



THE ASSOCIATION FOR STRENGTHENING AGRICULTURAL
RESEARCH IN EASTERN AND CENTRAL AFRICA



Technology Uptake & Up-scaling Support Initiative (TUUSI)

STRATEGIC PLAN: 2008-2013

January 2008

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Acronyms and Abbreviations

Former ASARECA Networks

A-AARNET	ASARECA Animal Agriculture Research Network
AHI	African Highlands Initiative
BARNESA	Banana Research Network for East and Southern Africa
CORNET	Coffee Research Network
EARRNET	East African Root Crops Research Network
EAPGREN	Eastern Africa Plant Genetic Resources Network
ECABIO	East and Central Africa Biotechnology
ECABREN	East and Central Africa Bean Research Network
ECAMAW	East and Central Africa Maize and Wheat Network
ECAPAPA	East and Central Africa Programme for Agricultural Policy Analysis
ECARRN	Eastern and Central Africa Rice Research Network
ECARSAM	Eastern and Central Africa Regional Sorghum and Millet Network
FOODNET	Food Network
PRAPACE	Regional Potato and Sweet Potato Improvement Programme in Eastern and Central Africa
RAIN	Regional Agricultural Information Network
SWMNET	Soil and Water Management Network
TOFNET	Trees on Farm Network

Report Acronyms

AADS	Agricultural Advisory Delivery Services
AATF	African Agricultural Technology Foundation

AFAAS	African Forum for Agricultural Advisory Services
ASARECA	Association for Strengthening Research in Eastern and Central Africa
AU	African Union
CAADP	Comprehensive Africa Agriculture Development Programme
CBO	Community Based Organisation
CIAT	Centre for International Tropical Agriculture (Spanish derivation)
CGIAR	Consultative Group on International Agricultural Research
DFID	Department for International Development (UK)
DONATA	Dissemination for New Agricultural Technologies in Africa
EAFF	Eastern African Farmers Federation
ECA	East and Central Africa
FAAP	Framework for African Agricultural Productivity
FARA	Forum for Agricultural Research in Africa
FFS	Farmer Field Schools
FLSE	Farmer-Led Seed Enterprises
IAR4D	Integrated Agricultural Research for Development
ICT	Information communication technology
ISAR	Institut des Sciences Agronomiques du Rwanda
LLL	Local Lessons Learning
ME&L	Monitoring, evaluation and learning
NARI	National Agricultural Research Institute
NARES	National Agricultural Research and Extension Systems
NARS	National Agricultural Research Systems
NEPAD	New Partnership for African Development

NGO	Non Governmental Organisation
NPP	Networks, Programmes and Projects (ASARECA)
PM&E	Participatory monitoring and evaluation
PRAPACE	Regional Potato and Sweet Potato Improvement Programme in Eastern and Central Africa
Pro-AGRA	Programme for the Alliance for the Green Revolution in Africa
PROLINNOVA	Promoting Local Innovation in ecologically-orientated agriculture and Natural Resource Management
RAIN	Regional Agricultural Information Network
RIU	Research into Use programme (DFID-funded)
RUFORUM	Regional Universities Forum
SRO	Sub-regional Organisation
TTP	Technology Transfer project
TUUSI	Technology Uptake and Up-Scaling Support Initiative

Foreword

In the new strategic plan (2005-2015), the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) has realigned its strategy to the New Partnership for African Development (NEPAD) agenda for Africa's agricultural development spelled out in the Comprehensive African Agricultural Development Programme (CAADP) and the Framework for African Agricultural Productivity (FAAP). This realignment is well portrayed in the ASARECA vision, mission and goal statements as well as in the principles and core functions.

Whilst ASARECA's primary goal is *"increased economic growth and improved livelihoods in Eastern and Central Africa while enhancing the quality of the environment"*, its secondary goal is *"to serve as the main forum where strategies and ideas for agricultural research, extension, agricultural training and education and their relationship to agricultural development in the sub-region are conceived and exchanged"*. Within its core functions, ASARECA aims to contribute to the development of appropriate knowledge, methodologies, information and technologies and to facilitate the transfer of such knowledge. In order to enhance its contribution in the areas of extension as spelt up above and especially to facilitate uptake and upscaling of research outputs, ASARECA established the Technology Uptake and Upscaling Support Initiative (TUUSI) in November 2006. TUUSI is a vehicle aimed to provide advice and guidance on policy and implementation issues on technology uptake and upscaling.

This strategy defines the strategic niche for TUUSI and provides a direction towards meeting the above aims. It has been prepared with technical support from consultants drawn from Natural Resources International (NRIL). It incorporates various contributions from stakeholders who participated in an inception workshop held in February 2007 where the perceived roles, functions and value added of TUUSI were discussed and agreed. It also draws inputs from stakeholders in the second TUUSI workshop of September 2007 where the draft strategy paper, its programme themes and results areas were tabled and discussed. Between October and December 2007, additional inputs were obtained through discussions with key stakeholders in the agricultural advisory and farmer empowerment areas namely the Eastern African Farmers Federation (EAFF) and African Forum for Agricultural Advisory Services (AFAAS) to identify specific strategic issues to begin to work on. Further inputs were obtained through consultations with Programme Managers for the three programmes currently in place, i.e., Staple Crops Programme, Policy Analysis and Advocacy Programme and Agrobiotechnology and Agrobiodiversity Programme to determine areas of interaction, conversion and in development of the initial set of TUUSI projects.

Finally a project development workshop was held on 10-11 December 2007 where four priority project themes were determined and their corresponding project concept notes developed. The four priority project areas complemented by a TUUSI communication and knowledge management strategy form the building blocks for implementing the strategy.

It is my hope that this strategy together with the identified priority project areas will be useful in effectively guiding technology uptake and upscaling interventions in the sub-region and that it will enable TUUSI to make a meaningful contribution to ASARECA's implementation of the new areas in its mandate as laid out in FAAP guidelines and to its intermediate outcome of *'enhanced uptake of agricultural research and development innovations in the ASARECA sub-region'*.

I would like to thank the ASARECA Executive Director, Dr Seyfu Ketema for his advice and support through TUUSI's conceptualization phase. Sincere thanks to the NRIL consultants- Andy Frost, Kerry Albright and Frances Kimmins- for their constructive inputs into initial drafts of the strategy. I am especially grateful to both Kerry and Frances for helping me prepare the final drafts of the strategy. Special thanks to TUUSI temporary research assistant Bombom Alexander and all stakeholders in the inception and second TUUSI workshops and the proposal development workshop for their ideas, all of which led to the development of this document.

Lydia N Kimenye PhD, Regional Expert, TUUSI

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Executive Summary

The primary goal of ASARECA is “*increased economic growth and improved livelihoods in Eastern and Central Africa while enhancing the quality of the environment*”. Its secondary goal is “*to serve as the main forum where strategies and ideas for agricultural research, extension, agricultural training and education and their relationship to agricultural development in the sub-region are conceived and exchanged*”. In the 2005-2015 strategic plan and operational plan 2007-2011, ASARECA has expanded the scope and scale of its mandate in research, analysis, advocacy and capacity development to include agricultural training and education, extension and farmer empowerment as laid out in the Comprehensive African Agriculture Development Programme (CAADP) Pillar IV and the Framework for African Agricultural Productivity (FAAP) guidelines. Thus, ASARECA will now address issues of farmer empowerment, agricultural extension, technology uptake and upscaling much more strongly than in the past.

In order to enhance its contribution in these new areas and especially to enhance uptake and upscaling of agricultural innovations in the ECA, ASARECA established the Technology Uptake and Upscaling Support Initiative (TUUSI) in November 2006. TUUSI was created to provide stakeholders in the ECA with best practices, innovative approaches in extension and agricultural advisory delivery services, farmer empowerment as well as advice and guidance to enhance upscaling of agricultural innovations.

The mission of TUUSI is “*to advance good practice technology upscaling approaches and pathways in ways that will result in accelerated wide-spread adoption of agricultural innovations (technologies, policies, processes) ultimately leading to impact at scale across the ECA sub-region.*” Its purpose is “*Enhanced utilization of agricultural knowledge and innovations in eastern and central Africa*”. The TUUSI strategy has three result areas namely (R1) Best practices in scaling up agricultural innovations established; (R2) Platforms for exchange/share of knowledge/experiences in scaling up agricultural innovations established; (R3) Capacity of the NARES in the sub-region to scale up agricultural innovations strengthened. It covers all aspects of capacity for scaling up agricultural innovations including, agricultural advisory delivery services and farmer empowerment.

This document contains the TUUSI strategic plan (2008-2013). It defines the strategic niche for TUUSI and priority projects that will contribute to ASARECA goal, purpose and to objectives of CAADP Pillar IV with respect to agricultural extension in the ECA.

It has been developed through participatory processes, which started with an exploration of the perceived roles, functions and value added of TUUSI at a stakeholder inception workshop. It was followed by tabling and discussion of draft strategic themes and potential result areas at a TUUSI second workshop in September 2007 which arrived at a consensus on TUUSI's broad thematic niches and implementation modalities. Between October and December 2007, additional inputs were obtained through further discussions with key stakeholders in the agricultural advisory and farmer empowerment areas namely the Eastern African Farmers Federation (EAFF) and African Forum for Agricultural Advisory Services (AFAAS) to identify specific strategic issues to begin to work on. Further inputs were obtained through consultations with Programme Managers of the three programmes currently in place, i.e., Staple Crops Programme, Policy Analysis and Advocacy Programme and Agrobiotechnology and Agrobiodiversity Programme to determine areas of interaction, conversion and to identify possible areas to develop TUUSI pilot scaling up projects. Finally a project development workshop was held on 10-11 December 2007 where four priority project themes were identified and their draft project concept notes produced for implementation over the next five years.

As TUUSI is a constituent of programme 7-“Up-scaling and Knowledge Management programme”-this strategy will form an important ingredient towards the development of the strategy and priority setting for that programme when its manager is in place.

This document has six sections. The first is the background wherein a brief introduction on ASARECA is given, followed by a historical perspective and rationale for TUUSI and finally a situational analysis. The latter is an analysis of important subjects within extension, farmer empowerment and upscaling sub-fields and in a way, identifies the strategic areas where TUUSI can add value. This section presents the TUUSI strategic focus. Section two give the vision, mission, core values and operating principles. The statements of goal, purpose and result areas (see annex-I for the Logical Framework).

The third section discusses the three TUUSI strategic themes:

- (i) Research on extension systems, agricultural advisory delivery services, farmer empowerment and issue in upscaling agricultural innovations. This is organized around pilot action research projects for lesson learning and upscaling successes; commission studies on specific issues including research to add value to on-going institutional innovations in extension systems, issues on farmer empowerment and methodologies for scaling up agricultural innovations. This theme is critical to TUUSI contribution to ASARECA implementation of the extension, technology adoption and farmer empowerment aspects of CAADP Pillar IV. It is

an important route for evolving scaling up approaches & guidelines, serving as a vehicle for capacity building and for mainstreaming uptake and upscaling into ASARECA research projects and programmes.

- (ii) Knowledge, Information and experience sharing platform. This theme defines crucial building blocks that will go into TUUSI's information, knowledge management and communication strategy. The theme has two components—a best practice information portal providing a portfolio of best practices in various areas of scaling up agricultural innovations; and experience & knowledge sharing and learning alliance platforms.
- (iii) The last theme is linked to the above two. It outlines strategies that directly contribute to capacity strengthening of partners in NARES and will involve issues-based learning events; production and dissemination of learning materials and hands-on tips on uptake and upscaling implementation issues.

Section four presents rationale and expected outputs of the TUUSI priority projects, which are (i) *Scaling up farmer-led seed enterprises for sustained productivity and livelihoods in ECA, 2008-2012*; (ii) *Farmer empowerment for enhanced agricultural productivity and growth in ECA-2008-2012*; (iii) *Scaling up sustainable market chain approaches for smallholder commercialization and sustainable livelihoods in ECA, 2009-2013*; (iv) *Innovative approaches to agricultural advisory delivery services, 2009-2013*

In section five, a TUUSI monitoring and evaluation framework is presented. It outlines the TUUSI results areas, and their medium term indicators. Section six discusses the necessary institutional structures, human resource needs and linkages for successful implementation of the strategy.

THE TUUSI STRATEGY

I Background

I.1 Introduction

Founded in 1994, the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) is a sub-regional organization whose strategic function is primarily about value addition to national agricultural research systems (NARS). This is accomplished by facilitating and supporting regional collaborative optimal production and utilization of agricultural technologies and innovations. Its strategy and operation are hence rooted in three corner stones, namely facilitating, supporting and serving as a forum for the member countries on issues pertaining to strengthening of agricultural research in the sub-region. The recent creation of the Comprehensive African Agriculture Development Programme (CAADP), in particular Pillar IV has made it imperative for ASARECA to expand its mandate to include agricultural extension and farmer empowerment in addition to seeking ways of enhancing utilization of agricultural research outputs in eastern and central Africa

Until 2007, its implementing arm was made up of a collection of networks, programmes and projects (NPP) organized around key commodities and research themes. In the revised strategic plan (2006-2016) and operational plan (2008-2012), the NPP'S have been rationalized and replaced by seven programmes-Staple Crops Programme; Non- staple Crops Programme; Livestock and Fisheries Programme; Agro-biodiversity and Biotechnology Programme; Natural Resource Management and Forestry Programme; Policy and Advocacy Programme; Up-scaling and Knowledge Management programme. The technology uptake and up scaling support initiative (TUUSI) is to be situated within the latter programme.

The ASARECA goal is “*Enhanced sustainable productivity, value added and competitiveness of the sub-regional agricultural system.*” Its purpose is ‘*Enhanced utilization of agricultural research and development innovations in eastern and central Africa*’. ASARECA has five results:

1. Performance driven governance and management structures and systems established and operational
2. Generation and uptake of demand driven agricultural technologies and innovations facilitated
3. Policy options for enhancing the performance of the agricultural sector in the ASARECA sub-region facilitated
4. Capacity for implementing agricultural research in the IAR4D paradigm in the ASARECA sub-region strengthened
5. Availability of information on agricultural innovation enhanced

As a crosscutting initiative established to drive technology uptake and upscaling TUUSI aims to contribute to the ASARECA purpose by providing support to and facilitating the ASARECA programmes upscaling initiatives. This involves strengthening capacity to innovate (to use existing knowledge in new ways and with new partners) and serving as a point of reference on upscaling technologies, approaches, processes and policy outcomes within ASARECA. TUUSI will contribute to ASARECA results 2, 4 and 5 above. It will capture, document and distribute lessons learned and best practices and act as a focal point for interaction with other external scaling up initiatives within the region in order to exchange lessons and create synergies.

1.2 Historical perspective and rationale for TUUSI

A few years after its establishment, ASARECA came up with the Technology Transfer Project (TTP) whose aim was to improve technology dissemination and adoption by encouraging research to forge partnerships with other players and to develop more effective dissemination approaches and uptake pathways. The TTP operated a competitive grant scheme and funded approximately 48 dissemination projects across 6 thematic areas and 10 countries between 1995 and 2002. An external review in 2001 found “that some of the technologies being promoted have had considerable impact on the beneficiaries”. Two examples given include beekeeping where beneficiaries acquired new skills and techniques and were able to access markets and in seed systems where farmers obtained good quality planting material which in turn improved productivity.

Through the projects, general lessons learned of relevance to scaling up were that

- working with multiple partners adds value to the operations of technology transfer agents;
- addressing priority needs and demands of beneficiaries contributes to success of technology transfer and adoption;
- added value can be obtained through leveraging additional financial support from other agencies to work in synergy and enhance efficiency of resource use and improved dissemination of technologies;
- a thorough analysis and understanding of policy and regulatory environments governing a given technology is imperative for success;
- sustainability (economic, financial, technical and institutional) is often not precisely defined in most technology transfer projects;
- commercial demand for the technology and affordability and acceptability considerations for end-users must be factored in to scaling up initiatives.

Over the years, many of the ASARECA research networks have also worked in partnership with different organizations and applied various research and dissemination approaches to improve the generation and uptake of technologies. Although wide spread uptake and upscaling impact of research has remained elusive, the networks have yielded and

disseminated successful research outputs including technologies, approaches and policy outcomes, which offer potential for lesson sharing and upscaling. What is lacking is systematic collation, synthesis, documentation, lesson sharing and upscaling.

Therefore towards the end of 2006, ASARECA decided to build upon lessons learned from previous initiatives and created the Technology Uptake and Upscaling Support Initiative (TUUSI). TUUSI aims to maximise previous investment to provide systematic quality support aimed at facilitating uptake and upscaling of research outputs in the sub-region and to contribute ASARECA purpose. As part of the programme 7, TUUSI will play a crucial role in the implementation of ASARECA's expanded mandate of agricultural extension and farmer empowerment, and in developing approaches, promoting lesson-sharing and generally facilitating improvement in upscaling agricultural innovations across the sub-region.

Regional stakeholder expectations of TUUSI were explored at the initial TUUSI Inception Workshop in February 2007 and validated at the End of Conceptualisation Phase workshop in September 2007.

The prioritised roles and functions included:

- Value addition- providing services and products that coordinate, facilitate and catalyse enhanced upscaling of successful technologies
- Develop approaches, methods and partnerships for upscaling
- Facilitate lesson-learning and sharing of experiences
- Capture and make available best bets (technologies, policies, approaches)
- Identify policy and institutional bottlenecks to uptake and upscaling
- Track technology uptake and facilitate adoption studies in collaboration with other ASARECA programmes and the Monitoring and Evaluation Unit
- Evolve into a regional hub on available best practices
- Capacity-building (conceptual, methodological, implementation issues)
- Networking and establishing alliances with similar initiatives
- Represent ASARECA in relevant meetings on upscaling

These proposed functions clearly contribute to the four result areas of ASARECA's new Operational Plan outlined in section I.1

I.3 Situational analysis

I.3.1 Limited uptake and impact of research outputs

Agricultural research in the ECA sub-region and indeed Sub-Saharan Africa as a whole is increasingly criticised for its limited impact over time and in scale, especially lack of

sustainable transformation and growth of agriculture to propel economic growth and to address rural poverty. A significant component of the criticism is failure of research to devolve its research outputs to anticipated users, particularly smallholder farmers and entrepreneurs among other users. Frequently even where adoption of technologies occurs, it rarely extends significantly beyond project sites. Weak and linear research-extension-farmer linkages, inadequate involvement of users in the technology generation and delivery processes and use of inappropriate approaches are frequently cited as key factors contributing to the poor adoption and limited impact of research. The weak and ineffective public extension systems of the sub-region have further aggravated the situation, precipitating a need for innovative ways to enhance uptake of technologies and to upscale proven successful cases.

Responding to mounting pressure from governments and development partners to demonstrate and upscale impact, many national research systems have had to re-orient their approach to research and to move downstream into more outreach activities. For example shifting from on-station to on-farm adaptive and then to more participatory research engaging farmers more actively in the research and dissemination processes. This shift led to development of various participatory research and development approaches, increased involvement of research into dissemination activities and increased interaction with extension, farmers, and other actors. More recent nuances of the shift include the adoption of a production-to-consumption value chain framework and the innovation systems perspective imbedded in the multi-dimension IAR4D paradigm¹. On the aggregate, these shifts have increasingly pushed research into outreach activities involving increased multidisciplinary and multi-institutional partnerships and intensive systemic interaction with end-users and non-traditional partners. In turn these changes have required new methods, skills and capacities in areas uncommon to research disciplines as well as demanding practical understanding of the emerging concepts and terminologies.

1.3.2 Upscaling approaches and pathways

Development and upscaling of successful dissemination approaches and extension systems is viewed as the missing link and a key determinant of impact of research. With the perceived poor performance of the public extension system over the last few decades, research is under pressure to show impact and has moved into dissemination, trying out various approaches such as the farmer field school (FFS), local lessons learning (LLL) methodology and a host of participatory approaches. A range of non-governmental organizations (NGOs) are also strongly involved in technology dissemination.

¹ Royal Tropical Institute KIT Development Policy & Practice (2007): Integrated Agricultural Research for Development Capacity Strengthening (IAR4D Needs Assessment, Strategy, Programme 2008-2012 and Operational Plan 2008-2010)

Many lessons on dissemination have been captured including from the TTP, but much of this work is fragmented, project-based with little drawing and sharing of experiences between and across organisations. Because the focus is usually about demonstrating impact at project level, little attention or none is given to systematic analysis of the approaches and lesson learning². Consequently, valuable lessons that could be used for replicating and/or upscaling successful cases or even for avoiding similar mistakes are missed out. More understanding is needed on the diffusion of innovations beyond project areas and the financial and environmental sustainability of upscaling initiatives.

The upscaling and adoption of new technologies in smallholder agriculture is a complex process that is often non-linear³ and normally takes on a range of process functions in addition to technology delivery and transfer. Some of these functions are quite critical; for example, farmer group organization and empowerment; access to markets and marketing; access to financial services and technology inputs amongst others. In the agricultural development community, the context of what constitutes research capacity has evolved, along with approaches for investing in the capacity to innovate.

Attention is now focusing on the demand for research and technology and on the development of innovation systems. One of the main proponents of agricultural innovation systems approaches, Andy Hall, has defined an innovation system as “a network of organisations, enterprises and individuals focused on bringing new products, new processes and new forms of organisation into economic use, together with the institutions and policies that affect their behaviour and performance. *The innovation systems concept embraces not only the science suppliers but the totality and interaction of actors involved in innovation*”(see footnote five). He further expounds that the “*scope of innovation includes not only technology and production but organizations (in the sense of attitudes, practices, and new ways of working), management and marketing changes, therefore requiring new types of knowledge not usually associated with agricultural research and new ways of using this knowledge*” (footnote five).

Worth noting too is the fact that much of the piloting and testing of upscaling approaches is taking place within evolving national institutional arrangements in agricultural extension and advisory service provision. Extension analysts count six basic models in the ongoing extension reform across Africa, all imported from other continents.⁴ In most countries the reform process is generally towards more plurality of advisory service provision with NGOs,

² Lynam JK and Omamo W: Consolidating agricultural Extension in East Africa

³ World Bank (2006): Enhancing agricultural innovation: how to go beyond strengthening research systems

⁴ Gemo H, Eicher CK and Teclmariam (2005) Mozambique’s Experience in Building a National Extension System

private sector, farmer associations and universities being key players and new extension models being tried. The result is a mushrooming of institutional innovations, for example private extension provision (e.g., in Cote d'Ivoire, Senegal, Mozambique and Uganda) or cost-recovery extension systems (Tanzania)⁵. The more recent innovation systems perspectives have brought forth yet a new dimension of "innovation platforms" to technology dissemination and up-scaling⁶. These platforms bring together the networks of actors described above by Hall.

Institutional innovations can have profound effects on the efficacy of advisory service delivery. They can also have serious implications for upscaling the evolving technology upscaling and uptake pathways and on redefining the role for public extension. A number of important and significant questions arise, for instance where and under what circumstances private extension systems can operate successfully, just as there are doubts over whether poor farmers (those involved in subsistence agriculture) can benefit from such institutional innovations. Moreover, while institutional pluralism increases the potential for evolution of best practice, it comes with coordination challenges and issues of quality assurance amongst other considerations. Greater awareness and analysis of the different actors' functions and capabilities will be a major objective of TUUSI's facilitation activities.

1.3.3 Monitoring and evaluation in upscaling initiatives

The limited availability of systematic evidence-based good practice despite numerous past and ongoing technology generation and dissemination projects partly derives from little inbuilt rigorous monitoring and evaluation processes within this work. While many NGOs have moved into extension and technology dissemination both as part of their humanitarian assistance and as direct support to development of smallholder extension projects, the evaluations of their projects have often not included much rigorous assessment of approaches and methods. Similarly, much of the research and dissemination work of research institutes, perhaps with exception of some international research centres notably CIAT, also lack rigorous M&E methodology for capturing lessons on the efficacy and other attributes of the upscaling processes. CIAT and others have developed participatory monitoring and evaluation methodologies (PM&E) which can facilitate lesson-learning, local ownership and a more reflective and responsive research outcome.

There are many quantitative and qualitative outcomes of dissemination and upscaling activities which many project implementers and other interested parties would like to capture but lack appropriate analytical methods, techniques and processes to employ. As the new ASARECA programmes adopt the IAR4D framework, more demand will emerge

⁵ IAC Report: Building impact-oriented research, knowledge and development institutions

⁶ Barnett et al (2007) Research Into Use programme Rwanda country assessment www.researchintouse.com

for improved frameworks for defining, monitoring and assessing non-conventional indicators, for example measures for effective partnerships, farmer empowerment and others. The TUUSI Regional Expert will work with the Monitoring and Evaluation Unit at ASARECA to strengthen capacity in this area for the upscaling initiatives.

Of equal importance is cost-benefit analysis of the emerging approaches. Though an important consideration for scaling up successes and influencing policymakers, it is largely an unknown entity. Where applied it often is deficient for decision-making since it fails to take account of environmental, social and health impacts etc. Multi-criteria decision-making tools are emerging which aim to incorporate these factors into decision-making and offer the potential to add value to existing ASARECA economic analyses. TUUSI will explore their potential to contribute to upscaling priority-setting.

1.3.4 TUUSI's contribution to the CAADP and FAAP agenda

In the new operational plan and strategy, ASARECA is committed to the implementation of the CAADP Pillar IV, which portrays an AU/NEPAD vision and strategy for achieving agricultural growth. The CAADP Pillar IV aims to achieve strengthened agricultural knowledge systems delivering profitable and sustainable technologies that are widely adopted by farmers resulting in sustained agricultural growth. The Framework for African Agricultural Productivity (FAAP) states that for this to be achieved, major improvements in African capacity for agricultural research, technology development, dissemination and adoption, together with enabling policies, improved markets and infrastructure will be required. It further concludes that this will require significant changes in and approaches to: (i) strengthening Africa's capacity to build human and institutional capacity; (ii) empowering farmers, and (iii) strengthening agricultural support services. In the process, it will establish the capacity: *“of making a paradigm shift away from a principally technological package approach to a truly integrated agricultural research approach and to ensure that researchers (national and international) work together with smallholders, pastoralists, extension agencies, the private sector and NGOs to have impact on the ground.”*⁷ These new developments have made it imperative for ASARECA to expand its mandate to address agricultural extension, farmer empowerment and technology dissemination uptake and upscaling more strongly than in the past. ASARECA will implement the new areas of agricultural extension, technology dissemination, uptake and scaling up and farmer empowerment through TUUSI.

1.3.5 Synergies with emerging and existing scaling up initiatives

ASARECA and many agencies have recognised the importance of developing synergies with initiatives which have common goals and purposes. They may involve different ways of working, thus providing good opportunities for sharing lessons learned and avoiding

⁷ Framework for African Agricultural Productivity (FAAP), FARA (June 2006)

duplication. Agricultural innovation systems and scaling up research has become a highly dynamic subject and there are a number of scaling up initiatives operating within the sub-region. These include the Millennium Villages Initiative spearheaded by the Earth Institute, Columbia University; the DFID-funded Research Into Use programme; the African Agricultural Technology Foundation (AATF); the Melinda and Bill Gates Foundation; Pro-AGRA; the Sasakawa Global 2000 initiative and several international NGOs (including FARM-Africa, Oxfam, Practical Action and CONCERN). The African Development Bank funded DONATA programme is to be implemented at a sub-regional level and the TUUSI Regional Expert is pegged to act as the Technical Coordinator for DONATA at ASARECA, thus ensuring harmonisation between the two initiatives.

Whilst all these initiatives are striving to upscale agricultural successes, they will employ different modalities, funding structures and activities and therefore provide excellent opportunities to exchange experiences and lessons. Interaction with such initiatives could reduce transaction costs and achieve economies of scale and TUUSI will make the initial approach and modalities for collaboration.

2 TUUSI vision, mission and strategic results

Vision: “Vibrant agriculture-led economies of the sub-region where farmers effectively empowered, are actively interacting with other actors and innovatively exploiting new productivity enhancing opportunities.”

Mission: “To advance good practice technology upscaling approaches and pathways in ways that will result in accelerated wide-spread adoption of agricultural innovations (technologies, policies, processes) ultimately leading to impact at scale across the ECA sub-region.”

2.1 Core values and operating principles

TUUSI will act in a facilitation capacity rather than leading on implementation of scaling up which will be the responsibility of the ASARECA technical programs. Its core values and operating principles are:

- Value addition and support to ASARECA technical programs and regional/national initiatives
- Providing and advocating good practice
- Sub-regional focus
- Providing a platform for learning and information sharing
- Innovation systems approaches
- Networking and facilitating broad-based partnerships and synergies

2.2 Goal, purpose and result areas

Goal: Increased economic growth and improved livelihoods in East and Central Africa while enhancing the quality of the environment

Purpose: Enhanced utilization of agricultural knowledge and innovations in eastern and central Africa.

Result Areas: The strategy anticipates three main result areas (see Annex-I for TUUSI Log Frame).

R1: Best practices in scaling up agricultural innovations established. They will include approaches and models for extension systems, agricultural advisory delivery services, farmer empowerment, technology uptake and upscaling.

R2: Platforms for exchange/share of knowledge/experiences in scaling up agricultural innovations established. Because scaling up agricultural innovations is a new and dynamic area with many initiatives coming up in the ECA, this output is about providing best practices and enabling sharing of experiences and lessons. The output includes making available a database and portfolio of technologies, best practices in scaling up approaches, agricultural advisory delivery services and farmer empowerment. It also includes establishment, coordination of learning alliances and other platforms for exchange of experiences and lessons.

R3: Capacity of the NARES in the sub-region to scale up agricultural innovations strengthened. It covers all aspects of capacity for scaling up agricultural innovations including, agricultural advisory delivery services and farmer empowerment.

3 Strategic themes

The TUUSI strategic framework is built around three broad interrelated thematic components – *action research on extension, agricultural advisory services delivery, farmer empowerment and upscaling issues to evolve approaches; establishment and coordination of a sub-regional information portal and platforms for knowledge, information and experience exchange/sharing; strengthen capacity in technology uptake and upscaling.*

3.1 Research on extension, farmer empowerment and up-scaling issues

Research in technology uptake and upscaling and extension issues is one of the new research dimensions in ASARECA's strategic and operational plans (2006-2016; 2008-2012).⁸ The research is aimed to generate appropriate knowledge that would provide the foundations for development of approaches and to support the continuous learning and innovation necessary for more effective technology dissemination and upscaling of the impact of research in the sub-region. The research also aims to add value to on-going institutional innovation in extension systems, strategies for farmer empowerment & organizational strengthening.

⁸ Revised following donor comments at the ASARECA BoD meeting of February 2007 in Bujumbura
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3.1.1 Research on dissemination and up-scaling issues

Participants at the inception workshop singled out the development and upscaling dissemination approaches as key expected outputs of TUUSI. The CAADP Pillar IV also calls for new approaches to technology dissemination. The situational analysis has revealed that while numerous extension methodologies and farmer participatory research approaches have emerged over the past few years some with potential for up scaling their underlying conceptual framework and implications for upscaling under different community settings is not well known.⁹ Insights and answers are need to various issues and questions such as how to cost-effectively extend the pilot/project level successful initiatives at substantially larger scale. TUUSI proposes two strategies for carrying out this research. One is through pilot upscaling action research projects to provide systematic practical experiences that would generate and share contextual knowledge aimed to catalyze up scaling. Pilot upscaling action research projects will be organized around innovation platforms approach to stimulate innovation and uptake. The second strategy is commissioning research on specific themes and guided by well articulated conceptual frameworks.

Pilot innovation platforms for learning and upscaling success

Recognizing the importance of learning and knowledge generation through *practice*, TUUSI will initiate and facilitate the development and implementation of pilot upscaling action research projects developed in collaboration with the ASARECA programs and drawn from the synthesised best-bet research outputs and identified priority areas. This component will be an important building block for establishment of learning alliances with similar initiatives involved in scaling up agricultural innovations in the sub-region and elsewhere.

While the main focus would be on validating and upscaling approaches, the projects would be built around proven up scalable technologies selected from the best-bets research outputs database. The projects will be developed to incorporate research, rigorous process PM&E and learning elements and adopt the IAR4D approach. Platforms developed around IAR4D principles will be called innovation platforms. In the simplest sense, these can be seen as the groups of organizations and individuals [who comprise researchers, advisory services/extension, NGOs, farmers associations, private sector and policy makers], employing innovative ways to generate, diffuse, adapt and use knowledge on a common theme/problem.¹⁰ The approach emphasizes the importance of a diversity of key actors and organizations *doing things differently* rather than *doing different things*. From the perspective of TUUSI, innovation platforms essentially make up the starting points for establishing wider forums for sharing contextual knowledge and strengthening capacity in technology

⁹ Alternative Pathways for Scaling UP, J. Lynam (August 2006)

¹⁰ Adapted from Hall et al., 2003

dissemination and up scaling. They will form important components of learning alliances for enhancing up scaling identified best-bet approaches and technologies. Learning alliances may be defined as:

*“A process carried out by both research, development organizations where well-approached and built-in practice appropriate habits on specific subjects may be shared, adapted, used and innovate”.*¹¹

Learning alliances as a framework can help refine, adapt, and share promising dissemination approach and uptake pathways.

Besides providing lessons, the pilot research projects would also provide a way to validate potential best practices and generate guidelines on upscaling. TUUSI will use the innovation platforms approach to validate and upscale best-bet research outputs and as building blocks for establishing learning alliances. It will draw expertise from its linkage with the DFID Research Into Use programme (RIU) on design and implementation of the innovation platforms and on institutionalizing sharing of experiences and best practices.

Commissioning studies on upscaling concepts and methodology

Research on upscaling concepts and methodology and on farmer empowerment issues is a crucial entry point in facilitating innovation and ensuring coherence in approach and methodology development. Innovations both build on existing knowledge and generate new knowledge. Given this, research can help explore the dynamics of existing and emerging approaches as they are applied in scaling up, farmer empowerment initiatives among others, to establish among other things to what extent and by which criteria such approaches and /or initiatives are successful or not. The anticipated insights would provide complementary learning opportunities, models to copy or avoid and implications for upscaling the success. This research component is therefore also aimed to support the upscaling action research projects by providing them with conceptual approaches and relevant methodology tools. Conversely, the upscaling action research projects too will provide feedback on valuable insights that will help refine the dissemination approaches providing basis for development of best practices for wider sharing and learning.

TUUSI will work with key partners to develop an analytical framework to guide and facilitate the research. Potential themes for research are many. However, over the six year plan period, TUUSI will implement two action research projects one on farmer- led seed enterprise models targeting crops not served by private seed companies and the second one will be to understand better innovative market chain approaches that have enabled smallholders to exploit market opportunities. Commissioned studies will seek to identify and analyse successful extension and advisory delivery services models, common priority capacity and empowerment needs in areas of AADS, farmer organizational strengthening and

¹¹ Learning Alliance and planning for change, <http://www.ciat.cgiar.org/riiweb/learning.htm>

strategies to address them. These studies will also explore conceptual and methodology aspects on how to integrate technology delivery with other services which smallholders need in order to adopt and upscale technology utilization and impact. Rarely do projects carry out multi-criteria analyses including cost benefit analysis of their successful approaches, yet this information is crucial for upscaling considerations. TUUSI will commission studies to generate information in this area as well.

3.1.2. Adding to institutional innovation in extension systems

Extension *per se* is not a core function of ASARECA. There are however, several support functions through which it can add value to member countries efforts to strengthen their extension systems and to empower farmers and their associations. As observed in the situational analysis, careful research and analysis is needed to inform the on-going extension systems reform in the sub-region. As each country tries to develop home grown models by adapting the emerging trends in extension delivery mechanisms, some pertinent knowledge and information is necessary to guide and build capacity of policy makers and extension managers to make informed choices. As expressed in an AIDE-MEMOIRE to an ad hoc expert group meeting on extension service system at the UN-ECA 11th intergovernmental committee of experts meeting:

“What is important is to build capacity among policy makers and extension managers to be able to identify what is best and to assess local situations and be able to come up with what would be suitable and to develop models of improving and financing extension services that best fit specific conditions and development priorities of the country—[And] hence the need to look at the various extension models, discuss challenges and successes in case there are any best practices.”¹²

Through research analysing key variables in the new trend in models such as modalities for decentralisation, outsourcing, privatisation and empowering of local communities at focal areas/watersheds, public-private sector areas, TUUSI can provide valuable information to support these efforts and aims. Potential variables for analysis and study in the new models would be for example exploring the dynamics of private extension initiatives to establish among other things the extent of their applicability in smallholder agriculture and criteria for effectiveness, underlying factors for replication and upscaling.

Value addition can further be made by providing a platform for and catalysing experience sharing and learning across member countries. Avenues for this include partnering and collaborating with relevant partners such as the Regional Universities Forum (RUFORUM) and the African Forum for Agricultural Advisory Services (AFAAS).

¹² From an AIDE-MEMOIRE to an Ad hoc Expert Group Meeting on Agricultural Extension Service Systems and Funding Modalities held at the UN-ECA 11th Intergovernmental Committee of Experts (ICE) Meeting for Eastern Africa, Bujumbura, Burundi, 16-20 April 2007.

3.2 Best practice, knowledge and experience sharing

There are two areas in this strategic theme, namely establishing a communication strategy, the first step of which has been production of a best practice information portal and facilitating knowledge and experience sharing for a .

3.2.1 Sub-regional knowledge portal on best practices and technologies

This strategic theme is about collating, analysing, synthesising and making available to stakeholders a web-based database and documented materials on the best-bet technologies, approaches and other research outputs. The aim is to enhance availability and potentially increase access to available promising best-bet technologies and approaches to wider audiences. The targets are NGOs, policy makers, public extension managers, private sector, research organizations and farmer associations and networks. Best practices in particular dissemination approaches and upscaling pathways are urgently needed to enhance the scaling up of impact of research in general, but more so to contribute to the aims of CAADP Pillar IV. In its revised Operational Plan (OP) 2007-2011, ASARECA reiterates its commitment to play core and supportive roles in the implementation of CAADP Pillar IV, which aims to:

'Achieve strengthened agricultural knowledge systems delivering profitable and sustainable technologies and that these are widely adopted by farmers, resulting in sustained agricultural growth'.¹³

The FAAP guidelines acknowledge that for this to be achieved, major improvements in African capacity for agricultural research, technology development, dissemination and adoption, together with enabling policies, improved markets and infrastructure will be required. Such improvements in turn demand for significant changes in approaches to research and dissemination. ¹This strategic theme aims to contribute to the knowledge system needed to drive the shift. Moreover, past ASARECA research programme reviews too point out to the need for systematic analysis, synthesis and documentation of researcher technologies and uptake pathways generated from previous and new research efforts.

There is no doubt that ASARECA has through its NPPs facilitated numerous regional collaborative research activities that have yielded many beneficial research outputs. Many of these research activities have involved technology dissemination and adoption. It is plausible therefore that a considerable number of research outputs have been disseminated and taken up by intended users. Similarly, several of the regional research networks and their partners have employed any number and types of dissemination approaches and uptake pathways and in the process gained considerable knowledge and experience in technology transfer and upscaling. Synthesis and production of best-bet technologies and approaches from such information would add incredible value to on-going and new upscaling efforts within ASARECA in particular activities of the new programs and potentially beyond. The best

¹³ Framework for African Agricultural Productivity (FAAP), FARA June 2006
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practice information portal will be a focal point linked to and deriving from another TUUSI strategic theme- a sub-regional learning alliance and experience sharing platform.

Initially the exercise would focus on previous ASARECA facilitated research outputs with periodic updates with outputs from current and future research projects, but will eventually be extended to include entries from other interested partners in the sub-region. Envisaged key activities under this theme are: collating, analysis, synthesis and production of the best-bet research outputs initially from past ASARECA research and presenting them in a web-based data base. TUUSI will also source best practices from other initiatives.¹⁴ The concept of best practices implies '*having a better than average*' and refers to a practice that has been tested and proven, and that best must be viewed in the relevant context.¹⁵ In the TUUSI analysis and description of best practice, attempt will be made to verify and describe as much as possible why a practice is judged best.

3.2.2 Sub-regional platforms for information/experience sharing & learning

Knowledge, experience sharing and cross-learning are important avenues for enhancing national innovation systems aimed at upscaling successful technologies and processes. There are many initiatives on agricultural research and development, which have in-built mechanisms for sharing and disseminating project results and achievements. For example, the CGIAR centres have events and forums to disseminate and to share theme-based experiences and achievements among themselves and other partners as do the NARIs. Often the focus is on outcomes, impacts and to some extent research methods. More recently, attention is being directed to participatory processes, for example the CIAT initiatives on scaling up and learning alliances.

Sharing knowledge and experiences is a powerful tool for facilitating national innovation systems. It can also enable states to identify and adapt extension models and systems for their situations based on solid empirical evidence. This strategic theme also provides TUUSI with an arm with which to add value to institutional innovations and reform in extension systems and initiatives on farmer empowerment by providing research information for more coherent evidence-based debates and adoption of models. Synergies and joint activities with the Policy and Advocacy programme to encourage and facilitate stronger involvement and participation of sub-regional farmer organizations such as the East African Farmers Federation (EAFF) in research and extension policy discourse will be actively sought.

¹⁵ InterSand Asia-ITC, October 2003

TUUSI will strive to establish networking and linkages with other organizations and initiatives that have similar mandates to TUUSI or have interest this subject such as AFAAS, DONATA, PROLINOVA, RIU, relevant NGOs and higher order farmers associations for collaborative knowledge/experience sharing and learning fora such as joint symposia, workshops and technology upscaling fairs amongst others.

3.3 Strengthening capacity in technology dissemination and upscaling

ASARECA has planned for a much broader programme to build capacity for implementing research in an IAR4D framework. Because an IAR4D framework does include dissemination, adaptation and uptake of innovations, some of the required capacity building in respect to technology dissemination and upscaling is expected to be covered in that broader programme. Capacity building organized under TUUSI will focus on technology uptake and upscaling conceptual, methodology and implementation issues.

To a large extent, much of the capacity strengthening of ASARECA research programme managers and the partners in the NARES will be through 'learning -by- doing' in the innovation platforms for upscaling and through exchange and sharing of practical experiences at learning alliance symposia and other experience sharing for a. Syntheses of successful approaches with illustrative case studies and other insights drawn from the action research projects and other sources will provide complementary learning materials to be shared through database and other channels. Additionally, TUUSI will organize and facilitate focused theme-based training and learning events for ASARECA programme managers and relevant partners. Backstopping support will be provided in project development to ensure upscaling considerations are adequately incorporated from the outset. Further hands-on tips on implementation issues and challenges can be given for projects implementers at project inception and review workshops for projects with upscaling components. Other strategies for capacity strengthening that will be used include cross-projects exchange visits and one-to-one mentoring for project leaders/managers and consultations. Other training material such as manuals or handbooks on approaches or methodologies for upscaling specific technologies will be packaged in various forms such as DVD and in appropriate languages.

Weak process monitoring and evaluation is a major factor contributing to the limited documentation and systematic sharing of successful approaches for technology uptake and up scaling pathways. Participatory monitoring and evaluation systems have been shown to be effective at capturing qualitative and quantitative information on process variables, promoting reflection and learning and in capturing lessons. The CIAT PM&E group has made considerable progress in developing, testing and validating PM&E in agricultural research. TUUSI will seek to form partnerships to develop a collaborative activity to establish and strengthen capacity for PM&E within the pilot upscaling action research projects and for mainstreaming PM&E in research projects.

4 TUUSI Priority project areas

Four priority project areas which fall within the three strategic themes were identified. They were determined in a stakeholder workshop on project identification and development held on 10-11th December 2007. Four projects concept notes were developed from these priorities and they form an initial set of projects for implementation of the TUUSI strategic plan. This section presents a brief outline of the four concept notes and their expected outputs. Complete concept notes plus their log frames are in a separate annex to the 2008 annual work plan.

(i) Scaling up farmer-led seed enterprises for sustained productivity and livelihoods in ECA, 2008-2012

Productivity in smallholder African agriculture has remained low for many years unlike other developing regions such as Asia. One main reason is low adoption of improved varieties. A major reason for this is lack of sustainable access to quality seed. In most countries, the formal seed system is unable and often has no incentives to meet the complex and diverse seed requirements of smallholder farmers. This problem and its effect are especially acute for crops, which are not attractive to commercial seed companies. These crops include the self and open pollinating, vegetatively propagated and crops with limited and fluctuating seed demand (e.g., indigenous vegetables). Yet these crops have huge potential to contribute to productivity, food security and economic growth in the ECA¹⁶.

This project will develop and pilot scaling up of best-bet farmer-led seed enterprise (FLSE) models suited to these crops. It will catalyse development and scaling up/out of viable FLSE linked to other stakeholders and for supply of timely and quality seeds to large number of farmers including hard to reach farmers in remote areas. Three outputs are anticipated: (i) viable farmer-led seed enterprise (FLSE) models for open, self pollinating and vegetatively propagated crops established; (ii) Viable FLSE model options scaled up; (iii) Best practices including guiding principles for scaling up of FLSE produced, documented and disseminated.

(ii) Farmer empowerment for enhanced agricultural productivity and growth in ECA-2008-2012

For agricultural productivity and growth to be realized farmers must be empowered to have an influencing voice, become active partners and drivers of agricultural productivity initiatives. Such empowerment¹⁷ is structural in nature requiring development and support of

¹⁶ ASARECA Strategic Plan 2005-2015

¹⁷ Farmer empowerment is attained “when farmers, through their groups, networks of groups and associations, acquire the ability to determine their own needs and production targets, and assume the authority, resources and capabilities to hold accountable and influence the content of public and private agricultural services---” (FAAP June 2006)

systems that foster greater farmer knowledge, strengthening of institutional and management capacities of their organizations for effective institutional participation at local, national, regional and global levels. Achieving this is a formidable challenge.

This project will implement a cohort of activities organized around identifying priority empowerment needs and promoting platforms for trans-boundary exchange of best practices in this area and promotion of pilot programmes for innovative ICT-enabled learning and information sharing. The expected outputs are: (i) profile of farmer organizations in terms of functional attributes established; (ii) priority farmer empowerment needs established; (iii) platforms for learning alliances on farmer empowerment established; (iv) innovative ICT and other modern communication and learning tools for farmers determined;

(iii) Scaling up sustainable market chain approaches for smallholder commercialization and sustainable livelihoods in ECA, 2009-2013

Success of productivity-based agricultural growth and its contribution to sustainable livelihoods depends very much on expansion of market opportunities for small scale farmers and improvement of their capacity to participate in them. Without access to profitable markets and the skills to exploit such opportunities, most small scale producers inevitably slip back to subsistence farming irrespective of whether they have access to improved agricultural technologies.

This project will be implemented as a pilot scaling up action research project. It will involve identifying successful market chain models, validating them in different community-commodity and institutional setting, analyzing and generating lessons to guide future scaling up. The expected outputs are: (i) best-bet market chain approaches and models established; (ii) market chain approaches and model options tailored to different settings scaled up; (iii) timely, relevant and accurate information accessed by all actors in the market chain; (iv) best practices including guiding principles for scaling up market chain models developed, documented and disseminated.

(iv) Innovative approaches to agricultural advisory delivery services, 2009-2013

The agricultural productivity envisioned in the Comprehensive African Agricultural Productivity (CAADP) Pillar IV will depend very much on farmers' ability to effectively play their central role in the agricultural development processes. Agricultural extension and AADS systems have a critical role to play in contributing to farmer empowerment through generation of human and institutional capital. Yet over the years, in most ECA countries the extension systems and other advisory and supportive institutions have become increasingly weak, ineffective and inefficient. While there are some new models being tried, in most cases

this is done on trial and error basis with limited understanding of which ones are appropriate under what circumstances and the factors contributing to success or failure. For many extension managers, especially from post-conflict countries, the greatest challenge is to identify what is best among available models and to determine what would be suitable under local situations and how to scale up the appropriate ones. Policy makers especially, need information to use to develop or adapt models of improving and financing extension services that best fit specific country conditions and developmental priorities.¹⁸

This project consists of a suite of activities aimed to address these challenges. The activities will evolve around a series of studies to identify, evaluate and establish best-bet models; scoping studies to identify common priority capacity building needs in AADS and instigate their incorporation in agricultural education and training curricula/programmes in the ECA. The expected outputs are (i) A portfolio of best-bet/innovative practices AADS and extension models established; (ii)) platforms for learning alliances on AADS established; (iii) Common priority human and institutional capacity development needs identified and their incorporation into sub-regional training programmes/curricula advocated.

5 Monitoring and evaluation framework

TUUSI was established with a primary aim to take leadership and drive technology upscaling. It aims to provide advice and information on conceptual, methodology and implementation issues pertaining to extension, technology dissemination and upscaling, to produce and promote best practice dissemination and upscaling approaches to enhance wide spread adoption and impact of research in the ECA sub-region. TUUSI will contribute to ASARECA's goal '*Increased economic growth and improved livelihoods in East and Central Africa while enhancing the quality of the environment*' through its purpose which is '*enhanced dissemination, uptake and upscaling of agricultural technologies and development innovations in the ASARECA ECA countries*'.

TUUSI will adopt a participatory monitoring, evaluation and learning (PME&L) approach as the main mechanism for generating information with which to monitor milestones and the results indicators. The stakeholders involved in the action research pilot upscaling and the other projects will be key players in the generation of ME&L information. TUUSI will seek collaborative PM&E methodology support from partners for capacity building of actors in the pilot up scaling projects. Each dissemination project or platform will develop a PM&E matrix for use in this exercise. Commissioned and evaluation studies will serve as additional M&E mechanisms.

¹⁸ AIDE-MEMOIRE to an Ad hoc Expert Group Meeting on Agricultural Extension Service Systems and Funding Modalities held at the UN-ECA 11th Intergovernmental Committee of Experts (ICE) Meeting for Eastern Africa, Bujumbura, Burundi, 16-20 April 2007.

6 Institutional structures and linkages

Currently TUUSI is a one person unit, which is expected to become part of Programme 7 under the ASARECA operational plan 2007-2011. Program 7 deals with capacity development, information management and upscaling. At the minimum, in addition to the Regional Expert who coordinates and manages the activities of TUUSI, a Program Assistant will be required for effective implementation of this strategy. In addition, the Regional Expert will need to be able to access supplementary skills from outside the core management team in order to effectively deliver on TUUSI's activities and achieve the program's aims and objectives.

A steering committee or technical advisory team (TAT) will therefore be required to work with the Regional Expert on strategic and technical issues in extension, agricultural advisory delivery services, farmer empowerment, information and knowledge management and upscaling. Some necessary skills required within such a body were identified during the TUUSI strategy and end of conceptualization phase workshop. These skills include institutional development and change; translation of scientific knowledge for end user audiences; IAR4D practice; natural and social science technical expertise for upscaling validation purposes; knowledge management; ICT and communications; PM&E and impact assessment (environment, social, economic, institutional); value chain analysis; macro-economics and practical expertise in implementation of public-private partnerships.

Within programme 7, TUUSI will maintain close links with the equivalent of former Regional Agricultural Information Network (RAIN) especially in the areas of packaging, disseminating and sharing best practices and experiences. As a cross-cutting initiative, TUUSI will strive to cultivate strong working linkages with all ASARECA programs to provide guidance and facilitate technology uptake and upscaling activities and objectives. Being a highly dynamic area with numerous initiatives operating in the sub-region, TUUSI will seek to forge external linkages and networking with key organizations and initiatives with similar mandates to TUUSI. Currently, such initiatives and organizations include, RIU, PROLINNOVA, AGRA, GASUI, AFAAS, amongst others. An institutional map of such organizations and the interaction linkages will be prepared and updated regularly.

ANNEX-I: TUUSI LOGICAL FRAMEWORK 2008-2012

Narrative Summary	Verifiable Indicators	Means of Verification	Assumptions/Risks
<p>Goal: Increased economic growth and improved livelihoods in East and Central Africa while enhancing the quality of the environment</p>	<ul style="list-style-type: none"> - 6% increase in agricultural growth in ECA countries by 2012 	<ul style="list-style-type: none"> - Country statistical reports 	<ul style="list-style-type: none"> - Supportive policy and institutional environment - Economic infrastructure¹⁹ e.g. energy, roads, ICT
<p>Purpose: Enhanced utilization of agricultural knowledge and innovations in eastern and central Africa.</p>	<ul style="list-style-type: none"> - 20% increase in farmers in ECA accessing agricultural advisory deliver service and technologies by 2012 - 20% increase in farmers in ECA accessing seeds of improved self, open pollinating and vegetatively propagated crops and indigenous vegetables by 2012 - 20% increase in farmers in ECA countries adopting improved technologies by 2012 - 50% increase in new technologies adopted by farmers in ECA by 2012 	<ul style="list-style-type: none"> - internal impact assessment studies, validated by independent evaluation in year 6 - External evaluation and impact assessment reports 	<ul style="list-style-type: none"> - New and improved relevant technologies being developed and disseminated by researchers and other stakeholders

¹⁹ Infrastructure is a necessary precondition for improved productivity and competitiveness.

Results:			
RI: Best practices in scaling up agricultural innovations established	<ul style="list-style-type: none"> - At least 3 best-bet models and approaches to viable farmer-led seed enterprises for open, self pollinating, vegetatively propagated crops and indigenous vegetables evaluated, documented and disseminated by 2012 - At least 3 best-bet models and approaches for market access and marketing for smallholders evaluated, documented and disseminated by 2012 - At least 3 best-bet models and approaches to agricultural advisory delivery services evaluated, documented and disseminated by 2012 - At least one innovative model financing and managing extension services documented and disseminated by 2012 	<ul style="list-style-type: none"> - Projects reports - Medium term evaluation reports 	<ul style="list-style-type: none"> - Relevant technologies exist - Relevant innovative approaches exist and being applied by stakeholders
R2: Platforms for exchange/ share of knowledge/ experiences in scaling up agricultural innovations established	<ul style="list-style-type: none"> - TUUSI communication strategy to disseminate information and facilitate share of lessons among stakeholders developed and documented by 2012 - Database containing at least 70 best practices established by 2012 - At least 100 stakeholders accessing information from database - At least 5 sub-regional events and for a organized for exchange and share of best practices and experiences - At least 100 stakeholders representing at least 20 different organizations from the ECA participate in the platforms by 2012 - At least 10 best practice models presented and documented by 2012 	<ul style="list-style-type: none"> - Project reports - Medium term evaluation reports; - Workshop and platform events reports and related documents - Database statistics 	<ul style="list-style-type: none"> - Supporting government policies and donors - Economic, policy and institutional context remains favourable in selected countries. - Stakeholders with experiences and best practices to share.

<p>R3: Capacity of the NARES in the sub-region to scale up agricultural innovations strengthened</p>	<ul style="list-style-type: none"> - Capacity building needs for scaling up agricultural innovations established by 2012 - At least 10 capacity building/training events held by 2012 - Learning alliance established and facilitated amongst a range of actors with upscaling mandates to exchange experiences and share knowledge - 10% increase in research and scaling up projects applying innovative approaches - At least 5 new scaling up projects with functioning broad based effective partnerships - 10% increase in number of national and sub-regional agricultural policies and agricultural productivity initiatives influenced by farmers organizations - At least 50% of new research projects of ASARECA research programmes inbuilt scaling up concepts and principles 	<ul style="list-style-type: none"> - Project reports - Medium-term evaluation reports - Portfolio of new ASARECA research projects 	<ul style="list-style-type: none"> - Supporting government policies and donors - Economic, policy and institutional context remains favourable in selected countries. - Stakeholders with experiences and best practices to share