



Enhancing the role of science & technology in innovation systems - towards an enabling environment in Southern Africa

Mid-term review of RAEIN-Africa's
ISP-TEESA programme (2009-2013)

Seerp Wigboldus
Rachel Shibalira

Report



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Centre for Development Innovation, Wageningen UR (University & Research centre)

Summary

RAEIN-Africa is involved in the enhancement of an enabling environment that allows for science & technology to play more appropriate and effective roles in collaborative innovation processes in Southern Africa. By providing opportunities for working towards multi-actor co-innovation, both at regional (SADC) and national level, RAEIN-Africa's ISP-TEESA programme seeks to support the institutionalisation of new ways of collaborative innovation in relation to both (appropriate) technology development, and governance and policy frameworks. This report is the product of an external mid-term review of this programme. The evaluation team found a well-functioning and capable secretariat, as well as enthusiastic partners and stakeholders across the SADC region who commend the work facilitated by RAEIN-Africa and who commend the way in which secretariat staff work with them. Achievements to date are manifold in terms of research, trainings, participatory decision-making processes, grassroots projects, multi-stakeholder innovation platforms, and more. Realised products and services are starting to reap a harvest in terms of behaviour change of actors working together in innovation platforms and in terms of emerging effects in livelihood conditions, which have a potential for addressing food insecurity concerns in the region. RAEIN-Africa has chosen biotechnology and biosafety as a case to focus on in creating new opportunities for working from an innovation systems approach to sustainable development involving agriculture and environmental concerns. RAEIN-Africa is also facing challenges that relate to the organisational setup of ISP-TEESA and RAEIN-Africa in general, to its connectedness inside and outside the region, and to some elements of operational performance. The more urgent challenges relate to the need for raising its profile in the region so as to safeguard organisational sustainability. The recommendations in this report address those challenges and following up on this will help articulate and position more strongly what RAEIN-Africa has to offer to the SADC region.

Photos

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Preface

Science and technology have an important role to play in innovation systems responsive to food insecurity. Embracing an innovation systems perspective to agricultural development, such as RAEIN-Africa does, means acknowledging the need for involving all actors in appropriate ways to unleash potential innovation capacity. This then creates new opportunities for sustainable development that includes food security and environmental sustainability.

Taking the case of biotechnology and biosafety in particular, we can see that most countries in Southern Africa are still struggling to create an enabling environment that allows for making science & technology work for the poor (Richards, 2010). Policy and legislative frameworks as well as institutional arrangements that would create space for collaborative innovation and harnessing the potential of appropriate (bio)technologies, are often found wanting.

It is in this context that RAEIN-Africa's ISP-TEESA programme becomes highly relevant as it seeks to support broad-based capacity development in SADC countries at both regional and national level. Training, twinning, coaching, networking, research and more modalities are among the range of projects that are interactively complementary in RAEIN-Africa's approach to capacity development. Taking national needs assessments and context conditions as the point of departure, there is room for diverse pathways, while common needs and conditions make regional exchange and interaction inspiring to national dynamics.

This report has been submitted to RAEIN-Africa. Given the existing strengths and opportunities highlighted in this report, and with the opportunities shared in the recommendations, RAEIN-Africa appears to be in a good position to continue to play and even enhance its catalyzing role in the SADC region in bringing together partners and stakeholders in meaningful and effective ways to see innovation happen and see it contribute to food security of rural livelihoods in Southern Africa.



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Executive summary

This report is the product of an external mid-term review of the “Innovation for Sustainable Development and Poverty Reduction: Towards an enabling Environment for Systems of Innovation in Southern Africa” (ISP-TEESA) programme (2009-2013), implemented by Regional Agricultural & Environment Initiatives Network in Africa (RAEIN-Africa). The review was carried out in September 2012.

RAEIN-Africa is a network that was launched in 2004 in Lusaka, Zambia, in response to a mandate given by stakeholders during a regional workshop on biosafety needs identification in Uganda, December 2001. The mandate involved the development of capacity for biotechnology research and biosafety frameworks across the region of Southern Africa. The mandate given was based on experience gained in predecessor programmes on biotechnology and biosafety in Zimbabwe (through the Biotechnology Trust of Zimbabwe). After initial work through the Biosafety and Environment Programme, RAEIN-Africa developed a strategic plan with strategic partners in 2008 (for the period 2009-2015), drew the outlines and focus for further growth of RAEIN-Africa after which a proposal for the current ISP-TEESA programme was submitted to and approved by the Netherlands Directorate General International Cooperation (DGIS) in the beginning of 2009.

The ISP-TEESA programme is aiming to contribute to sustainable development and poverty reduction by helping to enhance the role of science & technology in innovation systems. It does so through projects that improve an enabling environment for biotechnologies to become profitable for the poor. They have solidly embraced an innovation systems approach to development, which involves investing in and strengthening of multi-stakeholder processes. A key component of the programme involves the establishment of innovation platforms in relation to technologies and in relation to governance & policy influencing. Such platforms bring together stakeholders from science (multi-disciplinary), government, civil society groups, media, and includes lawyers. Other significant projects include national needs assessment studies, targeted research, development of high-level guidelines in relation to biotechnology and biosafety, training on innovation systems approaches as well as practical skills, and regional exchange and learning events. The ISP-TEESA theory of change spells out an integrated approach to the variety of projects, to create synergy and support capacity development along the lines of creating an enabling environment that helps biotechnology and biosafety work for the poor.

The evaluation team found a well-functioning secretariat implementing the programme, which is capable of taking the programme forward, capable of securing effective and reliable financial management, but stretched because of limited personnel resources for a regionally operating initiative. The team also found enthusiastic partners and stakeholders who commend the work facilitated by RAEIN-Africa and who commend the way in which secretariat staff work with them. Achievements to date are manifold and realised products and services along the lines of research, innovation platforms, and support to capacity development are starting to reap a harvest at the level of outcomes and impact. Notable effects of achievements so far have been gained through the innovation platforms, where partners and stakeholders are able to secure changes beyond RAEIN-Africa’s sphere of influence, such as in relation to legislative frameworks. The relationships developed in a wide range of countries at different levels of government, with research organisations and universities, with civil society groups, media, farmers and more stakeholder groups, is evidence of RAEIN-Africa’s effective networking capacity.

RAEIN-Africa, through the ISP-TEESA programme is in a position to make important contributions in the region that indirectly can mean a lot to rural livelihoods. However, RAEIN-Africa is also facing challenges. They relate to the organisational setup of ISP-TEESA and RAEIN-Africa in general, to its connectedness in terms of finding support inside and outside the region, and to operational performance. Some relate to very practical issues such as the need for a better M&E system and website facilities. Others relate to

processes of institutionalisation, which involve slow-moving processes. The more urgent challenges relate to the need for raising its profile in the region so as to safeguard organisational sustainability. There is an urgent need for room for manoeuvre as regards staff capacity of the secretariat to be ready to face the future beyond ISP-TEESA. In this, the challenge does not relate to the potential of the organisation but to the bare need for funding to sustain its much-appreciated efforts in the region.

Based on the review, the evaluation team suggests the following key recommendations:

In terms of enhancing strategic focus and connections

1. Keep working on the formalization of the SADC connection, but also explore alternatives for getting a stronger profile in the region.
2. Engage more and more effectively with the private (business) sector. Develop a strategy for this.
3. Explore opportunities for linking to new initiatives in the region such as the Green Climate Fund and SASCAL (both on climate change related issues in the SADC region). These are just two examples, but there are more existing and upcoming initiatives relevant to RAEIN-Africa's work niche.

In terms of enhancing management and organization

1. Develop a careful transition plan for moving the secretariat to South Africa and prevent losing strengths that are based on the current location.
2. Harness the (potential) role of NWGs beyond ISP-TEESA and help them evolve into national-level innovation platforms that can coordinate, support and facilitate exchange between innovation platforms on specific topics in the country.

In terms of enhancing performance capacity & readiness

1. Invest in improving website/database facilities, which is a key function for RAEIN-Africa, being a regional initiative aiming at facilitating networking and exchange.
2. Sharpen the articulation of the focus of what RAEIN stands for. Descriptions have to become more sharp and succinct. Consider involving a communication specialist.
3. A careful plan for strengthening the secretariat's capacity needs to be drawn, both in terms of number of staff as well as in terms of orientation of job designations.
4. RAEIN-Africa needs a comprehensive M&E plan beyond the currently used matrix that tracks progress only. This will help create more of a shared understanding of what ISP-TEESA is aiming to achieve and should capture better what changes occur at outcome and impact level.
5. To DGIS: Allow for making adaptations in budget allocations for 2013 so as to make it possible to follow up on (selected) key recommendations in this report.

List of abbreviations and acronyms

ABS	Access and Benefit Sharing
ACODE	Advocates Coalition for Development & Environment
ACTS	African Centre for Technology Studies
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ATPS	African Technology Policy Studies
AU	African Union
BEP	Biosafety and Environment Program
BioFISA	Finnish-Southern African Partnership Program to Strengthen NEPAD/SANBio
BTA	Biotechnology Trust Africa
BTZ	Biotechnology Trust of Zimbabwe
CADECOM	Catholic Development Commission of Malawi
CBOs	Community Based Organizations
CBD	Convention on Biological Diversity
CC	Climate Change
CDI	Centre for Development Innovation, Wageningen UR
CEPA	Center for Environmental Policy and Advocacy
CGIAR	Consultative Group of International Agricultural Research
COPMOP	Conference of the Parties serving as the Meeting of the Parties
COFISA	Cooperation Framework on Innovation Systems between Finland and South Africa
CPA	Consolidated Plan of Action
CPB	Cartagena Protocol on Biosafety
DGIS	Directorate General for International Cooperation of the Netherlands
DRC	Democratic Republic of Congo
EC	European Commission
EU	European Union
FAO	Food and Agriculture Organization
FARA	Forum for Agricultural Research in Africa
FANRPAN	Food Agriculture and Natural Policy Analysis Network
FIELD	Foundation for International Environmental Law and Development
GEF	Global Environmental Facility
GMOs	Genetically Modified Organisms
IFPRI	International Food Policy Research Institute
IKS	Indigenous Knowledge Systems
IPR	Intellectual Property Rights
ISP-	Innovation for Sustainable Development and Poverty Reduction:
TEESA	Towards an Enabling Environment for Systems of Innovation for Southern Africa
ITEM	Innovative Technologies for Enhancement of Production Systems and Management of the Environment
IUCN	International Union for the Conservation of Nature
LDC	Least Developed Countries
L&R	Liability and Redress
MDGs	Millennium Development Goals
MEAs	Multi-lateral Environmental Agreements
MC	Management Committee
M&E	Monitoring and Evaluation
NCI	National Contact Institution
NCP	National Contact Person

NEPAD	New Partnerships for African Development
NGOs	Non-Governmental Organizations
NWG	National Working Group
OECD	Organization for Economic Co-operation and Development
PAPP	Public Awareness and Participation Platform
PPP	Public Private Partnership
PBS	Program for Biosafety Systems
RA & RM	Risk Assessment and Risk Management
R&D	Research and Development
RAEIN	Regional Agricultural and Environment Initiatives Network (-Africa)
RIBBB-SA	Regulatory Innovation: Breaking Biosafety Boundaries in Southern Africa
RISDP	Regional Indicative Strategic Development Plan
SEA	Swaziland Environment Authority
SADC	Sothern Africa Development Community
SAIS	Southern Africa Innovation Support Program
SANBios	Southern Africa Network of Biosciences
SANGL	Southern Africa Network of GMO Detection Laboratory
SCBD	Secretariat to the Convention on Biological Diversity
SSA	Sub Saharan Africa
S&T	Science & Technology
STI	Science, Technology and Innovation
TAC	Technical Advisory Committee
TOR	Terms of Reference
ToC	Theory of Change
UNEP	United Nations Environment Program
UNCTAD	United Nations Conference on Trade and Development
UNAM	University of Namibia
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
Wageningen UR	Wageningen University & Research centre

1 Introduction

This chapter sketches the background and focus of, and applied methodology in this mid-term review.

1.1 Purpose of this document

This report is the product of an external mid-term evaluation of the “Innovation for Sustainable Development and Poverty Reduction: Towards an enabling Environment for Systems of Innovation in Southern Africa” (ISP-TEESA) programme of the Regional Agricultural & Environment Initiatives Network in Africa (RAEIN-Africa). The review was carried out in September 2012. It provides an outsiders view on programme strategies and operations in terms of performance against set objectives, performance in view of required adaptation to context conditions and performance in terms of emerging outcomes and impact of efforts.

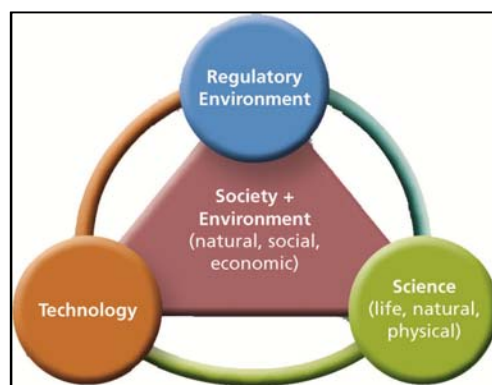
Being a mid-term review, the document is not only meant to provide an assessment of performance. It is also meant to provide ideas on how to best spend the remaining part of the programme period. This may involve adjusting strategic focus in order to enhance effectiveness and to secure sustainability of achievements. It includes an exploration of opportunities and the potential for building on programme outputs and outcomes after the programme period is finished. Finally, the document is also meant to serve as a summary statement of where RAEIN-Africa stands at the moment. For this reason, most chapters start with a description of the current state of affairs to draw a clear perspective against which to assess performance and potential for the future.

By having this threefold purpose, this document is meant to serve the information needs of the implementing organization regarding strategic guidance and direction, as well as the information needs of the donor regarding the emerging returns on investment in this programme . It is furthermore meant to allow readers who are unfamiliar with RAEIN-Africa and the ISP-TEESA programme to understand the essence of the organization and programme without having to refer to other documents.

1.2 RAEIN-Africa in a nutshell

A bit of history

RAEIN-Africa stands for Regional Agricultural and Environmental Initiatives Network – Africa. The organization was conceived during the work of the Biotechnology Trust of Zimbabwe (BTZ) (1997-2002) and launched as a regional initiative in 2004 in Lusaka, Zambia. This launch was inspired by a request from participants of the regional workshop on “Eastern and Southern African Biosafety Needs Identification” in Uganda, 2001. They called for a regional initiative in Southern Africa on the development of capacity for biotechnology research and biosafety frameworks. This provided RAEIN-Africa with a mandate from key stakeholders in the region that was further sustained by findings of the studies on agricultural biotechnology research needs for disadvantaged communities of seven southern African countries. Stakeholders in Namibia offered to host the RAEIN-Africa secretariat, which has been located there since then, first as an non-profit making company (from 2005), and from 2007 as a Trust. The first main effort as RAEIN-Africa started with the implementation of the Biosafety and Environment Programme (BEP)



RAEIN-Africa framework

between 2005 and 2007. It involved regional research on gene flows in crops, research on “GMOs in the Southern African countries: incidences, distribution and policy implications”, regional workshops and public awareness activities on biosafety, and a study on legal and policy aspects of biotechnology and biosafety in the SADC region.

A strategic plan developed in 2008 for the period 2009-2015, drew the outlines and focus for further growth of RAEIN-Africa after which a proposal for the current ISP-TEESA programme was submitted to and approved by the Netherlands Directorate General International Cooperation (DGIS) in the beginning of 2009. DGIS had earlier supported the BTZ and BEP programme as well.

The name of the organization reveals much of what RAEIN-Africa stands for:

RAEIN-Africa is regional

It works to establish cross-regional collaboration, exchange and mutual strengthening across Southern Africa. Many activities are organized as regional activities where participants come from throughout the region.

RAEIN-Africa is a network

It works to connect people at different levels: within countries among different stakeholder (groups) and between countries. Networking and providing networking opportunities are at the heart of RAEIN-Africa's efforts.

Existing and potential partners are research institutions, civil society organizations, government institutions, NGOs and development partners/donors, more specifically:

- **Research institutions** – in particular: national institutions of scientific and industrial research, Ministries of higher education, science and technology development, Ministries of agriculture and rural development, Ministries of youth and gender development, Ministries of environment.
- **Policy Bodies** – in particular: National governments, the African Union, NEPAD, SADC.
- **Sub-Regional Non-Governmental Organizations** such as ACODE, FANRPAN, ASARECA, BTA, PBS, ACTS.
- **Regional & International Organizations** UNEP, UNDP, FAO, FARA, IFPRI, IUCN.
- **Civil Societies** – Farmers' organizations, environment groups, private sector, local NGOs and community-based organizations (CBOs).

RAEIN-Africa is about initiatives and innovation

On hindsight, the “I” may nowadays just as well be read as standing for Innovation and not merely for Initiatives. After its establishment, RAEIN-Africa has grown to embrace the innovation systems approach by acknowledging the importance of multi-stakeholder dialogue and collaboration, practicing this through the establishment of innovation platforms. It seeks to unleash the potential of science & technology for development by connecting S&T to policy and societal realities, thereby stimulating processes of collaborative innovation.

However, the “I” does also stand for Initiatives: RAEIN-Africa intends to be a trend setter rather than a trend follower, and it does this by initiating a range of activities to stimulate dialogue, information exchange and capacity development.

RAEIN-Africa focuses on agriculture and environment

It acknowledges that in Southern Africa, agriculture is key to sustainable development and poverty reduction, and that the environment is both endangered and a vulnerability threat to livelihoods in the region.

RAEIN-Africa is by and for (Southern) Africa

RAEIN-Africa is an African initiative, implemented by Africans for Africans, understanding the specific conditions harnessing the potential of African capacities and competencies. This is a characteristic that is more important in relation to the potential for addressing institutional change issues, than may be realized at first look.

What does not show from the name, but is very much part of what RAEIN-Africa is about:

RAEIN-Africa is about the role of science & technology for sustainable development

RAEIN-Africa is putting much emphasis on the role of research to create a basis for informed decision making. Working on issues related to **biotechnology** and **biosafety** is in its genes as can be seen from its history. However, it puts the role of science & technology squarely within an innovation system perspective, acknowledging the need for science & technology to accept and appreciate the crucial role of other innovation system players, and to work with them and not merely for them.

A more detailed description of RAEIN-Africa's organizational setup can be found in section 3.1.

1.3 The ISP-TEESA programme in a nutshell

The ISP-TEESA programme emerged from RAEIN-Africa's strategic plan (2009-2015), which identified RAEIN-Africa's purpose and ambition...

"to be a Southern African Network organization that promotes participatory development of appropriate science and technology for sustainable management of the environment and agricultural production systems. It does so by facilitating the creation of partnerships between government, civil society, and end-user groups, as well as supporting need-driven development oriented research and all inclusive policy development processes." (RAEIN-Africa Strategic Plan 2009-2015).

ISP-TEESA stands for the Innovation for Sustainable development and Poverty reduction: Towards and Enabling Environment for systems of innovation in Southern Africa programme. This is quite a mouthful so we will try to unpack what it relates to:

- ISP-TEESA is about **sustainable development & poverty reduction**

This is the ultimate **goal** to which the programme intends to contribute, in particular in the field of agriculture and environment, where food security concerns play a prominent role.

- ISP-TEESA approaches the role of **science & technology from an innovation systems perspective**

This is about the **approach** to ensure that efforts in the field of science & technology are going to connect to innovation system dynamics rather than being achievements in isolation. The approach acknowledges the need for collaborative innovation.

An **innovation system** is a network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect their behavior and performance. (World Bank 2006). An innovation system is [also] about people, the knowledge, technology, infrastructure and cultures they have created or learned, who they work with, and what new ideas they are experimenting with. Luke Hendrickson, et al. (2011).

- ISP-TEESA is about an **enabling environment for system innovation**

The programme's **theory of change** acknowledges that for (system) innovation to happen, a conducive institutional and capacity environment is needed. In other words, in order for innovation to flourish and lead to sustainable development outcomes, there needs to be an environment that does not obstruct innovation, but rather enables it. The environment includes policy and legislation frameworks as well as attitudes and mindsets.

- ISP-TEESA is about **knowledge generation & sharing**

The programme seeks to support **informed decision-making** and not to choose sides in debated fields concerning issues related to e.g. biotechnology and biosafety.

- ISP-TEESA is working **across Southern Africa**

The programme is implemented in the SADC region and currently has active engagement of stakeholders in nine countries: Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. DRC, Angola, Mauritius, Madagascar, Lesotho benefit from some capacity building activities.

- ISP-TEESA focuses on **biotechnology and biosafety**

Because of its experience and network in this field, the programme chose biotechnology and biosafety as a specific application area in which to practice collaborative innovation for sustainable development. Based on stakeholders' needs identification, other fields such as appropriate technologies and climate change have been taken on.

Section 3.2 provides more detail on the organisational setup of the programme.

1.4 Evaluation focus and methodology

This mid-term review was carried out by two external consultants who brought in a combined expertise in the field of biosafety regulatory frameworks, climate change, agriculture, innovation systems, monitoring & evaluation and capacity development support. The team also brought in both the internal African perspective and a perspective from outside of Africa.

The terms of reference (see appendix 1) spells out the following broader areas of review which were meant to be covered:

1. The concept and the design of the programme and the extent to which the intervention conforms to regional and national needs and priorities (**relevance**);
2. The implementation of the project, including process, institutional aspects, **efficiency and effectiveness**, looking at how the programme reacted to changes and evolved over time to strategically positioned itself, conditions for success regarding an enabling environment for national working groups in view of different institutional/cultural settings;
3. The performance of the programme with a view to determining if and how well the objectives are being met and how they impact on the target group (**results and impact**), as well as how the programme is faring, looking at achievements in view of set objectives, but also at internal capacities and conditions in view of required roles and responsibilities;
4. The opportunities and **sustainability** potential of RAEIN-Africa initiative in the region, providing practical recommendations and lessons learned.

Specific key performance questions relate to **relevance, effectiveness, efficiency, sustainability** and **impact** of the programme (see the ToR and short description of the evaluation team in appendix 1). Because of the nature of the organization and interventions, the evaluation team adopted two more

broader key performance questions: the question of **connectedness** of RAEIN and the ISP-TEESA programme and **appropriateness** of strategies and interventions.

Because of the regional scope of operation of the ISP-TEESA programme, it was not possible to visit all countries involved. The evaluation team therefore selected three countries for gathering primary data. The countries were selected on the basis of the following criteria: (1) Be representative for what the ISP-TEESA programme is trying to achieve, (2) having been involved in a good measure of collaborative efforts with RAEIN-Africa, (3) represent enough of a diversity of operational contexts. Some telephone conversations with representatives from other involved countries added further insights.

The findings on the basis of which this report is written, are thus based on the following sources of information:

Table 1	
Sources of information used in this mid-term review	
Primary sources of information	Secondary sources of information
Interaction with the RAEIN-Africa secretariat	RAEIN-Africa related documents (governance and organizational setup)
Interaction with the RAEIN-Africa board and management committee of the ISP-TEESA programme	ISP-TEESA programme related design, implementation, reporting and M&E documents
Interaction with key stakeholders in government, universities, media, consulting offices, and farmers in Namibia, Swaziland and Malawi.	ISP-TEESA programme related documents that were outputs of the programme (e.g. research reports)
Observations during field visits (Namibia, Swaziland and Malawi) and during group interviews/discussions	General literature, documents and websites that provide insight into the specific domain of change in which ISP-TEESA relates
Interaction with the focal points (NCP), national working group (NWG) and representation of the national coordinating institute (NCI) in Namibia, Swaziland and Malawi (and to limited extent with Tanzania and Botswana).	Documents, websites on relevant initiatives in the region of Southern Africa
Interaction with donor and peer group organisations (especially DGIS, UNEP, and CBD)	

See appendix 13 for an overview of consulted people (interviews) and appendix 14 for an overview of consulted programme documents.

An evaluative inquiry approach was adopted to facilitate an evaluation process that would maximize utility of the evaluation for both internal (RAEIN-Africa) purposes, as well as for external purposes (donors, stakeholders, peer group organisations). This approach involved not mere fact-finding, but also the facilitation of interactive sense-making by secretariat staff and by stakeholders. Semi-structured interviews were facilitated with both individuals and (small) groups (such as with innovation platform members and farmers). The internal evaluation that took place in 2011 was found to provide a good basis to build on. Rather than turning this external mid-term review into a parallel evaluation exercise, this report builds on validated findings from that internal evaluation and intends to complement findings, conclusions and recommendations.

In the setup of this report, we chose to start chapters by sketching the backdrop against which we provide our findings, discussion, conclusions and recommendations. There is a multitude of (semi)strategic and reporting documents on ISP-TEESA available, which invites the danger of not seeing the forest for the trees. We saw a need to consolidate descriptions and background, which was not always easy to do because of the sheer variety of documents and presentations. Since RAEIN-Africa as an organization and the ISP-TEESA programme are geared towards playing a catalyzer and facilitating role in a range of country settings as well as regionally, it made us realize the need for sketching the context in which it intends to make a contribution.

2 Programme positioning in context

This Chapter will put in the context the framework within which the ISP-TEESA Program is implemented. The Chapter will therefore consider the existing regional policy and Institutional Frameworks as well as the their objective, that have a bearing on science, Technology and Innovation. The Chapter will further consider the context of biotechnology and Biosafety in the region and the status of the National Biosafety Frameworks for the Southern African Countries in which the ISP-TEESA Program is implemented.

2.1 Sketching the relevant context

2.1.1 Science, technology and innovation in Southern Africa

Technology has been defined as the making and usage and knowledge of tools, techniques, systems and methods to solve a problem (Ursula F, 1992). Innovation on the other hand may be defined to mean the conversion of knowledge and ideas into a benefit, which may be for commercial use or for the public good; the benefit may be new or improved products, processes or services. Innovation is seen as a new way of breaking new ground, breaking barriers and doing business away from the forbidden path, involving different stakeholders, not least the ultimate users and ensuring that effective technologies, products and services do indeed reach the millions of people awaiting them, Mrema J (2008). With respect to addressing food security challenges, the role that new technologies can play is widely recognized world over, including in Southern Africa (SSA; FAO, 2004).

Southern Africa region comprises of fifteen countries, located in the southern part of the African Continent. These countries include Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Of these fifteen, seven countries are classified as Least Developed Countries (LDC) by the UN, and this definition relates to their low gross national income, their weak human assets and their high degree of economic vulnerability (UNCTAD, 2011). These countries can therefore not support their economies without external aid.

Majority of the Southern African countries rely on Agriculture as the mainstay of their economy. Depending on agriculture alone has its challenges. Countries are therefore increasingly aware that science, technology and innovations are critical for economic growth, poverty alleviation, and hence sustainable development. Sustainable development has been defined to mean development that "... Meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, G.H. 1987). Sustainable development is generally based on three component pillars, namely, economic, social and environmental sustainability.

To accelerate sustainable development countries are also using strategies such as developing regional policies or pooling together as a regional block so as to have a concerted effort for the growth. In Southern Africa, the institutional arrangement that may be considered as the regional block for development is the Southern Africa Development Community (SADC).

Initiatives and Policies on Science, Technology and Innovation at the regional Level

(i) AU- African Science and Technology Consolidated Plan of Action (CPA)

At the Regional level, the AU have established a high-level council of Ministers for Science and Technology and have adopted the African Science and Technology Consolidated Plan of Action (CPA) which seeks

strengthen the economic base of the African Continent, hence ensuring sustainable development through the development of Science, Technology and Innovation.

(ii) SADC- The Protocol on Science, Technology and Innovation, 2008

The Heads of States and Governments in the SADC region signed a Protocol on Science, Technology and Innovation in August 2008, Johannesburg, South Africa. This Protocol is a blueprint document that outlines the framework of cooperation between Member States within the SADC region. The Protocol came about through extensive deliberations between Member States and talks to scientific and technological matters of interest within the region. The aims and objectives of the Protocol are to among other matters-

1. Establish institutional mechanisms in order to strengthen regional cooperation and coordination on STI;
2. Institute management and coordination structures, with clearly defined functions, which will facilitate the implementation regional STI programs;
3. Promote the development and harmonization of STI policies in the Region;
4. Pool resources for scientific research, technological development and innovation within the Region;
5. Recognize, develop and promote the value of Indigenous Knowledge Systems (IKS) and technologies;
6. Share experiences and develop joint initiatives that promote appropriate technologies for wealth creation and elimination of poverty within communities, especially in rural areas.

(iii) SADC's Regional Strategic Plan (Regional Indicative Strategic Development Plan (RISDP, 2006)

Under SADC's Regional Strategic Plan, the Regional Indicative Strategic Development Plan (RISDP, 2006), the countries have indicated the need to enhance their systems of innovation, and to create mutual benefits by extending this to regional co-operation and regional innovation systems. This is an integral ingredient in sustainable development and poverty alleviation aspirations. (Mugabe J, 2010) The countries have also recognized the need to build both human and institutional capacity, as well as regional networking and cooperation as a basis so as to effectively implement the RISDP.

(iv) Southern Africa Innovation Support Program (SAIS)

SADC is piloting the Science, Technology and Innovation strategy, known as the Southern Africa Innovation Support Program (SAIS) in four countries within four years (April 2011-March 2015). The participating countries for SAIS are Botswana, Mozambique, Namibia and Zambia.

SAIS aims, to develop a strategy for regional innovation cooperation, with clear plans for institutional arrangements. This permanent structure will then be able to sustain and support further development of innovation systems through co-ordination, dissemination, capacity building and funding.

In the region, the Government of Finland and the Government of the Republic of South Africa carried out a partnership program on innovation known as the Cooperation Framework on Innovation Systems between Finland and South Africa (COFISA) in 2006-2010. The experiences of this program demonstrate a need for strengthening innovation system both at the national and regional level.

2.1.2 Biotechnology & biosafety in Southern Africa

The role of modern biotechnology in the economic transformation of developing countries has become the subject of intense academic inquiry and public policy discourse (Olembo et al, 2010). Today this debate has stayed at two extremes:

1. One that perceives biotechnology as the source of solutions to many of the economic, social and environmental problems that developing countries are confronted with; and
2. The other extreme that treats the technology with considerable suspicion as a technology that will bring more ills to the countries.

African countries entry into biotechnology has been stimulated by many interrelated factors (see Virgin et al., 2007). First is the cumulative nature of the technological change in biotechnology. While there have been radical innovations in the technology based on prior scientific knowledge and the associated research, institutional arrangements have removed knowledge related barriers to entry. In agriculture, for example, some countries (such as South Africa and Zimbabwe) have a long tradition of scientific research conducted in mature institutions. Their knowledge base and accumulated expertise have made it possible for them to leap into the second generation of biotechnology.

There are generally three categories of countries in biotechnology:

1. Those that are generating and commercializing biotechnology products and services using third generation techniques of genetic engineering, such as South Africa;
2. Those that are engaged in third generation biotechnology R&D but have not developed products and/or processes yet such as Zimbabwe; and
3. Those that are engaged in second-generation biotechnology (mainly tissue culture), such as Tanzania, Malawi and Zambia. Most of the biotechnology activities have focused on enhancing agricultural productivity. (Olembo N et al, 2010).

Biotechnology at the core of sustainable development

The Convention on Biological Diversity (CBD) defines biotechnology as: “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products for specific use” (CBD, 1992). The FAO *Glossary of biotechnology* defines biotechnology broadly as in the CBD and narrowly as “a range of different molecular technologies such as gene manipulation and gene transfer, DNA typing and cloning of plants and animals” (Zaid et al., 2001). Biotechnology is regarded as having the potential of enabling better outcomes for health, the environment, and for industrial, agricultural and energy production (OECD, 2004). Successful capturing of these will provide significant opportunities for sustainable growth. The diagram in appendix 10 of this report conveys a snapshot of how Biosafety is central to the safe use of biotechnology for the purpose of contributing to sustainable development. At the national level, countries are largely using universities and national research institutions to carry out Biotechnology R&D. On the whole, African countries are at different stages in the development of biotechnology. Some have moved up the technology ladder and are applying more sophisticated techniques such as molecular markers, while others are using tissue culture application.

The Cartagena Protocol on Biosafety

At the International Level, countries have ratified the CPB, which seeks to ensure a safe level of transfer of genetically modified organisms so as to protect humans and the environment from the adverse effects of the genetically modified organisms. Countries that are party to the Protocol are required to establish national frameworks that protect humans and the environment for adverse effects of the genetically modified organisms.

Though most of the countries in the Southern African region have developed national biosafety frameworks, which include the laws, policies and institutions to handle biotechnology regulation, the absence of biosafety procedures and real hands on capacity to determine the applications in several countries constitute significant impediments to research institutions that wish to undertake research involving modern biotechnology. Table 1 highlights the status of the National Biosafety Frameworks for each of the Southern African Countries.

Table 2 National Biosafety Frameworks in Southern Africa	
Country	National Biosafety Framework (Policy//Legal Framework)
Angola	The Act Ministerial Council regulating Importation of GMOs and a Law of Aquatic Biologic Resources, which regulates importation of genetic modified species
Botswana	Draft Biosafety policy and Bill yet to be tabled in Parliament
Dem. Republic of Congo	Draft Biosafety Policy and draft law
Lesotho	National Biosafety Policy; Draft National Biosafety Framework 2005
Madagascar	National policy adopted (2004) and draft National law
Malawi	National Biosafety and Biotechnology Policy, 2008 & Biosafety Act, 2000
Mauritius	Genetically Modified Organisms Act, 2004
Mozambique	Decree number 6/2007 of 25 th April in 2007, Biosafety law
Namibia	National Policy on safe use of Biotechnology (1999); Biosafety Act no. 7 of 2006
Seychelles	Environment Protection Act 1994
South Africa	The Genetically Modified Organisms Act No.15 of 1997; amended 2006
Swaziland	Biotechnology and Biosafety Policy, 2006; Biosafety Bill passed awaiting Assent
Tanzania	The Environment Management Act, 2005, Draft National Policy (2004)
Zambia	National Biotechnology and Biosafety Policy (2003); Biosafety Act No. 10 of 2007
Zimbabwe	National Policy on Biotechnology (2005), National Biotechnology Authority Act 2006

2.1.3 Relevant organizations and initiatives in the region

Table 2 shows a list of other, selected, relevant organizations in the southern African region that have dealt with Science, Technology and Innovation and have may be of relevance to the ISP TEESA Program.

Table 3 Relevant other organisations in the region	
Organisation	Relevance
SADC-Southern Africa Innovation Support Program (SAIS) 2011-2015	This is a Pilot program of SADC in four countries- Namibia, Botswana, Zambia and Mozambique. SADC is developing a strategy for regional innovation cooperation, with clear plans for institutional arrangements.
SANBios- BioFisa Program 2011-2016	Aims to create a solid, sustainable base for network and institutions, which enables high quality research and public-private partnerships.
FARA	The Framework for Africa's Agricultural Productivity (FAAP) has been developed as a tool to help stakeholders come together to bring these political, financial, and technical resources to bear in addressing problems and strengthening Africa's capacity for agricultural innovation.
ASARECA	Promoting integrated agriculture research for development (IAR4D), which uses an innovations systems approach to bring together stakeholders as partners within innovation platforms (IPs)
ATPS	a multi-disciplinary network of researchers, practitioners and policy makers that promotes science, technology and innovation (STI) policy research, dialogue and practice, for African Development.

2.2 RAEIN-Africa/ISP-TEESA positioning in context

Against the backdrop of the situation of sustainable development, poverty reduction and the role of science & technology, and biotechnology in particular, RAEIN-Africa developed its strategic directions. It adopted a specific theory of change that includes the conviction that for meaningful change to happen, the role of science & technology in innovation systems would need to be enhanced. RAEIN-Africa chose biotechnology and biosafety issues as a case to focus on, realizing how much is at stake there in relation to agricultural and environmental development in Southern Africa, and also because it was found to be an often neglected area regarding policy and legislative frameworks in terms of their role in an enabling environment for agricultural innovation. The essence of RAEIN-Africa's outlook on what is going to make the difference is summarized in the following overview.

2.2.1 RAEIN-Africa's mission, ambition and approach

The following aspects sketch RAEIN-Africa's strategic outlook on how they can be ready to make a meaningful difference in the field of enhancing the role of science & technology in innovation systems by supporting the creation of an enabling environment for sustainable development.

The mission: To enhance the capacity of stakeholders to undertake research, formulate policies and apply scientific and technological innovations that are people-centred and gender-sensitive through inclusive and participatory processes of sustainable development.

The mandate: To facilitate a multi-stakeholder and holistic approach to networking among SADC regional partners in research, development and use of emerging technologies that contribute to the enhancement of food security and sustainable use and management of the environment.

The ambition: To be a leading network in the innovation systems approach to science and technology for poverty reduction and sustainable development.

The principles that guide work practice: To address real needs of beneficiaries, which are important to food security and sustainable management of the environment, which are appropriate to target groups and contributing to institutional capacity, which is collaborative in nature by maximizing on partners' advantages, is interactive at all phases of implementation, and is in line with national development goals.

The work approach: The distinctive RAEIN-Africa approach revolves around three main aspects of it:

- An interactive, collaborative, participatory, and multi-stakeholder approach;
- An innovation systems approach that acknowledges the need for interactive and complementary roles to be played by producers, government, civil society, knowledge institutes, service providers, private sector and other key players in innovation systems. Such interactive approach is expected to foster appropriate innovation processes and thereby increased returns on investment in relation to sustainable development and poverty reduction;
- A cross-linking approach, linking vertically across value chains (from 'farm to fork'), as well as horizontally throughout the range of public and private actors in the innovation system.

The work approach could be further unpacked in terms of a set of **core values** that were defined in the Strategic Plan (2009-2015), and it relates closely to the **goal** that RAEIN-Africa set for itself in the same document, which is "to facilitate innovation systems approach to development and/or adaptation of appropriate emerging technologies for the benefit of marginalized end users in SADC, in a gender-sensitive manner whilst enhancing interactive methodological approaches with emphasis on environmental and socio-economic sustainability".

2.2.2 ISP-TEESA's connection to international policy frameworks

RAEIN-Africa's has defined its contribution to sustainable development to be relevant in relation to the following international policy and action frameworks:

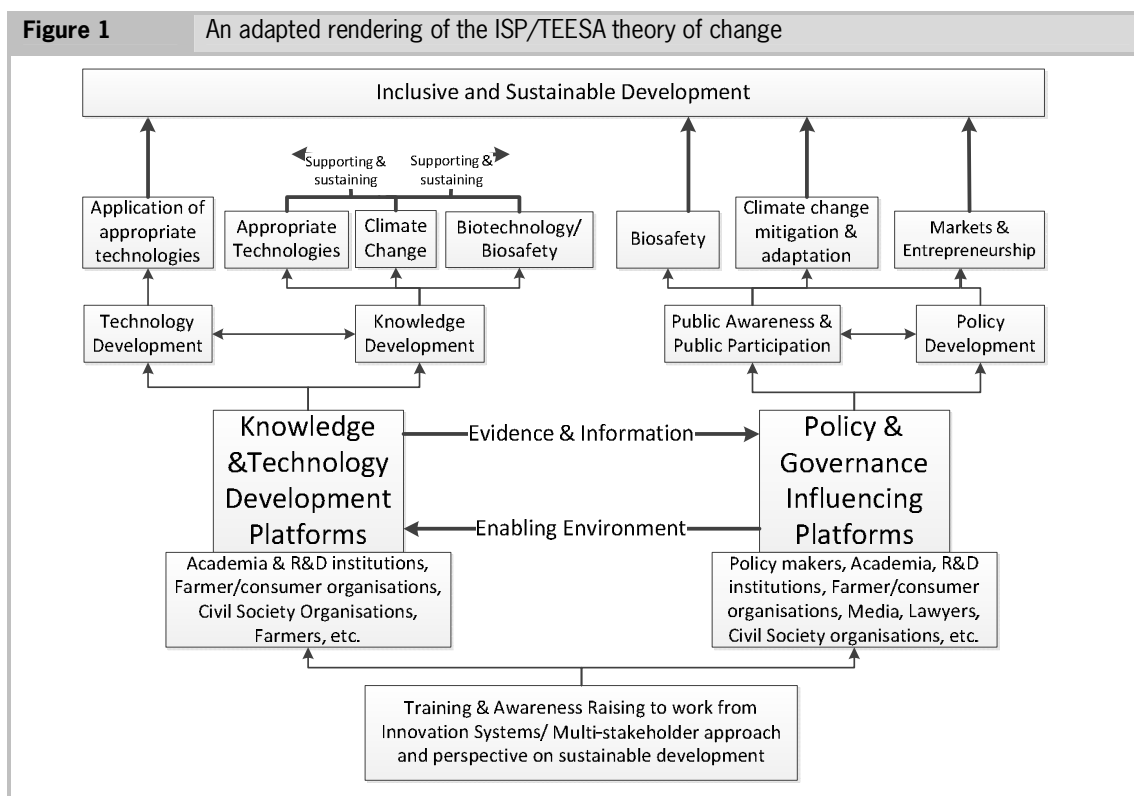
- Millennium Development Goals (MDGs) 1 (Eradicate extreme poverty and hunger), 7 (Ensure environmental sustainability), and 8 (Develop a global Partnership for development);
- The New Partnership for Africa's Development (NEPAD) consolidated plan of action's programme cluster 1 (Biodiversity, Biotechnology and Indigenous knowledge) and 2 (Energy Water and Desertification);
- The SADC Protocol on Science & Technology and Innovation (AMCOST III, 2007 meeting);

- The Comprehensive Africa Agricultural Development Programme (CAADP) pillar 3: Increasing food supply, reduce hunger, and improve responses to food emergency crises; and pillar 4: Improving agriculture research, technology dissemination and adoption.

2.2.3 ISP-TEESA's theory of change

Based on its earlier experiences and advised by its Board and by stakeholders in various SADC countries, a theory of change was articulated in various forms. It put emphasis on two main strategies: knowledge & technology development, and policy & governance influencing. The two strategies are meant to be mutually reinforcing. Figure 1 presents a summary overview of the adopted theory of change. Appendix 6 provides the overview of the analysis of e.g. stakeholder needs, strategic opportunities, and assumptions that formed the basis for development the theory of change.

There are three further dimensions of the theory of change that were developed to guide strategic action. The first dimension relates to the development of both a country-level outreach and a regional-level outreach that are meant to mutually reinforce each other. Appendix 4 gives an impression of what this means in practice. The second dimension relates to the process of establishing technology innovation platforms. This process was guided by a plan for stepwise development that allowed for gradual deepening of efforts rather than trying to jumpstart the platforms. Stakeholders were first provided with training and exchange opportunities on an innovation systems perspective and multi-stakeholder approach. Only at a later stage, when relationships were built and some on-the-ground practice was experiences would the programme stimulate institutionalisation processes. The third dimension relates to the governance & policy influencing platforms. Again, a process of gradual development was adopted, where new stakeholders such as media and lawyers often joined later on in the process. The assumption behind these gradual development processes was the identified low level of understanding about and experience with the innovation system perspective and multi-stakeholder processes. The idea was to first let stakeholder groups gain experience in (and appreciation for) collaborative efforts and only then try to aim for institutionalisation processes.



The ISP TEESA program seeks to build micro-mesa bridges to facilitate application and use of science and technology to support sustaining livelihoods and explores ways of creating an enabling environment for enhancing innovation focusing on the need of advantaged communities (see appendix 10). RAEIN-Africa uses Biotechnology as a case study to explore and understand how the creation of an enabling environment for innovation can take place.

2.2.4 Networking and partnering strategies

Networking and partnering is at the heart of RAEIN-Africa and there are comprehensive strategies along these lines in place. The following does not give all details, but gives a taste of the kind of strategies in place.

Over time, RAEIN-Africa has developed a wide network throughout the SADC-region with in particular science & technology institutions and government organisations. The database that is currently in development reflects part of those efforts. The Board of Trustees (see chapter 3) has played an important role in establishing such connections. It is a core asset of RAEIN-Africa and may be viewed upon as a gateway into the SADC-region. Regional connections are maintained and sustained through regular networking and sharing events as well as through functions such as annual partners review and planning meetings. In this way, RAEIN-Africa strives to manage programmes in a participatory way, even at regional level, in order to build and sustain ownership through the region. RAEIN-Africa also partners with other organisations in facilitating regional-level exchange, such as with SADC in holding the high level Dialogue on Biotechnology and Biosafety. In achieving this objective, RAEIN-Africa has also, in 2010 to hold a side event at the COP-MOP5 in Nagoya Japan., and in 2011 to carry out capacity building on the new protocols to the CBD - the Nagoya Kuala Lumpur supplementary protocol on liability and redress and the Nagoya Protocol on Access and Benefit Sharing. This was supported by the Netherlands Ministry of Infrastructure & Environment, previously called Ministry of Housing Spatial Planning and the Environment (VROM).

The involvement of RAEIN-Africa with countries is based on country and regional priorities. The ISP TEESA Programme has been developed in line with these identified needs and priorities at regional and country level. At the same time, in partnering with partners and stakeholders, RAEIN-Africa is aiming for both collaborative implementation of activities as well as, and partly through those very activities, addressing constraints for innovation that are rooted in paradigms and mind-sets. The ISP-TEESA programme seeks to create opportunities for evidence-based discovery of the value and effectiveness of the innovation systems perspective and multi-stakeholder approach to system innovation. Part of this strategy is to complement networking events with hands-on training such as on proposal-writing and negotiation skills (for COP-MOP).

The initial idea was to work for an important part through competitive grants for selected projects (2009). Having found out that there was insufficient awareness, knowledge and experience regarding innovation systems perspectives and multi-stakeholder approaches, RAEIN-Africa decided to switch gear and to focus more on what they phrased as “nurturing and implementation”, which is basically a comprehensive approach to capacity development (see box 1 under section 4.1.1).

Table 4 RAEIN-Africa's engagement with other institutions		
Institution	Engagement	Outcome
EU-JRC's ENGL	EU JRC's European Network of GMO Laboratories (ENGL) recognises SANGL and an expression of interest by to technically backstop SANGL and possibly collaborate SANGL was obtained by SANGL.	SANGL is able to work towards harmonisation of GMO detection methods in SANGL able to accept the products coming from the countries involved.
SCBD	SCBD – provided training materials and technical backstopped: - The capacity development and guideline development on “Socio-economic considerations in Biosafety decisions	Beneficiaries are able to understand what the provisions of the CPB on socioeconomic considerations and the processes and

	<p>under the Cartagena Protocol on Biosafety”.</p> <ul style="list-style-type: none"> - The National Biosafety Authorities (NBA) experience sharing workshop in which the CBD Secretariat brought clarity on the process on the preparations of national reports. 	requirements for the preparations of national reports.
UNEP-GEF	<p>Collaborated in the:</p> <ul style="list-style-type: none"> - National Biosafety Authorities (NBA) experience sharing workshop, - The risk assessment and risk management and - The negotiation skills training <p>RAEIN-Africa is currently in advanced negotiation for a UNEP-GEF supported regional programme on SANGL that will see the RAEIN-Africa administering the programme for SANGL members</p>	<p>All the SADC countries are able to submit their national reports to UNEP-GEF. (100% achievement was recorded from 50% submission of first national reports) 6 of the countries who met the requirements for the first time - participated in the workshop.</p> <p>SADC Beneficiaries are able to understand the process of accessing grants for the preparations of second national reports two countries (Zambia and Swaziland) accessed the UNEP funds.</p> <p>The SANGL/UNEP arrangement will be the first of its kind in the biosafety world and donors might be watching with interest.</p>
ASARECA	Shared their experience in Eastern and Central Africa	Best practices/lessons learnt/experience shared of the challenges faced in the other part of the continent.
SADC	Co-Hosting a high-level dialogue on biosafety issues for SADC Ministries responsible for agriculture, environment and science and technology. RAEIN-Africa has applied for SADC subsidiary status.	It would connect RAEIN-Africa work directly to Policy, thereby increasing RAEIN-Africa visibility and recognition.

2.3 Findings and discussion

2.3.1 Relevance and connectedness

RAEIN-Africa is connected to relevant policy frameworks in the SADC-region and spends much efforts to ensure such effectiveness through elaborate partner consultation and exchange processes. To give some indication of this, table 5 shows the relationship between SADC protocols and ISP-TEESA's objectives.

Regional Objectives as given under the SADC Protocol for Science, Technology and Innovation	ISP TEESA'S OBJECTIVES
<p>Promote the development and harmonization of STI policies in the Region.</p> <p>Pool resources for scientific research, technological development and innovation within the Region.</p>	<p>To build the skills and the knowledge of development actors for interfacing technology and society.</p> <p>To generate information and knowledge of development and appropriately package it to influence policy and practice in the areas of program focus.</p>
<p>Recognize, develop and promote the value of Indigenous Knowledge Systems (IKS) and technologies;</p> <p>Share experiences and develop joint initiatives that promote appropriate technologies for wealth creation and elimination of poverty within communities, especially in rural areas.</p>	<p>To build the skills and the knowledge of development actors for interfacing technology and society;</p> <p>To strengthen (establish) the platform for the innovation systems actors to have increased voice to effectively participate, drive and influence science, technology and policy.</p>
<p>Establish institutional mechanisms in order to strengthen regional cooperation and coordination on STI</p>	<p>To strengthen institutional systems for managing science and technology for poverty reduction and sustainable development.</p>
<p>Institute management and coordination structures, with clearly defined functions, which will facilitate the implementation regional STI programs.</p>	<p>To build micro-meso to macro bridges to facilitate application and use of science and technology to support sustaining livelihoods.</p>

In the field of Biotechnology and Biosafety, countries have clearly identified the need to build capacity in the area of risk Assessment and risk management and the detection of genetically modified organisms with a view of being able to making informed decisions. RAEIN-Africa has contributed to the enhancement of the technical knowledge and skills of officials from the respective governments to effectively implement their obligations under the Cartagena Protocol and their national Laws on Biosafety. More detail on specific activities can be found in chapter 4. It is above any doubt that the ISP-TEESA efforts in capacity development in relation to Biotechnology and Biosafety are spot on and are filling a gap as various informants stated. Besides being spot on in terms of urgent needs expressed throughout the SADC region, the particular approach and practice of support to capacity development (see box 1 in 4.1.1) allows for going beyond mere strengthening of skills and competencies and touch on institutional conditions (enabling environment). It means not going the easy way as a e.g. the comprehensive process of development of guidelines for socio-economic impact of the introduction of GMOs in agriculture show, but it offers opportunities for making a lasting difference.

The relevance of the ISP TEESA program may also be evaluated in terms of the strategic orientation of RAEIN-Africa in the region. Speaking to the various beneficiaries of the Program, they were of the view that RAEIN-Africa has tried to steer clear of positions or interests in the Biotechnology and Biosafety controversies. It was generally agreed that RAEIN-Africa is able to succeed to work very well with the countries in the region because RAEIN-Africa is focusing on helping provide a basis for informed decision-making, without weaving in particular preferences or viewpoints in relation to debated issues.

The recognition of the value of RAEIN-Africa's efforts also shows from contributions by partners and other organizations to the work that they are facilitating. Table 6 provides a summary overview of realized contributions (see appendix 9 for details).

Name	Amount (in USD)
CBD and IFPRI- Biosafety Socio Economic Training & Backstopping	25 000.00
UNEP-GEF & CBD – NBF Capacity Training	30 500.00
UNEP-GEF, AU, Biosafety SA, Swiss Federal Institute-RA&RM Training	77 000.00
UNEP-GEF and AU on Negotiation Skills Training	25 000.00
UNEP-GEF, AU, NEPAD on High Leve Dialogue	30 000.00
Partner Countries	254 500.00
Ministry of Infrastructure and Environment	61,000.00
Total	503, 000.00

Talking to a range of people who through their organisations were involved in the ISP-TEESA programme, an often heard comment was that RAEIN-Africa “stepped into a gap that we were not addressing”. Some even went as far as saying “they get us excited”, and one government officer said that she was “desperate to get them into the system”. What is appreciated, is that RAEIN-Africa tries to connect to the situation that a particular country is in and adjust its work with them accordingly. They use no one-size fits all approach. Most informants recognize RAEIN-Africa as a “home-grown” group, which places the organization and its efforts in a special position. It is not felt as a group of outsiders who come in to tell what is right to do. “They understand our context, where we stand, they know policies in our country and know what is happening and understand the conditions in which we work”. This provides a basis for acceptance and appreciation across the region, which was highlighted on a number of occasions during our interaction with partners and stakeholders. A commonly shared view on RAEIN-Africa appears to be reflected in someone’s remark that “there are actually no organisations in the region that work quite like RAEIN-Africa”, referring to both their approach and style of work.

Those who have come to know of RAEIN-Africa and got involved in what they are facilitating and supporting, are without exception enthusiastic about their endeavors and their work approach. However, almost all of the same people remark that RAEIN-Africa is not well known in their circles. Very few people, they say, know of them, and they regret it. For some reason, they have especially not shown up on the radar of important policy makers. As one government officer said, “they haven’t got the eyes of the government on them yet”. One reason may be that they do not work directly with senior management in e.g. ministries. And the officers they do work with, somehow are not passing the message on to senior management. Although, it may also be an issue of time. As one person mentioned, “RAEIN-Africa has gone through the trouble of establishing relationships” and by doing so laid a strong foundation for further working towards institutionalization of core thinking and practice along the lines of innovation system facilitation and multi-stakeholder processes.

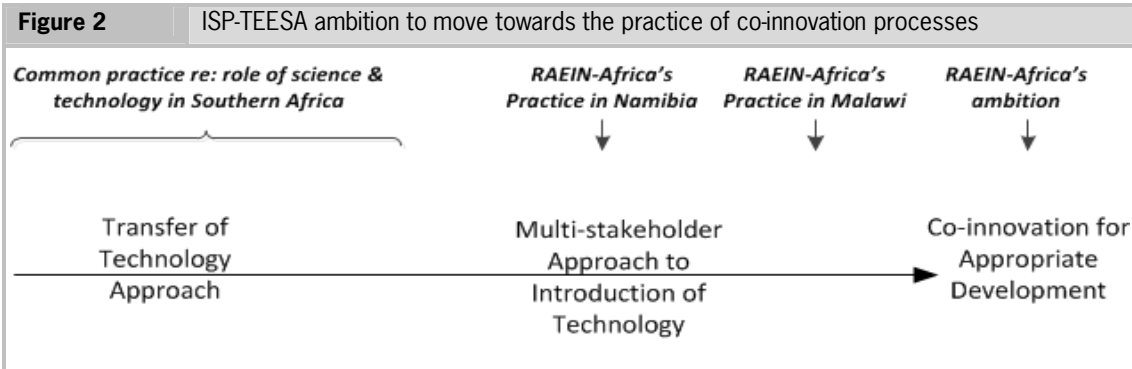
There are, however, even more opportunities to establish relationships with strategic partners, both regionally, in Africa in general and internationally. As will be discussed in the next chapter, the secretariat is currently not in a position to follow up on all potential opportunities (sheer lack of time due to too few staff). The potential opportunities may include The Green Climate Fund may very well become located in Namibia. That would then be an opportunity around the corner. The UNEP-GEF connection in relation to the SANGL project is almost a done deal. Other opportunities to be considered in terms of exploring connection, embassy programmes, ILED, and other knowledge institutes in Europe.

The connection with the private (business) sector is still largely lacking. As RAEIN-Africa is getting closer to policy makers, they will become also more interesting for private sector since policies will affect private sector as well. There will be a need for RAEIN-Africa to develop an active approach and strategy to engaging with the private sector. They have shown how to bring in media and lawyers into innovation platforms. This was an unusual move in many of the countries involved, but it has been considered as an “eye-opener” and the associated broadening of perspective and efficacy has been widely appreciated. Therefore, they should be able to more actively develop connections with the private sector as well.

2.3.2 Appropriateness and coherence

The ISP-TEESA programme is guided by a well thought-through theory of change that has not only been articulated at programme level, but also at project and even activity areas. Actually, not all of this shows systematically from strategic documents, but is more reflected on in bits and pieces throughout those documents. This points to a need for better consolidating a clear, coherent, but also concise strategic reference framework. However, when putting the pieces of the puzzle together, an impressive picture of strategic thinking underpinning the ISP-TEESA programme emerges. In connection with the urgent need for expanding staff in the secretariat (see chapter three), the need for being able to concisely articulate RAEIN-Africa’s approach to and practice of development interventions become even more apparent.

A core element of RAEIN-Africa’s theory of change, is its moving away from a commonly practiced (even though officially rejected) transfer of technology approach. This involves a gradual change process in the direction of seeing appropriate technology emerge from co-innovation processes. It is the starting point for technology platforms. Co-innovation is yet a bridge too far at this stage, but that is the direction in which ISP-TEESA intends to work. Such practice will require even more changes in mindsets and formal and informal institutional arrangements.



Similarly, in relation to governance & policy influencing platforms, RAEIN-Africa tries to break out of the mould of stakeholders working in isolation, trying to see synergy flourish to create opportunities for overcoming institutional hurdles that most stakeholders are not able to take on their own. It involves bringing together stakeholders that would not naturally meet such as the case of Swaziland illustrates very well in relation to the involvement of media and lawyers in the innovation platform (see chapter 4).

2.3.3 Intervention sustainability

Regarding how RAEIN-Africa's ToC fits with what is needed in the region and how the initiative can be sustained, a very positive picture appears in terms of appropriateness, though there is room for improvement. Sustainability, however, is another issue. It is a concern that no major funds from other sources have been secured yet. What is going on? Do they not know how to sell their opportunities well enough?

We were able to learn that RAEIN-Africa is making efforts to go into a partnership with SADC and be seen as a subsidiary of SADC. Certain partners view this as an advantage. The advantages as pointed out by the partners is that other Donors may find it better to channel their Funds through SADC and SADC would let RAEIN-Africa implement the programs. Another advantage discussed was that other donors would be happy with RAEIN-Africa as a Subsidiary because it would give an assurance that even if the donor ends their funding, the programs can be mainstreamed in the development plans of countries.

The SANGL networking project on GM-detection has played a major role in networking countries in the region with a view to strengthening their capacity to detect and analyse GMOs. As a result of a decision under COPMOP5, countries are to receive money from GEF for the development of regional activities for the detection of Biotechnology. Countries therefore will receive funding from GEF and are to use 60% of the funds in the development of strategies that would ensure that the Cartagena protocol is fully implemented while 40% would be channelled to conducting regional activities. RAEIN-Africa would oversee the activities of the countries while UNEP-GEF would oversee RAEIN-Africa's activities. RAEIN-Africa is to receive a certain percentage of the 40% for administration.

2.4 Conclusion

We conclude by summarizing our findings and suggestions along the lines of following four aspects: intervention relevance, appropriateness, connectedness and sustainability.

Intervention relevance (what they do)

Against the backdrop of the situation of SADC countries as sketched in the earlier sections of this chapter, the ISP-TEESA is highly relevant. The challenges to sustainable development and poverty reduction that are faced, ask for an approach that goes beyond introduction of new technologies. RAEIN-Africa offers a rather unique combination of focus on technologies *and* innovation systems approach. This creates opportunities for

institutionalizing good practice in collaborative innovation. It also allows for fine-tuning technologies to situation specifics to create more appropriate technologies. By taking country needs assessments as the point of departure, the programme ensures relevance of activities. The type of issues concerning biotechnology and biosafety that are highly topical and challenging in SADC countries, are the very ones addressed through this intervention. Being on top of prevailing policy and legislative frameworks, the programme allows for fine-tuning to country specifics.

Intervention appropriateness (how they do it)

The ISP-TEESA theory of change takes two mutually reinforcing strategies as its core intervention. By doing so, they provide a broad basis for achieving institutional change. The adoption of an innovation systems perspective and multi-stakeholder approach is on the one hand offering potential to address prevailing challenges in SADC countries in new and more effective ways, but it involves swimming against the current of prevailing organizational cultures and mindsets. This poses a challenge to seeing this become institutionalized. This is not something that changes overnight. In a way, this means that appropriateness of the approach is yet to bear the expected fruits, but it is realistic to give it a longer time frame given the type of changes involved. In terms of related capacity building, which is discussed later in this report, the programme does need to consider additional strategies (such as more coaching) to strengthen institutionalisation processes.

Intervention connectedness

RAEIN-Africa has come quite a way in getting connected in SADC countries, both at regional level as well as country level. The connections at country level are there, and also in a wide range of government and non-government organisations. However, connections are not always sufficiently strategic. They are not recognized by some high-level officials for their potential role to play and the actual role they are already playing. Apart from the fact that relationship-building across policy levels just takes time, there is a need to much better communicate and do PR to position and profile RAEIN-Africa as an organization and ISP-TEESA as a programme more effectively. There is much to show (see appendix 2 and 3). The culture of RAEIN-Africa, however, is clearly one of networking and forging connection. They spend a lot of effort to realize this, but not all of this may be sufficiently strategic in focus. The situation of the secretariat having too few staff plays a significant role, but it also relates to the need of making much better use of the internet. The website needs to be seriously upgraded. This cannot be expected without investing significantly in this and to attract expertise to help better design and manage the website/web portal. RAEIN-Africa also needs to consider broadening its perspective in terms of finding opportunities to connect to other initiatives and donor trends. This may even bear consequences for terminology used, e.g. linking more clearly to food security issues and role of private sector (development). They are relevant in relation to those international agenda's, but do not present themselves in this way.

Intervention sustainability

Seeing RAEIN-Africa as a regional network and seeing the ISP-TEESA programme from this perspective, not as a mere 5-year programme, but as part of a longer-term effort to strengthen innovation capacity and conditions for innovation in SADC, then sustainability needs to be approached from a long-term perspective as well. Currently, RAEIN-Africa depends on one main donor, DGIS, which is a narrow, but solid basis. DGIS has been flexible in giving them room for strategic maneuver. Such implementation space is crucial for this type of regional initiative. Any new donor agreement should involve a similar flexibility for RAEIN-Africa to retain its ability to strategically adapt on an ongoing basis. The upcoming agreement with UNEP-GEF (in relation to SANGL) offers opportunities for broadening their funding base. The question is not whether there are more potential funding opportunities, in the Netherlands or elsewhere, but whether RAEIN-Africa will be able to connect to those by freeing up capacity to explore and by better and in a more succinct way articulate the difference they can make and the services and potential they can offer. As mentioned elsewhere, a documentary may be able to play an important role in this.

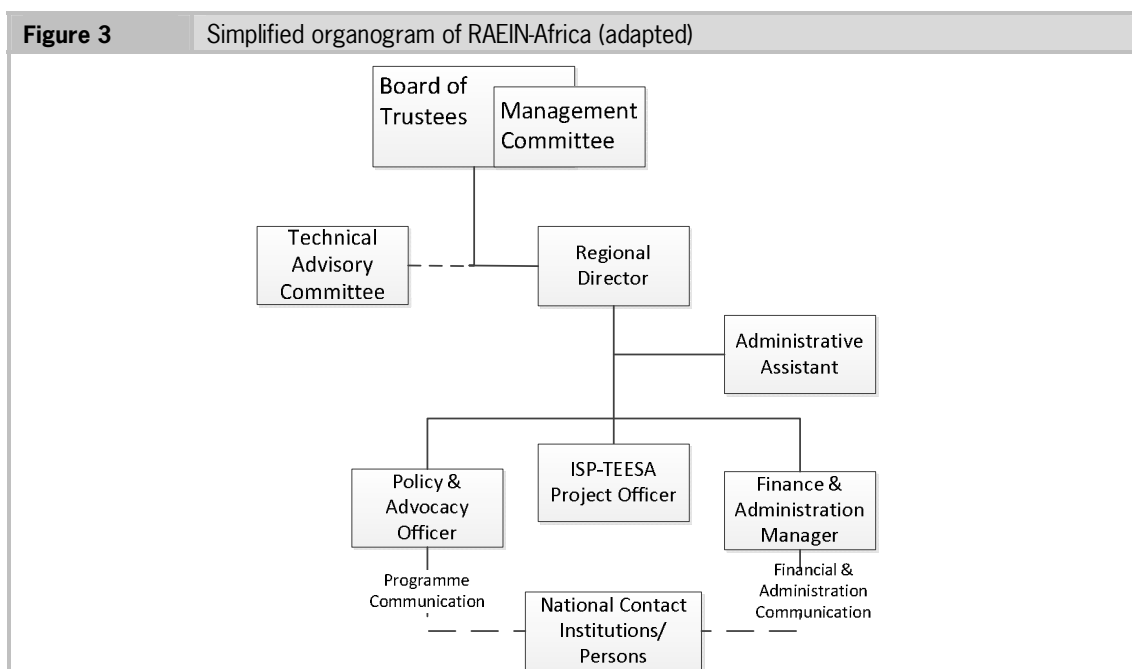
3 Programme governance, organisation & management setup

This chapter first outlines the basic setup of RAEIN-Africa’s governance and organizational setup and the setup of ISP-TEESA programme organization and management (3.1 and 3.2). It is then followed in section 3.3 by a discussion of the appropriateness of these in view of what the programme is trying to achieve and the relevant context in which it is operating and in which it intends to make a meaningful difference. Section 3.4 draws the most important conclusions which will be synthesized and discussed in an integrative way in connection with other findings in chapter 6.

3.1 RAEIN-Africa governance and organisation

RAEIN-Africa is governed as a trust and is organized through four governance and organizational entities: A board of trustees, a management committee, a technical advisory committee and a secretariat. Figure 3 provides a concise overview of the current reality of the organogram.

The **Board of trustees** is made up of a multi-disciplinary group of representatives from 9 Southern African states from different types of institutions and with an almost equal gender representation. They connect RAEIN-Africa to a range of organisations in different countries and thereby support ownership for RAEIN-Africa as a network throughout the SADC region. The Board of trustees reviews the RAEIN-Africa’s effectiveness and efficiency, decides on policy issues, adoption of audited financial statements and appoints the auditors. Strategic direction of RAEIN-Africa is decided upon in this board. The board meets annually and ad-hoc meetings are called when necessary.



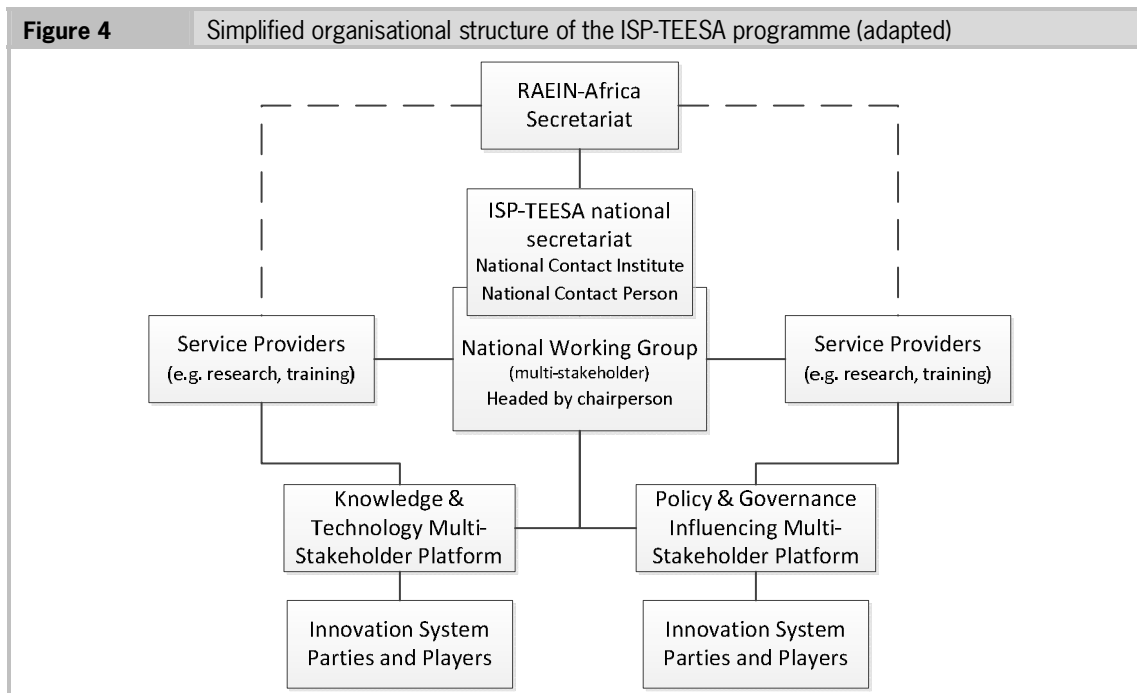
The **Management Committee** is formed by three members of the board together with the regional director. The committee, amongst others, helps with linking with outside partners, reviews systems and procedures, is involved in the auditing process and by doing provides more direct strategic guidance to the RAEIN-Africa secretariat. They meet quarterly.

A **Technical and Advisory Committee (TAC)** provides technical backstopping to the RAEIN-Africa Secretariat on the initiated activities. The TAC is a committee that can co-opt individual specialist if needed for specific technical backstopping. The committee meets once a year.

The **RAEIN-Africa secretariat** is the main implementing entity which provides day-to-day programme management from its base at the University of Namibia in Windhoek. Currently, five secretariat staff members are employed by RAEIN-Africa: a regional director, a policy & advocacy officer, a finance and administration manager, an administrative assistant and a project officer. The job titles do not reflect the reality of multi-tasking by all staff.

3.2 ISP-TEESA programme setup and management

At the heart of the ISP-TEESA programme setup and management are the RAEIN-Africa secretariat, the National Contact Institute (NCI), represented by a National Contact Person (NCP), the National Working Group (NWG) and the innovation platforms (on knowledge & technology development, and on policy & governance influencing). Figure 4 provides a concise overview of this.



STRUCTURES

The **National Contact Institute (NCI)** is the contact point for RAEIN-Africa in a country. In some countries there is an NCI and a co-NCI. The institutes have been appointed by a group of national stakeholders at the initiation of the ISP-TEESA programme in a country. In most cases, funds for country-level ISP-TEESA activities are managed and accounted for by the NCI.

The **National Contact Person (NCP)** is the focal point designated by the NCI for overseeing and coordinating ISP-TEESA related activities and functions. They provide secretarial support to the NWG.

The **National Working Committee (NWG)** is a multi-disciplinary and multi-stakeholder group of representatives of a range of government and non-government organisations. During a stakeholder meeting at the initiation of the programme, it was decided in a participatory way which organisations

would be represented in it. They are headed by an elected chairperson who often plays a complementary or parallel role to the NCP. They coordinate national activities and ensure that efforts connect to national needs. They serve as the steering committee for the ISP-TEESA programme in a country, but RAEIN-Africa envisioned them to evolve towards playing a role beyond this programme.

National innovation platforms have been formed as multi-stakeholder platforms in six countries, three along the lines of knowledge & technology development, and three along the lines of public awareness & policy participation. The focus of the platforms was decided upon by the NWG on the basis of a needs assessment. Their constitution evolves over time, e.g. inviting media and other relevant stakeholders to become part of it. They are supported by the NWG through research (e.g. along the lines of market access in the case of sweet potatoe in Malawi), and through practical support including the financing of interactive processes.

A **regional innovation platform** has emerged out of the SANGL network around laboratory capacity for GM-detection. It is already getting a dynamic of its own because of high-level regional recognition, which is evidenced through almost finalised agreement of funding through UNEP-GEF. It could be seen as one of the flagship project within ISP-TEESA.

Finally, there are **regional networking** opportunity events such as conferences, high-level dialogues, combined interactive training for regional stakeholders from different SADC countries, and the twinning project (learning from other countries).

MECHANISMS

Planning processes

A RAEIN-Africa partners meeting is held annually in which plans for the next year are presented by NWGs and NCPs and discussed after which annual work plans are decided upon in relation to assigned budgets. The work plans are submitted to the Donor for approval. Upon approval, the work plans and associated budgets are the basis for management of the programme in that year.

Financial management

Financial management starts with the annual partners meeting where plans are made for the next year and budgets allocated. The approved plans with associated budgets are then the basis for financial management by the NCIs. The NCI needs to ensure that the funds allocated to the ISP-TEESA programme are part of local auditing procedures, but the RAEIN-Africa secretariat will also do an in-depth check of the books on location every year. The RAEIN-Africa secretariat is audited annually by PricewaterhouseCoopers and the annual audit reports are reviewed by the management committee and board, and submitted to the donor for scrutiny. Since inception, RAEIN-Africa has been getting clean and unqualified audit reports.

Managing country diversity

The ISP-TEESA programme is implemented according to two modes of operation in relation to the SADC status of countries which is a division into two groups: Group A countries and group B countries. Group A comprises of Botswana, Malawi, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Group B countries comprise of Angola, Democratic Republic of Congo (DRC), Lesotho, Madagascar, Mauritius, and Mozambique. In group A countries, RAEIN-Africa operates through the explained setup of NCIs and NWGs, which means these countries can benefit from all ISP-TEESA related activities. In group B countries, RAEIN-Africa operates through biosafety authorities or biotechnology competent authorities, which means countries can participate in and benefit from capacity building activities (trainings).

3.3 Findings and discussion

3.3.1 RAEIN's governance and organisational setup

The overall governance arrangements

There appear to be few issues regarding the governance of RAEIN-Africa. The setup with a Board of Trustees, a Management Committee, and supporting Technical Advisory Committee provides a broad basis of support and engagement from throughout the SADC region. During our visits we have not come across people who were challenging this arrangement. However, given the connectedness challenges as discussed in chapter two, there may be an issue of raising the profile of the Board of Trustees. The idea of finding RAEIN-Africa patrons has been mentioned as a way of overcoming connectedness constraints. Other opportunities would include getting official endorsement (statements) from high-level officials. Though the Board (and TAC for that matter) is supporting the secretariat in networking activities, still to a large measure comes down to the efforts of the secretariat. The same applies to making appropriate linkages to opportunities that new initiatives in the region and beyond present. It requires a looking beyond what RAEIN-Africa has been focusing on over the past 10 years. The Board has been broadened to 11 members, but there is also scope for broadening backgrounds of board members, such as finding representation from the private (business) sector and specialists in the field of food & nutrition security.

The secretariat's performance

In discussing the functioning of the secretariat, we have to distinguish between two aspects: The capacity and the performance. Starting with the **performance**, we have looked for issues, but we have been unable to find any reasons for serious concerns. Rather the opposite. **From partners and stakeholders** we were hearing appreciation that was not just general, but specific. We will quote a number of them: "Their personalities/attitudes fit the message of multi-stakeholder and participatory approach". "They know how to make a process participatory". "They involve the right people". "They understand our challenges". "A very strong team". In short, those people that we spoke to, spoke highly of secretariat's staff performance.

From our own observations, while working with the secretariat staff in gathering background information and asking them to help us make sense of what was unclear to us, we found them to be on top of ISP-TEESA relevant issues, to be self-critical and to have their eyes open to the shortcomings of the programme in terms of design and country-level performance. Their filing systems were found to be up-to-date and any documents we requested could be produced. The necessary operational manuals and guidelines on financial management, HRM and other organisational functions were found to be in place and actively applied. During our assessment, the secretariat staff have been highly professional and supportive, without giving any indication of trying to influence the outcome of the review.

When it comes to **secretariat capacity** it is where our concerns start. The staff are very good at multi-tasking, but it was widely agreed that the secretariat is seriously understaffed. Whatever funding arrangements regarding overhead, for a regionally operating group like RAEIN-Africa, there are currently just too few staff to sustain its mission and ambition. As indicated earlier, much of the networking and forging of linkages comes down to secretariat efforts and within the secretariat most of it falls on the shoulders of the regional director. This is an impossible situation and it is seriously undermining the growth and sustenance of RAEIN-Africa. Regional and international networking combined with coordination of strategic directions and writing would already be enough to fill up the job of regional director. However, many of the day-to-day management also requires significant input from her. For a long-term perspective, there also needs to be a broader basis of staff in case anyone would leave the organisation. Currently, the organisation is very vulnerable to any staff changes due to the fact that there is hardly anyone to fill in the gap and a new person will need to first get acquainted with the organisation and programme. This introduces another problem. Operational guidelines and procedures have been documented and we have

seen the documents. Regarding the strategic documents on what RAEIN-Africa and ISP-TEESA is all about, there are many documents in a variety of forms of presentation. It took us as evaluators quite some time to see the forest for the trees (also because there are so many lines along which RAEIN-Africa is active in thinking and practice). This points to the need of developing an introduction to RAEIN-Africa/ISP-TEESA for future staff, in a consolidated and concise format.

Besides the staff capacity in terms of numbers of staff, there is also the issue of how much current staff can cover regarding subject matter. Needed additional staff capacity that was suggested by informants included a PR/Communications officer, a Social Scientist, and a Resource Mobilization Officer. Current staff have a certain background and some have a longstanding experience of working in the field of working from a needs-driven approach to brokering technologies, multi-stakeholder/participatory approaches, and biotechnology/biosafety issues. Nevertheless, given the scope of RAEIN-Africa's operations, one cannot expect the few staff that are there to cover all variety. E.g. a more explicit and articulated connection to food & nutrition security could be considered appropriate.

3.3.2 ISP-TEESA programme setup and management

Originally, an important part of ISP-TEESA was intended to revolve around competitive grants. After receiving a large number of proposals, RAEIN-Africa had to decide to follow a different route because proposals were overall largely lacking in terms of an innovation systems perspective and multi-stakeholder approach. This led RAEIN-Africa to investing more in capacity development in the field of innovation systems perspectives and related approaches, which introduced a different type of interface with countries. Though the capacity building efforts have been highly appreciated (see box 1 in 4.1.1 on how RAEIN-Africa approaches capacity development), the fruits of this in terms of the innovation systems perspective and multi-stakeholder approach becoming institutionalised (beyond the individuals participating in trainings and in NWG) in organisations involved in ISP-TEESA programmes is a still on-going process. We will, however, return to this matter when we discuss outcomes and impact in the next chapter.

There have been and there are challenges in the organisational setup of ISP-TEESA. Getting a foot on the ground in countries, requires developing relationships. That takes time and effort. And after that the groups like the NWG and innovation platforms need to get their act together. That takes time and effort. And after that, RAEIN-Africa would like to see those groups evolve and grow beyond the initial role they started to play. These are processes that require in-country champions to make and keep things moving. In some countries, the NCP and/or the NWG chairperson are performing that role, such as in Malawi and Swaziland. But this is not the case in every country. For this reason, a number of people, including in the Board, have started to doubt the way ISP-TEESA is organised in terms of relationships and connection points. There are indeed issues regarding the performance of a number of NCI, NCPs and NWGs. The question is whether this is an issue of inappropriate design, or an issue of requiring the right people, or an issue of it taking time to get structures and processes in place and to get up to speed, or even an issue of prevailing cultures in science & technology in a country, or a combination of those. Members of the NWG are often busy people with a lot on their hands. In such a situation, taking the NWG to a new level is also hindered by sheer lack of time and energy. Several NWG members pointed this out to us. A careful assessment will need to be made before making any changes in the current setup, which has clear strengths. From our own observations, we have seen the difference that a champion in the form of an NCP or NWG chairperson can make. It anyway seems to help NWGs if they are connected to on-the-ground activities. It creates motivation and energy in the group.

Another consideration is a possible need for more coaching, as some informants suggested, particularly in relation to the NWGs. Perhaps we could say that some countries, whether because of the lack of in-country process champions or because of other reasons, more coaching is needed to pick up speed. After all, the reason for RAEIN-Africa to abandon (largely) the competitive grant approach, was the

identified lack of understanding and experience in the field of innovation systems perspectives and multi-stakeholder approaches. Such situation will not change overnight. Hence a need for more effort to follow up through other means of capacity development, and additional coaching may be a very appropriate complementing strategy. The thought of starting to work with one or more (part-time) liaison officers strategically located in the region, has been raised in this context. Such coaching may also help NWGs to move beyond being a steering committee for the ISP-TEESA programme and to start becoming ambitious to be a national innovation support platform or think-tank that will be able to acquire resources from other groups than RAEIN-Africa. The coaching could then include helping NWGs become more connected to start to see opportunities beyond the current state of affairs. But, in the end, as one member of an NWG said, it comes down to the members of the NWG to take ownership of things: “if we are not passionate about something, it will always be difficult”.

In short, at this stage the secretariat is limited in what it can do. Not just because of its own available capacity in terms of time and resources, but also in connection with its hands-off policy, leaving as much to in-country processes and dynamics as possible. This is a strength while in this sort of situations it also becomes a challenge. You would not want to lose it as a strength as several times we were told how much partners appreciated the flexibility and room for making changes that the secretariat gave to them. That strengthens motivation and ownership. Alternative strategies may include exchange of experiences with countries in which things are working well (such as through the existing twinning project), and the annual regional review and planning meeting may be a place to raise this issue to be discussed and decided on a regional basis for the entire network rather than on a country by country basis.

3.4 Conclusion

Appropriateness and effectiveness of overall RAEIN-Africa governance and organisational setup

The setup of the Board of Trustees, a supporting Management Committee and a Technical Advisory Committee to provide content-related expertise and support, appears to work well and provide a solid basis for organisational governance. It also allows for connecting to SADC countries in different ways than through interventions, facilitating easier entry into a range of countries. The idea of approaching additional ‘patrons’ (high-level officials endorsing the organisation), seems appropriate and fitting given problems with public relations as discussed elsewhere in this report. We found financial systems to be in place and have no reason to doubt the effective application of those. This is a firm foundation for expanding secretariat functions. The board may need to explore ways of supporting the secretariat more in the field of resource mobilization and identifying new funding opportunities as long as the secretariat is understaffed. We have serious concerns about this situation. Secretariat staff are performing very well, making long hours, do multi-tasking, but they are overstretched and vulnerable. The kind of regional initiative that RAEIN-Africa seeks to be (see organisational ambition), requires a broader staff base. This affects connectedness and even organisational sustainability issues such as discussed in chapter two. The ability to handle any loss of current staff is considered to be a great area of risk, which should be addressed urgently. However, move with care to ensure getting appropriate new staff on board. RAEIN-Africa’s approach and style of work requires more than a certain expertise and involves mind-sets, attitudes and organisational culture as well.

Appropriateness and effectiveness of ISP-TEESA organisational setup and management

It is not possible to fully dissect a discussion on organisational setup between RAEIN-Africa and ISP-TEESA. Much of what is discussed bears direct consequences for ISP-TEESA. The internal evaluation raised some concerns regarding the functioning of the setup of NCI/NCP/NWG, in particular the NWG. The board has already discussed options for following up on this. We would, however, caution to not take hasty steps in dissolving any of these structures. Although some NWGs are not functioning as hoped-for in all places, they still are very much part of RAEIN-Africa’s efforts of establishing centres based on innovation systems perspectives and multi-stakeholder approaches in-country and not just regionally. Moreover, the potential

of these NWGs evolving into national innovation platforms or think-tanks is significant. More coaching may be required, but this prospect offers important opportunities for institutionalising the thinking underpinning ISP-TEESA. Thematically organised innovation platforms (such as on a crop or on a legislative framework) are important, but ISP-TEESA is aiming for sustainable development and poverty reduction, integration and synergy between a range of thematic focus areas will be needed. A national-level multi-stakeholder platform can forge connections and facilitate integration. From the last board meeting minutes, we understand that a varied approach to solving issues regarding the functioning of NWGs will be adopted to align better with diverse country conditions. This could be an effective approach.

4 Programme strategic guidance and implementation

This chapter zooms in on the ISP-TEESA strategic framework and its implementation, and discusses performance in view of key performance questions.

4.1 ISP-TEESA programme implementation

4.1.1 Strategic reference framework

Figure 5 provides a concise overview of the ISP-TEESA strategic reference framework that is meant to guide programme implementation and against which RAEIN-Africa reports on progress.

Figure 5 ISP-TEESA strategic reference framework		
GOAL To create an enabling environment for innovative interventions that enhances sustainable development and contributes to reduction of poverty in southern Africa		
PURPOSE To enable stakeholders in Southern African countries to actively participate in developing innovative interventions and technologies addressing their regulatory aspects focusing on food security, environment and social justice		
RIBBB-SA PROJECT Regulatory Innovation: Breaking Biosafety Boundaries in Southern Africa	CROSS CUTTING PROJECT	ITEM PROJECT Innovative Technologies for Enhancement of production systems and Management of environment
Outcome area 1: Capacity Building Development actors and institutional systems capacitated with knowledge and skills necessary for interfacing science, technology and society	Outcome area 1: Effective management of the programme	Outcome area 1: Capacity Building Improved capacities of actors in innovation systems to enhance innovative technology development
Outcome area 2: Knowledge Generation Knowledge generated on Network's key focus areas and information appropriately packaged to influence policy and practice	Outcome area 2: Effective network coordination	Outcome area 2: Knowledge Generation Knowledge generated and information appropriately packaged to influence policy and practice
Outcome area 3: Innovation Systems and Public Participation Increased voice of stakeholders to effectively participate, drive, and influence policy and practice	Outcome area 3: Collaboration and networking with other stakeholders	Outcome area 3: Innovation Platforms Establish and capacitate innovation platforms to facilitate application of science and technology for sustainable livelihood development
Outcome area 4: Partnership Building Visibility of RAEIN-Africa increased nationally, regionally, and internationally	Outcome area 4: Communication for strengthened learning and sharing in the network	

Five associated core intervention strategies (called ‘strategic objectives’ in programme documents were defined, which can be found reflected in it (to find the connection, look at the bold type face description):

1. To enhance the skills and knowledge of development actors for interfacing science and technology (**capacity building**);
2. To generate information and knowledge and appropriately package it to influence policy and practice in the area of programme focus (**knowledge generation**);
3. To establish/strengthen a platform for innovation systems actors to have increased voice to effectively participate, drive, and influence science, technology and policy (**establishing innovation platforms**);
4. To build micro-meso to macro bridges to facilitate application and use of science and technology to support sustaining livelihoods (**partnership building**);
5. To strengthen institutional systems for managing science and technology for poverty reduction and sustainable development (**networking and institutional capacity building**).

Box 1: RAEIN-Africa’s approach to capacity development

In changing its approach from Competitive grant systems to “nurturing and implementation”, RAEIN-Africa invested a lot into changing mindsets, building innovation networks, and empowering partners to participate in the innovation systems.

RAEIN-Africa recognizes that in rural communities, for innovations to occur, open interactions need to happen among diverse actors in the given society, drawing upon their comparative advantages and the most appropriate knowledge within them. A research and development capacity, connected to the actors’ collective action, coordination and knowledge sharing should enable the formation of lasting partnerships forming innovations from within environments that makes them accessible and appropriate for use by farmers or entrepreneurs and to link up to businesses. In recognizing the above RAEIN-Africa’s capacity building activities are broader than the traditional training. See appendix 7 for further elaboration on the RAEIN-Africa Capacity Development Approach.

This framework has been presented in different formats over time and has been reiterated regularly during strategic meetings and in strategic (reporting) documents.

4.1.2 Implemented activities

Table 7 provides an overview of what the strategic framework means in terms of concrete activities. For a deeper understanding of what RAEIN-Africa’s approach to capacity development involves, please see appendix 7.

Table 7 Activities in relation to the outcome areas defined for ISP-TEESA	
PROJECTS	RELATED ACTIVITIES
RIBBB-SA PROJECT: Regulatory Innovation: Breaking Biosafety Boundaries in Southern Africa	
Outcome area 1: Capacity Building	<ol style="list-style-type: none"> 1. Capacity development regarding socio-economic impact assessment of genetically-modified (GM) crops 2. Capacity development around theory and practice of innovation systems in agriculture and rural development 3. Capacity development around biosafety risk assessment and risk management 4. Training on negotiation skills for SADC delegates to COP-MOP 5. Capacity development onn GM detection and networking 6. Capacity development support for NBFs in influencing policy making 7. Capacity development on emerging CBD protocol (Access and Benefit Sharing, and Liability and Redress) 8. Use of M&E tracking tool as follow-up after trainings
Outcome area 2: Knowledge Generation	<ol style="list-style-type: none"> 1. Development and dissemination of biosafety socio-economic impact assessment tool/guidelines 2. Research on prerequisites for development of technology, and enhancing farmers’ innovation for poverty alleviation

Outcome area 3: Innovation Systems and Public Participation	<ol style="list-style-type: none"> 1. Establishment of Public Awareness and Public Participation platforms 2. Development of innovative Public Awareness and Public Participation strategies
Outcome area 4: Partnership Building	<ol style="list-style-type: none"> 1. Building and strengthening effective partnerships at national, regional and international level 2. Create database on biotechnology, biosafety and allied resources
ITEM PROJECT: Innovative Technologies for Enhancement of production systems and Management of environment	
Outcome area 1: Capacity Building	<ol style="list-style-type: none"> 1. Capacity development on soft skills for established platforms 2. Interventions to address identified challenges, opportunities and gaps
Outcome area 2: Knowledge Generation	<ol style="list-style-type: none"> 1. Scoping study on impact of climate change, and coping and adaptation strategies by rural communities 2. Scoping study to determine the impact of biofuels on rural communities
Outcome area 3: Innovation Platforms	<ol style="list-style-type: none"> 1. Establishment of innovative technology platforms
CROSS CUTTING PROJECT	
Outcome area 1: Effective management of the programme	<ol style="list-style-type: none"> 1. Establish governance structures 2. Establish efficient and effective financial system 3. Design and implement monitoring and evaluation system
Outcome area 2: Effective network coordination	<ol style="list-style-type: none"> 1. Connect to NCI and establish and strengthen NWGs 2. Establish secretariat coordination skills
Outcome area 3: Collaboration and networking with other stakeholders	<ol style="list-style-type: none"> 1. Training on proposal writing 2. Establish and maintain networking arrangements at regional and international levels 3. Regional and international networking
Outcome area 4: Communication for strengthened learning and sharing in the network	<ol style="list-style-type: none"> 1. Programme reviews and planning meetings 2. Appropriate packaging and dissemination of learning.

In appendix 4 we provide an alternative presentation (visualised) of activity areas at regional and country level. It is related to the organisational structure of ISP-TEESA. Appendix 2 provides a more complete overview of implemented activities for each of the projects up to mid-2012 and appendix 3 presents an overview of the same per country.

4.1.3 Achieved outputs

After 3½ years in operation, the programme has produced a range of products & services (outputs). To start with, it has established three technology innovation platforms, in Namibia (on artificial insemination of cattle), in Malawi (on sweet potatoe), and in Tanzania (on banana). Furthermore, three public awareness and public participation platforms were established in Swaziland, Botswana, and Zambia.

Other products include three policy briefs (on biofuels, climate change adaptation, and socio economic consideration regarding GM crops), seven national country studies on socio-economic issues in introducing new technologies, nine laboratories participated in proficiency testing (GM detection), an online

database established, three case studies (two on climate change and one on impact of *Jatropha* on rural livelihoods), and six formal publications.

We are not counting the in-country ISP-TEESA introductory meetings, regional annual partners review and planning meetings, TAC meetings, Board meetings, annual reports. The internal evaluation carried out in 7 countries in 2011 also provided a number of outputs.

Table eight provides a summary overview of achievements in relation to capacity development to give a taste of what has been achieved.

Table 8 Scope of selected achievements through the ISP-TEESA programme		
Number of participants	From where	Concerning what
150	8 SADC countries	Training in innovation systems and multi-stakeholder processes
60	5 SADC countries	Training of trainers on innovation and multi-stakeholder processes
31	13 SADC countries	Training on assessing socio-economic impact of the introduction of new technologies
49	11 SADC countries	Training in negotiation skills for COPMOP
42	16 countries in Eastern and Southern Africa	Training in risk assessment and risk management in relation to the Cartagena protocol on biosafety
45	3 SADC countries	In-country risk assessment and risk management training
30	9 SADC countries, 17 laboratories	Training in GM detection
22	12 SADC countries	National Biosafety Experience sharing and socio-economic guidelines review and training on national reporting processes.
30	2 SADC countries	Training in effective science communication
70	17 countries (11 SADC countries)	Conference on innovation systems for poverty reduction and sustainable livelihoods development in SADC countries
17	16 laboratories	Establishment of SANGL network
32	12 SADC countries	High level policy dialogue on biotechnology and biosafety issues
23	6 SADC Countries	Training on proposal writing (in connection with climate change conference)
55	9 SADC countries	Conference on climate change mitigation and adaptation strategies
45	3 SADC countries	In-country Risk Assessment and Risk Management
35	8 SADC countries	Capacity building on new protocols on ABS and L&R under the CBD. (National Biosafety Authorities, Scientist, Lawyers and Media)

The RAEIN-Africa secretariat keeps careful track of progress. All in all there is an impressive list of in terms of activities and outputs till mid-2012 that can be found in appendix 2.

4.1.4 Emerging outcomes and impact

When looking for overviews of emerging outcomes and impact of the programme, no good input documents can be found. This relates to the fact that the focus of formal M&E is on activities and outputs. Scattered through reporting documents, however, several emerging outcomes are mentioned. Furthermore, through conducted interviews, quite a number of significant outcomes were found to have been realized and in the process of emerging. We will further discuss outcomes and impact in 4.3.4.

4.2 Monitoring and Evaluation

4.2.1 Design of monitoring and evaluation mechanisms

In the programme proposal, monitoring and evaluation procedures were described as going to be inbuilt in to work plans and would be participatory in nature. Evaluation would be performed internally as well as by strategic partners. Monitoring and evaluation (M&E) of programme activities would be continuous and based on an M&E plan that the secretariat would develop in consultation with the National Working Groups. An external evaluation (mid-term review) was already foreseen at the time.

Key M&E activities were defined as follows:

1. Annual review and planning meetings will be carried out.
2. Auditing of the programme to be carried out annually at regional level by a competent international recognised and DGIS endorsed audit firm. National activities will be audited by the secretariat.
3. The TAC and other technical advisers' activities which will include appraisals of projects proposals,
4. Periodic internal evaluation missions to be commissioned by the RAEIN-Africa
5. Peer group review of research proposals and results before they can be published.
6. Adoption of renowned researchers as external advisors to research projects.

The actual M&E plan was only developed in 2011 and is based on the strategic framework as presented in the previous section. A matrix is used to systematically assess progress against set objectives and indicators. The indicators are almost all quantitative (see appendix 8). For "end of programme assessment", a mix of outcomes, outcome-level indicators and targets have been defined in relation to each outcome area.

M&E matrix structure:

Outcome area	Indicators	Baseline situation 2008	Achievements per year (reported)	Targets for years to come (reported)	End of programme envisaged outcomes (not reported against)
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Outputs have not been systematically described in relation to outcome areas and have to be deducted from other sources of information such as the indicators. A list of 23 assumptions/risks were defined for the programme, providing detail on the type of risk, the potential consequences, a risk mitigation strategy, and definition of who is responsible to keep an eye on this and/or act on any risk turning into a threat to the programme. When the assumptions/risks were defined, the following factors were indicated as having the highest risk level:

- Continued interest and cooperation by partners
- Exchange rates will be stable for the project period
- Sufficient capacities in innovation systems approach
- Partners willing to provide information for population of the database
- Partners have reliable access to internet connectivity

The secretariat provided an updated assessment of risk levels in relation to the 23 assumptions/risks and point to the following factors having the highest risk level:

- Continued funding
- Institutionalisation processes at national level

- Limited personnel
- Location of secretariat hampering networking and collaboration.
- Unconclusive closure of ISP-TEESA introduced interventions

Many of the actual and functional M&E mechanisms have not been spelled out as such and were only found out through interviews with secretariat staff. In fact, the secretariat started out on developing an M&E plan at some stage, which could be picked up and followed-up on now. We will discuss M&E mechanisms in the following section in terms of actual implementation of M&E

4.2.2 Implementation of monitoring and evaluation

The picture of effective M&E implementation is quite different from the design. We found at least the following M&E mechanisms in place (there may be more that is not recognised as being an M&E mechanism since regular consultations take place):

- Internal evaluation (performed by external consultants)
- Consolidated annual reports
- National partners review and planning meetings
- Work-plan related discussions
- Back-to-office reports
- NWG minutes
- All sorts of outputs in the form of reports and
- Workshop and training reports
- Participant evaluation
- Tracking tool to follow participants after trainings
- External mid-term review
- Weekly debriefing of secretariat
- TAC meetings (and minutes)
- Board meetings (and minutes)

Just this to show that a lot of M&E is taking place, but much of it is either informal or it is not realised to be part of M&E.

4.3 Findings and discussion

4.3.1 Programme relevance

In all interviews with informants, the relevance of the ISP-TEESA activities were confirmed. If any issues were raised, it related to a desired continuation or even expansion of activities, or to a lacking effectiveness, particularly in terms of hoped for institutionalization. Expressions such as “they filled a gap” and “they are unlocking potential” were heard a couple of times. It confirmed that RAEIN-Africa takes country/partner-identified needs as the basis for the ISP-TEESA programme. The change of working through competitive grants to more of a focus on capacity development (‘nurturing and implementation’) around the innovation systems perspective and multi-stakeholder approach, enhanced relevance (see box 1 on RAEIN-Africa’s approach to capacity development). Without that shift, research and related activities would have been done, but would not have been up to standard in view of programme principles. The fact that the secretariat, supported by the TAC realized this, points to an ability to reflect critically and adjust strategically in order to keep performance relevant for stakeholders. Relevance issues have in part also already been discussed in chapter two in relation to relevance of the broader intervention.

4.3.2 Programme effectiveness

Since objectives have mostly been described in rather broad terms and only linked to simple, quantitative indicators that particular focus on outputs, it is difficult to determine how to judge on effectiveness. If we limit ourselves to merely assessing how much was done, then we can refer to the overview discussed in 4.1.3 and listed in appendix 2. And then we can say a lot has been done and achieved. In view of the outcome areas as defined in the strategic framework, we would like to discuss effectiveness at a deeper level.

Table 9	
Discussion of effectiveness vis-à-vis set objectives	
RIBBB-SA PROJECT Regulatory Innovation: Breaking Biosafety Boundaries in Southern Africa	
OUTCOME FRAMEWORK	Assessment by evaluators
Outcome area 1: Capacity Building Development actors and institutional systems capacitated with knowledge and skills necessary for interfacing science, technology and society	RAEIN-Africa tries to approach capacity development from a number of angles. Trainings play a big role in this. More coaching of NWGs seems to be appropriate, but in view of secretariat capacities, this is difficult to follow up on. Institutionalisation processes in countries may, however, ask for more coaching and alternative strategies for providing this need to be explored (e.g. through 2-3 (part-time) liaison officers).
Outcome area 2: Knowledge Generation Knowledge generated on Network's key focus areas and information appropriately packaged to influence policy and practice	The programme has been quite effective in commissioning a range of studies, reports and publications. The secretariat has played an active role in contributing to these efforts as well (see authors of publications/studies in appendix 2). At the same time, there still are some unknowns regarding the uptake of the knowledge generated by in particular governments at this stage. It is too early to make a final assessment, but such uptake is not sure, but the prospects are very promising because of the participatory process that built ownership at appropriate (policy) levels. Another factor hampering the effective use of generated knowledge is the lack of accessibility of documents, reports and publication electronically through a website.
Outcome area 3: Innovation Systems and Public Participation Increased voice of stakeholders to effectively participate, drive, and influence policy and practice	There is strong evidence that the programme is achieving good results in this area. The case of Swaziland is the most telling example. The way the innovation platform has operated there is directly linked to the success achieved in getting the Biosafety Act passed. Much of this may be attributed to the successful engagement of media and lawyers in the platform activities. Though the same kind of success cannot be reported for every country, it does show the potential of this approach and strategy.
Outcome area 4: Partnership Building Visibility of RAEIN-Africa increased nationally, regionally, and internationally	As also highlighted in the internal evaluation, and earlier parts of this report, there are some serious concerns around this aspired outcome area. Causes relate to limited capacity of the secretariat (staff shortage), but also in very practical factors such as poorly functioning website, and lack of advertising. There are no signboards indicating anywhere in the University of Namibia that the RAEIN-Africa secretariat is located there. This is an indication of a lack of a good PR and communication strategy. At the same time, the Board may need to play a more active role in this as well.
ITEM PROJECT Innovative Technologies for Enhancement of production systems and Management of environment	
Outcome area 1: Capacity Building Improved capacities of actors in innovation systems to enhance innovative technology development	Much of the same comment as reported in relation to the RIBBB-SA project applies here.
Outcome area 2: Knowledge Generation Knowledge generated and information appropriately packaged to influence policy and practice	Much of the same comment as reported in relation to the RIBBB-SA project applies here.

Outcome area 3: Innovation Platforms Establish and capacitate innovation platforms to facilitate application of science and technology for sustainable livelihood development	The Malawi case is a good example of what may be achieved through this approach and strategy. It is clear that the related field project (on sweet potato) is yielding good results for farmers that can be translated in increased income and enhanced food security. As with other projects, it has not worked out as effectively in every country, but a final assessment cannot yet be made since some of the platforms had a delayed start. The prospects look good though.
CROSS CUTTING PROJECT	
Outcome area 1: Effective management of the programme	This is working out well.
Outcome area 2: Effective network coordination	We have already pointed out some areas of concern when discussing the organizational setup. The internal evaluation has raised a number of concerns as well, having done a broader (in seven countries) consultations. This is already being addressed. The tentative ideas of the Board to address these will need to be further refined to ensure that the network niche that RAEIN-Africa can boast of is harnessed.
Outcome area 3: Collaboration and networking with other stakeholders	The list of contributions from partners and stakeholders (appendix 9) points to the effectiveness in this area of work.
Outcome area 4: Communication for strengthened learning and sharing in the network	As pointed out earlier, RAEIN-Africa is in need of a much stronger PR and communication strategy (and associated practice). Too much sharing of learning in the network has to be done through ad-hoc mailings rather than being able to refer to documents and updates on a website/web portal.

The bottom-line as far as performance against set objectives is concerned, is that many informants stated that “RAEIN-Africa delivers”. They do what they said they would do. They are dependable and will work long hours and over the weekend to ensure they deliver. The same attitude was observed during the evaluation process. The secretariat is highly service oriented. Not only their approach, but also this orientation is referred to when some informants said that “they have potential to unlock issues”, and “working with RAEIN-Africa created room for maneuver”.

In the end, RAEIN-Africa is also limited by the prevailing systems of governance in countries, which is also constraining programme effectiveness. Effective institutionalization, is something that cannot be engineered from outside and deep-rooted formal and informal institutions will not change overnight. Against that backdrop, what has been achieved through ISP-TEESA can be considered significant.

4.3.3 Programme efficiency

The total fund for ISP-TEESA was over 4.7 mln Euro for a five-year period. This is a significant budget to work with and requires careful financial administration and management. Though we were not in a position to do an in-depth financial administrative analysis, the whole system of financial management and auditing was found to be sound and solid. The auditing that the secretariat’s financial and administrative officer performs in A countries reduces any chance of spending in a different way than agreed in annual work plans and budgets. An end-of programme evaluation can provide more insights into cost-benefit ratios. As many processes are still in full swing, it is too early to draw any conclusions along those lines.

Being a regional initiative, focusing on networking and exchange, a significant portion of the funds are spent on people meeting and moving (travel between countries). The good part of this, is that it means the investment is done particularly in people and not in equipment. Part of operational efficiency can be attributed to the fact that the secretariat is understaffed. Some work for way more than contractual working hours. It should, however, be seen as only short-term efficiency. The secretariat also indicated

that the process of inviting participants for regional events has its challenges. Late cancellations do occur, which involves a time-consuming process for staff to follow up on this and sometimes loss of money because air tickets cannot be refunded.

A notable loss of efficiency occurs due to the fact that annual work plans are sent around November 1st to the donor by RAEIN-Africa to get approval so that the work can start in January. However, such approval is often not granted before well into February of the next year. This causes serious delays in the start-up of work along the lines of the work plan as the approval is mandatory for new activities.

As discussed in the internal evaluation as well, efficiency gains may be made if the secretariat would move to a more central location. This would also create opportunities for enhanced connectedness.

4.3.4 Programme effects: outcomes & impact

As mentioned in relation to the M&E framework, RAEIN-Africa does not have strong M&E reporting mechanisms in relation to assessing outcomes and impact. There are also no appropriate indicators defined for such assessment. However, this does not mean that there are no (emerging) outcomes or impact not does it mean that (emerging) outcomes and impact are not taken notice of. There are indeed such outcomes and both secretariat and partners could share examples of it.

In terms of impact, we would tend to look for effects in relation to sustainable development and poverty reduction. At this level, there is nothing to report yet. In terms of livelihood effects, the technology platform efforts seem to have that potential, but this is too early to determine. If we take one step down and look at the goal of creating an enabling environment for innovative interventions, we may say that there is indeed emerging impact, particularly if we look at the case of Swaziland where through RAEIN-Africa's efforts (as confirmed by Swazi stakeholders), a Biosafety Act is about to be signed by the King.

The majority of effects, however, falls in the category of outcomes, which we would connect to the purpose of the programme of strengthening an enabling environment. Some informants pointed out that we would easily overlook outcomes in terms of changes of behavior inspired through the interaction in and dynamics of the NWG and the innovation platforms. Much of this remains invisible. But sometimes it does become visible, such as in the case of Malawi. A number of NWG members wrote a proposal for IFAD on Irish potato cultivation improvement, very much along the lines of how the technology platform on sweet potato was set up. The proposal was approved and a project worth 300,000 USD will commence next year. It will build on experiences gained in the ISP-TEESA innovation platform. Please note that the proposal was submitted by members of the NWG, but not as NWG. It did show the NWG, however, of what they might think of as a group evolving beyond being the steering committee of ISP-TEESA in their country. This is a significant pointer to spin-off effects. In this case, it could easily be traced back to ISP-TEESA, but that will not always be the case.

The Swaziland PAPP is a good example of how people start to enjoy working through a multi-stakeholder approach. "We used to try to educate others. Now we are both learners and educators". They reported that RAEIN-Africa's efforts to "help connect to the media was an eye-opener. Before, we would look down on media; they were a frustration for us. Now we work with them and the media is contacting us". The media coverage on RAEIN-Africa supported activities is significant. A wide range of clippings from newspapers and magazines were shown to us to provide evidence of it. It was also reported that the media coverage played a significant role in getting through to the parliamentarians who were crucial in moving the Biosafety Act forward in Swaziland. In Namibia a trip to Botswana to learn about community-based use of artificial insemination of cattle, was reported on the radio. Farmers from other parts of the country contacted two participants in this exposure tour and asked for assistance in their community.

Another significant outcome is found in relation to the SANGL project. UNEP-GEF is about the finance a multi-million continuation of the network, which will provide more opportunities for both stakeholders in SANGL-participating countries and RAEIN-Africa as RAEIN-Africa will play a major role in it.

4.3.5 Programme sustainability

RAEIN-Africa has invested heavily in people. In terms of networking, in terms of exposure, in terms of training, in terms of coaching and other ways as explained in box 1 on RAEIN-Africa's approach to capacity development. One may also say that RAEIN-Africa is about sowing seeds of change. The harvest is to come through the people they have engaged with. We have spoken to quite a number of them and have seen enthusiasm and recognition of the value of what RAEIN-Africa has made possible for them. The innovation platforms are active in taking their projects forward. There are emerging outcomes. This motivates. The next step is that people start to work with this independently of the ISP-TEESA programme as well. In Malawi we have seen some of the first-fruits of that in NWG members successfully applying for IFAD funds for establishing a new innovation platform on irish potatoe.

At the same time, we do realize that for dynamics to continue beyond RAEIN-Africa's support, changes in mindsets, changes in cultures of collaboration, etc. have to root deeper. That is understandable, but it would be good if in 2013, the last year of ISP-TEESA, there will be more signs of effective institutionalization, in particular in organisations represented in NWGs and innovation platforms. In terms of instutionalisation dynamics, the accessibility (e.g. web-based) of ISP-TEESA reports, publications and informative documents will need to improve to make sure that people (beyond RAEIN-Africa) are going to use it as basis for informed decision-making. Because of the elaborative participatory process through which the guidelines on socio-economic impact analysis of the introduction of GMOs have been developed, there seem to be good chances that this will grow beyond RAEIN-Africa in a range of countries in SADC.

4.3.6 Effectiveness of monitoring and evaluation

Design

If not assessing this from a strict M&E system perspective, we may say that the secretariat is pretty much on top of things, which may be seen as quite an achievement given the limited staff capacity. However, in terms of having a systematic framework as a basis for programme M&E, things are seriously lacking.

Table 10 Assessing readiness for effective M&E	
Aspect of M&E design	ISP-TEESA state of affairs
Clarity of purpose of M&E : what should M&E be doing for the programme?	Not defined beyond basic functions. Would need to become more linked to strategic decision making and hence would require more elaborate description.
Clarity of scope of M&E : what should M&E encompass and how sophisticated is it meant to be?	There is no proper M&E plan beyond a matrix to track progress against quantitative indicators. There are many more M&E mechanisms in place, but there is no document that provides a clear outline of the different mechanisms, how they work in unison and how they provide a basis for aligning M&E at country and regional level.
Clarity of information needs for M&E: Knowing what you need to know to understand how the programme is doing	Only quantitative indicators are spelled out, and only at output or even as low as activity level. Outcome level information needs need to be articulated and systematically reported against in terms of emerging outcomes (or impact if applicable). Even outputs have not been clearly identified. They can be deducted from e.g. progress indicators, but there is no systematic definition of anticipated outputs in relation to aimed-for outcomes.

Clarity of methods and sources to use for gathering information: Knowing how needed information will be gathered and from where	Again this point to the need for an M&E plan that goes beyond a matrix of tracking progress. Various methods are used in fact, but this is more inside knowledge than that this is articulated in a (comprehensive) M&E plan.
Clarity of roles and responsibilities : Who is meant to play which role in M&E (incl. stakeholder engagement)	Informally as well in other documents (such as MoU with NCI) some of this is described, but there is no M&E plan that spells this out.
Clarity of intended use of M&E findings : What exactly will be done with the M&E information, who will use it for what purpose?	Since the scope of M&E information is rather narrow (see the above), the intended use is rather clear, which is mainly to be used for planning and reporting. However, there is scope for doing more with it, especially if the scope of M&E is broadened.
Clarity about needed capacities and conditions for M&E: What will be needed to make M&E as sketched in the above possible?	M&E is assumed to be taken care of through existing capacities. No training in M&E is provided. This is limiting potential learning and sharing from the programme as not all relevant learning is captured properly. M&E is now reduced to mainly a reporting function and not as an instrument to support strategic guidance and learning.

There is a clear need for bringing about more alignment in M&E mechanisms and create a more comprehensive M&E plan than only a matrix that track progress over time. This would need to allow for better capturing and articulating outcomes and emerging impact. There is much more to be shared about this than is captured/articulated/communicated now. The matrix reserves a column for end of programme assessment of outcomes. This should be activated in the present to turn it into information for programme management decision making.

There is also a problem with M&E language. Outputs are often confused with outcomes. There is a need for consistent M&E language to create a shared understanding within the programme about what is actually being assessed (and this will sometimes also provide clarity on what is not being assessed).

Finally, different renderings of the strategic framework are used. In a visual overview, in a matrix format (logframe style, but not quite a logframe) and other forms. This is complicating the establishing of shared understanding and the implications of this go beyond effects as regards M&E.

Implementation

The implementation is actually quite in line with M&E design as it stands. It is tracking activities and outputs systematically and keeps an eye on programme concerns. The secretariat is doing what it can to live up to what has been spelled out in the existing M&E plan. Even beyond that, they keep a close eye on a range of important M&E concerns, but in an informal way. Any new staff member would not necessarily adopt the same attitude. The problem, therefore, is in particular found in M&E design.

RAEIN-Africa appears to be quite good at adaptive management, such as shown in the situation when competitive grant proposals turned out to not live up to RAEIN-Africa's expectations. The secretariat can move fast and adapt to new situations, but too much adaptation may undermine shared understanding among partners and stakeholders. Allowing for sufficient consolidation of strategic directions is important in a multi-partner, multi-stakeholder network.

It will be interesting to see what tracking tool will work out. Is rather new, but a good idea. At this point it is not clear whether and how many people will respond to it. It does provide a potential opportunity of tracking what the effect of participation in training is, something which few organisations manage to get to terms with.

Core values/principles not part of official M&E, but through critical reflection followed up on effectively at secretariat level. It will also need to be part of a more comprehensive and documented M&E plan. A core value regarding M&E was defined to be that it should be participatory (see above). This seems to have been interpreted as meaning involving people in gathering information. More creative ways to engage partners and stakeholders in M&E are available. RAEIN-Africa may want to explore the use of more story-telling and participatory video to capture more of change processes and be able to present findings in a more attractive format. A documentary on RAEIN-Africa may also work miracles in terms of improving their visibility.

4.4 Conclusions

M&E readiness & effectiveness

The sheer hard work of the secretariat of documentation, staying in touch with what is going on in the programme, and regular critical reflection meetings, covers up for part of the lack of a proper M&E design. The potential role of M&E for strategic guidance is not fully harnessed yet. There is a need for investing in some support to capacity development in this field as it cannot be expected from the secretariat to be well-versed in this. The strategic reference framework needs to be further consolidated and translated to a more comprehensive M&E plan that includes more than a matrix to track progress. Information needs at outcome and impact level need to be articulated. Other M&E methods than currently employed should be considered, such as story-telling (capturing stories from the field in different formats) and participatory video.

Having said this, in terms of being on top of what is going on in ISP-TEESA, the secretariat is doing a good job and their ability readily to pull out relevant information from their filing systems upon request, is commendable.

Performance effectiveness & efficiency

It has been said before by informants: RAEIN-Africa delivers. In terms of outputs, much has been achieved and the range of activities related to capacity development have overall been appreciated very much. When it comes to achieving higher-level objectives there is little to support a basis for judgement in terms of what is meant to indicate that e.g. outcome-level objectives are being achieved. This has to do with the fact that progress will be tracked more against the amount of work done (activities and outputs) than against strategic objectives. But it must be said that this is especially on paper. We found RAEIN-Africa staff to be strong on the ability to think and act strategically. Having a more systematic framework of capturing strategic information, however, will help to learn beyond the secretariat. This also touches on efficiency issues. Was it necessary to produce the number of reports that have been produced? Was it necessary to train the number of people that were trained? Was it necessary to do the number of studies that were done? Maybe it really was and we have no concerns in this area, but how to assess this? This points back to the need for a more comprehensive M&E plan. This will provide a more solid basis for strategic decision making on and shared understanding among partners about what to invest in and what not. It will also help to articulate the significance of RAEIN-Africa's efforts better.

Performance outcomes & impact

There is a great deal to report on direct outcomes when looking at behaviour of those directly involved in ISP-TEESA supported activities, which is most evident in the ability of stakeholders from the NWG being able to secure funds for a new innovation platform through IFAD. Also significant behaviour changes were reported that reach beyond the scope of those involved in the programme. The programmes in countries like Malawi and Swaziland are evidence of the outcomes that the programme can lead to. It is time to go back to other countries that have no well-functioning innovation platforms or even NWGs and see what can be done to help them discover the potential that is there. The twinning project is already being instrumental in this. Institutionalisation is the more difficult part of the process. ISP-TEESA has been able to

build up a certain momentum through innovation platforms, support to capacity development and providing networking opportunities. How this will fare beyond ISP-TEESA associated support is difficult to assess at this point in time. In terms of impact, a difficulty is that information needs on those have not been spelled out. So what do we need to look for? We would assume looking at the level of sustainable development and poverty alleviation. The technology innovation platforms show a potential for having some effect on income of primary stakeholders through e.g. higher yields or better livestock. We may consider the signing of Biosafety Act (such as directly influenced in Swaziland) as at least a higher level outcome.

Performance relevance & sustainability

ISP-TEESA activities are strongly linked to needs assessments and consultations done in various countries. This provides a good basis for ensuring relevance of programme efforts. Activities are highly appreciated by partners and stakeholders. The relevance is also supported by the emerging outcomes of the programme as reported in the above. The upcoming country agreements with UNEP-GEF along the lines of the SANGL project are further evidence of the relevance of programme focus. Furthermore, even before being finished, the guidelines on socio-economic assessment of the impact of GMOs is already leading to lots of requests from government officials in SADC. Such relevance should in principle be a building block for sustaining efforts beyond ISP-TEESA, but there is no clear picture on this yet. This also has to do with the fact that some partners/stakeholders see RAEIN-Africa more as a donor than as a network. When people see RAEIN-Africa as a network, we saw more eagerness to look for alternative ways (beyond RAEIN-Africa) of sustaining the programme than when (not with so many words) people spoke of RAEIN-Africa more as a donor. This points to the importance of strengthening and sustaining the image of RAEIN-Africa as in the first place a network initiative.

Finally, much of what RAEIN-Africa is doing, does not show up sufficiently on the radar of important decision makers in Southern Africa. Some informants said that they are not good at selling themselves. This also has implications for sustainability. This points back to the earlier raised points on the need for a PR and strategic communication strategy as well as investing in materials such as e.g. a documentary. That allows for more people to assess the relevance of the programme to their work environment.

5 Conclusions & recommendations

This chapter pulls provides a synthesis of findings, discussions and conclusions from chapters two - four, which forms the basis for the recommendations shared at the end of this chapter.

5.1 Synthesis of findings and discussions

The following is a selection of highlights from the findings and discussion found in chapter two to four.

Core strengths

- Independent position;
- Multi-stakeholder approach;
- Being an African-based initiative, giving an African feel to Africans (influencing ownership feeling);
- Networking ability of bringing in core expertise and connections across the region;
- Available budgets to invest in catalyzer initiatives (giving space to technology platforms);
- Attitude, experience, expertise and commitment of RAEIN staff that is on top of what is going on in the programme;
- Participatory decision-making processes (even at regional level);
- Providing basis for on-the-ground practicing of innovation systems approach, thereby creating horizontal and vertical linkages in terms of stakeholders;
- Sound financial and auditing systems.

Core achievements (outputs)

- Establishment of a multi-stakeholder innovation platform in six countries in Southern Africa;
- Establishment of multi-disciplinary national working groups in eight countries in Southern Africa;
- Community-level innovation projects in three countries;
- Development of high-level guidelines for policy makers throughout Southern Africa;
- Commissioning of a large number of country-level needs assessments;
- Facilitation of a range of regional networking events;
- Facilitation of a range of training opportunities throughout the region;
- Development of a wide range of studies and publications.

Core opportunities

- Wide appreciation and resulting endorsements from throughout the region;
- Almost secure UNEP-GEF funding in connection with the SANGL project;
- NWGs could evolve into national innovation platforms on agriculture & environment;
- High-level use of guidelines (developed through meticulously designed participatory processes);
- RAEIN-Africa is recognized as a unique organization by those who have come to work with it. It is seen as a home-grown organization which understands Africa and which can connect to the realities that governments, universities and other stakeholders innovation systems face;
- RAEIN-Africa's regional focus and reach through an extensive network of partners and stakeholders;
- A strong basis in network formed for continued work on the establishment of an enabling environment for sustainable development through multi-stakeholder dialogue and collaboration.

Core challenges

- Finding a good service provider for designing, making and maintaining the website;
- Consolidating, communicating and articulating what RAEIN-Africa and ISP-TEESA stands for and is achieving in a more concise and sharp manner;

- Institutionalisation processes, particularly of innovation platforms (in Swaziland became recognized as advisory group to Swaziland Environment Authority (SEA);
- Combining a hands-off approach to dealing with country programmes, while at the same time seeing clear opportunities for how the management of those could be improved;
- Accessibility of research products (website or otherwise);
- Small number of innovation platforms – there will always be a certain percentage that does not function as hoped for, and this seems a big issue if you only work with a few platforms.

Core vulnerability

- Weak functioning in some countries of NWG/NCP/NWI (getting energetic/appreciated NCP/NWG-chairpersons in countries);
- Dependency on just one main donor (though this has worked out as a strength during the past years because of the flexible support by DGIS which allowed for appropriate and adaptive management of the programme;
- Lack of formal arrangements with SADC;
- The secretariat's capacity vis-à-vis the amount of work that is on their plate and the essential functions that it does not have time for now;
- Lack of strategic communication strategy;
- Lack of proper M&E design and plan;
- Lack of good website.

5.2 Synthesis of conclusions

Positioning in context

Against the backdrop of the situation of SADC countries as sketched in chapter two, the ISP-TEESA focus of work is highly relevant. The challenges to sustainable development and poverty reduction that are faced, ask for an approach that goes beyond introduction of new technologies. RAEIN-Africa offers a rather unique combination of focus on technologies *and* innovation systems approach. This creates opportunities for institutionalizing good practice in collaborative innovation. It also allows for fine-tuning technologies to situation specifics to create more appropriate technologies. The type of issues concerning biotechnology and biosafety that are highly topical and challenging in SADC countries, are the very ones addressed through this intervention.

The ISP-TEESA theory of change takes two mutually reinforcing strategies as its core intervention. By doing so, they provide a broad basis for achieving institutional change. However it is still challenging to see the efforts becoming institutionalized. This is not something that changes overnight. In a way, this means that appropriateness of the approach is yet to see bear the expected fruits, but it is realistic to give it a longer time frame given the type of changes involved.

RAEIN-Africa has come quite a way in getting connected in SADC countries, both at regional level as well as national level. The connections at national level are there, and also in a wide range of government and non-government organisations. However, connections are not always sufficiently strategic. They are not recognized by some high-level officials for their potential role to play and the actual role they are already playing. Apart from the fact that relationship-building across policy levels just takes time, there is a need to much better communicate and work on public relations to position and profile RAEIN-Africa as an organization and ISP-TEESA as a programme more effectively. The situation of the secretariat having too few staff plays a significant role, but it also relates to the need of making much better use of the internet opportunities.

Seeing RAEIN-Africa as a regional network and seeing the ISP-TEESA programme from this perspective, not as a mere 5-year programme, but as part of a longer-term effort to strengthen innovation capacity and

conditions for innovation in SADC, then sustainability needs to be approached from a long-term perspective as well. Currently, RAEIN-Africa depends on one main donor, DGIS, which is a narrow, but solid basis. DGIS has been flexible in giving them room for strategic maneuver. Such implementation space is crucial for this type of regional initiative. Any new donor agreement should involve a similar flexibility for RAEIN-Africa to retain its ability to strategically adapt on an ongoing basis. The upcoming agreement with UNEP-GEF (in relation to SANGI) offers opportunities for broadening their funding base.

Governance, organization & management

The setup of the Board of Trustees, a supporting Management Committee and a Technical Advisory Committee to provide content-related expertise and support, appears to work well and provide a solid basis for organisational governance. It also allows for connecting to SADC countries in different ways than through interventions, facilitating easier entry into a range of countries. We found financial systems (including professional auditing through PricewaterhouseCoopers) to be in place and have no reason to doubt the effective application of those. This is a firm foundation for expanding secretariat functions. Secretariat staff are performing very well, making long hours, do multi-tasking, but they are overstretched and vulnerable. The kind of regional initiative that RAEIN-Africa seeks to be (see organisational ambition), requires a broader staff base. This affects connectedness and even organisational sustainability issues such as discussed in chapter two.

Although some NWGs are not functioning as hoped-for in all places, they still are very much part of RAEIN-Africa's efforts of establishing centres based on innovation systems perspectives and multi-stakeholder approaches in-country and not just regionally. Moreover, the potential of these NWGs evolving into national innovation platforms or think-tanks is significant. More coaching may be required, but this prospect offers important opportunities for institutionalising the thinking underpinning ISP-TEESA. A national-level multi-stakeholder platform can forge connections and facilitate integration. From the last board meeting minutes, we understand that a varied approach to solving issues regarding the functioning of NWGs will be adopted to align better with diverse country conditions.

Programme performance

The sheer hard work of the secretariat of documentation, good filing system, staying in touch with what is going on in the programme, and regular critical reflection meetings, covers up for part of the lack of a proper M&E design. The potential role of M&E for strategic guidance is not harnessed yet. There is a need for investing in some support to capacity development in this field as it cannot be expected from the secretariat to be well-versed in this. Other M&E methods than currently employed should be considered, such as story-telling (capturing stories from the field in different formats) and participatory video.

RAEIN-Africa delivers. In terms of outputs, much has been achieved and the range of activities related to capacity development have overall been appreciated very much. However, the achievement of higher-level objectives is not captured (well) through formal M&E processes, also because no indicators were defined at this level. Progress is tracked more against the amount of work done (activities and outputs) than against strategic objectives. We found RAEIN-Africa staff, however, to be strong on the ability to think and act strategically. Having a more systematic framework of capturing strategic information, however, will help to learn beyond the secretariat. Administrative systems and procedures, including in relation to financial management, were found to be effective and efficient. Regarding decision-making processes, RAEIN-Africa puts a lot of emphasis on participatory processes. It may not always come across as efficient (requiring a lot of investment in people meeting and moving). However, it appears to be one of the key strengths in terms of sustaining ownership for and the associated effectiveness of the programme across the region.

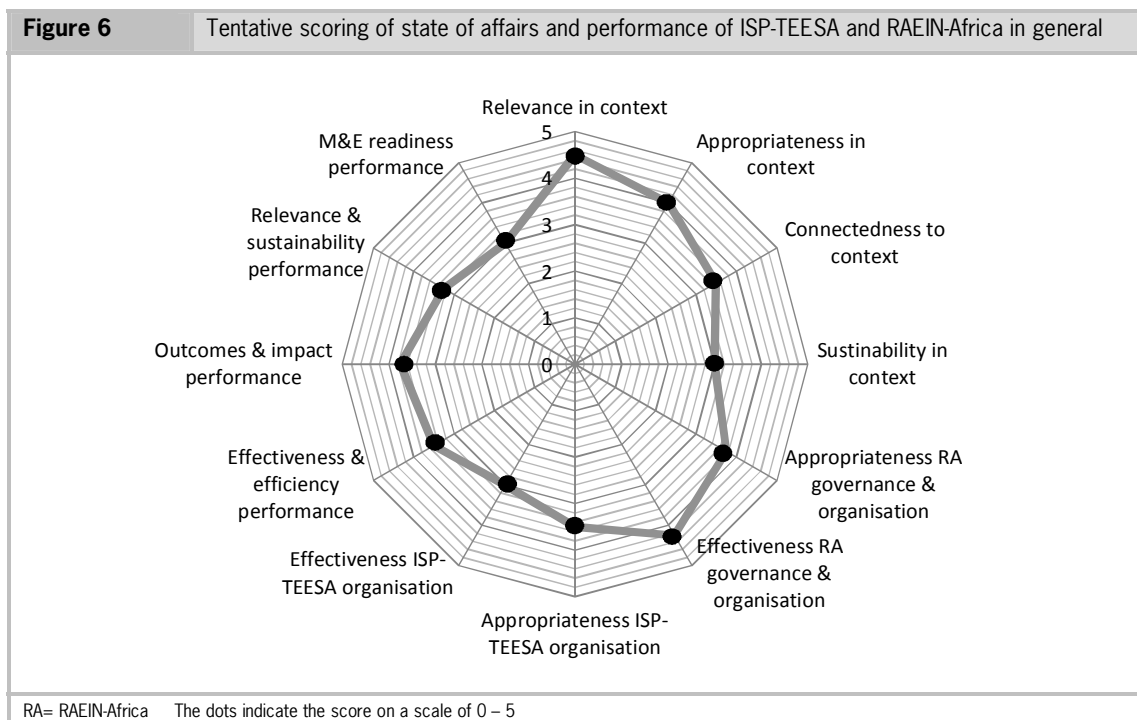
There is a great deal to report on direct outcomes when looking at behaviour of those directly involved in ISP-TEESA supported activities, which is most evident in the ability of stakeholders from the NWG being able to secure funds for a new innovation platform through IFAD in Malawi. Significant behaviour changes were

reported that reach beyond the scope of those involved in the programme. The programmes in countries like Malawi and Swaziland are evidence of the outcomes that the programme can lead to. Institutionalisation is the more difficult part of the process. ISP-TEESA has been able to build up a certain momentum through innovation platforms, support to capacity development and providing networking opportunities. However how this will fare beyond ISP-TEESA associated support is difficult to assess at this point in time. In terms of impact, the technology innovation platforms show a potential for having some effect on income of primary stakeholders through e.g. higher yields or better livestock. We may consider the signing of Biosafety Act (such as directly influenced in Swaziland) as at least a higher level outcome.

ISP-TEESA activities are strongly linked to needs assessments and consultations done in various countries. This provides a good basis for ensuring relevance of programme efforts. Activities are highly appreciated by partners and stakeholders. The relevance is also supported by the emerging outcomes of the programme as reported in the above. The upcoming country agreements with UNEP-GEF along the lines of the SANGL project are further evidence of the relevance of programme focus. Such relevance should in principle be a building block for sustaining efforts beyond ISP-TEESA, but this is yet to materialize. This also has to do with the fact that some partners/stakeholders see RAEIN-Africa more as a donor than as a network. When people saw RAEIN-Africa as a network (and not as donor), we saw eagerness to look for alternative ways (beyond RAEIN-Africa) of sustaining the programme. This points to the importance of strengthening and sustaining the image of RAEIN-Africa as in the first place a network initiative. Finally, RAEIN-Africa has not been good at selling themselves. This also has implications for sustainability if not addressed.

It is very difficult to touch on the institutional environment for innovation processes in Southern Africa. RAEIN-Africa has not found the silver bullet, but they stand a better chance of influencing such environment than many other organisations do. They have acquired a lot of goodwill. It is hard to imagine that no funding partners would be found to safeguard future operations of RAEIN-Africa, but it will need to increase efforts to articulate its opportunities and communicate effectively to secure such continued funding.

Figure 6 presents a tentative score by the evaluation team along the lines of the performance questions assessed in chapter 2 - 4 to provide a succinct presentation of how RAEIN-Africa and the ISP-TEESA programme are faring.



5.3 Learning opportunities for other initiatives

- Do not underestimate the value of a good website/web portal in case of a regional initiative.
- Consider the importance of working with/through Africa-based experience, expertise and networking.
- Ensure having sufficient staff capacity to sustain a regionally operating network/initiative.
- An innovation systems approach involves more than knowledge and expertise just as much as in any kind of participatory approach. Mindsets, attitudes and cultural styles play a big role in this. In building up a staff base as well as partner base, selection of people to work with should pay attention to this.
- It may be interesting to do a comparative study of the earlier DGIS Biotechnology Special Programme (in the '90s), which started initiatives in India, Colombia and Zimbabwe (now regional through RAEIN-Africa). Would be interesting to compare how they fared after the original programme.

5.4 Recommendations

Based on this mid-term review, in view of its limitations outlined in 1.4, the evaluation team defined the following recommendations, ordered along three areas of operation and two levels of priority:

Enhancing strategic focus and connections

Priority

1. Keep working on the formalization of the SADC connection (through the science & technology desk), but also explore alternatives for getting a stronger profile in the region.
2. Engage more and more effectively with the private (business) sector. Develop a strategy for this.
3. Explore opportunities of linking to new initiatives in the region such as the Green Climate Fund and embassy programmes. These are just two examples, but there are more existing and upcoming initiatives relevant to RAEIN-Africa's work niche.

Secondary

1. Develop a clearly articulated approach to how RAEIN-Africa intends to play a role in relation to climate change mitigation and adaptations. Link clearly to the innovation systems approach and associated practice and experience. This provides a basis for stronger connection with other regional initiatives.
2. Consider moving more into the field of innovation of market linkages from an innovation systems perspective. This is highly relevant for e.g. the Malawi sweet potato case, but is something of much broader concern in terms of sustainable development and use of new technologies across Southern Africa.
3. Explore collaboration in the field of the role of the innovation systems perspective with e.g. universities in Europe. This may involve collaborative action research and hosting (PhD)-students to contribute through research. Ensure, however, that this does not jeopardise the truly African feel of RAEIN-Africa.

Enhancing management and organization

Priority

1. We understand the reasons for considering relocating the secretariat to South Africa, which has been decided upon by the board. It would indeed offer new opportunities for networking in the

region, amongst other benefits. Develop a careful transition plan and prevent losing strengths that are based on the current location.

2. Harness the (potential) role of NWGs beyond ISP-TEESA. They are not fully functional in all countries, but they do provide opportunities for evolving into national-level innovation platforms that can coordinate, support and facilitate exchange between innovation platforms on specific topics in the country. Consider to invest in coaching in this process and helping them to connect to other sources of support than from RAEIN-Africa.

Secondary

1. Consider working with 2-3 (part-time) liaison officers, strategically positioned in the SADC region, who could provide more coaching and guidance beyond capacity building activities. They may also help NWGs to evolve into national-level innovation platforms and provide support to technology and policy/legislation related platforms. They may help to create more of a critical mass to achieve institutionalization of perspectives and approaches advanced by RAEIN-Africa after which the function may be phased out.

Enhancing performance capacity & readiness

Priority

1. Invest in improving website/database facilities. This is currently not in good shape while it offers enormous opportunities for cross-regional and cross-sectoral exchange. All RAEIN-Africa's key reports and studies should be available for download from there. Given the regional scope of work, consider also providing links to material not produced by RAEIN-Africa, but highly relevant given the ISP-TEESA focus. On the web portal, there should be a frequently updated agenda on regional and international initiatives and links to relevant organisations in the region. Also include a blog functionality and invite high-level officials to contribute.
2. Sharpen the articulation of the focus of what RAEIN stands for. Currently it is too overwhelming to understand all that RAEIN wants to focus on, what it considers to be important, and what it links to. Descriptions have to become more sharp and succinct. Consider involving a communication specialist.
3. Carefully plan for strengthening the secretariat's capacity. It is suggested that in 2013, the director's agenda would be freed up in relation to programme operations and let her focus on liaison, PR, and resource mobilization. Also, the secretariat would greatly benefit from both a communications/PR person and a website/web portal manager/moderator. These tasks combined would fill up one full-time job. There is a need for a senior staff member who is as articulate in communication as the current director is, so that the secretariat will not be as dependable on her as it now is.
4. Some serious effort has to be invested in developing a comprehensive M&E plan that creates more of a shared understanding about learning-orientated M&E among partners and stakeholders. It should better cover information needs at outcome/impact level. There may also be a need for some M&E training in order to understand M&E essentials, including concepts such as 'outputs and outcomes', better. Involve more creative and participatory M&E methods such as story-telling and participatory video. They seem to fit the ISP-TEESA approach.
5. To DGIS: 2013 is going to be a very important year to ISP-TEESA and RAEIN-Africa in general. Allow for making adaptations in budget allocations for 2013 so as to make it possible to follow up on (selected) key recommendations in this report. 2013 needs to become a year of consolidating RAEIN-Africa's efforts so far and building momentum for the future. Try to provide approval of annual work plans as close to the 1st of January (or earlier) as possible, to allow for efficient implementation

Secondary

1. Commission a documentary on RAEIN-Africa, its work in the past, current efforts and partnerships, and future directions to communicate the news about the organisation's opportunities and potential better.
2. Create alternative financial reports along the lines of different headings than the project and activity areas. E.g. the amounts as regards travel expenses, studies commissioned, total per diems, etc. can provide valuable insights for strategic decision making.
3. Make use of available fellowships for attending international courses on e.g. multi-stakeholder processes by partners and stakeholders. Link them to opportunities in e.g. the Netherlands and other countries in Europe.

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Appendix 1 – Terms of Reference

Relevant excerpts from the ToR document and background of evaluation team

Purpose and Objectives of the Evaluation

The purpose of the Mid-Term Review (*hereafter referred to as the Review*) is largely to take stock of the ISP-TEESA Programme from a (bio-)technical perspective as well as from a social and institutional perspective by assessing its implementation, delivery and outcomes and to provide recommendations and identify opportunities and priorities for the initiative.

The review mission will assess the overall performance of the programme (bio-)technical perspective as well as from a social and institutional perspective highlighting: relevance, effectiveness, efficiency, results, impact, and sustainability.

The objectives of the mid-term review of the ISP-TEESA program are to:

1. Evaluate the concept and the design of the programme and assess the extent to which the intervention conforms to regional and national needs and priorities (relevance)
2. Assess the implementation of the project, including process, institutional aspects, efficiency and effectiveness. Thereby assessing how the programme reacted to changes and evolved over time to strategically positioned itself. Analyse and assess conditions for success can be identified regarding an enabling environment for national working groups in view of different institutional/cultural settings;
3. Assess the performance of the programme with a view to determining if and how well the objectives are being met and how they impact on the target group (**results and impact**) Assessing how the programme is faring; looking at achievements in view of set objectives, but also at internal capacities and conditions in view of required roles and responsibilities
4. Evaluate the opportunities and **sustainability** potential of RAEIN-Africa initiative in the region and provide practical recommendations and lessons learned

Specific issues for the ISP-TEESA Mid-Term review

No:	TOR	Specific issues to on the TOR
1	Relevance: Assess the extent to which RAEIN-Africa as a Network and her activities are relevant to the needs of the region and the countries	Alignment of network activities to the needs of the beneficiaries at various levels <ul style="list-style-type: none"> • Assess the extent to which the intervention conforms to specific countries ' and the SADC's priorities and existing policies, • Assess how the interventions align to national and regional processes • Assess the how the interventions relate to the needs of the beneficiaries
2	Progress: Assessing if the set objectives of the programme are being met,	Analysis of Progress – versus the work plans, and immediate outputs being met or not being met
3	Effectiveness and efficiency: Assessing the effectiveness, efficiency and sustainability of the interventions activities have been implemented including Networking arrangements and systems at national level	<ul style="list-style-type: none"> • Assess efficiency and effectiveness in terms of planning and Implementation of the activities of approaches and methods employed • Using the established set of indicators the review team shall assess the extent to which the Project has achieved its goals and objectives. <ul style="list-style-type: none"> - Assess to what extent the Project has contributed to the main goal of the programme. - Was the monitoring and evaluation effective in directing implementation of the Project components? - What could be done to make the Projects more effective?

4	Institutional Frameworks effectiveness::;	<ul style="list-style-type: none"> • Analyze the institutional framework and its effectiveness in networking and achieving the set objectives of the projects and whether RAEIN-Africa activities have been mainstreamed into the organizations and country activities where appropriate • Is program Institutional structure fit for purpose? Is the structure appropriate for the program? • How efficiently does the Institutional framework function? • Is the approach used for grant management and capacity development appropriate for the region?
5	Achievements and Impacts	<ul style="list-style-type: none"> • Assess the performance and results of the programme with a view to determining if and how well the objectives are being met • Clarity of external institutional relationships and in the managerial and institutional framework for implementation of the work plan • Assess how the outcomes impact on the target group? • To what extent are the identified outcomes the result of the Programme rather than external factors? • What are the reasons for the achievement or non-achievement of outputs or outcomes?
6	Impacts: Assess the actual and potential of the ISP-TEESA to contribute to poverty alleviation including the extent to which activities carried out at all levels are aligned with the overall goal of the programme	<p>At this point in time, the assessment of impact may be mostly on perspectives and Probability of impact. The team shall assess the different potential and likely to happen types of Impact of the Project, positive and negative, intended and unintended.</p> <ul style="list-style-type: none"> - Assess the impacts, (intended & unintended, direct & indirect) that the interventions are having at all levels, - Examine innovations developed through the program and their potential in addressing food security and creating wealth for the poor. - Have the Project motivated or improved community participation in decision making processes and in technology development? - What do the beneficiaries and other stakeholders perceive to be the impact of the Project? - To what extent does the ISP-TEESA contribute to capacity development and the strengthening of participating communities, institutions and governments?
7	Sustainability: Potential for sustainability, replication and magnification	<ul style="list-style-type: none"> - Assess the potential for RAEIN-Africa initiatives sustainability, - To what extent have measures been taken to address the sustainability of the Project activities? <p>Solicit proposals from interviewees on ways of mitigating failures and improving Network's interventions at various levels</p> <ul style="list-style-type: none"> - Do the Project innovations have potential for replication nationwide or regional wide? - What is the added-value brought by ISP-TEESA to society in general in the project areas? - Is there mainstreaming of the activities at all levels, institutional and local? - Potential for sustainability, replication and magnification

Outputs and Deliverables

The PSP shall deliver the following outputs:

- a) Zero Draft - 29th September
- b) First Draft Report before departure of team by 4th October
- c) Final Report by 20th October

The Team shall submit a zero draft by end of day on the 29th of September. RAEIN-Africa will go through the report and prepare response on the 30th of September. The concerned parties shall provide comments to the zero draft on the 1st of October. A meeting to discuss the report, seek content validation and give content clarity were it may be needed will be held. The team will then work on that version to produce Version 1 by the 4th of

October. After which the team will depart. The draft shall be shared with all parties concerned , DGIS will be expected to comment by the 12th of October. The team leader will be responsible for the finalization of the report which will be submitted to RAEIN-Africa by the 20th of October 2012. This deadline cannot be moved since the drawing of 2013 work plan will depend on the findings of this review. The report clear and concise with a focus on findings, analysis, conclusions, and recommendations.

The Review report will highlight the following:

1. **Executive Summary:** Summary of the review, with particular emphasis on main findings, conclusions, lessons learned and recommendations;
2. **Introduction:** Presentation of the review purpose, questions and methods used to gather required information;
3. **Findings, conclusions and recommendations:** Factual evidence, data and observations relevant to the specific questions; Analysis of the findings and assessment of the interventions and their results; including actionable proposals to the review users. The recommendations may be strategic and operational and will have to be relevant, focussed, clearly formulated and actionable.
4. **Lessons learned:** Discussion of issues that are likely to have a potential for wider application and use;

The final report should be not more than 40 pages A4 font size 12. Supporting data and analysis should be appended to the report when considered important to compliment the main report for future reference

Background of evaluation team:

Seerp Wigboldus (team leader) has worked with Wageningen UR, Centre for Development Innovation since 2003 in the field of enhancing conditions in international development related to strategic management, monitoring & evaluation, capacity development, innovation, and agricultural development in general. He was trained (MSc.) in rural sociology and tropical crop science and gained most of his field experience from living and working for ten years Nepal and China, and later during many short-term assignments across Africa and Asia.

Rachel Shibalira (independent consultant) is a Legal Advisor on Environment, Climate Change Law and Biosafety Law. She has served as a Regional Advisor under UNEP-GEF Capacity Building Program for Enhancing Capacity to implement the Cartagena Protocol on Biosafety. In her role as Regional Advisor, she has assisted several countries in the African Region with their National Biosafety Frameworks. Rachel holds an MSc Environmental Planning and Management, Bachelors Degree in Law, LLB(Hons) and is a certified Legislative Drafter.

Appendix 2 – Implemented activities and outputs per project

RIBBB-related			
BROAD ACTIVITY	EXPECTED OUTCOMES	ACHIEVEMENTS TO DATE (mid-2012)	
		Projects/Activities	Outputs
Objective 1: To enhance the skills and knowledge of development actors for interfacing science, technology and society.			
CAPACITY BUILDING	Development actors empowered to take up appropriate action for addressing development challenges through science and technology	ISCAD Training	150 participants from 8 countries (Botswana, Malawi, Namibia, South Africa, Swaziland, Tanzania, Zambia & Zimbabwe) trained on ISA hard and soft skills in 2009.
		Innovation Systems Approach (ISA) training	- A total of 60 platform actors from Botswana, Malawi, Namibia Swaziland and Tanzania were trained on ISA in 2011. Minimum 3 people per platform are able to train others on ISA. - A training manual was developed in 2011 and has since been used in the five countries - A core group of ISA trainers capacitated
		Biosafety Socio-economic considerations	31 participants from 13 SADC countries were trained on how to assess socio-economic impacts in light of introduction of new technologies. - 7 national country studies facilitated the understanding of socio-economic issues considered important in technology adoption. - The <i>ex ante</i> Bt cotton (Malawi), <i>ex post</i> on GM crops (South Africa) and Socio-economic country studies informed the development of the first SEIAG draft. - The <i>ex ante</i> study highlighted the need to understand the socio-economic issues in a context specific manner and in relation to the technology involved. - The <i>ex post</i> study revealed the need for <i>ex ante</i> studies to develop baselines, as this will facilitate the assessment and quantification of impacts when <i>ex post</i> studies are done. - The pre-testing of the draft SEIAG validated the usefulness of the proposed guideline in biosafety decision-making. - A version of the guideline to share at the COP-MOP 6 was produced. The guideline will generate debates and comments that will inform the final guideline development process. - A Policy Brief was produced
		Negotiation Skills & Techniques in preparation for COP-MOP Meetings	49 negotiators from 11 countries (29 in 2011 and 20 in 2012) were equipped with necessary skills and techniques to negotiate effectively at the COP-MOP 5 and 6 respectively. The training also provided them with background information that was aimed at enabling them to arrive at high-quality informed country positions on the key issues on the COP/MOP agenda.
		Biosafety Risk Assessment & Risk Management	- Risk assessment and risk management training in 2010 enhanced the technical knowledge and skills of 42 participants from 16 countries in Eastern and Southern Africa to effectively implement the Articles 15 and 16 of the Cartagena Protocol on Biosafety. - It also provided a platform that facilitated the sharing of national and regional experiences and lessons learned regarding the implementation of risk assessment and risk management under the Protocol and initiate a regional network of experts to foster ongoing mutual learning and knowledge-sharing - In-country Risk assessment and risk management (in 2011) facilitated capacity building of 45 risk assessors from three countries (Malawi, Zambia and Zimbabwe). The trainings also created a platform for discussions and information sharing among national stakeholders.

			<ul style="list-style-type: none"> - Post training a long-standing assessment of an application for GM contained trials in Malawi was concluded. - SADC countries have trained people to carry out RA and RM to support decision making of National Competent Authorities on GMO introduction in their respective countries.
		SANGL Capacity Building	<ul style="list-style-type: none"> - 30 Participants from 17 SANGL member labs representing 9 countries (Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe) trained in GM detection related skills. - SANGL plan for the future discussed and produced: 17 Technical focal points from participating laboratories from 9 countries participated.. - The e – platform was established at the RAEIN-Africa website and had been used to facilitate discussion between SANGL coordinators. - Nine laboratories participated in the proficiency trial from seven different SADC countries (March 2012). The results for proficiency testing being used as part of the quality assurance system and to help improve systems in the laboratories.
		Enhancing capacities of various stakeholders on biosafety issues – National Biosafety Authorities	<ul style="list-style-type: none"> - 22 participants from 12 countries were capacitated on the new protocols on Liability and Redress, on socio-economic guidelines, on national reporting processes. - Post the workshop Zambia and Swaziland were able to meet the requirements of the UNEP-GEF and accessed funds. - Overall All the SADC countries managed to submit their national reports to UNEP-GEF. The 100% achievement was recorded on the CBD website.
		Bridging the gap between scientist, social and legal practitioners on biosafety issues	30 participants from Mozambique and Zambia were trained in Effective Science Communication.

Objective 2: To generate information and knowledge and appropriately package it to influence policy and practice in the areas of programme focus

KNOWLEDGE GENERATION	Evidences to influence policy and practice established in areas of programme focus (Agriculture, Environment, Science & Technology)	RAEIN-Africa Public Awareness Projects (RAPAP)	A strategy for public awareness creation was developed in order to enhance public participation in decision-making processes. The strategy circulated to innovation platforms on public Awareness and public participation.
	Evidences appropriately packaged (policy briefs, research results etc.) to guide practice and policy making processes;		<p>Policy briefs produced:</p> <ul style="list-style-type: none"> • Towards a framework for Biofuels development in Zimbabwe • Climate Change Adaptation Strategies in the Chiawa Community in Lower Zambezi • Unpacking the Socio-Economic Issues of GM Crops: Towards development of a socio-economic considerations guideline for biosafety decision making
	Channels of communications identified and tested to disseminate information and knowledge to users for decision-making	Innovation Systems for Poverty Reduction and Sustainable Livelihoods Development in SADC Countries conference.	<ul style="list-style-type: none"> - 70 Participants from 17 countries SADC: (Angola, Botswana, Madagascar Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe) Others: Ghana, Kenya, Uganda, Netherlands, United Kingdom Organizations: AUC, ASARECA, BTA, FARA, NEPAD, - Partnership built between the various actors in the focus areas of biotechnology, biosafety, climate change, biofuels, and innovation systems approach to science and technology; - Awareness on ISA as an approach to strengthening the

			interface between science, society and policy enhanced and - Awareness on REAIN-Africa initiatives raised and strategic partnerships with donors, governments and other development actors built/strengthened.
		Consultative Workshop on Biosafety Socio-economic consideration and Public Awareness & Public Participation in Biosafety Workshop	Views of partners inputted into the development of SEIA guideline and platforms work plans facilitated to create a shared understanding of the innovation platform on public awareness and public participation.
Objective 3: To establish/ strengthen a platform for innovation systems actors to have increased voice to effectively participate, drive, and influence science, technology and policy;			
INNOVATION SYSTEMS AND PUBLIC PARTICIPATION	Innovation platforms that are active and vibrant taking action in a democratic manner established	Public Awareness & Public Participation Platforms	Three platforms established to facilitate an enabling environment for science and technology to positively impact on livelihoods: <ul style="list-style-type: none"> • Platform in Swaziland active (Innovation Platform for Biosafety Public Participation: The Case of Swaziland) • Platform established and active in Botswana (Biotechnology and Biosafety Public Awareness and Participation in Botswana) • Platform in Zambia being finalized (Innovation platforms for enhanced Public Awareness and Public Participation (PAPP) in Biosafety Decision Making Process: A Case Study of the cotton sector in Zambia)
Objective 4: To build micro-meso to macro bridges to facilitate application and use of science and technology to support sustaining livelihoods			
PARTNERSHIP BUILDING	Innovation systems that are sensitive to the needs of different actors/ partners at all levels established	Establishment & launch of SANGL	SANGL established to support NBA's implementation of their National Biosafety Frameworks. 17 Technical Focal Points attended from 16 Laboratories.
	National innovation systems working and engaging key actors (including communities and local policy actors) in all focus areas established	High Level Policy Dialogue	32 Participants from 12 countries (Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe) Organizations: AUC, NEPAD, UNEP-GEF, SADC participated in the meeting to facilitate a shared understanding among ministries working with biotechnology and biosafety issues in order to enhance informed decision making and to further explore opportunities for regional collaboration.
	International Networking and partnerships	Linkages for improved Programme implementation	Opportunities for collaboration 7 networking explored and a number of activities implemented through collaborative arrangements: <ul style="list-style-type: none"> - Risk Assessment & Risk Management Training conducted in partnership with AU; - the SADC High Level Dialogue on Biotechnology & Biosafety conducted in partnership with SADC Secretariat; - One participant from Tanzania to the COP-MOP 5. co-funded with ICGB and - COP-MOP 5 Nagoya Japan, 2010: Side event on SEIA guideline development process shared and received inputs for finalisation of towards the SEIA guideline with support from VROM.

	Database populated and functional	Design and Populate the RAEIN-Africa Database	2009 and 2010 Online Database Shell developed, and 2011 population of Database started in Malawi, Namibia, Swaziland and Zimbabwe
	Levels of awareness and capacities on new protocols on ABS and L&R under the CBD enhanced	Capacity building on new protocols on ABS and L&R	-Gaps on implementation of ABS and Liability and Redress (L&R) including IKS, IPR issues identified - 8 country status reports produced. -A core group of capacitated resource people to support further awareness creation, capacity building and support implementation of ABS and L&R issues in the region established- 15 legal and science experts trained -Networking and partnership building for effective implementation of ABS and L&R issues in the region enhanced through training of scientist, legal and media -Explanatory guides on the Nagoya protocol on ABS and the Nagoya –Kuala Lumpur Supplementary Protocol on L&R produced for use by partners in –country capacity building initiatives

ITEM-related

BROAD ACTIVITY	EXPECTED OUTCOMES	ACHIEVEMENTS TO DATE	
		Projects/Activities	Outputs/Indicators
Objective 1: To enhance the skills and knowledge of development actors for interfacing science, technology and society.			
CAPACITY BUILDING		2010: Proposal Writing Training	23 Participants trained and four project concept notes prepared on identified gaps on issues on Climate change
Objective 2: To generate information and knowledge and appropriately package it to influence policy and practice in the areas of programme focus			
KNOWLEDGE GENERATION	Evidences to influence policy and practice established in areas of programme focus (Agriculture, Environment, Science & Technology)	Knowledge Generation on Climate Change	Status of Climate Change in the region and identification of coping and adaptation strategies by rural communities established: 2 case studies, 3 country status studies and 3 country papers produced. Case Studies: <ul style="list-style-type: none"> Climate Change Adaptation Strategies in Chiawa Community (Lower Zambezi), Zambia report Community Adaptation Strategies to Climate Change in Ohangwena Region, Namibia report
		Knowledge generation on Impacts of Biofuels	The socio-economic and environmental impacts of biofuels and their implications for rural livelihoods and the potential of biofuels to contribute to livelihoods established: one case study, 2 country status reports and 5 status papers produced. Case Study: <ul style="list-style-type: none"> Case Study on Impacts of <i>Jatropha</i> on rural livelihoods, Zimbabwe report
	Innovation Platforms to understudy innovation technology development processes for improved livelihoods using biotechnology as a case	3 Technology Platforms established to create cases for technology development process for improved livelihoods: <ul style="list-style-type: none"> Malawi: Improvement of Sweet Potato Productions in Makhanga Extension Planning Area Using Tissue Culture Namibia: Application of Artificial Insemination in Namibian Livestock Production to Improve Livelihood of Small Scale Farmers: A Case of Otjinene Tanzania: Improving Smallholder's Livelihoods Through Use of Disease Free Planting Materials and Coordinated Mechanisms of Actors in the Banana Value Chain 	

	Channels of communications identified and tested to disseminate information and knowledge to users for decision-making	Climate Change Mitigation and Adaptation Strategies to Climate Change Conference.	<ul style="list-style-type: none"> - 55 Participants from 9 countries (Angola, Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland Tanzania, Zambia and Zimbabwe) shared experiences and lessons through paper presentations. - Core group of participants trained in proposal writing and 4 project concept notes produced: <ul style="list-style-type: none"> - Climate Change Capacity building - Innovating with Smallholder Farmers for Climate Change Adaptation in Southern Africa - Alternative Energy - Southern Africa Climate Change Awareness programme
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CROSS-CUTTING related

BROAD ACTIVITY	EXPECTED OUTCOMES	ACHIEVEMENTS TO DATE	
		Projects/Activities	Outputs/Indicators
Objective 5: To strengthen institutional systems for managing science and technology for poverty reduction and sustainable development			
INSTITUTIONAL CAPACITY BUILDING AND NETWORKING	Governance structure for managing the programme effectively in place;	Establishment of Institutional Arrangements in Partner countries	Institutional set ups in Partner countries established: 9 In-country ISP-TEESA Introductory Meetings held (Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia & Zimbabwe) 2009: MOUs signed with 8 Group A countries and NWGs established.
		Technical Advisory Committee Support	- TAC Reconstituted with more disciplines & more robust. - Programme reviewed and aligned / programme implementation supported. Through Annual TAC meetings (2009, 2010 & 2011). Minutes produced. - Strengthened Secretariat for programme Implementation
		Policy Guidance - Board Meetings	Policy guidance provided to RAEIN-Africa: Annual Board Meetings held (2009, 2010, & 2011) and minutes produced.
			Board reconstituted, wider representation of countries and disciplines
	Strengthened institutions that are accountable at all levels of the programme;	Annual Partners Planning Meeting	-Programme implementation reviews planning conducted in 2009, 2010, 2011 and reports produced and circulated to partners: Methodology & Planning Meeting Reports produced. - Annual Work Plans (2010, 2011 and 2012) produced & approved.
	Programme monitoring and Accountability	Development of M&E Framework for ISP-TEESA	- M&E Documents /Framework developed (2010-2011) and tracking tool - Midterm Evaluation (Internal) conducted 7 countries in 2011 evaluation report produced and feedback meetings held and reports produced.
		Internal Project / NWG Audits	<ul style="list-style-type: none"> • Internal Audits carried out 2010 (Botswana, Malawi, Namibia, Swaziland, Zambia & Zimbabwe) • 2011: Botswana, Malawi, South Africa Swaziland; Zambia and Zimbabwe
		External Audits	Annual external Audits carried out (2009, 2010 and 2011) Clean Audited Financial Statements issued and approved
		Annual Programme Reports	2009, 2010 and 2011 Annual Reports on progress of implementation of programme produced and submitted to DGIS.
	Culture of learning and sharing strengthened	Documentation and Publications	Publications produced to date: <ul style="list-style-type: none"> • 2009: Two Issues of Building Bridges Produced • 2009: ISA Posters • 2010: Two Issues of Building Bridges • 2010: RAEIN-Africa Brochures (Organization, Side Event)

		<ul style="list-style-type: none"> • 2010: Winning Proposal Booklet published • RAEIN-Africa, 2011 Proceedings of the “Mitigation and Adaptation Strategies to Climate Change and Innovation Systems in Southern Africa.” Conference, 23-25 March, 2010, Johannesburg, South Africa, Windhoek, Namibia. • Shumba-Mnyulwa, D., Ipinge, S. & Mulenga, D.K. (Eds), (2010). Innovation Systems for Poverty Reduction and Sustainable Development in Southern Africa (ISP-TEEESA), Selected papers from the RAEIN-Africa ISP-TEEESA Launch. RAEIN-Africa, Windhoek, Namibia. • Gwamuri, J., Mvumi, B., Maguranyanga, E.F. & Nyagumbo, I., (2012). Impact of Jathropha on Rural Livelihood: A Case study of Mutoko District I, Zimbabwe, RAEIN-Africa, Windhoek, Namibia. • Hachileka, E. & Vaatainen, S. (2011), Climate change coping and adaptation strategies: a case of Chiawa community in lower Zambezi, Zambia, RAEIN-Africa, Windhoek, Namibia. • Volume 6 of Building Bridges Newsletter was also produced. • Mitigation and Adaptation Strategies to Climate Change: Compendium of papers presented at the Conference (final printed proof from printer being reviewed)
	Website revamp	<ul style="list-style-type: none"> • 2010- (Ongoing)

Appendix 3 – Overview of activities per country

Activity	Participation	
	MALE	FEM
BOTSWANA		
ISP-TEESA Launch Programme. June 2009	2	1
Innovation Systems Competence and Training. 2009	6	5
Biosafety Socio-economic Consideration Training. February 2010	1	2
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa.	2	
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	4
Risk Assessment & Risk Management Training. August 2010	1	2
SANGL GMO Detection Training of Trainers Workshop. September 2010	2	
Socio-economic and Public Awareness Workshop. August-September 2010	1	2
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	3	2
National Biosafety Regulatory Authorities Workshop. July 2011	1	1
SANGL Annual Meeting. August 2011	2	
Negotiation Skills & Techniques Training Workshop. May 2012	1	1
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	1	2
Capacity Building on New Protocols under the CBD for Journalists. July 2012	2	1
Adaptation and Coping Mechanisms by Rural Communities in Botswana	1	1
Socio-economic Biosafety Considerations Regarding Introduction and Use of New Biotechnology Impact on the Livelihood of the Pandamatenga and Barolong Small Scale Farmers. Case Study – Botswana Perspective	1	1
Biotechnology and Biosafety Public Awareness, Education and Participation in Botswana	9	6
MALAWI		
ISP-TEESA Launch Programme. June 2009	4	0
Innovation Systems Competence and Training. 2009	13	2
Biosafety Socio-economic Consideration Training. February 2010	2	1
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	5	1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	
Risk Assessment & Risk Management Training. August 2010	2	2
SANGL GMO Detection Training of Trainers Workshop. September 2010	1	
Socio-economic and Public Awareness Workshop. August-September 2010	1	1
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	3	1
National Biosafety Regulatory Authorities Workshop. July 2011	1	1
Negotiation Skills & Techniques Training Workshop. May 2012	1	1
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	1	1
Capacity Building on New Protocols under the CBD for Journalists. July 2012	1	1
Climate Change Coping and Adaptation Mechanisms by Rural Communities in Malawi: A Case Study of Salima District	3	
Unpacking Socio-economic Factors Affecting Adaptation of Hybrid Maize Varieties in Malawi: A case of Chiwamba Extension Planning area	5	2
Improvement of Sweet Potato Production in Makhanga EPA: Tissue Culture Technology Platform project (Malawi)	10	1
MOZAMBIQUE		
ISP-TEESA Launch Programme. June 2009	13	2
Biosafety Socio-economic Consideration Training. February 2010	2	1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	5	1
Risk Assessment & Risk Management Training. August 2010	2	
SANGL GMO Detection Training of Trainers Workshop. September 2010	2	2
Socio-economic and Public Awareness Workshop. August-September 2010	1	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	1	1

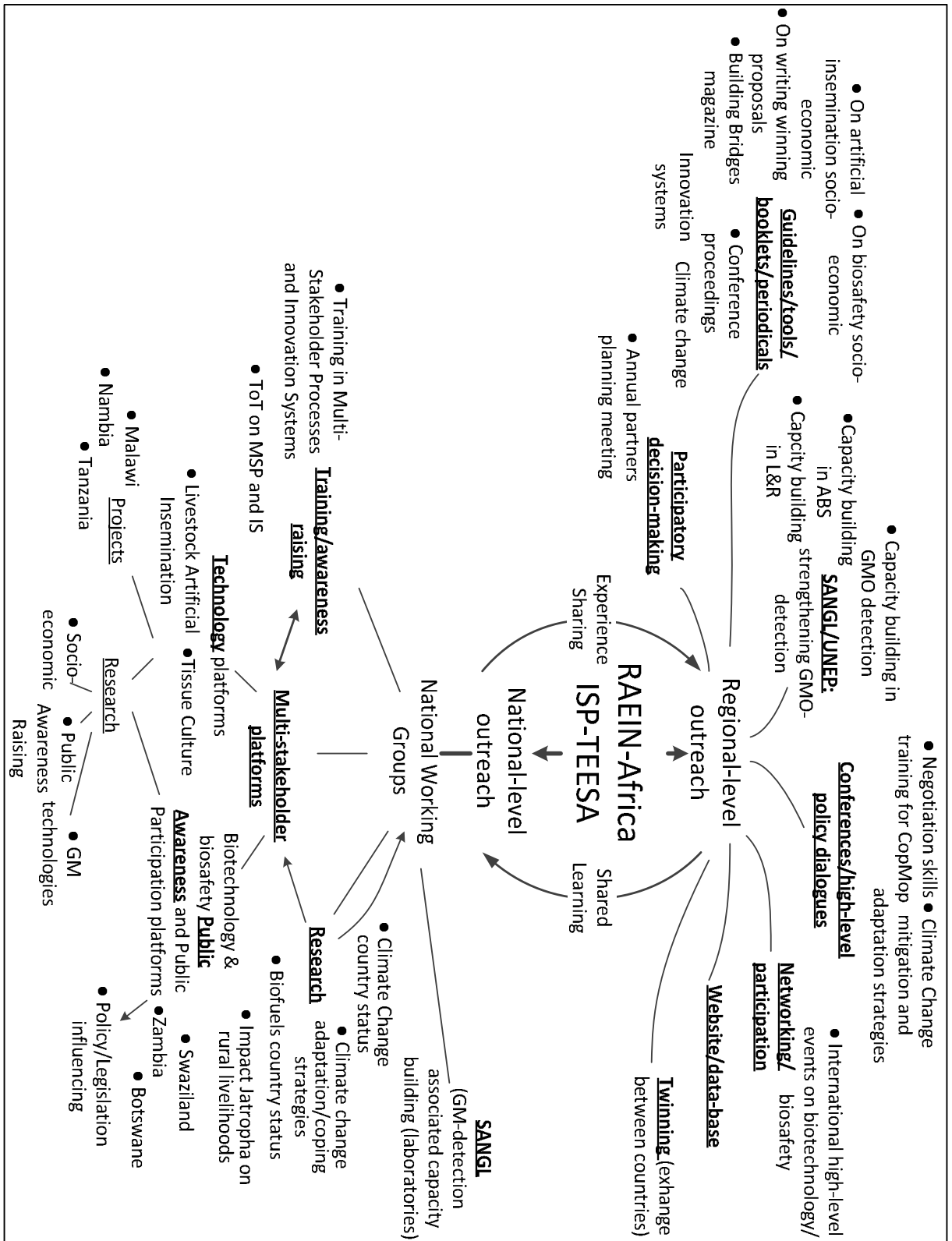
National Biosafety Regulatory Authorities Workshop. July 2011	3	1
Effective Communication In-country Training workshop July – August 2011	1	1
Effective Communication In-country Training workshop July – August 2011	1	1
Negotiation Skills & Techniques Training Workshop. May 2012	1	1
MOZAMBIQUE	2	2
ISP-TEESA Launch Programme. June 2009	2	1
Biosafety Socio-economic Consideration Training. February 2010		1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010		3
Risk Assessment & Risk Management Training. August 2010		2
SANGL GMO Detection Training of Trainers Workshop. September 2010		2
Socio-economic and Public Awareness Workshop. August-September 2010	2	2
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010		1
National Biosafety Regulatory Authorities Workshop. July 2011	3	13
Effective Communication In-country Training workshop July – August 2011	8	4
Effective Communication In-country Training workshop July – August 2011		2
Negotiation Skills & Techniques Training Workshop. May 2012	2	2
NAMIBIA		
ISP-TEESA Launch Programme. June 2009	11	4
Innovation Systems Competence and Training. 2009	11	7
Biosafety Socio-economic Consideration Training. February 2010	2	1
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	7	2
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	1
Risk Assessment & Risk Management Training. August 2010	1	2
SANGL GMO Detection Training of Trainers Workshop. September 2010	2	2
Socio-economic and Public Awareness Workshop. August-September 2010	1	2
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	2	
National Biosafety Regulatory Authorities Workshop. July 2011	1	1
Negotiation Skills & Techniques Training Workshop. May 2012	1	2
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	1	2
Capacity Building on New Protocols under the CBD for Journalists. July 2012	2	1
Status Report on Biofuels in Namibia	2	2
Biosafety socio-economic considerations influencing the introduction of new Biosafety technology - a simulation study	2	1
Understanding how Communities in Ohangwena Region are Adapting to Climate Change Variability and Change	2	3
Application of Artificial Insemination in Namibia Livestock Value-Chain: A case for Otjinene (Namibia)	8	7
SWAZILAND		
ISP-TEESA Launch Programme. June 2009	11	9
Innovation Systems Competence and Training. 2009		
Biosafety Socio-economic Consideration Training. February 2010	2	
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	1	1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	1
Risk Assessment & Risk Management Training. August 2010	2	2
SANGL GMO Detection Training of Trainers Workshop. September 2010	1	1
Socio-economic and Public Awareness Workshop. August-September 2010	2	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	1	1
National Biosafety Regulatory Authorities Workshop. July 2011	1	1
Negotiation Skills & Techniques Training Workshop. May 2012	2	1
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012		3
Capacity Building on New Protocols under the CBD for Journalists. July 2012	2	1
A Study of the Status of Biofuels in Swaziland	1	2

Socio Economic Biosafety Considerations Regarding Adoption and use of Biotechnology in Swaziland. A case study of Sithobeleni and Lesibovu communities	9	4
Innovation Platforms for Biosafety Public Participation: the case of Swaziland		
SOUTH AFRICA		
ISP-TEESA Launch Programme. June 2009	2	3
Innovation Systems Competence and Training. 2009	10	8
Biosafety Socio-economic Consideration Training. February 2010	2	4
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	2	
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010		1
Risk Assessment & Risk Management Training. August 2010	1	6
SANGL GMO Detection Training of Trainers Workshop. September 2010	1	1
Socio-economic and Public Awareness Workshop. August-September 2010	3	4
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010		1
National Biosafety Regulatory Authorities Workshop. July 2011	1	4
Negotiation Skills & Techniques Training Workshop. May 2012	2	4
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	3	2
Republic of South Africa Status Report on Biofuel	4	
TANZANIA		
ISP-TEESA Launch Programme. June 2009	2	
Innovation Systems Competence and Training. 2009	13	6
Biosafety Socio-economic Consideration Training. February 2010	3	
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	4	1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	
Risk Assessment & Risk Management Training. August 2010	3	1
SANGL GMO Detection Training of Trainers Workshop. September 2010	2	
Socio-economic and Public Awareness Workshop. August-September 2010	1	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	2	
National Biosafety Regulatory Authorities Workshop. July 2011	2	
Negotiation Skills & Techniques Training Workshop. May 2012	2	
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	2	
Capacity Building on New Protocols under the CBD for Journalists. July 2012	1	1
Climate Change Country studies: Tanzania	1	
Study Report on Socio Economic Biosafety Considerations Regarding Adoption and use of Biotechnology in Tanzania	3	
Improving Smallholder's Livelihoods through Use of Disease-Free Planting Materials and Coordinated Mechanisms of Various Actors In the Banana Value Chain (Tanzania)	6	1
ZAMBIA		
ISP-TEESA Launch Programme. June 2009	2	2
Innovation Systems Competence and Training. 2009	11	10
Biosafety Socio-economic Consideration Training. February 2010	3	
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	5	2
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	1	1
Risk Assessment & Risk Management Training. August 2010	2	1
SANGL GMO Detection Training of Trainers Workshop. September 2010	1	1
Socio-economic and Public Awareness Workshop. August-September 2010	4	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010		1
National Biosafety Regulatory Authorities Workshop. July 2011	1	1
Risk Assessment & Risk Management In-country Training workshop July – August 2011	15	9
Effective Communication In-country Training workshop July – August 2011	11	3
Bridging the gap between scientist, social and legal practitioners on biosafety issues. August 2011	8	4
Negotiation Skills & Techniques Training Workshop. May 2012		1

Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	1	
Capacity Building on New Protocols under the CBD for Journalists. July 2012	1	1
Socio-Economic considerations for new technologies: An Ex-post analysis of the introduction of	4	
Climate Change Adaptation Strategies in Chiawa Community in Lower Zambezi	1	1
ZIMBABWE		
ISP-TEESA Launch Programme. June 2009	7	1
Innovation Systems Competence and Training. 2009	20	9
Biosafety Socio-economic Consideration Training. February 2010	3	
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	5	5
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	2	
Risk Assessment & Risk Management Training. August 2010	3	1
SANGL GMO Detection Training of Trainers Workshop. September 2010		3
Socio-economic and Public Awareness Workshop. August-September 2010	2	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	1	4
National Biosafety Regulatory Authorities Workshop. July 2011	2	
Negotiation Skills & Techniques Training Workshop. May 2012		
Capacity Building on New Protocols under the CBD Training of Trainers. July 2012	2	
Capacity Building on New Protocols under the CBD for Journalists. July 2012	2	1
Country Study on Socio-economic Considerations: A Study of the Processes and Issues Associated with the Adoption of Maize Hybrids in Hwedza District Zimbabwe	2	3
ANGOLA		
Biosafety Socio-economic Consideration Training. February 2010		1
Mitigation and Adaptation Strategies to Climate Change and Innovation Systems Southern Africa. March 2010	1	
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010		1
Socio-economic and Public Awareness Workshop. August-September 2010		1
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010		1
National Biosafety Regulatory Authorities Workshop. July 2011	1	
DRC		
Biosafety Socio-economic Consideration Training. February 2010	1	
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010	1	
Risk Assessment & Risk Management Training. August 2010	1	
Socio-economic and Public Awareness Workshop. August-September 2010	1	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	2	
National Biosafety Regulatory Authorities Workshop. July 2011	1	
LESOTHO		
Biosafety Socio-economic Consideration Training. February 2010	1	
Risk Assessment & Risk Management Training. August 2010	1	
High Level Dialogue on Biotechnology and Biosafety Issues in SADC Countries. November 2010	1	
MADAGASCAR		
ISP-TEESA Launch Programme. June 2009		1
Biosafety Socio-economic Consideration Training. February 2010		1
Negotiation Skills Training in Preparation for COP-MOP 5. May 2010		1
Risk Assessment & Risk Management Training. August 2010	1	
MAURITIUS		
Invitations to all regional activities were sent to Mauritius but due to Institutional and other logistical Arrangements they did not manage to attend		

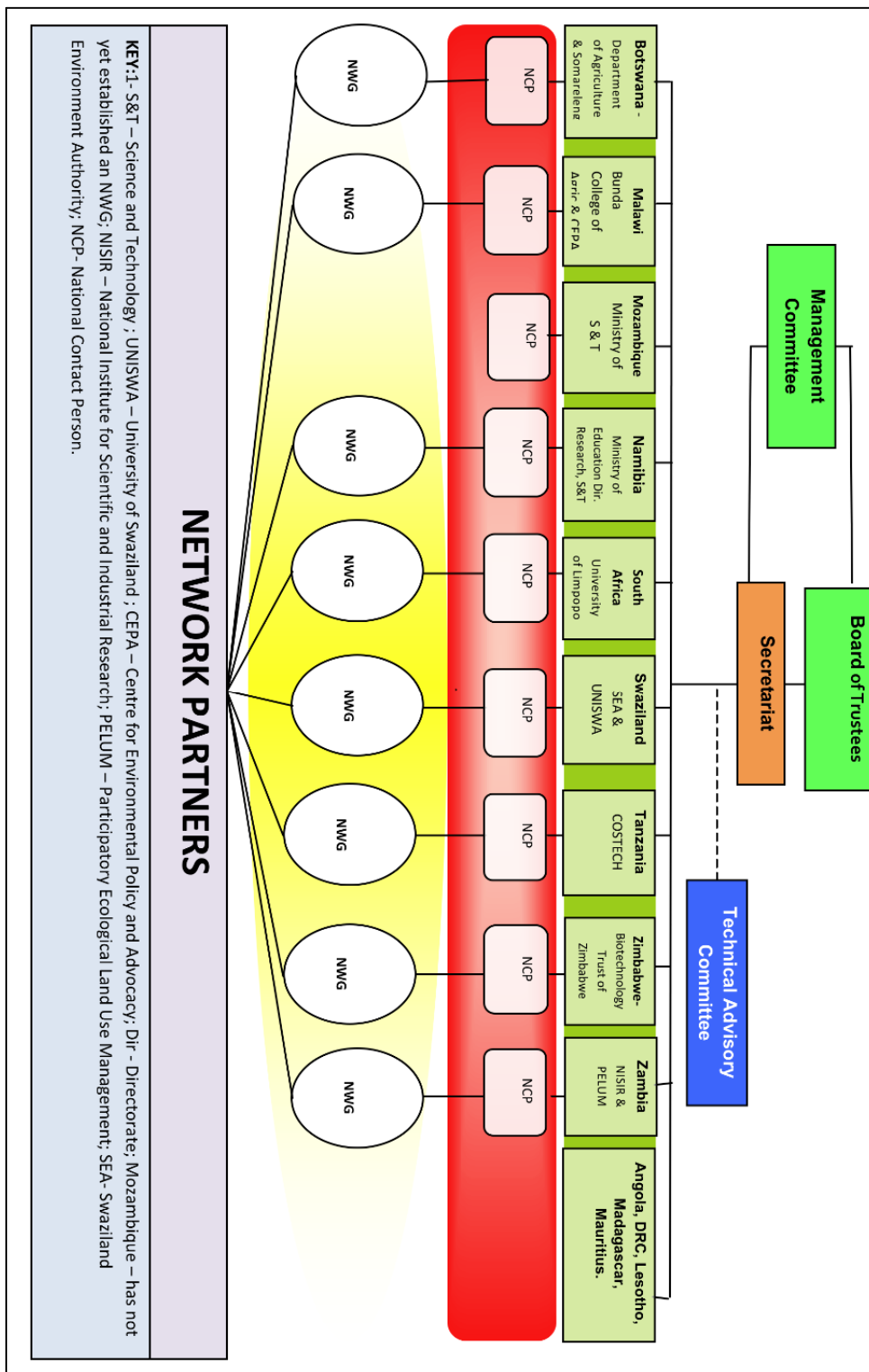
Appendix 4 – Mapping ISP-TEESA endeavours

This presentation is based on the cross-checked interpretation of the evaluation team.



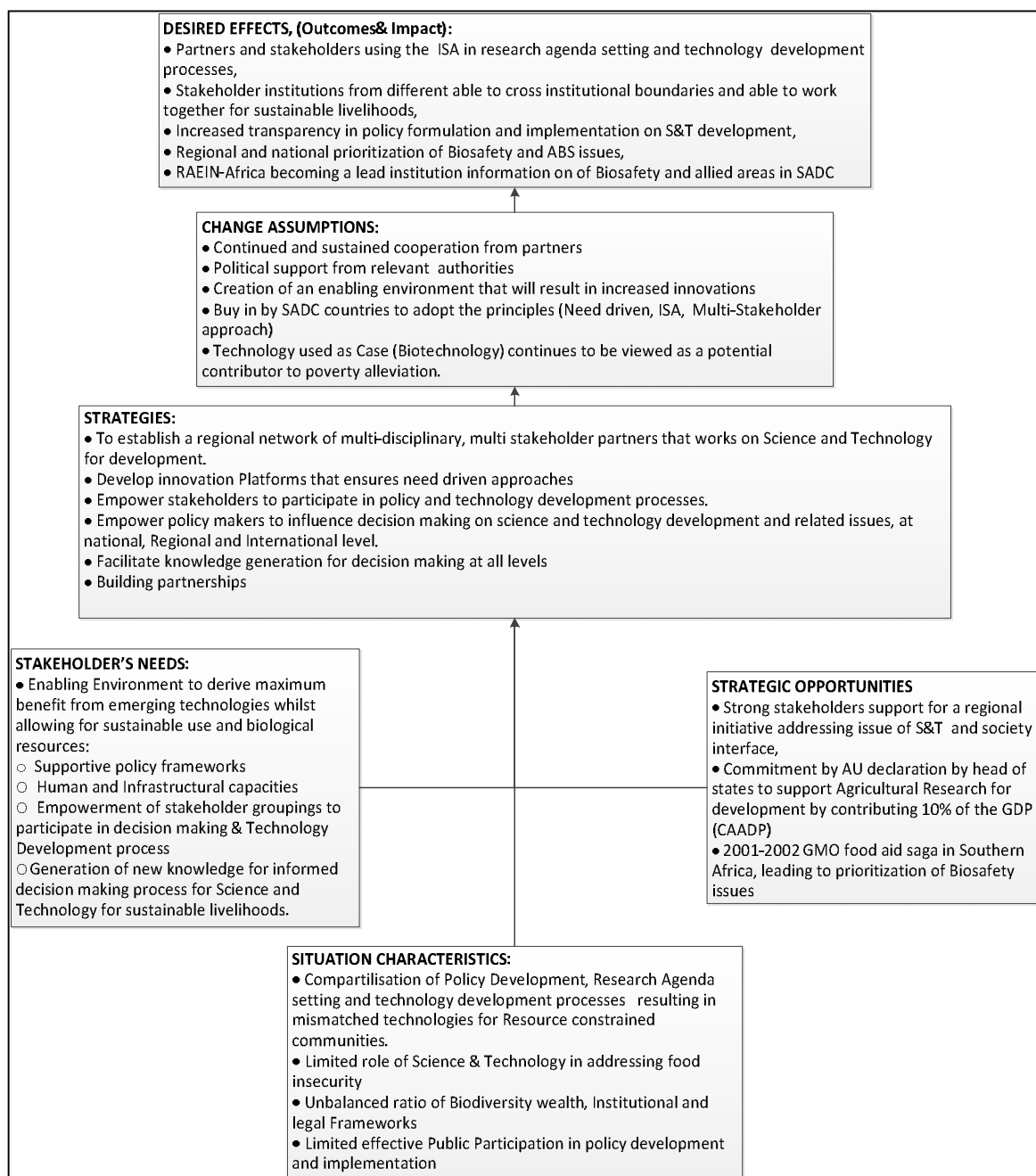
Appendix 5 – ISP-TEESA’s organisational setup visualised

The RAEIN-Africa official representation of the organizational setup of ISP-TEESA as used in various strategic documents.



Appendix 6 – ISP-TEESA Theory of Change

This is a restructured version of the ISP-TEESA theory of change as adopted by RAEIN-Africa.



Appendix 7 – RAEIN-Africa approach to capacity development

RAEIN-Africa supports the development of capacity of its partners using multi-dimensional methods which include Trainings on specific needy areas which are:

1 Innovation systems Competence enhancement and development (ISCAD) course – they focus on building capacity in soft skills for development which aim to strengthen participants' in (leadership, team playing, collaboration, participatory, holistic planning, conceptualisation of holistic development, systems thinking, multi-stakeholder processes). The main purpose of ISCAD is to influence change of mind-sets among network actors and other stakeholders in the countries through strengthening their knowledge and skills for applying the innovation systems approach. Trainings are conducted in participatory manner allowing facilitators and participants to share experiences and best practices. A “Facilitators’ Training Guide” was developed and guides the training process and content.

2 Nurturing (coaching and supporting) the development of the innovation platforms – this includes motivating actors to change their behaviour to value each other’s inputs more. It involves:

- Facilitation of matching of the platforms this took a form of Secretariat assessment of proposed platform members- (skills and knowledge base their linkages in the given issue of focus for the platform, complementarity, diversity, and competitive advantage over other potential actors),
- Facilitation of the platform formation process (planning, team building, allocation of roles and tasks and resources, observation and review meetings)
- Backstopping by Secretariat and other partners in the network when needed for specific activities are provided when requested for to address specific needs in the platforms or in the NWG. Backstopping is used to enhance skills in interaction and coordination of the platforms including adaptive management skill. It also addresses “systems failures that at times emerge as a number of factors for enhancing skills.

3 Training courses on technical and policy issues that support creation of an enabling environment training initiatives respond to needs as identified by our stakeholders in the planning and review meetings within the cases in ISP-TEESA. In each training the following methods are used:

- Imparting skills and knowledge through presentations;
- Sharing status and challenges of the given technical issue in country by partners to allow for countries are to learn from each other;
- Engaging on a review of how the technical skill/knowledge can be developed further this includes references, and examples from successful initiatives ;
- Plans on how to integrate the learnt knowledge/skills into institutional and national consultation and planning process.

4 Experience sharing on best practices is done through twinning activities with similar focus – the advanced, more experienced hosts the less advanced platform; they share experiences, visit each other’s projects and discuss related focus issue. Some training sessions end up with relevant ministries responsible of a cross cutting issue such as biosafety using the forum to discuss challenges that may have for years been existing in country.

5 RAEIN-Africa capacity development through facilitation of common national dialoguing in which Ministries or organisation responsible for Agriculture, Environment and Science and Technology meet and exchange.

Appendix 8 – Defined indicators for ISP-TEESA

PROJECTS	RELATED (mostly output-level) INDICATORS
RIBBB-SA PROJECT	
Regulatory Innovation: Breaking Biosafety Boundaries in Southern Africa	
Outcome area 1: Capacity Building	<ol style="list-style-type: none"> 1. Number and diversity of stakeholders with technical knowledge and skills in programme focus areas 2. Number of trained professionals with knowledge and skills to support implementation of regulatory frameworks and negotiation of MEAs 3. Number and diversity of stakeholder groups and individuals trained in ISA and effectively collaborating and generating knowledge
Outcome area 2: Knowledge Generation	<ol style="list-style-type: none"> 1. Number of research findings documented, packaged and shared by thematic area (research reports, policy briefs, publications, training manuals) 2. Use of RAEIN-Africa research and capacity outputs in practice, policy and decision making
Outcome area 3: Innovation Systems and Public Participation	<ol style="list-style-type: none"> 1. Number of innovation platforms established, active and effectively operating in public awareness participation
Outcome area 4: Partnership Building	<ol style="list-style-type: none"> 1. Number of partnerships and collaborations developed and enhanced at all levels 2. Number of regional platforms/ lesson and experience sharing for a 3. Number of partners registered and using the databases and e-platform
ITEM PROJECT	
Innovative Technologies for Enhancement of production systems and Management of environment	
Outcome area 1: Capacity Building	<ol style="list-style-type: none"> 1. Number of development actors and levels of skills and competencies to use ISA in innovating for resource constrained communities 2. Existence of a model on ISA for technology development
Outcome area 2: Knowledge Generation	<ol style="list-style-type: none"> 1. Number of studies conducted by thematic area 2. Number of policy briefs, publications training manuals and technical papers produced 3. Number of reports documenting lessons and experiences produced
Outcome area 3: Innovation Platforms	<ol style="list-style-type: none"> 1. Number of innovation platforms established, active and effectively developing appropriate technologies 2. Number of appropriate biotechnologies developed and used by resource poor communities 3. Agribusiness linkages established through innovation platforms 4. Number of resource constrained farmers benefiting from implementation of innovation platforms
CROSS CUTTING PROJECT	
Outcome area 1: Effective management of the programme	<ol style="list-style-type: none"> 1. Existence of well-defined management structures 2. Policies and instruments in place to guide programme management and operation 3. Effective accountability systems
Outcome area 2: Effective network coordination	<ol style="list-style-type: none"> 1. National working groups established/ strengthened/ effectively coordinating national activities 2. A strengthened secretariat able to effectively manage, implement and coordinate the programme 3. Existence of effective feedback mechanisms between RAEIN Africa and partners 4. Number of participatory planning and programme review meetings
Outcome area 3: Collaboration and networking with other stakeholders	<ol style="list-style-type: none"> 1. Existence of mechanisms for collaboration and networking 2. Number of regional and international for a in which RAEIN-Africa is represented 3. Number and type of institutions/organisations in partnership and or collaborating with RAEIN-Africa
Outcome area 4: Communication for strengthened learning and sharing in the network	<ol style="list-style-type: none"> 1. Number of information and lessons learnt packaged and widely shared through newsletters, brochures/leaflets, postals and books 2. Number of partners registered and using the database and e-platform

Appendix 9 – Overview of partner contributions to activities facilitated by RAEIN-Africa

RAEIN-Africa has endeavoured to collaborate with likeminded organisations from the initially phase of ISP-TEESA. The first activity towards the collaborations was to involve most of the identified relevant organisations at the ISP-TEESA launch in 2009. (See proceedings). Below is a summary of how RAEIN-has collaborated with various partners in its activities:

1. COLLABORATION WITH UNEP-GEF AND THE CBD SECRETARIAT AND OTHER PARTNERS ON CAPACITY BUILDING INITIATIVES

i) Biosafety Socio-Economic Considerations

In implementing the unpacking of biosafety socio-economic considerations and capacity building on the same–RAEIN-Africa worked with University of Pretoria and received technical backstopping from:

- Convention of Biological Diversity (CBD) Secretariat
- International Food Policy Research Institute (IFPRI)

In implementing this activity further through the core team RAEIN-Africa continued to receive technical backstopping from IFPRI. THE CBD Secretariat later played a role in the peer review process of the SEIAG.

Organisation	Contribution	USD Financial Contribution
CBD Secretariat	Trainer to the Biosafety socio-economic training workshop. Gave a presentation on “Socio-economic considerations in Biosafety decisions under the Cartagena Protocol on Biosafety” Edited and gave comments on the draft SEIA guideline	15000.00
IFPRI	Provided technical advice to the Unpacking of the Socio-economic Impact issues of GM crops: Towards SEIA guideline Project Main Trainer to the Biosafety socio-economic training workshop	10 000.00
Totals		25 000.00

ii) National Biosafety Authorities Capacity Building

Collaboration with United Nations Environment Programme/Global Environment Programme (UNEP-GEF) and the CBD Secretariat on the RAEIN-Africa National Biosafety Authorities (NBA) workshop (held in 2011) in which the process of accessing grants for the preparations of second national reports was discussed. Presentation by the UNEP-GEF Regional Biosafety coordinator and interaction of participants with the CBD Secretariat brought clarity on the process on the preparations of national reports. Post the workshop Zambia and Swaziland were able to meet the application requirements of the UNEP-GEF and accessed funds for preparations of second national reports. Overall All the SADC countries managed to submit their national reports to UNEP-GEF. The 100% achievement was recorded from 50% submission of first national reports (see table 1). Six (Angola, Botswana, Malawi, Namibia, Zambia & Zimbabwe) out of seven of the countries who did not submit the first national reports attended the NBA capacity building workshop.

Table 1: National Reports (Available from the Convention of Biological Diversity Secretariat [Web site: http://cbh.CBD.int/database/reports](http://cbh.CBD.int/database/reports) 11th September 2012)

Country	First National Report 2007	Second National Report 2011
ANGOLA	X	√
BOTSWANA	X	√
DEMOCRATIC REPUBLIC OF CONGO	√	√
LESOTHO	X	√
MADAGASCAR	√	√
MALAWI	X	√
MAURITIUS	√	√
MOZAMBIQUE	√	√
NAMIBIA	x	√
SOUTH AFRICA	√	√
SWAZILAND	√	√
TANZANIA	√	√
ZAMBIA	x	√
ZIMBABWE	x	√

√ - Report available; x – Report not available
Contributions in collaboration;

Organisation	Contribution	USD Financial Contribution
CBD Secretariat	Presentation on: decisions of COP-MOP 5 and implications for Parties. (Paid only for Ticket and up keep) Gave clarifications during plenary sessions.	10,500.00
UNEP-GEF	Presentations on: - Funding opportunities under GEF 5 - Support for 2nd National Biosafety Reporting – Process and funding measures	20,000.00
Total		30 500.00

iii) Capacity building on Biosafety Risk Assessment and Risk Management

Organisation	Contribution	USD Financial Contribution
UNEP –GEF	Technically Back stop RAEIN-Africa • Trained partners on proper Report Writing for UNEP-GEF • Trained Negotiation partners on COP MOP Technical issues	20000.00
African Union (AU)	Co-funded the RA &RM Regional training workshop: • Funded participants from East African countries Funded 40% of the Trainers fees directly	35 000.00
Biosafety South Africa	Two trainers in RA &RM in country training workshops in Malawi, Zambia and Zimbabwe No payment for the time trained for free	15 000.00
Swiss Federal Institute of Technology	Trainer In-country training workshops in Zambia and Zimbabwe No payment for the time	7 000.00
Total		77 000.00

iv) Negotiations Skills training (2010)

Organisation	Contribution	USD Financial Contribution
UNEP –GEF	Presentations on: - the Cartagena Protocol on Biosafety - Implementation of the Cartagena Protocol on Biosafety – Process, Trends, Challenges –UNEP/GEF Support	15 000.00
African Union (AU)	Trained participants and gave Clarifications on the AU Model law	10 000.00
Total		25 000.00

Collaboration with SADC Secretariat

Capacity building training workshops also provides a forum for Biosafety authorities/focal points to interact and discuss related issues arising in the region. During the 2010 negotiation skills training workshop held in Botswana partners raised concerns on the ACTESA programme under the COMESA which had come up with draft regional biosafety policies and guidelines on GMO, trade and emergency food assistance which they felt would undermine the national process set in national Biosafety Frames. Participants recognised the lack/conflict of interest between the Ministries responsible for, Environment, Agriculture and Science and Technology and requested RAEIN-Africa to collaborate with SADC Secretariat to facilitate a high level policy dialogue of these line ministries. as well as National Biosafety Focal Points (NBFPs) with the aim of exploring possible opportunities for cooperation and collaboration in biosafety at regional level.

RAEIN-Africa in partnership with the Food, Agriculture and Natural Resources (FANR) Directorate of SADC, organized and co-funded a High Level Dialogue on Biotechnology & Biosafety in Gaborone Botswana (see 2010 Annual Report, Page 30).

Regional organisations represented in the technical meeting were the AU, UNEP-GEF Regional Office, and the Southern African Network for Biosciences (SANBio) of the New Partnerships for Africa's Development (NEPAD).

Organisation	Contribution	USD Financial Contribution
UNEP –GEF	Presentations on: - the Cartagena Protocol on Biosafety - Implementation of the Cartagena Protocol on Biosafety – Process, Trends, Challenges –UNEP/GEF Support - Africa Challenges and status on UNEP-GEF Funds	10 000.00
African Union (AU)	Technical backstopping gave Clarifications on the AU Model law to the High level Dialogue meeting	10 000.00

NEPAD SANBio	Technical presentations on the African Status, Challenges and way Forward on Biotech and Biosafety issues	10 000.00
Total		30 000.00

2. CO-FUNDING AND CONTRIBUTIONS BY PARTNERS

Partners have provided co-funding in various ways during implementation of RAEIN-Africa activities in-country. The table below outlines specific contributions.

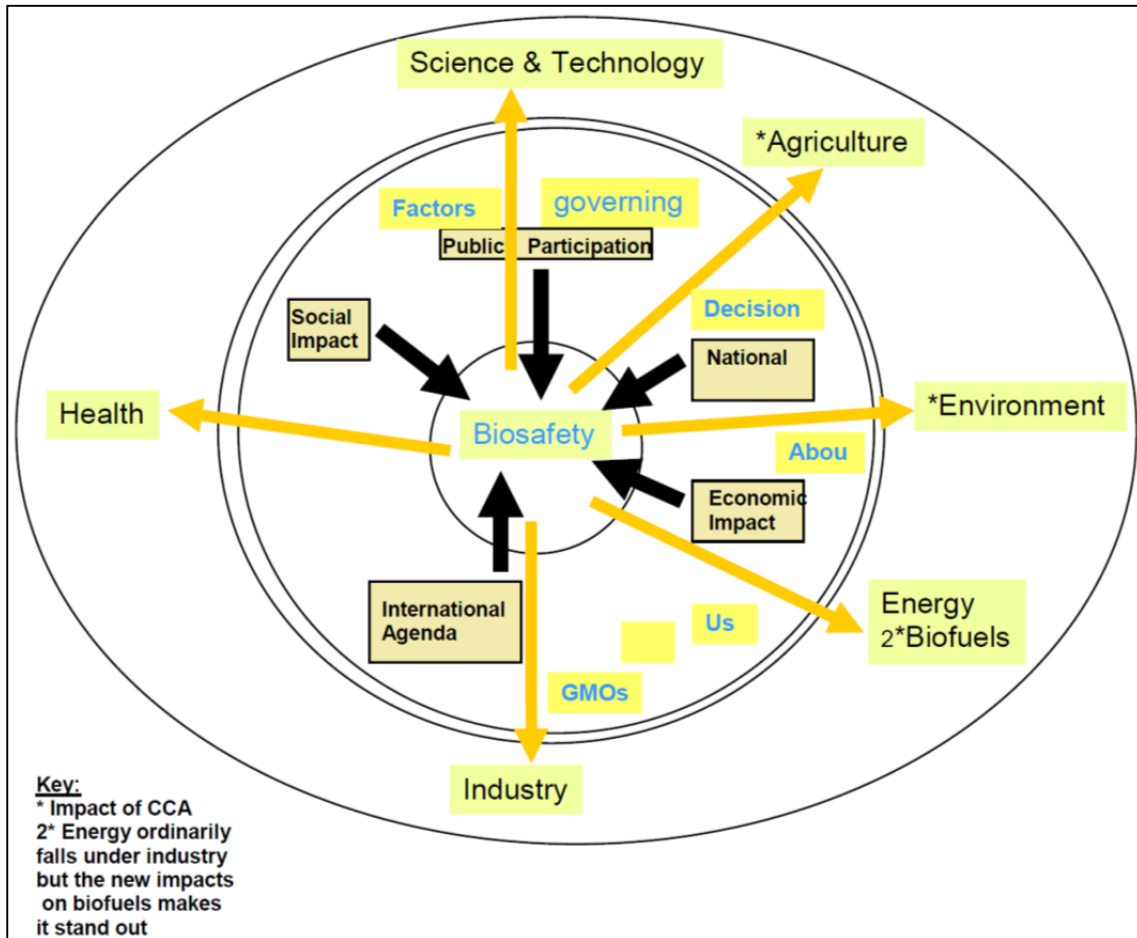
Country	Activity and contribution	Amount
Botswana	All Transportation costs within the Country taken care of by the Government Country studies Field work Facilitating Experience Sharing with Namibia and training them.	15500.00
Malawi	Tissue Culture Sweet Potato innovation platform and other activities –use of institution vehicles at no cost Personnel time not paid for Lab and Green House space not paid for Country studies Field work	25000.00
Namibia	Country studies Field work AI innovation platform activities- Government / institution vehicles Institutional vehicles and fuel for incountry activities, Trip to Botswana Government provided transport and Driver in contribution. Meeting venues Subsidised Office Space, Free Water and Electricity and office equipment's insurance for the Secretariat Sent 2 extra participants to SANGL (twice -2009 and later 2011 on their own budget	35000.00
South Africa	Technical Back stopping on Negotiation Training, NBF meeting SANGL Coordination and use of Lab facilities for Training and meeting venues Technical Backstopping in ABS training and core group Personnel Time	67 000.00
Swaziland	Country studies Field work (Socio-economic & Biofuel) -Transport and other logistical support, stationery, Telephones and meeting Venues and teas Personnel Time	19000.00
Zambia	Effective communication of S&T workshop, Lusaka 2011, Co-funded for the Accommodation of participants Biosafety Risk Assessment and Risk management , Lusaka 2011 Co-funded for the Accommodation of participants Co funding was provided to pay for accommodation for participants in both these workshops Country studies Field work (socio-economic study) Venue & LCD Platform work plan preparation meetings and also accommodation for participants Personnel Time	35000.00
Zimbabwe	Provided technical support to the Socio Economic Study.Provided transport to and from the Research sites, Venue for country meetings and SE Study Technically backstopping Malawi on the Sweet Potato project SANGL Support and use of Lab Facilities for Free for trainings	58 000.00
Totals		254 500.00

Total Contributions by Partners and other organisation 2009-2012

Name	Amount
CBD and IFPRI- Biosafety Socio Economic Training & Backstopping	25 000.00
UNEP-GEF & CBD – NBF Capacity Training	30 500.00
UNEP-GEF, AU, Biosafety SA, Swiss Federal Institute-RA&RM Training	77 000.00
UNEP-GEF and AU on Negotiation Skills Training	25 000.00
UNEP-GEF, AU, NEPAD on High Leve Dialogue	30 000.00
Partner Countries	254 500.00
Ministry of Infrastructure and Environment	61,000.00
Total	503.000.00

Appendix 10 – Biosafety as core issue in sustainable development

Pointing out the relevance of addressing Biosafety issues in relation to agricultural and environmental development:



Source: RAEIN-Africa/ISP-TEESA annual report 2010.

Appendix 11 – Positioning RAEIN-Africa’s approach

RAEIN-Africa associates its focus very much along the lines of the approach of people-centred innovation and learning.

Changing approaches in agricultural research and development (table from Wellard, 2011).

	Transfer of Technology	Farming Systems Research	Farmer Participatory Research	People-centred Innovation and Learning
Era	Since 1960s	1970s-80s	From 1990s	2000s
Model of activities	Supply through R&E pipeline	Learn through survey	Collaborative in research	Innovation network with co-development
Farmers seen by scientists as	Progressive adopters, laggards	Objects of study and sources of information	Colleagues	Partners, entrepreneurs, innovators, setting the agenda
Scientists as seen by farmers	Not seen – only saw extension officers	Used our land; asked us questions	Friendly consumers of our time	One of many sources of ideas and information
Knowledge and disciplines	Single discipline driven (breeding)	Inter-disciplinary (plus economics)	Inter-disciplinary (plus farmer experts)	Extra/trans-disciplinary –holistic, culturally-rooted knowledge
Farmer’s roles	Learn, adopt, conform	Provide information for scientists	Diagnose, experiment, test, adapt	Empowered co-innovators, negotiators
Scope	Productivity	Input-output relationships	Farm based	Livelihood/food systems, value chains; multiple scales, timeframes
Core elements	Technology packages	Modified packages to overcome constraints	Joint production of knowledge	Social networks of innovators; shared learning and change; politics of innovation
Drivers	Supply push from research	Scientists’ need to learn about farmers’ needs and conditions	Demand pull from farmers	Changing contexts: markets, globalization, climate. Organised farmers, power, politics
Key changes sought	Farmer behavior	Scientists knowledge	Scientist-farmer relationships	Institutional, professional, personal change: making space for innovation
Intended outcome	Technology transfer and uptake	Technology produced with better fit to farming systems	Co-evolved technology for livelihood systems	Capacities to innovate, learn and change
Institutions and Politics	Assumed away	Ignored, black boxed	Acknowledged (naïve)	Central to change
Innovators	Scientists	Scientists adapt packages	Farmer and scientists jointly	Multiple actors – learning alliances

Appendix 12 – Validation of internal evaluation’s recommendation

Internal evaluation’s recommendations	Validation by external evaluators
1. There is an urgent need to address the operational challenges being faced in Zimbabwe, Botswana and Tanzania to ensure the Network activities are brought on track. The Network activities in Namibia have to be resuscitated as well.	Confirmed. Consider, however, the need for coaching, the right people and look for other appropriate incentives to enhance motivation.
2. There is scope in continuing to work towards having a stronger relationship with SADC as this will provide a window of opportunity for raising additional funding for Network activities. The starting point could be MOUs and joint proposals on identified activities. As mutual trust grows between SADC and RAEIN Africa through more formalized joint work, the application for subsidiary status can be re-launched.	Confirmed, but also explore alternative ways of receiving more regional recognition.
3. The terms of reference for the NWG, NCI, NCP and the platforms have to be revisited so that the roles and responsibilities including the powers vested in each of these are clearly defined and understood by all stakeholders.	Yes, but do not expect this to solve the core issues (see first recommendation)
4. It is recommended that RAEIN Africa develop a visibility strategy so that the work of the Network becomes more visible in the member countries.	We would rather talk about a strategic communication strategy. The most obvious action to be taken is to seriously upgrade the website.
5. The Secretariat is understaffed and struggling to cope with the load of work. It is recommended that a Social Scientist be recruited to be part of the secretariat.	Yes, this is a serious and urgent issue. The most important thing is to get a motivated person for RAEIN-Africa’s approach, which does not have to be a social scientist. One person will not suffice on the long run.
6. The Swaziland platform is making good progress and there are a lot of positive lessons that other countries can learn from Swaziland. (...). It is recommended that an exchange visit be organized for other countries to learn from Swaziland’s experiences.	We support the idea of exchange visits, but Malawi has a lot to offer in this respect as well. Consider what can be learnt where and do not work with only one exemplary case.
7. Institutionalization of Network activities. Steps should be taken to improve the commitment of institutions to the Network activities. One way of doing that will be to have a code of conduct for members of the various bodies and in that code of conduct should be provisions for excusing institutions that are not committed and replacing them with new ones.	The institutionalization is important, but informal institutionalisation is to some extent already happening. Don’t expect too much from procedural solutions and look for a variety of strategies to address this issue.
8. It is strongly recommended that the Board considers the location of the Secretariat in Namibia. South Africa will be a more central location and the travel costs can be substantially reduced.	Develop a careful transition phase so as to reap the benefits of this, but not lose out on the benefits of the base in Namibia. Ensure having a strong ownership base for this decision among partners and stakeholders.

Appendix 13 – List of interviewed persons

RAEIN Secretariat	
Mrs. Doreen Shumba Mnyulwa	Regional Director
Mrs. Aune Magano David	Secretary
Mrs. Dorothy Kangwa- Mulenga	Policy and Advocacy Coordinator
Mr. Henry Ndengejeho	Project Officer
Mr. Shepherd Kapayapundo	Finance and Administration Manager
RAEIN Board and Management Committee	
Mr. Andrew Mushita	Chairperson of the Board of Trustees
Ipinge Sheehamandje	Member of the Board of Trustees; Member of the Management Committee
International Connections	
Mrs Marieke Boot	Directorate General International Cooperation (DGIS) - donor
Worku Yifru	Secretariat of the Convention on Biological diversity (SCBD)
Alex Owusu Biney	United Nations Environment Programme – Global Environment Facility (UNEP-GEF)
Namibia stakeholders/partners	
Name of interviewee	Organisation associated with
Elmo Thomas	Ministry of Education
Anna Nguno	Ministry of Mines and Energy
Absalom Shigwedha	Freelance Environmental Journalist
Benedict Libanda	Environmental Investment Fund
Kauna Schroder	Ministry of Environment, Windhoek
Sarah Vranckx	Ministry of Justice
Irene Nunes-Kunamwene	Millennium Challenge Account
Paulina Shilunga	Ministry of Agriculture, Water and Forestry
Katrina L. Shiningavamwe	Ministry of Agriculture, Water & Forestry
Georgina Zaire-Tjipura	Central Veterinary Laboratory
Dr Baby Kaurivi	Department of Veterinary Services
Group of 25 farmers directly or indirectly involved in the Otjene AI project plus a local agricultural extension officer	
Swaziland stakeholders/partners	
Name of interviewee	Organisation associated with
Mr. Isaac Gcina Dladla	Swaziland Environmental Authority
Dr Abednego Dlamini	University of Swaziland
Carol Malima	Ministry of Agriculture and Cooperatives
Mr Coloile Mulanga	Swaziland Environmental Authority
Christopher Mthethwa	Seed Quality Control Services
Mr Danger Nhlabatsi	African Cooperative Action Trust
Mrs Similo G Mavimbela	Ministry of Agriculture
Stephen Zuke	Swaziland Environmental Authority
Dr Cebisile Magagula	University of Swaziland

Francis Makamba	University of Swaziland,
Mrs Nokuthula Dlamini	Malkerns Research Station
Bhekisisa Mdziniso	University of Swaziland
Mr Daniel Khumalo	Swaziland Cotton Board
Winile Masinga	Swazi Observer: print Media
Mr Freddy Magagula	Biodiversity Implementation Programme Committee
Malawi stakeholders/partners	
Name of interviewee	Organisation associated with
Boniface Tivalenji	Catholic Development Commission in Malawi (CADECOM)
Felix Chipojola	Ministry of Agriculture and Food Security
Dr Felistus Chipungu	Bvumbwe Agricultural Research Station
Raymond Chimsale	Catholic Development Commission in Malawi (CADECOM)
Margaret Chiputhenge	Ministry of Agriculture and Food Security
Jackson Dziko	SUADD- Ministry of Agriculture and Food Security
Dr Alfred Maluwa	Kamuzu College of Nursing
Dr Moses Maliro	Bunda College of Agriculture
Carol Theka	Department of Environmental Affairs
Dr Ibrahim Benesi	Department of Agricultural Research
Dr Margaret Sikwese	Malawi Institute of Management (MIM)
Tamani Nkhono-Mvula	Civil Society Agriculture Network (CISANET)
Jacob Kaunda (Bursar)	Bunda College of Agriculture
A group of 30 farmers (male and female about equal), two local extension officers, and one District officer	
TELEPHONE/SKYPE INTERVIEWS	
Ms Tshenelo Moyo	Attorney General's Office Botswana
Dr K P Walker	National Food Technology Research Centre (NFTRC) Botswana
Dr E Mnene	Mikocheni Agricultural Research Institute Tanzania
Isakwisa Lameck Mwamukonda	Vice President's Office, Division of Environment, Tanzania
Alex Owusu Biney	United Nations Environment Programme – Global Environment Facility (UNEP-GEF)
Killian Mutiro	One of the external consultants (from Zimbabwe) who performed the internal evaluation in 2011

Appendix 14 – Consulted programme documents

The following is not a complete list of consulted document due to the abundance of programme documents that were available, some of which were read in detail and others browsed only.

a) Annual Reports

- ISP-TEESA Annual Report, 2009
- ISP- TEESA Annual Report, 2010
- ISP-TEESA Annual Report, 2011

(b) Annual Work Plans

- Approved Annual Work Plan 2010
- Approved Annual Work Plan 2011
- Approved Annual Work Plan 2012

(c) Annual Financial Statements

- Annual Financial Statement for Year ended 31st December 2010
- Annual Financial Statement for Year ended 31st December 2011
- Audit reports for 2009, 2010 and 2011

(d) Reports of Meetings

- Report on RAEIN Africa's Partners Planning Meeting 3rd September 2010, Birchwood Hotel and O.R Tambo Conference Center, Johannesburg, South Africa
- ISP- TEESA Phase one 2009-2011 Methodology Planning Meeting, 3rd August 2009, Mannah Guest Lodge, Johannesburg, South Africa
- RAEIN Africa Partners 2012 Planning Meeting, 5th-6th September 2011, Birchwood Hotel and O.R Tambo Conference, Johannesburg, South Africa

(e) Minutes of The Technical Advisory Committee

- Minutes of the 3rd RAEIN-Africa Technical Advisory Committee (TAC) Meeting on Review of the RAEIN-Africa ISP-TEESA implementation Held at Etambi Hotel, Windhoek, Namibia, 26th May – 27th May 2010
- Minutes of the 4th RAEIN-Africa Technical Advisory Committee (TAC) Meeting Held at Birchwood Hotel & OR Tambo Conference Centre, Johannesburg, South Africa, 27th – 28th April 2011
- Minutes of the 2nd RAEIN-Africa Technical Advisory Committee (TAC) Meeting on Appraisal of the RAEIN- Africa Competitive Grants Held at Midgard Country Estate, Okahandja, Namibia, 31st May – 5th June 2009

(f) Contracts for Implementation of Country Programs

- Contract for the Implementation of the Public Awareness and Participation Program in Botswana, 2011-2013
- Contract for the Implementation of the Zimbabwe activities
- Contract for the Malawi Sweet Potato Project Platform

(g) COUNTRY WORKPLANS

- Biosafety Public Awareness creation and Public Participation Platform WORK PLAN
- Namibia Livestock Improvement Platform Project Work Plan
- Biotechnology Platform for the Tissue Culture Banana, Tanzania

(h) Country Reports

- Swaziland Annual Report 2011
- Malawi Annual Report 2011
- Namibia Annual Report 2011

(i) Newsletters

- Building Bridges Vol 3 No 1 October 2008
- Building Bridges Vol 4 No 1 October 2009
- Building Bridges Vol 5 No 1 October 2010

(j) Workshop Reports/Proceedings

- Proceedings Of "Biotechnology and Biosafety Training Of Trainees Workshop" Towards Implementation of Article 23 Of The Cartagena Protocol, 26th To 28th July 2011 Venue: Phakalane Golf Estate, Gaborone, Botswana
- Media Workshop Proceedings on Biotechnology and Biosafety" Enhancing Biotechnology And Biosafety Public Awareness & Participation In Botswana; Botswana Biotechnology & Biosafety Public Awareness & Participation Innovative Platform (Bopap)

(h) SANGL

- RAEIN-Africa Workshop on establishing the Southern African network for GM detection laboratories (SANGL) 24 –26TH November 2009
- Report On The Sangl Annual Meeting Held At Birchwood Hotel and O.R Tambo Conference Centre 11 – 12 August 2011
- Training of Trainers workshop” in GMO Detection, 27 to 30 September 2010 at the University of the Free State, Bloemfontein South Africa.

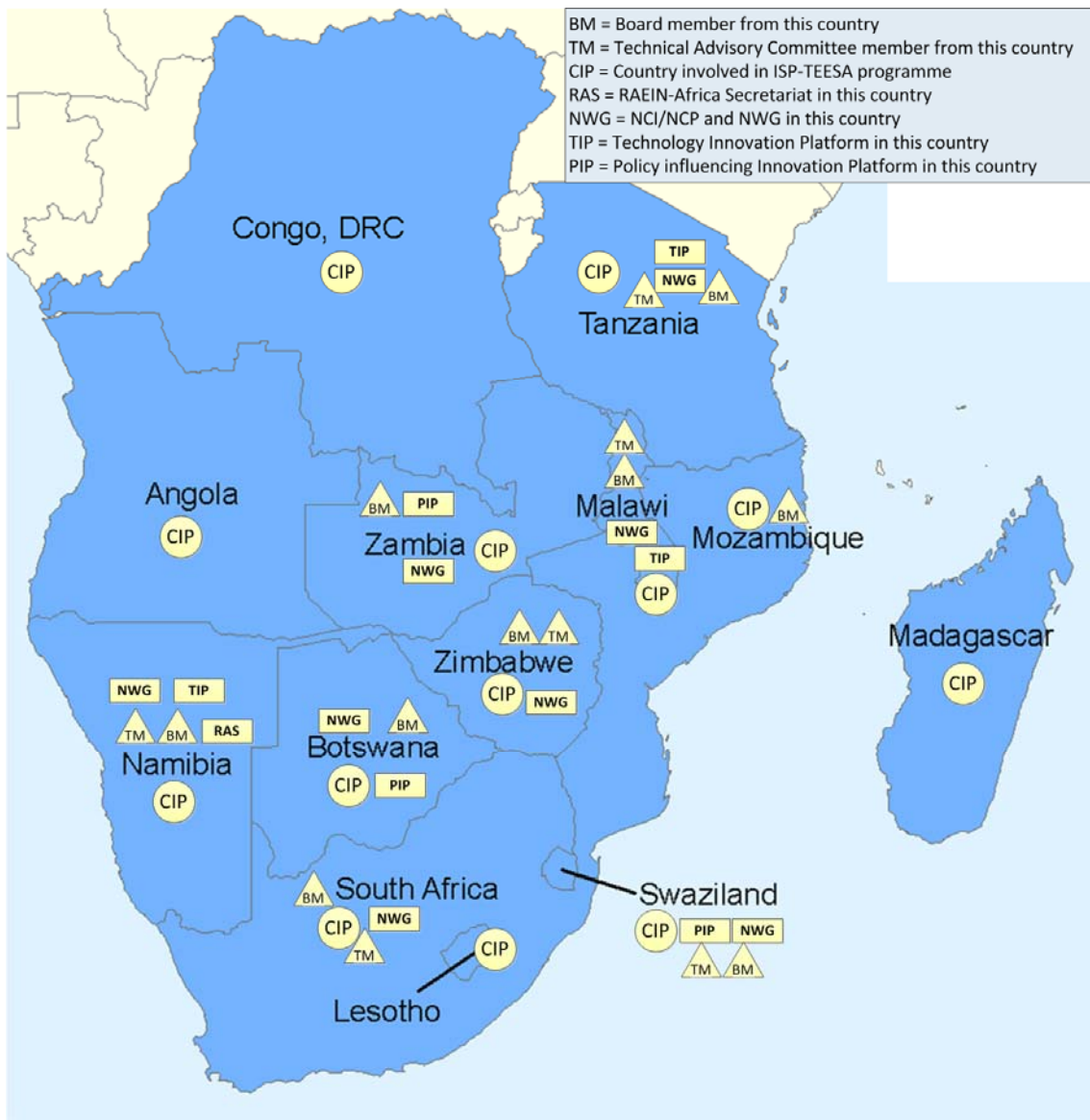
(I) RAEIN Africa’s Publications

- Compendium of Papers presented at the Innovation Systems and Poverty Reduction and Sustainable Development in Southern Africa, Conference , Shumba-Mnyulwa D, Ipinge S, Mulenga D.K)

Assorted other documents:

- Innovation Systems Competence Enhancement and Development in Agriculture and Environment (ISCAD), Final report, 2010
- Mainstreaming the innovation systems concept in developing appropriate technologies and influencing policies in agricultural value chains. Manual for trainers and practitioners (2011).
- RSA status report on biofuels (2010)
- Swaziland report on biofuels (2010)
- Namibia report on biofuels (2010)
- Impact of Jatropha on rural livelihoods (2012)
- Consolidated mid-term evaluation report (2011)
- 2nd, 3rd and 4th TAC meeting minutes (2009, 2010, 2011, 2012)
- Audit reports, 2009, 2010, 2011
- Progress and annual report 2011/2012 Botswana
- 2010, 2011, 2012 RAEIN-Africa Partners Planning Meeting reports
- Media workshop proceedings on biotechnology and biosafety, Botswana, 2012
- RAEIN-Africa Workshop report on establishing the Southern African network for GM detection laboratories (SANGL), 2009.
- Report on the SANGL Annual meeting, 2011
- SANGL Brochure
- Artificial insemination in cattle – A case for Otjinene .Field visit report , 2011.
- Report on Banana Project Progress in Tanzania, 2011
- Artificial insemination (AI) in cattle. A case for Otjinene. 2011 annual progress report
- Annual report for sweet potato platform project, 2011
- RAEIN-Africa tracking tool
- ISP-TEESA M&E risk matrix (final)
- Unpacking the Socio-Economic Issues of GM Crops: Towards development of a socio-economic considerations guideline for biosafety decision making. Synthesis report (2011).
- Socio-economic impacts of living modified organisms in agriculture – towards an assessment guideline (2012)

Appendix 15 – Involvement of SADC countries in ISP-TEESA



Appendix 15: Involvement of SADC countries in ISP-TEESA

RAEIN-Africa is involved in the enhancement of an enabling environment that allows for science & technology to play more appropriate and effective roles in collaborative innovation processes in Southern Africa. By providing opportunities for working towards multi-actor co-innovation, both at regional (SADC) and national level, RAEIN-Africa's ISP-TEESA programme seeks to support the institutionalisation of new ways of collaborative innovation in relation to both (appropriate) technology development, and governance and policy frameworks. This report is the product of an external mid-term review of this programme. The evaluation team found a well-functioning and capable secretariat, as well as enthusiastic partners and stakeholders across the SADC region who commend the work facilitated by RAEIN-Africa and who commend the way in which secretariat staff work with them. Achievements to date are manifold in terms of research, trainings, participatory decision-making processes, grassroots projects, multi-stakeholder innovation platforms, and more. Realised products and services are starting to reap a harvest in terms of behaviour change of actors working together in innovation platforms and in terms of emerging effects in livelihood conditions, which have a potential for addressing food insecurity concerns in the region. RAEIN-Africa has chosen biotechnology and biosafety as a case to focus on in creating new opportunities for working from an innovation systems approach to sustainable development involving agriculture and environmental concerns. RAEIN-Africa is also facing challenges that relate to the organisational setup of ISP-TEESA and RAEIN-Africa in general, to its connectedness inside and outside the region, and to some elements of operational performance. The more urgent challenges relate to the need for raising its profile in the region so as to safeguard organisational sustainability. The recommendations in this report address those challenges and following up on this will help articulate and position more strongly what RAEIN-Africa has to offer to the SADC region.

More information: www.cdi.wur.nl

