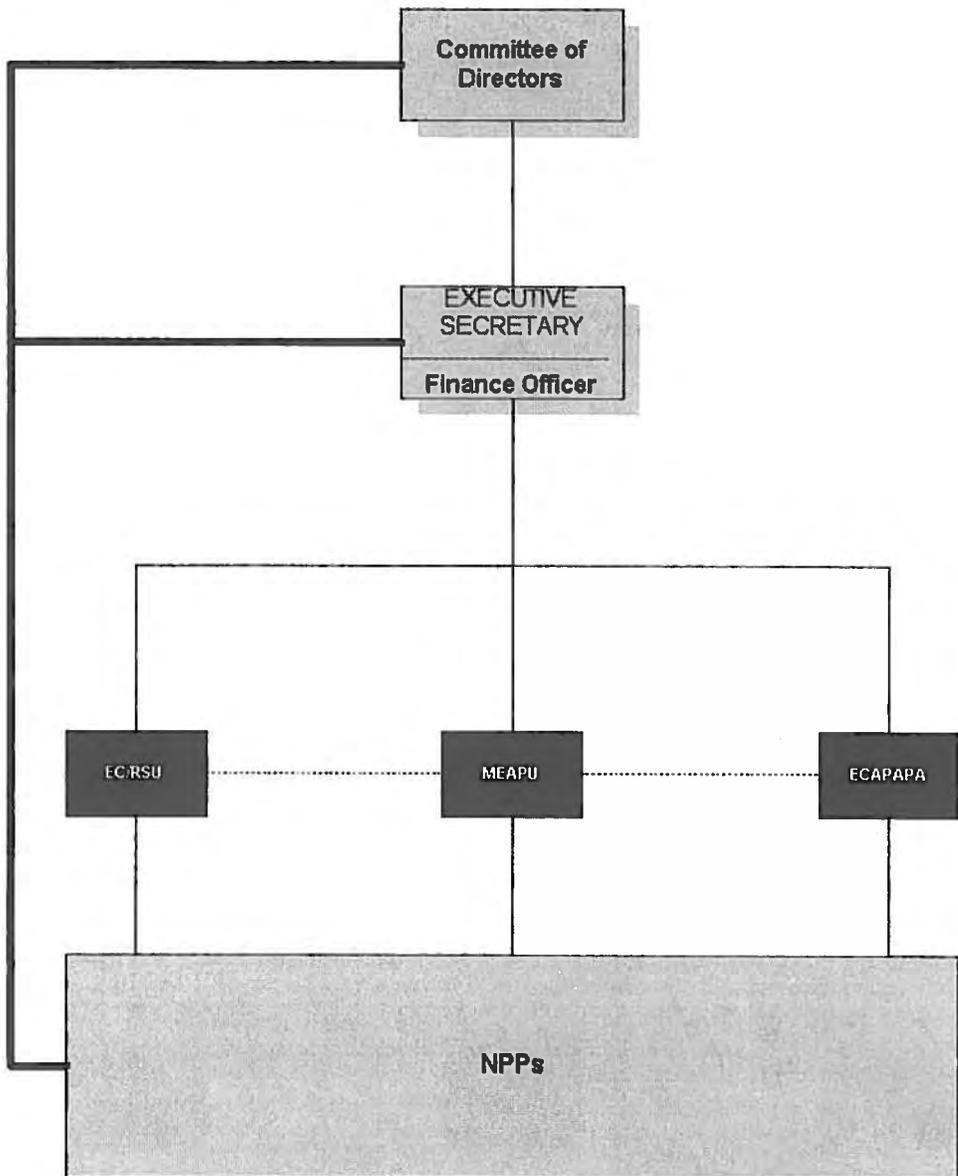
For the EU/RSP the Executive Secretary has been designated as the Regional Authorising Officer for the programme and the RSU will play a critical role in ensuring that the Secretariat is able to perform this function to the full satisfaction of

all of the partners involved in the programme. Therefore, the primary function of the two international officers will be to ensure that efficient and effective financial control and project administration mechanisms are established and implemented within the Secretariat and in the coordinating units for the programme. More importantly, they will be required to ensure that the ASARECA Secretariat is able to function as the RAO for EU funds by setting up and implementing the necessary administrative procedures and guidelines as well as financial control mechanisms.

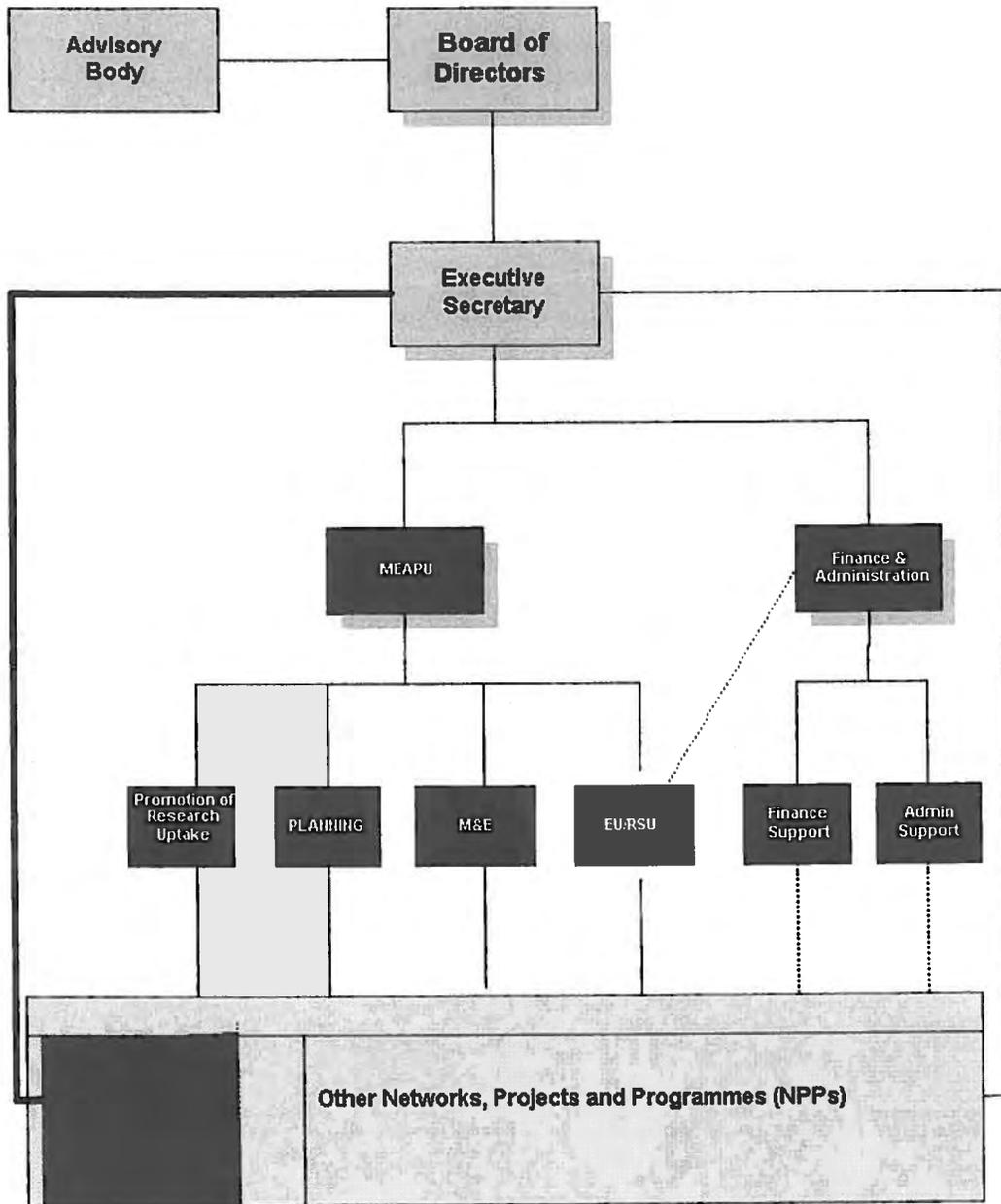
The two principle officers also have specific functions which attempt to draw a distinction between the technical, administrative and financial responsibilities.



Appendix 9
ASARECA structure 1994



APPENDIX 10
Current ASARECA Structure



APPENDIX 11
Proposed ASARECA Structure