



Independent Impact Assessment Report:

CTA's Science, Technology and Innovation Programme (2010-2014)

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Abbreviations

ACP	African, Caribbean and Pacific
AIFSHE	Auditing Instrument for Food Security in Higher Education
ARD	Agricultural Research for Development
ANAFE	African Network for Agriculture, Agroforestry and Natural Resources Education
ASTI	Agricultural Science, Technology and Innovation
CARDI	Caribbean Agricultural Research & Development Institute
CCST	Caribbean Council for Science and Technology
CTA	The Technical Centre for Agricultural and Rural Cooperation
DAC	Development Assistance Committee (of OECD)
EU	European Union
FARA	Forum for Agricultural Research in Africa
FAO	Food and Agriculture Organisation (of United Nations)
FNS	Food and Nutrition Security
IAASTD	International Assessment of Agricultural Knowledge, Science and Technology for Development
ICM	Information and Communication Management
ICT	Information and Communication Technology
KARLO	Kenya Agricultural and Livestock Organisation
KMC	Knowledge Management and Communication (programme at CTA)
K4D	Knowledge for Development
LFA	Logical Framework Analysis



About CTA's Independent Evaluation and Impact Assessment Reports

CTA regularly commissions independent evaluations and impact assessments along thematic, programmatic or cross-cutting lines. The major evaluations are carried out using the OECD DAC criteria, while impact assessments draw on the conceptual framework formulated by the Learning, Monitoring and Evaluation Unit (LME) with various impact indicators for CTA's interventions. CTA is committed to disseminating these reports widely, with a view to promoting knowledge sharing and organisational learning.

Contents

LME	Learning, Monitoring and Evaluation (Unit of CTA)
MP	Master Project (at CTA)
NEPAD	New Partnership for Africa's Development
OECD	Organisation for Economic Co-operation and Development
PMI	Policies, Markets and ICTs Programme (programme at CTA)
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
ST&I	Science, Technology and Innovation
TAE	Tertiary Agricultural Education institutes
ToC	Theory of Change
ToR	Terms of Reference
ToT	Training of Trainers
UNDP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
YPARD	Young Professionals for Agricultural Development
WHO	World Health Organisation

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Executive Summary

Introduction and Framework for the Evaluation

This report presents the results of the evaluation of the Science, Technology and Innovation (ST&I) Programme of the Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, The Netherlands. CTA has commissioned the evaluation of the ST&I Programme in its entirety in response to changing target groups reflected in the priority areas set out in the current CTA Strategy Plan (2011 – 2015) and the budget situation demanding efficient and effective use of funds.

The main aims of the evaluation of the ST&I programme are to analyse the results and performance of the ST&I programme from 2003–2014; obtain up-to-date information on factors that have facilitated or impeded the ST&I's performance and growth during that period; obtain feedback and recommendations that would support CTA in future decision making on where to focus future support and opportunities for the ST&I theme in the field of agricultural and rural development in the ACP regions.

Questions in this evaluation are based on the OECD DAC criteria that address the relevance, efficiency, effectiveness, impact and sustainability of the programme as well as aiming at providing insight into the impact pathways through which the interventions contribute to CTA's overall theory of change and also the extent to which CTA has contributed to the capacity building of its partners in Africa (with its East, West, Central and South regions), the Caribbean and the Pacific: the six ACP regions. The methodology used for this evaluation was a combination of desk study using the many documents that CTA has provided (including a number of evaluation reports on CTA's ST&I Programme), interviews with representatives of CTA's main Stakeholder Group, consisting of partners and beneficiaries; a group of persons that have not been involved in CTA's ST&I activities (Non-participants Group) and an online survey. Data was also gathered on youth and gender specific issues.

The analysis presented in this report has been developed within the framework of a constantly

evolving policy framework and context. The activities and scope of the ST&I Programme, the needs of intended beneficiaries, and especially the objectives of the CTA have undergone changes during the period covered by this evaluation (2003–2014), making it challenging to issue general statements regarding the programme's relevance, effectiveness and efficiency throughout this entire period.

The ST&I activities of CTA have evolved from being a well-defined programme and group of activities (ST&I Strategies Programme implemented in 2003), to a more diffuse set of activities providing cross-cutting support to different components of CTA's current strategy (2011–2015). The ST&I Programme itself has undergone a number of evolutions. A distinction is made between the ST&I Strategies Programme implemented from 2003 to 2010; and the annual ST&I project activities implemented from 2011 onwards in projects under the PMI Unit.

Conclusions

This report present CTA has considerable experience within the area of ST&I and has successfully built up a valuable network. As there appears to be considerable needs for this expertise in ACP countries and in Europe and CTA enjoys a high level of credibility with partners and beneficiaries CTA should capitalise on these assets.

Relevance:

- The ST&I Programme has developed ACP country capacity to understand and strengthen agricultural science, technology and innovation systems consistent with promoting agricultural innovation as a driver for economic, social and environmental growth and sustainability.
- Activities are found to be in line with specific needs expressed by partners and beneficiaries and at the same time can readily be adapted to changes through a bottom-up approach.
- Activities and objectives of the original ST&I Strategies Programme were in line with CTA's mandate and donors' expectations, but these are not so explicit in the present situation under the current strategy.

Effectiveness:

- ST&I are effective in producing training material and providing capacity building especially for training of trainers, but this does not reach small illiterate farmers which are, however, not CTA's main target group.
- K4D is an acknowledged and effective means of providing high quality information and cross-country contacts of considerable use to researchers.
- The ST&I Programme is effective in increasing awareness of youth and gender issues and also seen as Youth and ICT specialist.

Efficiency:

- CTA has mechanisms for planning, monitoring and reporting in place which should increase efficiency of ST&I activities.
- ST&I is perceived as efficient, but concerns are expressed that ST&I is basically implemented by one person at CTA.

Impact:

- The ST&I Programme has had impact on social capital having created collaborative networks and partnerships between beneficiaries and partners, on the ability of partners and beneficiaries to influence policy in their regions.
- Policy processes have become more inclusive and included new concepts and mind sets for policy design and implementation thus strengthening empowerment and political capital.

- The ST&I Programme has led to an increase of women's associations. It has raised the debate on women in science and also empowered women that participated in the programme in the ACP regions.
- The ST&I Programme has made more young people aware of agriculture as a business. It has also increased the interest in careers in agriculture and some young people that participated in the programme have entered the agribusiness arena. It stimulated the start of youth associations at national and regional levels in Africa.
- Impact on end users and macro-level development level indicators has not been possible to evaluate.
- Training and information sharing/dissemination activities among agricultural scientists are perceived to have generated the highest impact, followed by networking and collaboration-promotion activities.
- The impact on the degree of increased spending on ST&I or on research has not been possible to measure.

Sustainability:

- Training which has once been provided cannot be taken away again!
- ST&I has broad relationships and networks in the ACP regions but less within Europe.
- K4D needs resources for maintenance.

Recommendations**Continue highly valued ST&I activities:**

- Assess possibilities of sourcing stable funding for K4D.
- Build on training and information sharing/dissemination activities among agricultural scientists as well as maintaining networks.
- Build on successful activities with youth and ICT.

Increase impact of the ST&I Programme:

- Work more with empowerment in connection with influencing policy.
- Focus work on key countries in order to improve the chance of activities having a larger impact on ARD policy making.

Continue partnerships with other organisations in ARD development for ACP regions:

- Re-think if and how CTA wishes to engage with private sector stakeholders as part of its mission to support ST&I for ARD.
- Continue efforts on issues built into the centre's gender and partnership strategies.
- Increase the awareness of CTA's ST&I activities in Europe with a view to strengthening partnerships with likeminded or complementary organisations.
- Improve the clarity of organisational structure and communicate this for improved understanding by partners and beneficiaries.

Fix the ST&I activities in the centre's organisation structure:

- Reduce the vulnerability of the management of CTA's ST&I activities to possible staff changes and strengthen the institutional memory by improving the integration of ST&I competencies and experience into the CTA team.

Structure the data collection process on performance indicators:

- CTA's format of the 'Project profile and Review Form' should list the indicators (for output, outcome and impact) based on the OECD DAC criteria and impact pathways, and project coordinators should report on the performance of each of these indicators in the annual reporting.
- The forms should have an Excel (or similar) format so that extraction of data collection can be rather straightforward. These data are important input for the evaluation of the individual projects and the programme (a specific group of projects).

Recommendations and CTA Follow up Actions

	Recommendation	CTA Response	Follow up Actions and deadlines
Continue highly valued ST&I activities	Assess possibilities of sourcing stable funding for K4D	The K4D web portal was discontinued at the beginning of 2015 pending the finalization of plans for the integration of content of all CTA web-portals in the main corporate website	Responsibility: PMI and web-team Actions: Integration of content of all CTA web-portals Deadline: 2016
	Build on training and information sharing/ dissemination activities among agricultural scientists as well as maintaining networks	Agreed – These activities are built into the Centre’s Master projects on Climate Change, Food and Nutrition Security and Knowledge Management	Responsibility: PMI Actions: already incorporated in projects
	Build on successful activities with youth and ICT	Agreed - CTA’s youth activities are increasingly focused on youth entrepreneurship and ICTs	Will be incorporated in the implementation of the new SP
Increase Impact of ST&I programme	Work more with empowerment in connection with influencing policy.	Agreed - CTA’s has focused on empowerment for influencing policy processes from agenda setting, participation and implementation to M&E	Will be incorporated in the implementation of the new SP
	Focus work on key countries in order to improve the chance of activities having a larger impact on ARD policy making	Agreed – Building on approach adopted and lessons learned on agricultural innovation systems; in 2015, CTA identified key countries for focussing its work on strengthening the agricultural-nutrition nexus.	Responsibility: PMI and responsible RBPs Actions: key countries already identified
Continue partnerships with other organizations in ARD development for ACP regions	Re-think if and how CTA wishes to engage with private sector stakeholders as part of its mission to support ST&I for ARD	Agreed - There is a move within the EC and ACP organizations e.g. AUC & NEPAD Agency toward working with the private sector. CTA will determine entry points for engaging with the private sector	Will be incorporated in the implementation of the new SP

	Recommendation	CTA Response	Follow up Actions and deadlines
	Continue efforts on issues built into the centre's gender and partnership strategies	Agreed -	Will be incorporated in the implementation of the new SP
	Increase the awareness of CTA's ST&I activities in Europe with a view to strengthening partnerships with likeminded or complementary organisations.	Agreed – CTA's ST&I activities were known by key experts in the EC directorates, CIRAD, Wageningen UR, AGRINATURA. Since 2014 CTA has hosted the Executive Secretariat of the European Forum for Agricultural Research and Development. CTA is involved in three EU funded projects; CAASTNet Plus, PACENet Plus and PAEPARD. These provide opportunities for extending CTA's reach and strengthening partnerships with European organizations depending of future ST&I areas of focus	Responsibility: PMI and LME Actions: continue involvement in EU funded projects (PMI); increase partner focus in M&E (LME)
	Improve the clarity of organisational structure and communicate this for improved understanding by partners and beneficiaries. It is not unusual for elements of a discontinued programme to be integrated into new projects/ programmes. This is being done in the current situation, but is not clear for outsiders and can be improved.	Agreed – CTA's new SP 2016-2020 will clearly articulate the new focus areas for the centre and shared widely with partners	Will be incorporated in the implementation of the new SP

	Recommendation	CTA Response	Follow up Actions and deadlines
Internal Processes: - Fix the ST&I activities in the centre's - Structure the data collection process on performance indicators	Reduce the vulnerability of the management of CTA's ST&I activities to possible staff changes and strengthen the institutional memory by improving the integration of ST&I competencies and experience into the CTA team	Agreed	Responsibility: SMG and PMI Actions: CTA will explore how ST&I competencies and experience can be better integrated into the CTA team Deadline: 2016
	CTA's format of the 'Project profile and review form' should list the indicators (for output, outcome and impact) based on the OECD DAC criteria and pathways, and project coordinators should report on the performance of each of these indicators in the annual reporting.	Agreed – Centre-wide adoption of the OECD /DAC approach as well as agreed performance indicators for monitoring and evaluating progress would be useful	Responsibility: LME and PMI Actions: LME will assist PMI in improving the KPIs and set realistic methods of data collection Deadline: focus in planning process, Programme of activities 2016
	The forms should have an Excel (or similar) format so that extraction of data collection can be rather straightforward. These data are important input for the evaluation of the individual projects and the programme (a specific group of projects)	A centralized system (format) for reporting on outputs, outcomes and impact against the agreed performance indicators will support project coordinators and support personnel in capturing data and thereby ensure evaluators can have immediate access to centralized data from LME	Responsibility: LME and PMI Actions: Test follow-up of KPIs in Delta - system is prepared Deadline: testing phase will start end 2015, beginning 2016

Other issues

These issues were identified in the SWOT analysis but not specific recommendations were made. These aspects will be taken into account in the planning process:

- The farmers are not anywhere near to reproduce the technology opportunities in the field. The environment around the farmer must be improved to allow for impact;

- Support on publications is found valuable. But it is felt that the process of publication is too long, and poor follow up to studies;
- Continue support the policy dialogue and the value-chain thinking.

1. Introduction

1.1 Main aims and questions of the evaluation

This report presents the results of the evaluation of the Science, Technology and Innovation (ST&I) Programme of the Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, The Netherlands. CTA has commissioned the evaluation of the ST&I Programme in its entirety in response to changing target groups reflected in the priority areas set out in the current CTA Strategy Plan (20011 – 2015) and the budget situation demanding efficient and effective use of funds.

The main aims of the evaluation of the ST&I programme as described in the Terms of Reference (ToR) of this evaluation study, (see Appendix A) are to:

- analyse the **results and performance** of the ST&I Programme from 2003 – 2014;
- obtain up-to-date information on **factors that have facilitated or impeded** the ST&I's performance and growth during that period;
- obtain **feedback and recommendations** that would allow the ST&I Programme to contribute to the effective implementation of CTA's new strategy.

The questions to be answered in this evaluation are threefold:

1. Questions based on the **OECD DAC criteria** that address the relevance, efficiency, effectiveness, impact and sustainability of the programme (also be found in the ToR of the study in Appendix A).

2. Questions providing insight into the **impact pathways** through which the interventions contribute to CTA's overall theory of change.
3. Question on the extent to which CTA has **contributed to the capacity building of its partners** in Africa (with its East, West, Central and South regions), the Caribbean and the Pacific: the six ACP regions.

The next section of this chapter provides the necessary relevant background information for this evaluation: it describes CTA, its strategies and the ST&I Strategies Programme (until 2010) and CTA's ST&I activities after 2010. The ST&I Programme and activities have not previously been evaluated in their entirety. However, as previous evaluations have also included the ST&I Programme, a short summary of the main outcomes of these is presented in Section 1.3.

Chapter 2 presents the methodology that was used for the evaluation, including the analytical framework and the methods for data collection and analyses. Results are presented in Chapter 3 and overall conclusions and recommendations from this evaluation are presented in the final chapter, Chapter 4.

1.2 CTA and the ST&I Programme and activities

1.2.1 The ST&I Programme 2003–2014

Supporting agricultural innovation, along with the different components that make up agricultural innovation ecosystems (i.e. research, higher education, etc.), have gained significant importance in national, regional and international development agendas. Agricultural innovation is now commonly recognised as one of the contributing factors to be included when addressing some of the world's most pressing issues in terms of poverty alleviation, food security, health, environmental protection and sustainability.

According to current United Nations forecasts, the global population will reach more than 9 billion by 2050. In order to be able to satisfy the food and nutrition needs of this population, food production will have to increase 70% compared to today's level of production. The capacities of the world's farmers and fishers to satisfy these demands will depend on their capacity to produce more, more efficiently and more sustainably. Innovation is widely recognized as a major source of improved productivity, competitiveness, and economic growth throughout advanced and emerging economies. Innovation also plays an important role in creating jobs, generating income, alleviating poverty, and driving social development. These issues help to explain why agricultural innovation is considered to be such a powerful tool in the attempt to reduce global poverty, elicit economic development and ensure food security.

One of the key enabling factors of agricultural innovation is the capacity to create bridging mechanisms to allow communication, translation, and mediation between different actors. Such bridging mechanisms include the creation of adequate governance mechanisms, incentives, associations, communities of practice, networks, extension services and knowledge

transfer mechanisms. However, it is now also widely recognised that ICT and knowledge management tools can play a key role in bridging existing gaps between different components of innovation eco-systems. For example, ICTs offer the opportunity to open up the research process to interaction with potential knowledge users, making knowledge use more accessible. ICTs are already positively affecting agricultural interventions in developing countries (i.e. mobile applications providing linkages and services to previously isolated actors) (World Bank, 2012, based on Manning-Thomas, 2009¹). As a result of this, enhancing the use of ICT solutions, as well as the capacity of innovation systems to generate them, is considered to be at the backbone of efforts to stimulate agricultural innovation.

CTA's policy response to the above-mentioned challenges has, since 2003, taken the form of a ST&I programme. The programme –at that time called the “Science and Technology Strategies” – was set up “with the aim of supporting the establishment and implementation of policies and programmes that are conducive to the pervasive application of science and technology and the promotion of innovation systems in the economic and social development of ACP states with specific emphasis on agricultural and rural development”.

The **overall objective** of the ST&I Strategies programme (2003²) was to enhance ACP agricultural performance and economic development “through increased investments in knowledge, ST&I as an engine of growth”. The idea underlying the programme is that the ACP scientific and academic communities must be able to inform and influence national policies and programmes, identify and set priorities and support developmental goals that are needed for addressing the complex challenges of ARD. In order to do this

effectively, the ACP scientific and academic communities must play a greater leadership role in national and regional development, articulate their priorities to national governments as well as regional and international bodies and contribute to the current global change and reform processes.

In consultation with ACP stakeholders, it was agreed that the programme activities would aim at the different goals organised in **three main pillars**:

- **Pillar 1: Facilitating/advancing the ST&I policy dialogue.** Here the Advisory Committee³ and their meetings played a central role, also they were active in e-dialogues and policy brief writing. Other main activities under this Pillar were Intra and inter ACP/EU networking activities and regional meetings.
- **Pillar 2: Information Dissemination and Exchange of Experience** on key and emerging ST&I issues through the web portal 'Knowledge for Development'. The portal was built with the aim of having it become the main communication channel for generating and exchanging information among the Science and Technology Community in Agriculture and support knowledge development for informed decision making. The emphasis would be on the development of a science-based innovation system.
- **Pillar 3: Human Resource & Knowledge Development** with emphasis on capacity building – through training and support for case studies – on agricultural science, technology and innovation (ASTI) systems, including valuing farmer innovations, and measuring the performance of agricultural innovation systems. Special attention will be devoted to promoting the use and development of indigenous knowledge.

Under the 2005-2010 CTA Strategy, ST&I was considered as a cross-cutting theme.

In 2011 the ST&I activities were integrated into the programme unit 'Policies, Markets & ICTs' (PMI). The three-year project 'Strengthening the engagement of ACP knowledge institutes in ARD policy processes' (2012–2014) was organised under CTA's Thematic area 'ARD Policy and Climate Change & Food Security Policy Processes'.

The programme as it is called in the ToR (although CTA's Strategic Plan speaks of the ST&I Programme as a past phenomenon) is focused on:

- piloting methodologies for skills development to strengthen the capacity of ACP regional and national knowledge institutes and networks in ARD policy processes;
- promoting and strengthening intra and inter ACP, ACP-EU and ACP/EU-international S&T networking for foresighting, policy research and coherence for informing policy processes;
- establishing new networks and strengthening existing ones on ST&I to address regional, international and thematic issues of policy relevance;
- generating new knowledge and disseminating related ST&I information for strengthening ARD policy processes.

In addition to addressing key priority themes, engaging women scientists and young professionals remained a priority cross-cutting issue so that these two marginalised communities can make a greater contribution to ARD policy processes (source: ToR).

The follow-up project for the next three years (2014–2016) held many of these activities, now with a focus on food and nutrition security. This project "Supporting policy coherence and implementation for improved food and nutrition security" was embedded under CTA's Thematic area 'Food and Nutrition Security' and also was organised in the PMI Programme.

Like in the period 2003–2010, also in the period after 2010 the ST&I activities covered many different activities;

in fact many of the activities of the previous ST&I Strategies Programme were continued. It included agenda setting events/workshops/conferences, networking, developing and piloting of methodologies, case studies, expert consultations, multi-stakeholder policy processes, publications and CTA's K4D website. In 2015 the K4D was stopped, as were the science competitions.

The figure below gives an overview of CTA's main ST&I activities during the periods 2004–2010 and 2011–2014.

Figure 1 Overview of CTAs main ST&I activities 2004–2010 and 2011–2014

Pillars	Activity	2004	2005	2006	2007	2008	2009	2010
1. Facilitation policy dialogue language – online	Advisory Committee meetings (policy dialogues)	✓	✓	✓	✓	✓	✓	✓
	AC members active in e-dialogue	✓	✓	✓	✓	✓	✓	✓
	Position papers of AC	✓	✓	✓	✓	✓	✓	✓
	Expert Face to Face consultations *	✓	✓	✓	✓	✓	✓	
	Intra and inter ACP/EU Networking activities, regional & inter-agency meetings	✓	✓	✓	✓	✓	✓	✓
2. Info & Comm Management Portuguese language – online	Website: K4D		✓	✓	✓	✓	✓	✓
	Dossiers for website	✓	✓	✓	✓	✓	✓	✓
3. Capacity building	ASTI Training of Trainers' workshop	✓	✓	✓	✓	✓	✓	✓
	Young Professionals and Women Science Competitions *		✓	✓	✓	✓	✓	✓
	ASTI: case studies, meetings, workshops, folders, fora, articles, papers,	✓	✓	✓	✓	✓	✓	✓

Pillars	Activity	2011	2012	2013	2014
1. Facilitation policy dialogue	ACP/EU Think-tank on S&T meetings (policy dialogues)	✓	✓		
	Think-tank members active in e-dialogue	✓	✓		
	Position papers of Think-tank	✓	✓	✓	
	Expert F2F consultations *	✓	✓	✓	
	Intra and inter ACP/EU Networking activities, regional meetings, inter-agency meetings, workshops	✓	✓	✓	✓
	Policy papers (seeds)				✓
	Major international extension conference	✓			
2. Info & Comm Management Portuguese language – online	Website: K4D	✓	✓	✓	✓
	Dossiers for website	✓	✓	✓	✓
3. Capacity building	ASTI Training of Trainers' workshop				
	Young Professionals and Women Science Competitions **	✓	✓	✓	✓
	ASTI: meetings, workshops, folders, articles, papers, case studies (on extension, seeds, postharvest, university engagement in FNS policies)	✓	✓	✓	✓

Source: CTA. *, **: The budget breakdowns by activity for the period 2004–2012 (financial overview provided by CTA – S9:18 PM Evaluation) only shows for the years 2004, 2007 and 2008 budgets for Expert F2F Consultation and for the years 2008, 2010, 2011 and 2012 budgets for the Science Competition.

While CTA coordinated the AC meetings, many of the other activities were executed (and some also financed) in collaboration with partners.

Ms. Judith Ann Francis – Senior Programme Coordinator at CTA – has managed the ST&I Programme since its initiation.

The average annual ST&I budget for the period 2003–2010 was €800,000; it started in 2004 with ca. €400,000 and rose to almost €900,000 in 2009. A considerable part of the budget was for outsourced activities (15–20%), such as for the website service providers,

e-consultations, organisation of some expert meetings, logistics of policy dialogues and ASTI Workshops, and development of training material. Another 60–75% was for partnership contracts; these were jointly implemented with partners in line with agreed priority interventions/activities for which CTA had control over the technical content as well as the overall budget.

The 2011 budget was ca. €600,000. The total budget for the 2012–2014 project was almost €1.5m with a CTA contribution of more than €1m⁴.

Note for the reader:

The Terms of Reference for this evaluation uses the word 'Programme' also for the period after 2010, while strictly speaking there was no such programme anymore, but instead two projects (2012–2014, 2014–2016).

In this evaluation report the name 'ST&I Programme' is used for the whole evaluation period 2003–2014 and where necessary the relevant period or year is added.

1.2.2 Position of the ST&I Programme in CTA's strategy

CTA's current Strategic Plan (2011–2015, published in February 2011) refers to the ST&I Strategies Programme and three other programmes that ran in the previous decade and concludes that (page 18) *"in spite of these considerable achievements (of these four programme), CTA will in future reduce its emphasis on awareness-raising on thematic policy issues in favour of more direct involvement and participation in regional-level multi-stakeholder ARD policy processes"*. CTA's decision was based on the findings of several workshops and studies and the reorientation of CTA's strategy as outlined in its 2011–2015 strategic plan.

In accordance with CTA's 2011–2015 Strategy, the ST&I activities during that period focus on supporting greater involvement of ACP knowledge institutions and networks in policy processes. This is in line with the objective of the 2003–2010 ST&I Strategies Programme, although different wordings were used in CTA's last strategy plan

("reinforcing clearly identified regional and continental ARD policy processes by engaging national, regional and international actors for framing issues and improving implementation to achieve the desired impact").

The table below gives an overview of the position of the ST&I Programme in CTA's strategies over the period 2003–2014. It shows that the ST&I Programme and its activities were a well-defined programme and group of activities – the ST&I Strategies Programme – that were officially terminated with the adoption of CTA's Strategic Plan 2011–2015. The year 2011 was a transition year. The new CTA programme structure – with the three programme units (PMI/ KMC/LME) – came into force in 2012. Most of the activities under the 2003–2010 ST&I Programme continued, but evolved into a more diffuse set of activities organised in a project under the PMI Unit, providing cross-cutting support to different components of CTA's strategy as implemented since 2011.

Figure 2 Overview of the evolution of CTA's ST&I Programme since 2003

Period	CTA Strategic programme objectives	STI programme status within the wider CTA framework
2003–2010	2001–2005 Strategic Plan and Framework for Policy Action	During this period the ST&I strategies programme, was one of the two thematic policy-related programmes implemented by CTA (alongside the agricultural trade programme).
	2007–2010 programme strategy The main ambition of the strategy is to improve CTA's efficiency and increase its outreach by addressing the major bottleneck of difficult or insufficient access to information in ACP countries.	<p>In CTA's Strategic Plan, 2007–2010 the ST&I programme was mentioned as a cross-cutting theme, within which the centre identified five specific challenges to be addressed in ACP countries, namely to:</p> <p>Overcome the barriers to effective dialogue among the members of the S&T community and policy and decision makers, farmers and other actors in the agricultural innovation system.</p> <p>Increase access to information and to provide opportunities to the S&T community to generate and disseminate its own information on emerging ST&I issues.</p> <p>Build capacity to lead ST&I processes and mobilise investments in support of agricultural research, science, technology development, tertiary education and innovation.</p> <p>Identify ST&I strategies and concrete approaches that can have sustainable impact on agricultural and rural development.</p> <p>Be, as scientific and academic communities, forward thinking and at the same time to build synergies and strengthen alliances with international partners for anticipating and predicting future ST&I trends.</p>

Period	CTA Strategic programme objectives	STI programme status within the wider CTA framework
2011	According to CTA's 2011–2015 Strategy, "CTA's ultimate aim is to advance food and nutritional security; increase prosperity and encourage sound natural resource management in ACP countries".	Reference to ST&I as a past programme and that CTA will reduce emphasis on this – and three other – thematic issue. Transition year.
2012–2014	<p>To achieve this, it identified three key goals:</p> <p>Strengthening agricultural and rural development policy processes and strategies.</p> <p>Improving agricultural value chains.</p> <p>Enhancing information and communication and knowledge management capacities for rural development in ACP countries.</p>	<p>Project goals: Engagement of ACP experts and knowledge institutes in ARD policy processes and value chain development strengthened. Under core theme 'ARD Policy and Climate Change & Food Security Policy Processes' (Master Project 1), of the Policies, Markets & ICTs (PMI) Programme Unit.</p> <p>No ST&I specific objectives at the strategic level.</p> <p>Development of a "Theory of Change" for the ST&I project activities. Overall objective given to ST&I project activities: contribute to enhancing ACP ARD policy implementation and priority value chains. Intended impacts (ToC) are: ACP experts and knowledge institutions actively supporting regional ARD policy processes, improve practice and increase responsiveness to development challenges.</p>
2014–2016		<p>Project goals: consensus and long-term engagement of ACP stakeholders in defining and implementing priority FNS policy interventions.</p> <p>Under the 'Food and Nutrition Security (FNS)' core theme of the Policies, Markets and ICTs programme (PMI).</p> <p>An innovation systems approach adopted in order to support three main FNS pillars: availability, access and utilization.</p> <p>No explicit ST&I objectives at the strategic level.</p> <p>Same ToC seems to apply.</p>

Source: Technopolis based on CTA strategic documents, project profile and review forms and CTA evaluations.

In 2003 CTA published its first gender strategy. The updated version, published in 2014, and CTA's Youth Strategy 2013-2017 complement the CTA Strategic Plans. Already since the late nineties CTA has been supporting and promoting youth engagement in agriculture. The new Youth Strategy Plan (2013–2017) aligns with the three goals of the CTA's Strategic Plan 2011–2015; in this plan engaging women scientists and young professionals is a cross-cutting issue and activities aim at supporting these groups in all CTA activities. Within the framework of CTA's ST&I Programme the Women and Young Scientist Science competitions were introduced in 2004 as a separate instrument to stimulate the empowerment of both target groups.

The current CTA strategy is in its last year and will be further adjusted responding to changing times and demands. The current approach with the regional business plans will provide the framework for CTA's future activities. It will also be an important reference point for the recommendations that will come out of the evaluation of the ST&I programme.

This evaluation is a learning exercise and is aimed at identifying what are the most valuable assets of the ST&I programme that must be kept for the future. The evaluation aims to support CTA in future decision making on where to focus future support and opportunities for the ST&I theme in the field of agricultural and rural development in the ACP regions.

1.3 Previous evaluations of the ST&I Programme and activities

Since 2011 there have been a number of evaluations, which have also included CTA's ST&I Programme.

The evaluation by Huijsman et al. (2011)⁵ analysed CTA's results and performance during the implementation of the Strategic Plan 2007–2010. The evaluation used a large set of methodologies, including regional workshops and field visits, online surveys and interviews and desk research. The main conclusions regarding the ST&I Programme (page 44) were that:

"The ST&I Programme has a positive image among beneficiaries and clients which is confirmed by the website survey, interviews and the regional workshops. (...).

The Advisory Committee is a strong mechanism answering to its expectations. However, the committee is rather static in composition, in spite of the TOR's

statement that "the AC shall continually review its composition, internal and external communication mechanisms and performance and adjust where necessary".

It is plausible that capacity strengthening of many ACP ARD institutions and organisations has been instrumental in promoting agricultural development".

In 2013 CTA commissioned a SWOT⁶ analysis of its ST&I Programme (which by that time had run for ten years) in order to provide recommendations for improving future CTA interventions. Methods used were a survey (31 questions, 18% respondents corresponding to 46 persons;) and a workshop with experts. Andriess (2013) wrote – based on desk research – a paper on the EU/ACP Science, Technology and Innovation Landscape and presented this during the SWOT workshop in November 2013⁷.

The main finding of the SWOT analysis as presented in a final report⁸ was:

In summary, this SWOT analysis confirms that CTA and its ST&I Strategies Programme have done very well with the available resources and that there is continuing demand for it but there are challenges that require constant vigilance.

The report concludes that there is a lack of sufficient 'apparent' impact, as many respondents suggested CTA should identify and support champions in its partner institutions who will extend CTA products more broadly across their organisations and among their constituents. Other threats to CTA's ST&I Programme are the competition from institutions with similar mandates approaching the same investors and the

"difficulty of finding the balance between responding to the diversity of stakeholder interest while retaining focus which requires foresight and careful prioritisation of priority topics for the ST&I Strategies Programme to engage in" (page 22/23)."

In 2009, the utilisation of the CTA newsletter and Knowledge4Development website was analysed by CTA⁹.

In 2013, CTA commissioned Imani Development (South Africa) to carry out a study on the K4D portal, together

with its Agritrade Portal and the Brussels Development Briefings. The main recommendation concerning the content (the others addressed technical issues) focussed on the limited reach of policy makers as it showed that less than 20% of the respondents worked for government or in the public sector. The evaluation team recommended that at least the portal managers join the small group in CTA that deals with policy makers in order to "strengthen ACP agricultural and rural development policy processes and strategies" and that "CTA considers re-starting the production of policy briefs."

In the period 2012–2015 CTA initiated a number of impact studies with its long-term ACP partner organisations and networks¹⁰. The main aim of the studies was to promote learning for development impact. The studies were carried out in two phases. The first phase was completed in 2014 and involved nine partners, including CARDI in the Caribbean region, and ANAFE and RUFORUM in Africa, which are key partners in the ST&I Programme. The second phase, which was launched in 2014, included five partners and also some ST&I partners: NARI and SPC in the Pacific region. Close to 50 ACP and EU experts participated in the study.

2. Methodology

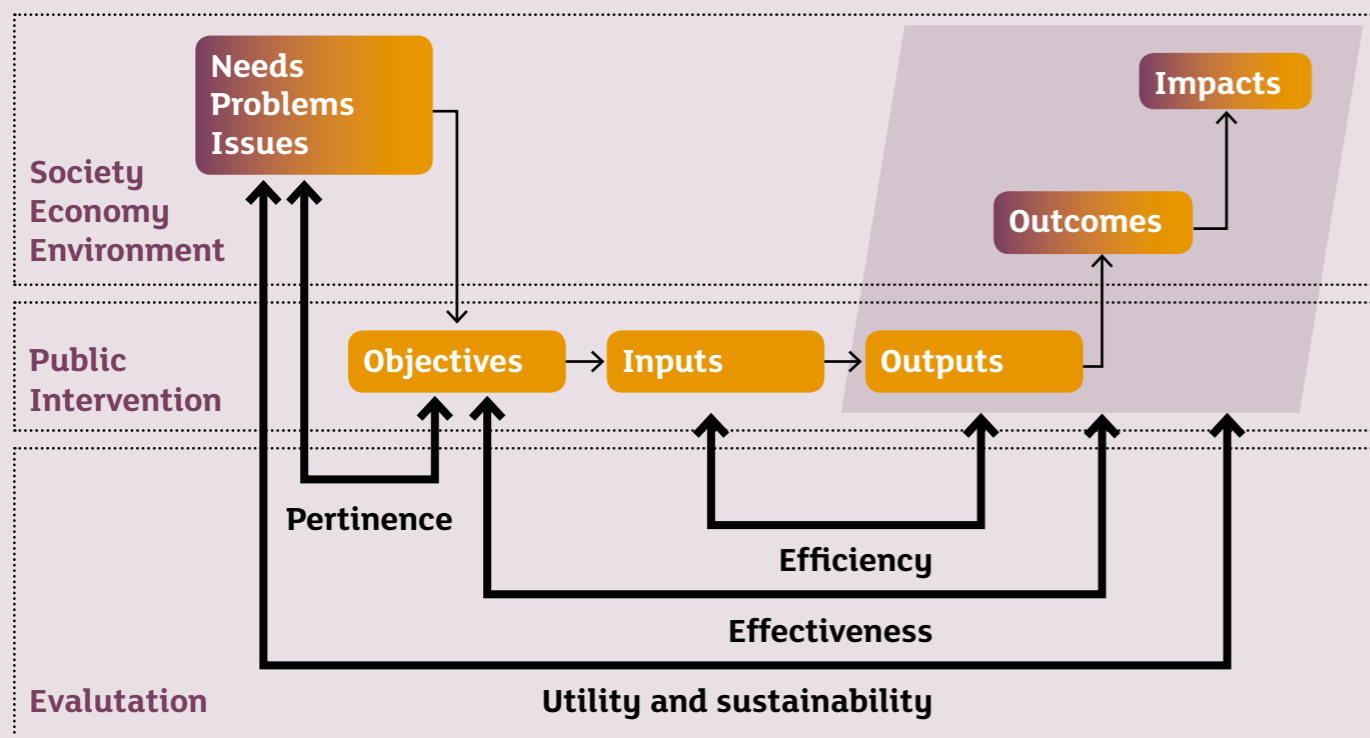
2.1 Intervention logic of the ST&I Programme

An important step in developing the analytic framework for this evaluation has been making a logical framework analysis of CTA's ST&I Programme. This analysis should show how the ST&I Programme (the public intervention) is implemented and – following the intervention logic of the programme – must lead to the required results (outputs, leading to outcomes, leading to impacts) that help

to address the needs and problems on the basis of which the programme was formulated.

Based on the results of this analysis (presented below) the analytical framework for the evaluation with sets of intended outcomes and impacts of the programme and their indicators is presented in Section 2.2 of this chapter.

Figure 3 Logical Framework for programme evaluation



Adapted from the EC

In CTA's ST&I Programme, the **needs/problems/issues** that are addressed are based on the recognition that agricultural innovation is one of the contributing factors to be considered when addressing some of the world's most pressing issues in terms of poverty alleviation, food security, health, environmental protection and sustainability. In addition, establishment and implementation of policies and programmes that are conducive to the pervasive application of science and technology and the promotion of innovation systems in the economic and social development of ACP states is an important tool to stimulate this.

The main overall **objective** of the ST&I Strategies Programme (2003–2010)¹¹ was to enhance ACP agricultural performance and economic development. The intervention logic of this is based on the assumption that – as ST&I is an engine of growth – an increase in the national investments in knowledge is an important factor in the realisation of this long-term objective. In order to achieve such an increase in investment, national policy makers in the ACP regions must be convinced of this and take corresponding decisions.

The ST&I Strategies Programme (2003–2010) gave an important role to the scientific and academic communities in ACP regions: they must be able to inform and influence national policies and programmes, identify and set priorities and support developmental goals that are needed for addressing the complex challenges of ARD.

The overall objective of the ST&I Programme during the period 2012–2014 seems – although not explicitly mentioned – similar to the one for the previous period (2003–2010). The ToR mentioned that the intervention logic of the programme for the period 2012–2014 was redirected. There is now an explicit mentioning of ACP national knowledge

institutions and regional networks to play a greater role in ARD policy processes for policy impact in ACP countries (CTA, 2012¹²). However, the main aspects of the intervention logic for 2012–2014 are similar to those for 2003–2010: reinforcing clearly identified regional and continental ARD policy processes by engaging national, regional and international actors for framing issues and improving implementation to achieve the desired impact.

In order to realise these objectives, CTA organised several activities; many of them were organised and funded jointly with partner organisations and also beneficiary organisations. These funds made available and the human resources spent in order to organise these activities are the **inputs** of the ST&I Programme.

The **outputs** are the realisation of these activities: the conferences and meetings being held and their proceedings, the newsletters, the website, the training courses, the competitions, the case studies, etc.

The **outcomes** are the effect of these outputs on the actors involved – by contributing to, participating in and learning from them. These are the direct beneficiaries of the programme. The **intended outcomes**, following ST&I's intervention logic, is that the ACP scientific and academic communities must be able to inform and influence national policies and programmes (though the policy makers and policy practitioners who are the intermediate beneficiaries of the programme), identify and set priorities and support developmental goals that are needed for addressing the complex challenges of ARD.

The **impacts** are the effects of these outcomes on a wider set of actors and on economy and society in general. In CTA's ST&I Programme we can distinguish between intended impacts for short, medium term and long term.

The short-term intended impacts are that the ACP scientific and academic communities play a greater leadership role in national and regional development, articulate their priorities

to national governments and regions and international bodies. The mid-term intended impacts are an increased investment in knowledge, science, technology and innovation and the long-term intended impacts are the increase of the agricultural performance and economic development in ACP regions.

2.2 Analytical framework for this evaluation

2.2.1 Dimensions of intended outcomes and impacts

The approach adopted by this evaluation of the ST&I Programme distinguishes between four dimensions of the intended outcomes and impacts.

These are:

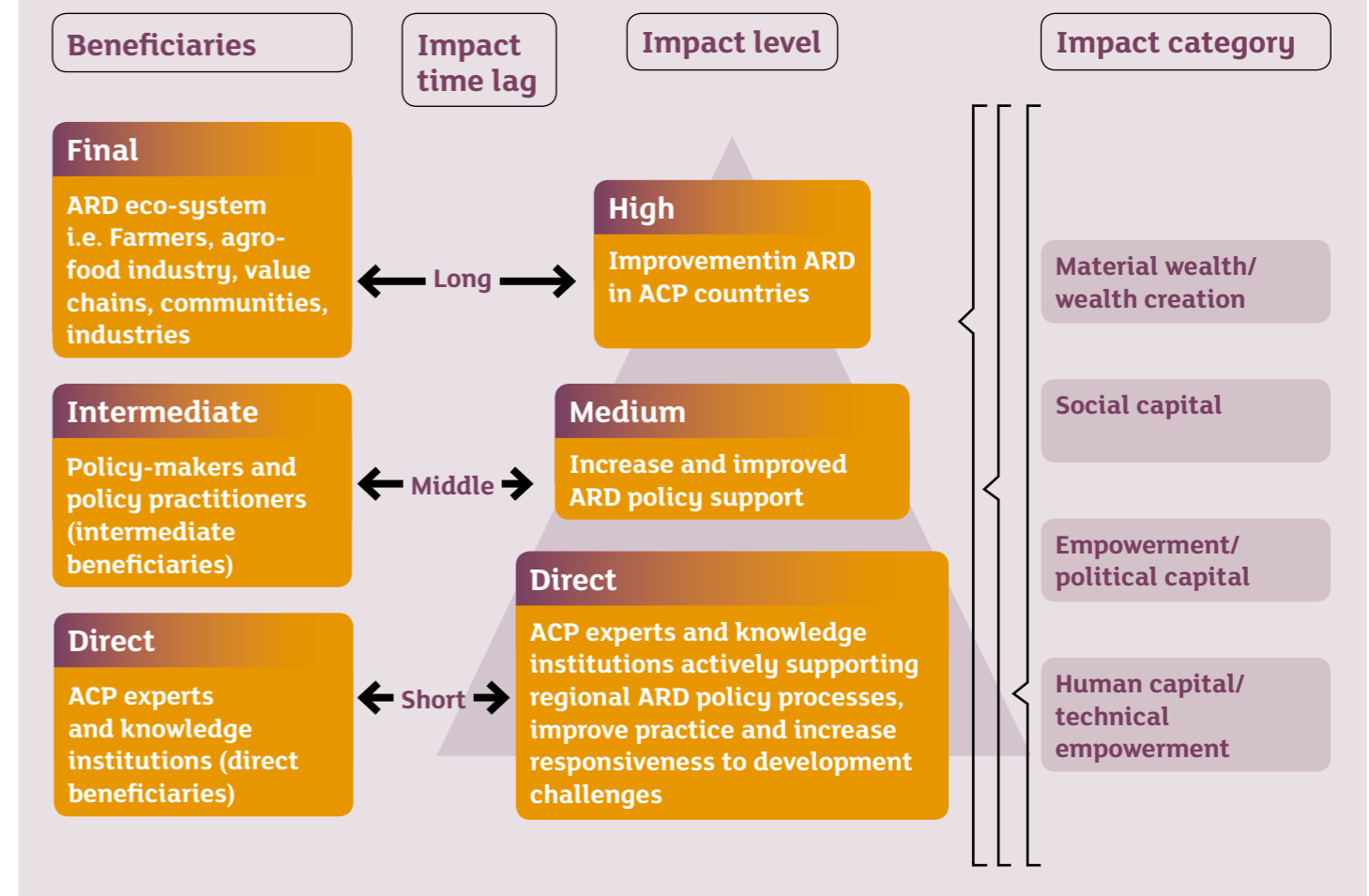
- Type of beneficiaries:** A key distinction is made between direct, intermediate, and final beneficiaries. Direct beneficiaries are organisations directly involved in the ST&I activities, intermediate beneficiaries are generally policy-makers and policy practitioners, and final beneficiaries are members of the ARD community or eco-system as a whole including farmers.
- Impact time lag:** Impacts may appear in the short, medium or long-term. Short-term impacts tend to appear mainly among direct beneficiaries; while long-term impacts are observable among final beneficiaries.
- Impact level:** Direct impacts are mainly measurable among direct beneficiaries, in the short-to-medium term. Medium-to-high-level

impacts tend to appear in the medium-to-long term, and are generally measurable among intermediate and final beneficiaries. The impact level types have been defined by the evaluation team based on the ST&I Strategies Programme objectives (2003–2010) and the impact pathway for the ST&I project activities, developed by CTA in 2013¹³.

- Impact category:** These are defined according to the different types of intended changes of the programme and its individual activities. Our approach takes into consideration four types of impacts, based on the pathways presented in the impact framework that was developed by CTA (as presented on page 8 in the ToR). These four types of categories are used both for intended outcomes of the programme and for intended impacts of the programme. Theoretically, each category of impact can be used to measure short, medium, and long-term impacts; among direct, intermediate and final beneficiaries.

The following figure presents an overview of the ST&I Programme impact analysis framework.

Figure 4 ST&I Programme evaluation impact analysis framework



Source: Technopolis Group

2.2.2 Indicators for intended outcomes and impacts

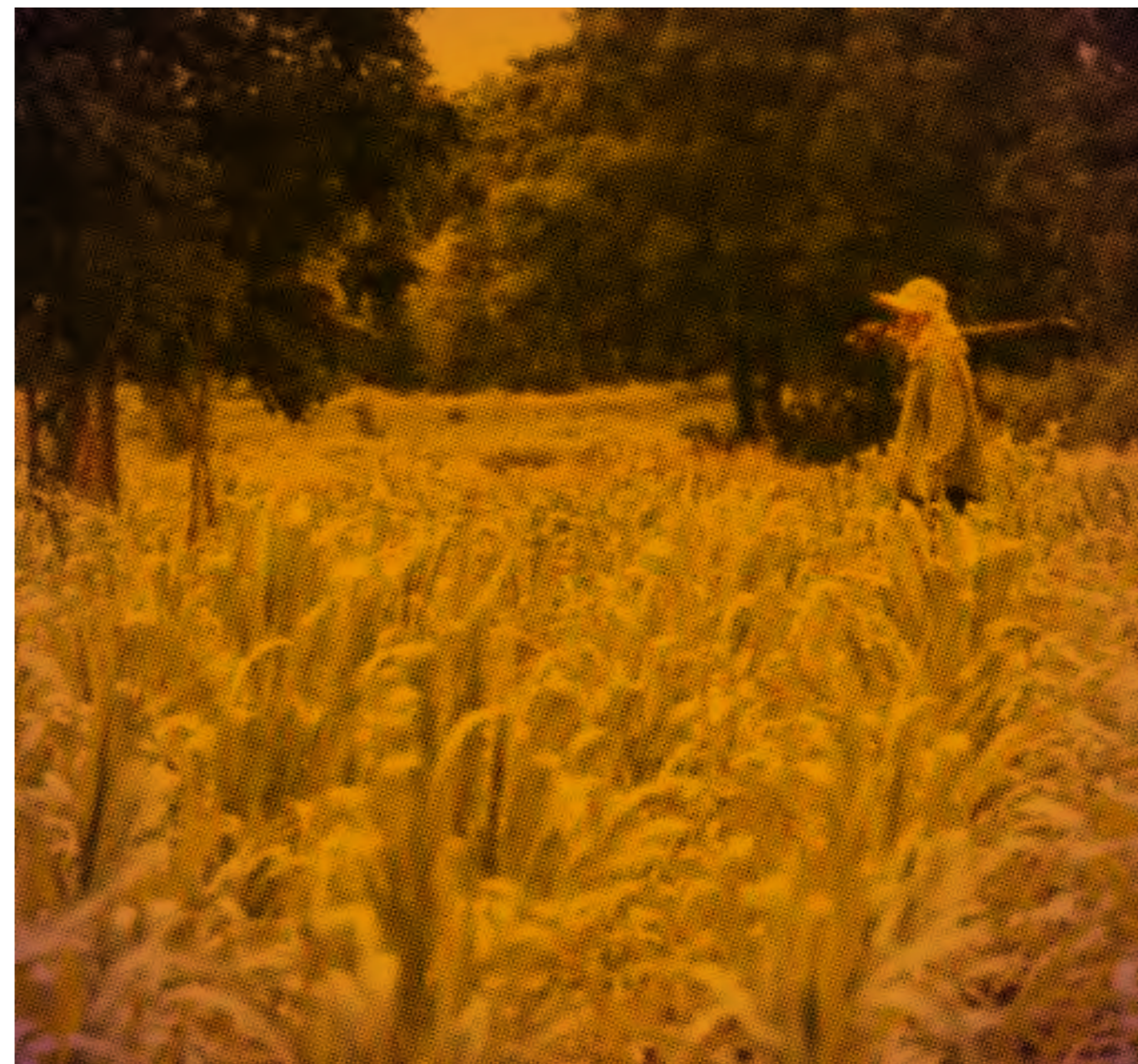
The table below presents the set of indicators for intended outcomes and impacts that are used in this study. They are presented by the type of pathway (impact category) these outcomes and impacts can follow. We did not use all indicators from CTA's impact framework; we only selected those that best matched CTA's ST&I Programme.

We did not include indicators for intended medium and long-term impacts, such as 'better performance in agriculture and rural development' and 'economic growth' as the period for this evaluation is rather limited and it was outside the scope of this evaluation. However, it would also be a difficult task to attribute any changes in agricultural and rural development and economic growth to the intervention of CTA's ST&I Programme.

Figure 5 Indicators for intended outcomes and impacts used in this evaluation

Category of Impact Pathway	Dimensions	Indicators for intended outcomes *	Indicators for intended impacts * (Impact in country or region)
Social capital	Networking	Strengthened ACP-EU ST&I collaboration (C10, C19) Increased collaboration between CTA, its partners and its beneficiaries (S3) Strengthened networks between CTA and its partners and beneficiaries. (C10, C19)	Short term: The interest in the use of participatory methods for ST&I policymaking in the field of agricultural and rural development in your region has increased. (C19)
Empowerment/ political capital	Policy – Decision making	Local ST&I actors are more engaged in agricultural and rural development policy processes. (C10, S3) ACP-EU ST&I joint programmes have been implemented that improve the quality and relevance of ST&I for agricultural and rural development. (C10)	Short term: Increased investments for agricultural and rural development, tertiary education and extension (C10) Higher availability of tertiary education in the field of agricultural research (S3) Increased involvement of organisations in policymaking on ST&I issues in the field of agricultural and rural development. (C19) Increased interest of organisations in ST&I issues in the field of agricultural and rural development. (C19)
Human capital/ technical empowerment	Competencies/ skills development Change in professional discourse	Strengthening of professionals in beneficiaries organisations (C15) Women and youth professionals are more actively participating in ST&I policy and programme processes (C10, C22, C23, C24) Implementation of dialogue and sharing of experiences and best practices among professionals, organisations and networks. (C14)	Short term: Increased debate on ST&I issues in the field of agricultural and rural development. (C19) Increased level of knowledge and skills on ST&I issues in the field of agricultural and rural development. (C19) Increased engagement of women and young scientists in agricultural sciences (S3)
Material wealth/ wealth creation	Resources mobilised		Short term: More funding is being devoted to ST&I in the field of agricultural and rural development. (C19, S3)

Based on CTA's model for pathways. *: The numbers in brackets relate to the questionnaires used in the interviews (C) and the survey (S); see next section.



2.3 Methods of data collection

The methodology to be used for this evaluation, as presented to CTA, was a combination of desk study, interviews with CTA's main Stakeholder Group, consisting of partners and beneficiaries (max. 25 persons) and a survey. However, during the kick-off meeting of the evaluation team co-leaders with CTA, it was decided to also interview a group of persons (max. 12 persons) that have not

been involved in CTA's ST&I activities (non-participants). Additional gathering of data from youth and gender specific issues was also agreed.

The table below presents – by evaluation question – the methods for data collection that have been used. In the next three sections, the interviews with the two groups and the survey are described in more detail.

Figure 6 Cross-tabulation of evaluation question and methods for data collection

OECD DAC criteria	Evaluation questions (based on the ToR)	Methods for data collection		
		Desk study	Inter-views	Survey
Relevance	ST&I programme in line with CTA's vision, mandate and activities?	•	•	
	Complementarity to programmes with other ARD institutions operating in ACP countries?	•		•
	Opportunities for complementary funding of complementary activities by others?	•	•	•
	Emerging ST&I issues (agricultural/rural development) in ACP regions?	•	•	
	Impact of these issues for CTA's ST&I strategies and programme?		•	
Effectiveness	Objectives/priorities of ST&I achieved?	•	•	
	Outputs/services meet needs of intended beneficiaries?		•	•
	Contribution of capacity-building activities to strengthening ACP professionals, organisations, networks?		•	•
	CTA considered as leader or Centre of Excellence in which areas?	•	•	•
	Comparative advantage of ST&I products/ services?	•	•	•
	Effects on empowerment of women and young scientists?	•	•	•
Efficiency	Cost-efficiency of ST&I?	•	•	
	Objectives achieved on time?	•	•	
	Efficiency of ST&I programme in comparison with other programmes?	•	•	
	Efficiency of processes of planning, implementing and monitoring the programme?	•	•	
Impact	What short, medium, long term effects on beneficiaries?		•	•
Sustainability	What if the ST&I Programme stops?		•	•
	What factors for ST&I's success/failure of sustainability?	•	•	•

2.3.1 Interviews with the Stakeholder Group

Based on initial desk studies and the list of evaluation questions, a semi-structured questionnaire (see Appendix C, Section C.1) was prepared in order to gather views from representatives of CTA's main stakeholder groups from the various regions. The draft was shared with CTA and their comments considered.

Questionnaire

The final questionnaire for the main stakeholder groups was composed of four parts:

A. Information about the interviewee (name contact details, organisation).

B. Knowledge of and Involvement in CTA's ST&I Programme (eight questions).

C. Evaluation questions based on OECD DAC Criteria.

This part included five sections.

The nine questions in the "Relevance" section aimed at supporting the examination of the extent to which the ST&I activities are in line with the overall CTA mandate and activities and generate impact in line with strategies and the ST&I Programme as well as being relevant for emerging issues.

The seven questions in the "Effectiveness" section aimed at investigating whether activities have actually achieved the ST&I objectives and if the outputs meet the needs of the beneficiaries. Part of these questions dealt with the intended outcomes (see Figure 5). In the evaluation specific attention was given to Young Scientists and Gender issues. The questionnaire included three questions on these issues.

In order to investigate the "Efficiency" of the ST&I programme one question was included in the questionnaire. Several other questions on efficiency were addressed separately to the ST&I Senior Programme Coordinator.

In order to identify "Impact", two questions were asked to gather respondents' perception of ST&I impact (expected impact).

Finally, interviewees were questioned as to their ideas about the continuation of the ST&I programme (one question) and three questions on Gender and Youth issues.

D. Other aspects and issues.

The indicators for intended outcomes – but also impacts – that we have used, cannot directly be linked to the output of a one specific activity or a set of activities and their direct outputs (also due to attribution problem). We asked each of the interviewees in which types of activities they were involved (Question B3). The interviewees were asked to answer the results question more in general (Question C10). However, some interviewees – especially those who had participated only in one specific activity such as the competition – answered this question in terms of what it had brought them personally. Most others answered in terms of what it brought to the ARD community. These also included persons who had been active in the field for a long period of time; they answered this question in a more general way.

Recruitment of interviewees from the Stakeholder Group

A long list of potential interviewees for the main Stakeholder Group (partners and beneficiaries) was identified with help from CTA. Representatives from the ACP regions as well as Europe/International and gender and youth representatives were identified. From this list a group of 24 persons was short-listed. However, not all persons contacted by the evaluation team replied to the invitation to participate in an interview. Reasons for not receiving a positive reply to the invitation to participate in the interview were mainly not being conversant enough with the ST&I programme. In other cases there was simply no response to e-mails and reminders and even in some cases it proved difficult to contact them by telephone. Several people proposed alternative names; and persons who did not respond were replaced by persons with a similar profile.

The questionnaire was sent by e-mail to the interviewee after confirmation of the date for the interview. The interviewee was asked to answer the questions under Part A as a minimum and return the questionnaire in order to facilitate the interview which was held using Skype or by telephone.

A positive response to participation in this group was received from half of the persons to whom contact was made with the notable exception of representatives from the Pacific. From the Pacific region a positive response was received from only one person. In the end 21 persons of the 42 contacted were interviewed.

The table below presents the numbers of people contacted and the numbers interviewed for each region and interviewee group.

Figure 7 Number of persons contacted and interviewed in the Stakeholder Group

OECD DAC criteria	Number of persons contacted	Number of persons interviewed	
		Female	Male
Africa	12	3	5
Caribbean	8	3	2
Pacific	8	1	0
Europe/International	7	0	4
ACP Farmers Organisations	2	0	1
Gender	1	1	0
Youth	4	0	1
Total	42	8	13

Characteristics of the interviewees from the Stakeholder Group

Most interviewees from the main Stakeholder Group know about several activities of the ST&I Programme (policy dialogue facilitating; information and communication, capacity building) and have been involved in at least one of them. On average the interviewees have been involved in ST&I activities for more than 7.5 years.

A majority of interviewees (14) has been in contact with the ST&I

Programme due to their mandate from their organisation. However, many have, at some time, also been involved as a result of their individual abilities and personal network. Some half of the interviewees have been a member of the Advisory Board/Think Tank at some point in time, whilst about one third have been awarded a grant or been a project partner.

In conclusion the group of interviewees is a fair cross-section of people involved in ST&I Programme activities.

2.3.2 Interviews with Non-participants Group

Interviews with the Non-participants Group were included at the wish of CTA as expressed during the kick-off visit, the idea being that views of a group of people who have not participated in CTA's ST&I Programme can be very helpful for investigating the "counterfactual situation" or what would have been the situation in case there would have been no ST&I programme.

Questionnaire

A short questionnaire, based on the questionnaire for the Stakeholder Group, was prepared and shared with CTA for comments (the questionnaire is included in Appendix C.2).

This questionnaire had three sections:

- Information about the interviewee.
- Knowledge of and Involvement in CTA's ST&I Programme (seven questions).
- Evaluation questions (ten questions, covering all aspects of the evaluation).

Recruitment of interviewees from the Non-participants Group

The project team identified persons from organisations that have not been involved in the ST&I programme, but who are involved in a similar field to CTA. Inputs to the draft list of potential interviewees were received from CTA. The table below presents the numbers of people contacted and the numbers interviewed.

Figure 8 Numbers of persons contacted and interviewed in Non-participant Group

	Number of persons contacted	Number of persons interviewed	
		Female	Male
Africa	3	0	2
Caribbean	3	0	0
Pacific	1	0	0
Europe/International	3	0	2
ACP Farmers Organisations	2	1	1
Gender	1	1	0
Youth	1	1	0
Total	14	3	5

Characteristics of the interviewees from the Non-participants Group
 In general the interviewees know CTA and the ST&I activities. Some have actually been involved in activities such as being a grant recipient or a project

partner. In these activities, most of these interviewees were mandated by their organisation and indeed many consider the ST&I programme to have similar activities to those of their own organisation.

2.3.3 Survey

The goals of the survey were to cross check the outcome of the interviews and to obtain information and views on impact pathways through which the ST&I Programme has contributed to CTAs overall Theory of Change from a wider group of stakeholders. This also included questions on the effects on the young scientist and women. Also using a combination of methods allows cross-fertilisation of results.

Questionnaire

The survey consisted of five main questions (in some cases with a number of sub-questions) of which two allowed for text responses, asking for the strengths of the ST&I Programme and

the aspects of the ST&I Programme that could have been better or than are missing). The other questions had a restricted number of answers. It was designed using the survey tool Survey Monkey (see 0 for the survey questionnaire).

Recruitment of potential survey respondents

Most of the interviewees from the Stakeholder Group and Non-participant Group responded when asked if they would mind inviting relevant persons in their network to participate in a survey on the impacts of CTA's ST&I Programme (Part D of questionnaire). There was a generally fairly positive response to this request and just under half of the interviewees agreed

to forward the link to the survey. In general the respondents from the Europe/International and the Youth groups of stakeholders agreed to support the evaluation in this way. Relatively few representatives from the ACP regions agreed to circulate the survey through their network.

The positive ones forwarded the email with the invitation to participate in the survey that also held the link to the survey, to relevant persons in their networks. A few also provided names and contact details of persons to who the team could send the survey link. In addition, the invitation to participate in the survey and the link to it was distributed to relevant people in the

team's own network and by CTA to the persons that participated in past ST&I events.

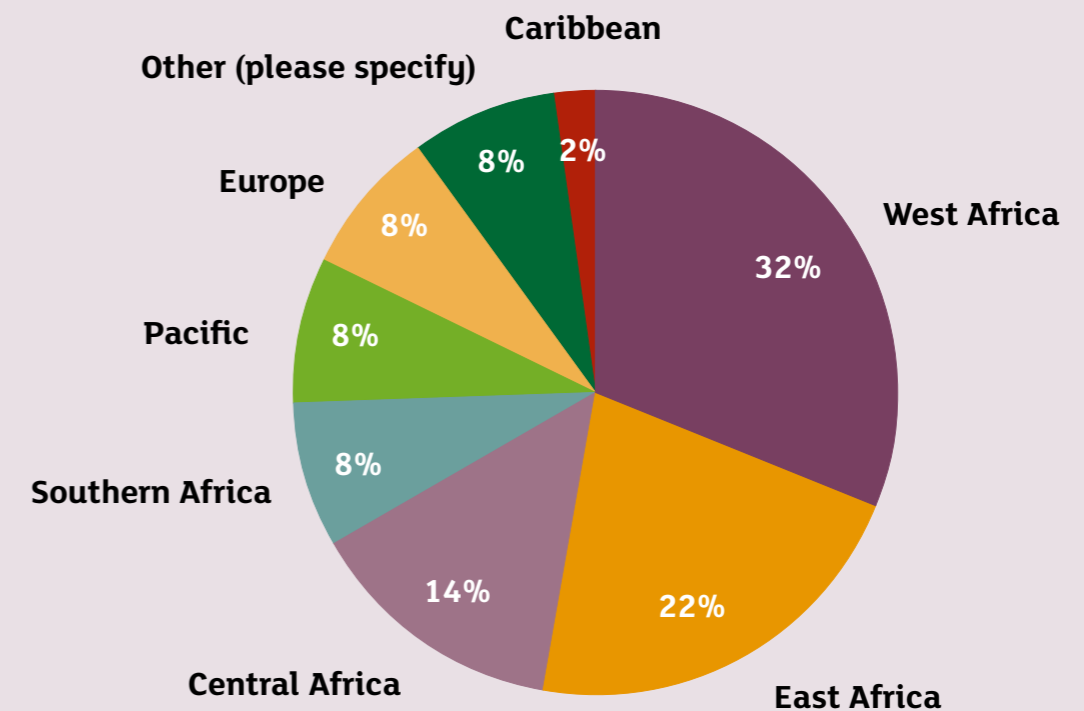
This approach implied that a large group of people could be reached, but it was not possible to gather data on the number of persons to whom the survey was sent. For that reasons it was not possible to know how many people have received the invitation.

Characteristics of the respondents

In total 143 persons responded and answered the questions; not all persons answered all questions. As can be seen from Figure 9, over 50% of the respondents work in East, West or Central Africa and were working in the same region in the period 2009 – 2013.

Figure 9 Respondents' regions of present work

Q: In which region do you work at the moment?
 (N = 93)



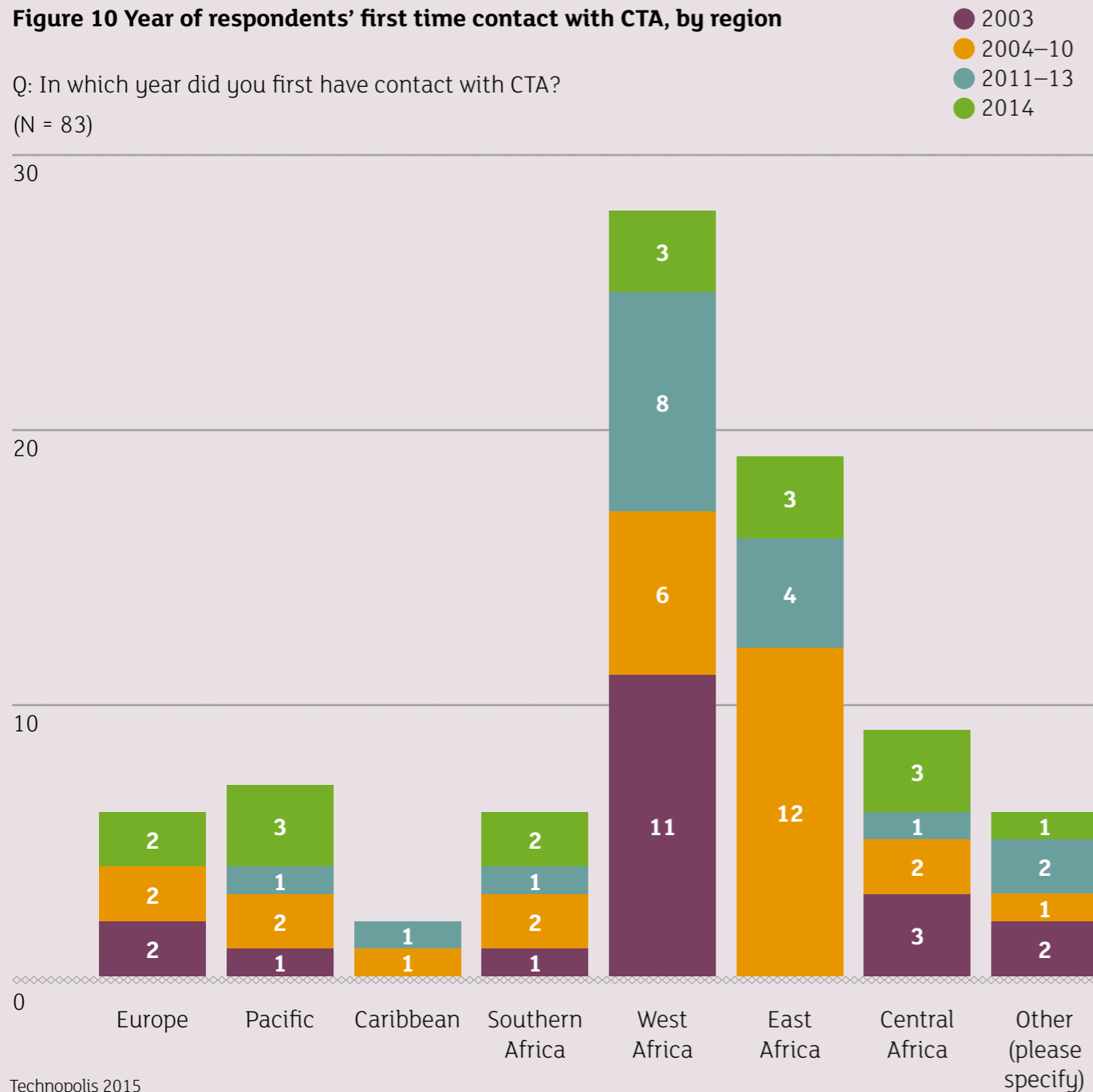
Most of the 93 respondents who provided information about their age are between 30 and 60 years and 75% of all respondents are male and 25% are female. The number of female respondents is rather similar in all regions (3 to 4). The relative number of female respondents is smaller in the West, East and Central African regions as compared to the other ACP regions (South, Pacific, Caribbean) and EU/International organisations.

All 139 persons have answered the first question in the survey on how familiar they are with the ST&I programme: only 16% has no knowledge or direct experience of the programme.

About one quarter of the respondents (N=83, 23%) had contact with CTA for the first time in 2003, and a similar number had their first time contact in 2014. There is no regional difference as to when the respondents had first time contact with CTA (see Figure 10).

Figure 10 Year of respondents' first time contact with CTA, by region

Q: In which year did you first have contact with CTA?
(N = 83)



Over 50% of the respondents indicated that their organisation organises similar activities to the CTA's ST&I Programme. There is not a specific group related to the time they first met CTA that has similar activities as CTA (see Figure 11). Of the 78 respondents that answered the question on the ST&I activities they have been involved in, half indicated

that they attended conferences and meetings for facilitating ST&I policy dialogues. A considerable number was involved in capacity development activities or the Knowledge4Development website. See Figure 12 for an overview.

Figure 11 Respondents' organisations with similar activities to CTA's ST&I Programme

Q: Does your organisation have similar activities like CTA STI?
(N = 81)

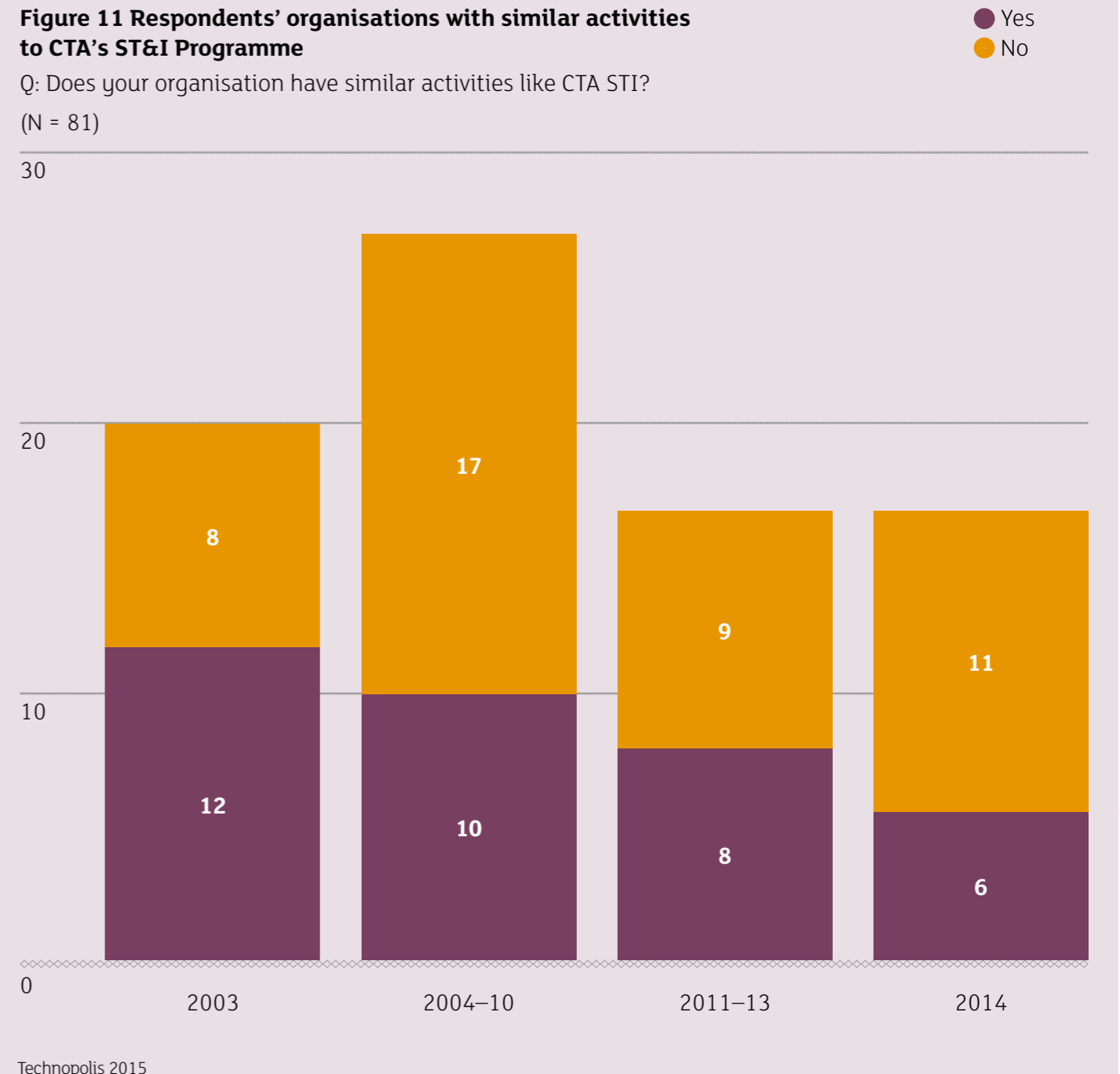
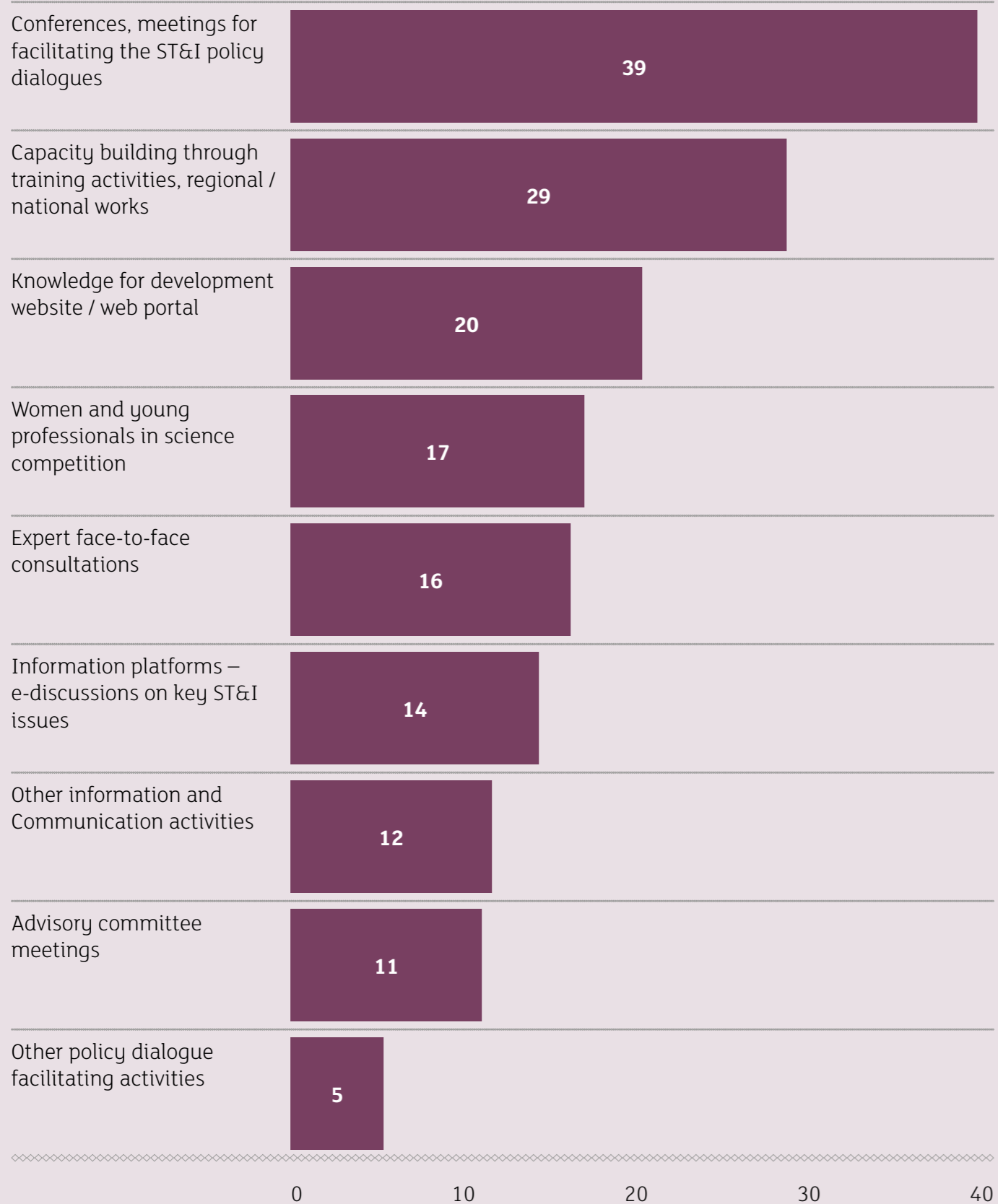


Figure 12 Respondents' involvement in ST&I activities

Q: In which of the following STI activities of CTA have you been involved?

(N = 78)



3. Results of the evaluation

3.1 Introduction

This chapter presents the main results of the evaluation. Its presentation follows the five groups of questions addressed in this evaluation: Relevance (3.2), Effectiveness (3.3), Efficiency (3.4), Impact (3.5) and Sustainability (3.6).

The assessment of the programme's relevance, effectiveness, efficiency and impact has drawn upon several sources of information. To begin with, the findings of previous evaluations of CTA, of the ST&I Strategies Programme, and of specific activities conducted as part of CTA's ST&I activities (such as the evaluation of the Knowledge for Development – K4D – evaluation conducted in 2014) were examined. However, most important, the analysis draws upon the information collected through the interviews with the Stakeholders Group and the Non-participants Group, the on-line survey and the desk study conducted within the framework of this evaluation.

When reading this chapter, it is important to keep in mind that the length of the period covered by this evaluation (2003–2014), the activities and scope of the ST&I Programme, the needs of intended beneficiaries, and especially the objectives of the CTA have undergone changes, making it challenging to issue general statements regarding the programme's relevance, effectiveness and efficiency throughout this entire period. For that reason it is important to consider that the analysis presented in this chapter has been developed within the framework of a constantly evolving policy framework and context. To this extent, the following analysis constitutes a 'meta-assessment' of the ST&I Programme.

3.2 Relevance

Assessing the level of relevance of the ST&I Programme requires analysing its activities, scope and objectives against the needs of intended beneficiaries or target groups (individuals, institutions, and countries) and against the overall strategic objectives of the CTA and its donors.

As such, this section addresses the following evaluation questions:

- Is the ST&I Programme in line with CTA's vision, mandate and activities?
- What is the level of complementarity between the ST&I Programme and other programmes being implemented by ARD institutions in ACP countries?
- What are the opportunities for complementary funding between the ST&I Programme and external programmes?
- What are the emerging ST&I issues (agricultural/rural development) in ACP regions?
- What is the impact of these issues for CTA's ST&I Strategies Programme?
- Do the outputs/services meet the needs of intended beneficiaries?¹⁴

The nature of this evaluation (i.e. length of the time period being considered), as well of the programme being assessed has two important implications on the analysis of the relevance evaluation criteria. It is challenging to produce a single overarching statement regarding the relevance of the programme since the needs it intends to address, the priorities of donors, the strategic objectives of the centre, and the scope of the programme have all evolved over the period covered by the evaluation.

The rest of this section is structured into the following sub-sections:

- The thematic of the scope of the ST&I Programme (3.2.1).
- ST&I Programme relevance vis à vis the needs and challenges of intended beneficiaries (3.2.2).
- ST&I Programme relevance vis à vis CTA strategic objectives (3.2.3).
- ST&I Programme stakeholder views on programme relevance based on CTA mandate and strategy (3.2.4).
- ST&I Programme relevance vis à vis other policy interventions and programmes in the field of agricultural innovation in ACP countries (3.2.5).

3.2.1 The thematic of the scope of the ST&I Programme

There is a general perception among interviewees that the ST&I programme has gradually shifted from the policy advice and dialogue field of action, to a more on-the-ground and hands-on approach through direct interaction with ST&I system operators and stakeholders. In other words, the ST&I Programme has moved from being a capacity developer for policy design and innovation systems building, to a capacity developer for policy implementation and roll-out.

This shift is illustrated by the increasingly wide range of stakeholders the programme engages with, going

from mainly policy-makers and policy practitioners, to a broader number of stakeholders such as higher education institutions, knowledge transfer organisations, farmers associations, etc. Two interviewees mention for example,

"Yes the challenge was moving it from a policy briefing tool to getting action going in the countries. In the beginning it was important for CTA and ST&I to have a presence and image and credibility at the highest level so that governments would take notice. But now there must be some sort of mandate for governments to start taking responsibility and start translating the policy recommendations into actions".

"CTA was first into policy and policy dialogue, then they went into action. It went from the technocrats to the grassroots people".

This shift was welcomed by interviewees, and is seen as a natural and sound evolution of the programme. However, this evolution inevitable raises questions regarding the type of relationship the programme should seek to develop with the remaining pillar of the innovation triple helix: industry and the private sector. Until now, the links between the ST&I Programme and the private sector (i.e. industry, private research organisations, trade associations) appear to be limited. Interaction between the programme and the private sector has mainly taken place through collaboration with farmers associations for example. The recent decision to dissolve the Centre for the Development of Enterprise, a CTA sister organisation aimed at supporting the development of the private sector, increases the need to address questions around whether or not CTA could capitalise on its ST&I experience to strengthen ties with private sector actors, and how.

Several of the emerging ST&I issues in the field of ARD identified by interviewees have also implied developing stronger collaboration in innovation with actors and perform activities which are closer to

the market. Particularly, the development and use of innovative solutions (including technologies) to sustain the development and competitiveness of the agrifood sector, requires involving the private sector as both potential developers and users of these solutions. One interviewee mentioned that,

"The most important issue is that of the use of ICTs to promote innovation in the agrifood sector and to help solve some of the pressing problems faced, particularly those related to climate change".

However, developing closer links with private sector stakeholders, as well as more direct forms of support for innovation, will require a careful analysis of the relevance of such a shift in light of CTA's original mandate.

Some of the additional emerging ST&I issues identified by interviewees include:

- The relation between agriculture, health and nutrition.
- Adapting agriculture to climate change.
- Innovative use of plant genetic resources to tackle climate-related food and nutrition security problems and to tackle nutrition related lifestyle diseases.
- Sustainable intensification & conservation agriculture.

3.2.2 ST&I Programme relevance vis à vis the needs and challenges of intended beneficiaries

There is widespread recognition of the power of transformation that agricultural innovation possesses, in light of some of the most important global challenges (OECD 2009¹⁵). As a result, global public investments in agricultural science, technology, and development have increased significantly over the last two or three decades, rising from US\$16 billion (reported in 1981) to US\$23 billion in 2005 purchasing power parity dollars in

2000 (figures from Beintema and Elliott, 2009¹⁶; 2000 is the latest year for which comparable global data are available). The World Bank alone invested US\$4.9 billion (US\$5.4 billion in real million dollars, 2010 = 100) into agricultural R&D and advisory services over the 20 years from 1990 to 2010. However, this increase is mostly the result of investments carried out by developed countries or a handful of high group developing countries such as Brazil, India or China (Pardey et al., 2006¹⁷).

In spite of this, there is a general consensus around the fact that there is a lack of resources to support the development of agricultural innovation in emerging economies. Public investments in tertiary education, research and innovation, in support of agricultural development are low: most ACP countries don't exceed 1% of total investments and the average for sub-Saharan Africa is particularly low at 0.6%. As a reference, target investment in science and technology development in most OECD countries is 3% of GDP. The public sector is a main contributor and supporter of agricultural innovation, while the participation of the private sector is relatively low. In addition, due to the large share of donor contributions in investments in agricultural research in ACP countries, levels of spending and commitment tend to fluctuate and are not committed on a long-term basis (Andriessse, 2013). The very low commitments by governments and donors to agricultural tertiary education since the early 1990s are still a major concern (World Bank, 2007¹⁸), because they imply that a capacity for innovation is not being sustained (World Bank, 2012¹⁹).

Given this particular context, understanding the various dimensions of innovation and applying innovation concepts to ACP agricultural development is a very relevant policy goal. In addition, supporting the use of ICT for innovation and developing capacities for improved knowledge management is also in line with some of the major challenges ACP countries are currently facing. As a result, the implementation of CTA's ST&I Programme aimed at enhancing agricultural performance and economic development "through increased investments in knowledge, ST&I as an engine of growth" is a relevant policy response.

This finding is in line with the conclusions regarding the relevance of the ST&I Programme reached by the 2011 CTA evaluation (MDF training and consultancy, 2011²⁰). According to the evaluation, due to the lack of resources supporting agriculture, tertiary education, research and S&T-related activities in support of agricultural development in ACP countries, the region does not use S&T effectively, and does not innovate sufficiently to support the transformation of the agricultural and rural sectors. *"The role which science, technology and innovation play in agricultural development in ACP countries, justifies CTA's focus on these fields in one of their core programmes."*

When asked whether the ST&I Programme currently supports relevant ARD priorities in their region, there was a general consensus among respondents stating that it does. According to some interviewees for example,

"(in ACP countries), the discussion on ST&I remains very relevant, because the issue is still very actual; especially for policy makers in the field of R&D in agriculture this is very important".

"the ST&I (programme) has responded well to the priorities (of the region) with advisory services, helping us focus on technological solutions, involving more people in the region on ST&I for agricultural performance".

One of the stakeholders mentioned that:

"The work done by the Advisory Committee and CTA in general was generally relevant to the Bahamas. At the time, we were infants in terms of some of the policy information; so the involvement in CTA allowed us to sensitise our policy makers"

Some of the most frequently cited regional priorities mentioned by the interviewees from the Stakeholder Group are:

- Nutrition.
- Higher Education & Higher Education Institutions.
- Climate change.
- Supporting policy dialogue.
- Agricultural diversification and food safety.
- Evidence for policy-making.
- Youth and gender in agriculture.
- Agricultural value chains.
- Advocating agricultural innovation systems.

These findings are supported by the results of the 2013 ST&I Programme SWOT analysis by Kaufmann (2013). According to the report "the respondents confirmed that the ST&I strategies programme had indeed focussed on important issues, and cite climate change in particular because it affects all countries".

3.2.3 ST&I Programme relevance vis à vis CTA's strategic objectives

According to Article 3 of the Cotonou Agreement (signed in 2000), establishing the mandate for CTA, the centre is called to:

"Strengthen policy and institutional capacity development and information and communication management capacities of ACP agricultural and rural development organizations. It shall assist such organizations in formulating and implementing policies and programmes to reduce poverty, promote sustainable food security preserve the natural

Interestingly, one interviewee from the Stakeholders Group mentioned that one of the most interesting and distinctive traits of the ST&I Programme, and CTA in general, is that they adopt a bottom-up approach to the definition of priority intervention themes. This allows for an important level of flexibility, to adapt the use of the means at hand to the needs of the countries and regions being targeted and supported:

"What we like about CTA is that they don't have priority areas in mind. It is not a top down-approach. Instead, they work with local people to develop priorities. They really are partners, flexible enough to adjust when required. This is what makes it different from the other organisations. They are able to listen to the needs of the local stakeholders. They blend local interests with those of their donors".

In spite of the overall agreement that the ST&I Programme is in line with regional priorities in the field of ARD, one interviewee did express the need for the programme to take into account some ACP structural factors, in the design and implementation of its activities. For example, as in Africa, the literacy rate is still fairly low; this limits the access to some of CTA's tools and information to an important number of end-users.

resource base and thus contribute to building self-reliance in ACP rural and agricultural development."

As described by Francis (2004b)²¹, the creation of the ST&I Strategies Programme is in line with this mandate, and the ambitions set forth by its donor (European Union). The ST&I Strategies Programme was indeed set up with the aim of supporting the establishment and implementation of policies and programmes which were to be "conducive to the pervasive application of science and technology and the promotion of innovation systems in the economic and social

development of ACP states with specific emphasis on agricultural and rural development” (Francis, 2004). In addition, it can be stated that the programme’s initial set of activities (Supporting / facilitating Policy Dialogue on Science and Technology with emphasis on Agriculture, Information Dissemination and Exchange of Experience & Human Resource Development with emphasis on managing the development of technology and science-based innovation systems) are also consistent with this general mandate.

As illustrated also in Figure 2 in Chapter 1 there is coherence between the objectives of the ST&I Strategies Programme, and the two consecutive strategies adopted by CTA between 2001 and 2010. For example, ST&I is identified as one of the key cross cutting thematic priorities for the centre to address by the CTA 2007–2010 strategy. Whilst, it is not unusual for elements of a discontinued programme to be integrated into new projects/programmes, with the adoption of the CTA 2011–2015 strategy, the link between the ST&I activities and the centre’s strategic objectives became less explicit. While, the strategy identifies ST&I as one of the key issues and opportunities in agricultural and rural development on a global scale, it does not define what

3.2.4 ST&I Programme stakeholder views on programme relevance based on CTA mandate and strategy

The interviews with the Stakeholder Group show that ST&I programme partners and beneficiaries have a limited understanding of CTA’s current vision and strategy. A number of interviewees expressed being more familiar with previous programme strategies (2007–2010), compared to the current strategy. This could be explained by the fact that the ST&I Strategies Programme was dissolved with the adoption of the current CTA strategy in 2011, but also because

the centre’s response in that particular field is. ST&I no longer appears amid the programme’s key strategic goals, nor amid the three programmes the centre adopts (Policies and Markets, ICT for rural development, Knowledge management and communication). The CTA 2011–2015 strategy does not explicitly mention the Advisory Committee or ACP/EU think tank on ST&I, or the role it is expected to play in the achievement of the ambitions set forth by the programme.

On a more specific level, there is also evidence that specific components of the ST&I Programme are relevant, given the current needs and challenges faced by ACP countries and the strategic objectives established by CTA. For example, the consultations of the K4D platform evaluation conducted in 2014 indicate that the portal is consistent with the 2011–2015 strategic plan and its three strategic goals related to policy, value chains and building ACP capacity in information, communication and knowledge management (Imani Development, 2014²²). The portal is also described as being relevant to end users who use it as a source of information and in some cases, as a filter by which they access information.

these persons were relatively more involved in CTA’s ST&I activities in the previous period than later on.

Some interviewees indicated being aware of the existence of a CTA strategy, but not recalling the specifics of the strategy. When asked whether they were informed about CTA’s current vision and new strategy, some interviewees indicated that:

“I have seen the document some time ago, but I don’t really remember its details. My last Advisory Committee was in 2010 in Johannesburg and I have not been involved much in CTA’s ST&I activities since then”.

“I have seen it but not internalised it. I have been consulted for its development, but I would say I don’t know it. What I know about CTA is based on the old strategy: food nutrition and security and use of knowledge to focus on the issue”.

“Generally speaking yes, but I cannot describe the current vision or new strategy”.

As a result of this, it was difficult for a number of interviewees to indicate whether the current ST&I Programme is in line with CTA’s mandate or not. However, interviewees indicating they are aware of the current CTA strategy and mandate generally consider it to be in line with the ST&I Programme.

“The programme appears to be congruent with CTA’s mandate. However, like with most programmes, effectiveness will be determined by the specific projects undertaken to give life to those programmes on the ground. The strong focus on policy is important,

however, given the slow pace of policy change in the (region), CTA should perhaps give more attention to the continuous strengthening of innovation systems, particularly through the local development and deployment of appropriate ICT solutions.”

“I know the Strategy for 2011–2015 which deals with policy, value chains and capacity building on ICT’s. I think this is in line with CTA mandate and providing access to information and knowledge, facilitation policy dialogue and strengthening institutional capacity at all levels”.

“The ST&I Programme is in line with CTA especially with the value chains. The ST&I Programme does contribute to supporting value chains”.

Most interviewees indicated that they are more familiar with previous centre strategies (i.e. 2007–2010).

3.2.5 ST&I Programme relevance vis à vis other policy interventions and programmes in the field of agricultural innovation in ACP countries

Ensuring adequate articulation between CTA’s ST&I support activities and those of its partners (national, regional or international); and other organisations active in the same policy field, is a key challenge for the centre and the programme. CTA’s ST&I Programme operates within a context characterised by the presence of multiple actors and policy initiatives, making the risk of overlap high.

CTA has been successful at mitigating this risk by implementing a pro-active partnership strategy, aimed at leveraging local capacities, talent and resources, in order to ensure the production of its expected outputs and outcomes. CTA’s 2011–2015 strategic plan highlights

the importance of partnerships for achieving the centre’s missions by stating *“partnerships with like-minded organisations is central to CTA’s core business of knowledge-sharing, networking and capacity building”*. The importance of CTA partners is illustrated by the fact that until 2010, approximately 40% of the annual operation budget was allocated to activities implemented through partners (CTA Partnership Strategy, 2014²³). By doing so, it has developed a very wide and representative network of partner organisations, working in the ACP country context.

“In the specific area we work in, CTA is working with the right stakeholders. They are working with the Caribbean farmers network for example. They have a good handle on the range of stakeholders in the agricultural sector”.

“CTA works with everybody, they have managed to involve all the relevant stakeholders. All stakeholders are usually involved in activities either as partners or beneficiaries”.

The adoption of a partnership strategy in 2014 will surely contribute to the centre’s capacity to manage this extensive network of partners, and adequately position its role within it.

Available evidence points to the fact that this partnership strategy has been helpful in allowing the centre to generate intended outputs and outcomes, implement its activities more effectively and reach a wider audience of beneficiaries. The centre’s wide network of partners is often regarded as one of its major strengths and distinguishing characteristics (ST&I programme SWOT – 2013 & Independent External Evaluation of CTA – 2011).

When it comes to promoting policy dialogue for example, the 2011 CTA evaluation (Huijsman, J. et al., 2011) states that:

“the forming of alliances, through capacity development in ST&I issues, serves as a vehicle for lobby and advocacy at the partner level, in order to influence research agendas, to mainstream issues in policy agendas (of NEPAD, RUFORUM, FARA etc.), to recommend policies to develop the capacity of women and young professionals in science, and to have partners jointly submit projects to access ACP/EU funding grants for R&D ad ST&I capacity building”.

In addition, the evaluation mentions that:

“the ST&I policy dialogue has been promoted by developing a strong network of ACP and EU partner organisations in ST&I and a multi-disciplinary expert think-tank at a very senior level representing a wide-cross section of interests”.

This partnership strategy has also helped ensuring a high degree of consistency between the actions and objectives of the ST&I Programme, and the actions and objectives of local partner organisations. The interviews conducted as part of this evaluation provided numerous examples of the ways in which the ST&I Programme complemented efforts of other national, regional or international institutions in the field of ARD in ACP regions (beneficiaries/partners & non-beneficiaries/partners).

The evaluation also identified cases of capitalisation of ST&I outputs by other organisations. For example, a representative from the Inter-American Institute for Cooperation on Agriculture (IICA) mentioned using the ASTI tool developed by CTA as part of her work at the Institute.

Reliance for such a wide network of partners for delivery of programme objectives and activities does, however, bring about a number of challenges for CTA and the ST&I Programme. The most important of these is avoiding the overlap of roles and responsibilities of partners within the programme/activity design, implementation, and monitoring and evaluation chain. It is indeed often difficult to clearly assess whether an organisation acts as a partner or beneficiary of the programme or both. In addition, this raises issues in terms of allocation of funding and the capacity of partners to act impartially when financial support on behalf of the programme for them is at stake. The multiplicity and breath of CTA partners also brings about challenges relating to the capacity of the programme to continuously meet the diverse needs and challenges of such a variety of organisations and institutional settings (MDF training and consultancy, 2011).

Despite the existence of a very wide network of the ST&I Programme partners and collaborators, there is recognition of the fact that the programme, and CTA in general, operates in an increasingly crowded policy and geographical space (cf. Judith Francis’ ST&I programme 2004 progress report). This offers both opportunities and challenges for the programme. In terms of opportunities, it means that the ST&I programme can continue to seek to develop synergies with organisations operating in the similar space, allowing to leverage additional external resources to fulfil its objectives, and pool capacities and resources. On the downside, the existence of potential ‘competitors’ does force the ST&I programme to adequately define its value proposition vis à vis partners, beneficiaries and external organisations. According to Francis’ implementation report of the ST&I Strategies Programme (2004), defining *“the added value emanating from the centre’s contribution in a space already populated by institutions with mandates close to or similar to that of CTA”* should be considered as one of the main challenges to the successful implementation of programme.

The UN Food and Agriculture Organization (FAO), was cited on a couple of occasions as a potential competitor of the CTA ST&I Programme (see also the findings of the Independent External Evaluation of CTA conducted by MDF training and consultancy, 2011). However, not only does there appear to be a good level of cooperation between both organisations, but more specifically, the ST&I Programme seems to support specific types of activities which are not generally supported by FAO. According to one interviewee for example,

“FAO has been involved in the issue of food security and nutrition (...) the work of CTA is complimentary to that of other organizations in the region because CTA provides more technical support and funding to build capacities, they are spreading the knowledge around a bit more. FAO is actually inviting consultancies to develop these policies, while CTA is building capacity on a wider level, engaging a wider cross section of people at the institutional level”.

This evaluation has not identified any evidence indicating that the ST&I Programme is in direct competition with another programme or organisation, and that this competition has been detrimental to its capacity to generate intended results²⁴. On the contrary, it appears that the ST&I Programme has been able to forge its own trademark, making it relatively straightforward for partners and beneficiaries to know and describe what is the ‘niche’ it occupies within the broader sphere of ARD international development interventions and initiatives.

“The ST&I Programme because of its strong emphasis on policy and multi-stakeholder processes is complementary to the general thrust of the CARICOM Secretariat to improve policy uptake in the region, particularly the food and nutrition security policy; complementary to the efforts of FAO who is now working to develop a regional policy for small ruminants and of course to (the organisation) – working for the last several years to inform regional policy processes on reducing the impacts of climate change on agriculture”

“CTA’s offer does not compete with main donors. It is flexible and focuses on domains that are not supported (elsewhere). Capacity building is not funded by other institutions. Supporting knowledge sharing is also very rare yet very important”.

“The work done by CTA ST&I Programme and other institutions in the Caribbean has been more complimentary than overlapping. The FAO for example did not do a lot of work on policy awareness and policy briefs, which was the case of the ST&I programme”

In addition, compared to major international multilateral organisations and donors, it is often considered that CTA's relatively small and flexible support programmes are more adapted provide support on a project basis (Francis, 2004).

Interestingly, an interviewee from the Non-participants Group mentioned that the increasingly crowded ARD support policy space should not necessarily be considered as a bad thing. According to him, the needs to develop agricultural innovation systems are so significant in low and middle-income countries that even if two organisations are doing the same thing to support them this will still provide added value. In others, words, the needs are still so important, that overlap of support is not to be a source of concern.

CTA seems to have engaged in efforts to harmonise its strategy and interventions with those of major international donors working in the field of ST&I for ARD. For example, CTA's ST&I Programme Coordinator was involved in the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) and served as a peer reviewer. This World Bank initiative, co-sponsored by FAO, GEF, UNDP, UNEP, UNESCO and WHO – evaluated the relevance, quality and effectiveness of agricultural knowledge, science, and technology (AKST), and the effectiveness of public and private sector policies and institutional arrangements. The results and conclusions of the project were captured in the 2008 report Agriculture at the Crossroads. The final IAASTD report was presented and discussed at the 2008 Annual Meeting of the Advisory Committee on S&T and in follow-up regional dialogues (one each in Africa, the Caribbean and the Pacific) for high level officials from various national and regional S&T/R&D organisations and universities which CTA subsequently convened (Andriessse, 2013).



3.3 Effectiveness

The evaluation of the effectiveness of the ST&I Programme aims to measure the extent to which the programme has attained its objectives. More specifically it addresses the question about the contribution of the capacity building activities to strengthening ACP professionals, organisations and networks.

Analysis of the outputs and intended outcomes of the programme is based on information from the review of the monitoring data provided to the evaluation team, the results of the interviews among the programme's partners and beneficiaries, the results of the survey as well as past

evaluation reports. The results of this part are presented in Section 3.3.1. The programme's results in terms of effects on engaging women scientists and young professional will be described in the Gender and Youth section (3.3.2).

The ToR also holds a specific evaluation question under Effectiveness that deals with the position of CTA and its ST&I Programme; we have addressed this question in a separate section (3.3.3). The chapter closes with a section (3.3.4) in which we present the results of the answers to interview and survey questions on the strengths, weaknesses and challenges of the ST&I Programme.

3.3.1 Programme outputs and intended outcomes

As described in Chapter 1 the programme's activities are organised in three main pillars:

1. Supporting and facilitating the policy dialogue on science and technology.
2. Information Dissemination and Exchange on science and technology.
3. Knowledge development with emphasis on capacity building.

The following three sections analyse the programme's outputs and intended outcomes for each of these pillars

3.3.1.1 Supporting and facilitating the policy dialogue on science and technology

Supporting and facilitating ST&I policy dialogues is an important area of the ST&I Programme. About half of respondents in our survey indicated that they have attended policy dialogue conferences and meetings.

Through policy dialogue facilitation activities CTA's ST&I Programme aims to:

- Facilitate ST&I multi-stakeholder engagement in regional and international ARD policy processes.
- Raise awareness and improve access to information & knowledge on ARD ST&I issues.
- Strengthen the capacity/skills of ACP policy analysts and networks in communication and advocacy on ARD policy issues.

Implemented activities of the ST&I Programme in the field of policy dialogue have mainly included:

- Expert face-to-face consultations for achieving shared understanding on key issues and designing and informing ST&I policies and programmes.
- Conferences and meetings for facilitating the ST&I policy dialogues.
- Annual meetings of the Advisory Committee – ACP/EU think tank providing leadership on key ST&I issues.

These activities have targeted a large set of actors from ACP and EU countries with a strong emphasis on the scientific community. For instance in 2010 CTA organised seven events in the field of policy dialogue facilitation targeting over 200 ACP and EU scientists as direct beneficiaries and over 800 ACP and EU indirect beneficiaries including scientists, policy makers, farmers and other stakeholders²⁵. All these events were organised in collaboration with CTA partners such as FARA, RUFORUM, ANAFE, NEPAD, Rockefeller Foundation, AGRINATURA, CARDI, CCST, University of Nsukka, etc. They have been organised with the help of a pool of international multidisciplinary experts covering a wide range of ST&I issues. Meetings were organised in ACP and EU regions.

Among the interviewed partners and beneficiaries, participants to ST&I policy dialogue activities have highlighted the relevance of the issues selected for discussion. They acknowledge that CTA has a very good understanding of the technology needs in ACP regions and this makes it a very credible actor.

Expert consultations have covered a wide range of topics since 2003 such as biodiversity, biofuels, biotechnology, climate change, dryland agriculture, indigenous knowledge, innovation systems, innovation system performance indicators, livestock & fisheries, nanotechnology, tertiary education, water, etc.²⁶ Interviewed beneficiaries find these consultations very useful to think through strategic issues more in depth with a think tank approach.

The Advisory Committee meetings have a very broad scope and discussions can focus on specific topics but also on methods of funding, knowledge systems, etc. They allow dialogue between regional, national and international organisations through CTA. Interviewed members of the Advisory Committee claim they

appreciate the multi-geographical and multi-expertise dimensions of these meetings, which bring them perspectives on what is happening elsewhere.

Interviewed partners of the programme agree that policy dialogue activities have contributed to raise awareness among policy makers on ARD issues. The effects go beyond the direct beneficiaries attending the events. Members of the Advisory Committee and policy makers participating in conferences and meetings organised through the ST&I Programme claim to disseminate the information to their authorities in their specific regions. They share the information with the objective of following up with actions.

Interviewed partners and beneficiaries consider that the ST&I Programme has achieved keeping ST&I issues alive in the region and engaging more ST&I actors in ARD policy processes. Besides, actors from the scientific community have highlighted the importance of bringing together researchers and academics with policy makers in meetings and conferences organised within the ST&I Programme. They have mentioned that science and policy are still separated and it is important for the scientific community to engage more in policy processes and for policy makers to learn to trust the scientific community and to use inputs from scientists when designing policies. CTA is contributing to the change. CTA has even managed to bring private institutions to the table, companies in logistics and packaging for example.

The table below shows the many ST&I events (and the numbers of participants) that CTA has organised, often in collaboration with regional partners in the period 2011–2014. It shows the scale and diversity of the operations conducted annually with the ST&I budget.

Figure 13 ST&I events and their participants (2011–2014)

Year	CTA events	Participants to these events
2011	<ul style="list-style-type: none"> International Conference and Exhibition on Agricultural Biotechnology in Africa: Fostering Innovation Challenges and Opportunities for Agricultural Intensification of the Humid-Highlands Systems of Sub-Saharan Africa 10th African Crop Science Conference CWA 10: 10th AC Meeting: CTA/CARDI Advisory Committee on ST&I for ARD Innovations in extension and advisory services 	Africa: 345 Caribbean: 27 Europe: 65 Pacific: 10 Others: 57 Unknown: 5
2012	<ul style="list-style-type: none"> Africa-wide women & young professionals in science competitions "Feeding 1 Billion in Africa in a changing world" CaribbeanTales Film Festival (Young Professionals) Global Cassava Partnership Conference (GCP-21-II): Cassava Overcoming the Challenges of Climate Change 2nd Expert Meeting, 3rd Africa-wide women & young professionals in science competitions "Feeding 1 Billion in Africa in a changing world" Policy Planning Workshop CTA/WUR Inception Workshop Increasing food supply and reducing hunger – Linked to CAADP & Caribbean and Pacific FNS Policies "Integrated Seed System Development (ISSD) Africa Programme II" CTA University Nominees Africa CTA/RUFORUM Scientific Writing, Communication and Policy Advocacy Workshop: 3rd Africa-Wide Women and Young Professionals in Science Competitions in conjunction with the 3rd RUFORUM Biennial Conference — 24-28 September 2012, Uganda ACP/EU Think Tank Side Event on "Partnerships for Research, Capacity Building, Innovation and Foresighting: Managing Water for Agriculture and Food in ACP countries". Linked to GCARD II international conference. Pacific-led Expert Meeting "Pacific Islands Regional Universities Network and Science Policy Dialogue: Networking universities and defining a regional science policy framework" Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option – Regional workshop Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option – National workshop 	Africa: 90 Caribbean: 19 Europe: 21 Pacific: 23 Others: 7 Unknown: 86

continued on next page

Year	CTA events	Participants to these events
2013	<ul style="list-style-type: none"> Engaging Universities in Building an Integrated Seed Sector Development Program for Uganda (university seminar ISSD Africa II) Integrated Seed System Development (ISSD) Africa Programme II – Synthesis Workshop Finals of the 3rd Africa-wide Women and Young Professionals in Science Competitions Policy Learning and Planning Workshop/Writeshop: Improving Effectiveness of Extension and Advisory Services Mainstreaming Food Security in Higher Education seminar and workshop Mainstreaming TAE in ARD project – University of Ouagadougou Synthesis Workshop on Mainstreaming Tertiary Education in ARD Policy Processes – Increasing food supply and reducing hunger CWA 12: Follow-up to Value Added Workshop – Jamaica / Launch of Survey Policy learning writeshop (ISSD) in conjunction with the 2nd ASARECA General Assembly and Scientific Conference ISSD Africa II: University Seminar Zambia 	<p>Africa: 154 Caribbean: 7 Europe: 5 Pacific: 26 Others: 5 Unknown: 2</p>
2014	<ul style="list-style-type: none"> PACENET Plus Consortium Meeting CTA/UWI/DEVCO Postharvest Management Strategies Workshop PAEPARD Steering Committee Meeting Caribbean Science and Agriculture Film and Video Competition and Awards – 6-day training Top 20 Innovations – High Level International Expert Panel Meeting CoS Workshop- Converging to Innovate: Towards Effective IAR4D in West and Central Africa: Joint Conference CORAF/WECARD & CoS-SIS CAAST-NET Plus Annual Meeting RUFORUM biennial CTA/RUFORUM/WUR side event: Improving FNS outcomes – What role for Universities? ISHS Council Meeting and IHC2014 Caribbean Science and Agriculture Film and Video Competition and Awards – Finals & Award Ceremony PACENET Plus Think Tank “Improving Food and Nutrition Security Outcomes – What Role for Universities?” Top 20 Innovations – Cross learning, documentation editing and design workshop for top 20 authors/winners & Conference on Agricultural Innovation Systems and sustainable intensification CTA/WUR-CoS-SIS International Forum "Unleashing Science, Technology and Innovation for Food and Nutrition Security" CWA 13: Caribbean Science & Agriculture Film Competition (presented during alliance meeting) 	<p>Africa: 69 Caribbean: 61 Europe: 28 Pacific: 11 Others: 38 Unknown: 56</p>

Inter-organisational collaboration at continental and international levels is also very appreciated by beneficiaries who consider that CTA brings this distinctive opportunity for them to develop North-South and South-South collaborations.

Policy dialogue activities provide a good platform to connect with other regional actors pursuing the same goals and to share experiences and information with actors from other regions in the world and build networks.

Certain ST&I Programme activities have allowed development and reinforcement of the networks and collaboration levels of ACP scientists, partners, beneficiaries and policy-makers and international and EU organisations, as well as of certain ARD stakeholders such as farmers' organisations. The meetings and other activities also allowed brokering relationships outside of the tradition 'knowledge institutions' universe of the ST&I programme. For example some

interviewees highlighted the fact that the network enabled entrepreneurs to seek out farmers and make connections leading to the development of innovative projects in specific value chains (i.e. cocoa and the chocolate industry).

Suggestions made by interviewees:

- Some interviewees have underlined the need to further encourage scientists to link with rural farmers and encourage scientific innovations at the grassroots. They argue that CTA needs to strengthen these links and pursue its efforts to connect research to the productive sectors.
- Despite an increased engagement in ST&I issues on ARD, policy makers need to take action to allow scientific results to be translated into tangible productive instruments. Some interviewees have stressed the need to follow up on actions, to make sure that raising awareness leads to policy action.

3.3.1.2 Information Dissemination and Exchange on science and technology

The ST&I Programme information and communication management activities include:

- The Knowledge for Development Portal that provides information on ST&I issues to support the ST&I policy dialogue and decision making processes.
- The Information Platforms offering e-discussions on key ST&I issues.
- ST&I programme's monthly e-newsletter.
- Social media targeting young scientists.

The monthly e-newsletter has over 4000 subscribers and the programme counts over 700 followers on Twitter²⁷.

CTA is also a large agricultural and rural development publisher for the ACP region

with a catalogue of some 600 titles in English, French, Portuguese and Swahili.²⁸

In 2010 the Knowledge for Development portal counted 284,000 unique visitors from 229 countries and 1938 registered users (Footnote 27). The Knowledge for Development portal²⁹ provides high quality information and cross-country contacts of considerable use to researchers. Interviewed researchers find it also very useful to access information on applications and technologies developed in other countries and other regions.

Besides, the portal is a powerful resource for knowledge development; beneficiaries claim they use it to develop local workshops and lectures, and to transfer highly technical information to farmers presenting it in simple terms that they can understand.

Interviewed partners and beneficiaries have also made some suggestions for improvement of CTA's information and communication management.

- They have highlighted the need to reach small farmers and illiterate users and the need to transform existing knowledge into usable knowledge for these populations. The survey report on the Knowledge for Development newsletter and website produced in 2009 has underlined that the website reaches mainly highly educated Africans (69%). CTA could develop new communication supports for example

post videos that can be uploaded on mobile phones, this could be very helpful to reach illiterate farmers.

- Besides partners in West Africa have mentioned the issue of slow Internet connections, suggesting that CTA also posted information on mobile phones or disseminated USB sticks with key documentation.

The table below provides an overview of the number of ST&I publications over the period 2011–2014 (Appendix F provides the titles of the policy briefs and of the other documents).

Figure 14 Number of publications of CTA's ST&I Programme*

	2011	2012	2013	2014
Policy briefs	1	1	3	2
Web portal	<ul style="list-style-type: none"> • Monthly e-newsletter (12) • RIENet website 	<ul style="list-style-type: none"> • Monthly e-newsletters (12) • Printed news letter : Vol VII (1). 	<ul style="list-style-type: none"> • Six new dossiers/ folders including 12 lead articles • Twelve lead articles for existing dossiers • Knowledge for Development printed – December 2013. Vol VIII. (EN, FR) 	<ul style="list-style-type: none"> • Monthly e-newsletters (12) • Five new dossiers including 10 lead articles • Twelve new lead articles for existing dossiers.
Other documents	7	9	10	16

CTA. * For 2011,2012 and 2013 only most important publications.

3.3.1.3 Knowledge development with emphasis on capacity building

Knowledge development and capacity building activities include:

- Capacity building through training activities and regional/national workshops, for example building ACP capacity on strengthening agricultural, science, technology and innovation (ASTI) systems.

- Development of ASTI national case studies.
- Pilot ASTI system performance indicators.
- Women and Young professionals in science competition.

Capacity building activities targeted institutions and individuals involved in agricultural research and development, science and technology, policy, education

and training, and outreach / diffusion. From 2007 the programme has changed its approach and began to strategically target technical expert with leadership skills who demonstrated willingness to learn and to be trained on understanding, analysing and strengthening ASTI systems in ACP countries.³⁰ The aim was to build a pool of experts from national and regional R&D organisations and universities who could lead future training and facilitate innovation processes.

The ST&I Programme has designed a set of training materials such as regional ASTI and national ToT workshops and ToT manuals. The case studies are implemented by trained scientists following a methodological framework developed by CTA/ UNU-INTEC/Kit in 2005.

During the Science Competitions participants are trained to learn to present their research results, they benefit from training on presentation techniques, communication and advocacy techniques, and fund raising techniques.

The ST&I Programme has been successful in introducing and enhancing the understanding of the ASTI system concept and in bringing the confidence to apply them. Several partner organisations have mentioned that these concepts were new for them and that taking part in CTA's capacity building activities has changed the way they work. It has impacted their strategies and intervention logic.

Interviewed beneficiaries confirm that case studies have produced very rich and informative material. They have been helpful to identify gaps to be addressed and will be useful for future research, and to devise appropriate interventions and policies.

The training material disseminated by the ST&I Programme is very appreciated. Academic partners have mentioned using training material disseminated by CTA in the area of agriculture, food and nutrition

security to prepare their lectures. This material was used for the training of at least two cohorts of postgraduate students in Caribbean region.

Other examples of successful capacity building activities that have met the needs of the beneficiaries:

- Capacity building in ASTI systems has impacted CARDI's approach to engage policy makers and it's approach to research and development. CARDI is now working to better link ST&I and policy, and to better link scientists and policy makers. The organisation has modified its intervention logic to integrate the ASTI instrument.
- CTA has contributed to the modernisation of KALRO's library services. Library staff was trained to document information using computers. According to KALRO this has had a significant impact on the quality of access to information.
- Workshops and training sessions were organised in the Caribbean on Mainstreaming Tertiary Agricultural Education in ACP ARD policy processes with the development of an Auditing Instrument for Food Security in Higher Education (AIFSHE). There are now a number of people who can carry out food and security audits of tertiary level institutions in the area of food and nutrition security at the national and regional level. Moreover the tool can be adapted to access projects and other activities HEIs.

3.3.2 Contribution of CTA's ST&I Programme to empowerment of women and young professionals

The evaluation has paid specific attention for the Young Scientist and Gender issues. Both the questionnaire for the interviewees (C22-C24; C6; see Appendix C) and in the survey (S3) included questions on the intended outcomes of these ST&I Programme activities.

The interviewees from the Stakeholders Group mentioned as the main contribution of the ST&I Programme to the empowerment of youth and women:

- Science competition;
- Capacity building;
- Training;
- Awards;
- Providing role models (mentors during competition);
- Learn from competitors (in science competition);
- Women participating in science conferences.

The effects of these activities (outcomes) on the empowerment of women and young scientists that were mentioned most are:

- It gives them recognition;
- It motivates the beneficiaries to continue work in this field;
- It gives them a larger visibility;
- It enhances their ability to communicate;
- It increases the number of trained women and youth;
- Women and youth have pursued their studies in the areas of agriculture and rural development;
- It challenges more women and youth to become more innovative and to become entrepreneurs;
- There are now more young people and women engaged in rural entrepreneurship.

With respect to the effect specifically on young professionals one interviewee mentioned that the video science competition (in the Caribbean) provided young people with a portal into the agrifood sector, which has largely been opened through the innovative use of ICTs. The competition has been pivotal. Another argued that the science competition empowers its beneficiaries and gives them the confidence to continue: "You are equipping young people".

An interviewee from Africa mentioned that for a considerable number of years, CTA meetings involved youth: e.g. young people gave presentations during the Advisory Committee meetings. His organisation now has a programme in which they want to stimulate young persons to become agricultural entrepreneurs. In this way they hope to change the culture and that young people want to become more entrepreneurial. He mentioned that they took this idea from CTA. CTA started addressing this issue a number of years ago.

A participant in the video competition said it opened his awareness of the possibilities out there, and the possibility of working on food security. He is exploring the feasibility of an enterprise in the agrifood sector (using breadfruit). The next step would be to get support to get it up and running, possibility to do some export. So he realized that there was an opportunity to capitalise on this experience. There have been serious discussions around this project of creating a local agrifood company. They are talking to suppliers, and potential partners, trying to map all the relevant stakeholders.

With respect to effects specifically on women, it was mentioned that ST&I Programme empowered the women that participated. One interviewee mentioned that there is now a greater awareness of the role of women in the economy of the society.

A few interviewees mentioned the main effects in their region of the ST&I Programme activities aimed at women and young professionals. They said that:

- it has led to an increase of women and youth associations at national and regional levels (Africa);
- CTA has raised the debate on women in science and that now more young-people are aware of agriculture as a business and have entered the agribusiness arena;
- they are seeking out careers in agriculture.

In addition, more young people are seeking ways of improving agriculture through the use of ICT. One interviewee also mentioned that because CTA was early with the youth issue, his organisation in Africa learned from this. In their next strategy plan 'Youth entrepreneurship in agriculture' is an issue: youth needs to become more entrepreneurial.

However, a number of interviewees made the remark that it is mainly individuals who have profited from ST&I activities and not so much the region/country in which they are located. The notable exception to this was a response from a sub-regional forum indicating that youth entrepreneurship is now integrated into the organisation's strategy and activities.

One interviewee made the reasonable remark that it is difficult to attribute effects solely to CTA/ST&I activities as the developments that have taken place may also have taken place without their efforts.

In response to the question regarding the way in which gender and youth issues have been addressed leading to specific impacts, respondents replied that the issues have now been targeted specifically in activities and programmes and that award recipients are noted to have been given confidence and recognition in following an agricultural career.

Whilst several respondents in the Non-participants Group do not know enough about the ST&I activities including issues about gender and young professionals to be able to respond to the question, not surprisingly the interviewee from the Young Professionals for Agricultural Development (YPARD) knows about CTA's ST&I activities in connection with young professionals. YPARD does not run courses themselves relevant to young professionals of the type run by CTA and therefore consider the course runs by CTA as being very useful and filling a need which YPARD cannot fill. YPARD and another respondent consider CTA as Youth and ICT in agriculture specialists which is useful, as YPARD does not do much in this area. However, they expressed the need for more targeted information, as they do not have time to keep updated in depth with information. The need for "filtering" information from the well-developed website was expressed by another respondent who likewise does not have enough time to be very active in keeping up to date with CTA activities.

Of the respondents of the Non-participants Group who were able to answer in terms of effects, it was felt that the greatest impact has been in terms of awareness and mobilisation through training, participation in meetings and networking.

3.3.3 Position of CTA and the ST&I Programme

Interviewed partners and beneficiaries (Stakeholders Group) consider CTA to be a leading institution or a Centre of Excellence in the three focus areas (pillars) of the ST&I Programme.

Comparative advantages of the services and products offered by the CTA programme are considered to be:

- Investments in capacity building and knowledge sharing. Only very few organisations invest in these areas and this is very relevant in regions such as Africa where the needs are important. The case study approach was also mentioned as very unique.
- Capacity to bring together actors from the ACP regions and Europe: many

regional organisations implementing similar activities are not able to bring the cross-regional perspective and to have the involvement of Europe. CTA has staff from all over the world that understands the needs of all regions and know how to build North-South collaborations and South-south collaborations.

- CTA is an independent broker/intermediary. This independency is important when bringing people together.

The figure below presents a word cloud illustrating CTA comparative advantages. We have used words extracted from our interview notes answering the question on CTA's comparative advantages:

Figure 15 Word cloud illustrating CTA comparative advantages



Source: Evaluation interviews, 2015.

3.3.4 Strengths, weaknesses and opportunities of the ST&I Programme

The interviewees from the Stakeholder Group and the respondents to the survey were invited to mention perceived aspects of strengths of the ST&I Programme and aspects of where the programme could be better or were missing – weaknesses. The results are summarised below.

Strengths

- Good training including short courses and capacity development;
- ST&I has provided good possibilities of exchange of ideas between scientists and also encouraged and involved young scientists in research;
- Support to publication is found valuable;
- Advisory committee, bringing together experts;
- Connection with regional networks, using national and regional network;
- Knowledge and Information management;
- Capacity building and policy dialogue in STI;
- Good at creating partnerships.

Weaknesses

- ST&I activities cover many countries and could be diluted too much;
- A lack of continuity;
- It is felt that the process of publication is too long;
- Not always clear how the outcomes of policy discussions are used and whether they reach the intended audience;
- Poor follow up to studies;
- The ST&I Programme provided more of a disruption than support;
- The farmers are not anywhere near to reproduce the technology opportunities in the field. The environment around the farmer must be improved to allow the impact.

Opportunities

The interviewees of the Stakeholders Group were asked what CTA's ST&I Programme could do to further support work at the respondents' organisation (C6).

Specific suggestions made were:

- Our organisation should have a stronger collaboration with CTA;
- Co-develop programmes in particular around open access to information and joint programmes addressing needs of women and youth;
- Science competition very useful, especially the training 'Writing for Science';
- CTA could continue support the policy dialogue and the value-chain thinking;
- More training;
- Workshops for farmers on the use of communication technologies;
- Support in fund raising;
- Support youth programme with training workshop;
- Opportunities to collaborate more effectively;
- Capacity building activities;
- Linking with policy makers in Africa and in the EU.

Overall we can observe that few comments are made about policy support, but there were a number of positive comments covering involvement of youth and ICT, involvement of young professionals, knowledge management and capacity development. It would appear that providing a networking mechanism enabling scientist to get in touch with each other has been positively received. Comments elsewhere in this evaluation report may also explain some of the comments above. This is likely to be the case with the evolution of the ST&I Programme and the perceived "Lack of continuity".

3.4 Efficiency

The evaluation questions as presented in the proposal for this evaluation addressed a number of aspects such as cost-efficiency, the timely achievement of the programme's objectives and the efficiency of the processes that are in place to plan, implement and monitor the programme. Evaluating the efficiency of the ST&I Programme in terms of the first two elements (cost effectiveness and timely realisation) proved to be a difficult task because the ST&I Programme turned out to include many different activities and many of these activities were organised together with partners.

This was not foreseen when preparing the proposal for this evaluation. Analysing the cost efficiency and the timely delivery of intended results for each of these activities were not only the responsibility of CTA but also of the other participating organisations and therefore an impossible task to evaluate within the time frame and budget set for this assignment. This also made that a comparison of efficiency of other organisations is unfeasible.

Instead the interviewees of the Stakeholders Group were asked about the efficiency of the ST&I Programme, assuming that they would take into account what they know about similar organisations, should they know them (Question C18). Those that have answered this question (six persons) mostly gave a positive assessment of the programme's efficiency. The answers varied considerably in the way the interviewees approached the efficiency of the programme and this seemed to be very much influenced by the type of activity they had been involved in:

- *"The meetings I attended were organised in a cost-effective way as CTA organised these meetings back-to-back with other meetings in order to save travelling costs, but having maximum people available for meetings. For the trainings I think CTA would normally*

consider the best cost-option but have always been generous in providing the best logistic arrangements they can to participants. For projects I am not sure."

- *"They did a good job with the competition. Their support was OK, as they not only brought us together in the competition, but they also supported us. I am satisfied; I would not ask for more."*
- *"The programmes that I am familiar with were always extremely efficient, meticulously planned and executed, very well organised – the general feedback has always been one of cost effectiveness. It is difficult to imagine how else these programmes could have been delivered so effectively."*
- *"Timewise, when you look at Advisory Committee meetings, it is really very effective. You get value for money, because we had during the 4-5 days always a tight agenda including field visits. These were very intensive learning moments. The week was always busy and interesting. The participants were very active. We travelled economy class, so also cost wise it was efficient."*

Also more general remarks were made on the programme management:

- *"You have to define very clearly what you want to do. That is an indicator of efficiency. CTA does it well; activities and objectives are clear."*
- *"The whole program relied heavily on one (tireless and very committed) person. This is a strength and also a major weakness."*

The interviewees that did not answer the question felt they were not well enough informed about the programme to have an opinion on the efficiency of the programme.

The evaluation of the efficiency of the processes within CTA that are in place to plan, implement and monitor the programme and the feedback

mechanisms in order to incorporate results achieved and lessons learned in future programmes was addressed in the interview with the ST&I Senior Programme Coordinator.

In 2004, the ST&I Senior Programme Coordinator made a Logical Framework Analysis (LFA) of the programme as this was a common activity in the organisation where she worked before she joined CTA in 2003. This LFA described at a very detailed level the objectives, intended results and activities to achieve these and the indicators to measure the performance. CTA did not use such type of analysis and for that reason, it was not continued after 2004.

Instead, annual work plans with budgets are prepared, commented upon, re-written and approved. This applied to the ST&I Strategies Programme (until 2010) and later the three years ST&I project, as it did for all other programmes and projects within CTA. The format that is used for drafting the annual work programme holds many of the elements of a LFA: the project logic/rationale, problems/challenges the project aims to address, overall objective, key activities (with time frame and tools/instruments), beneficiaries, partners, key performance indicators used in the monitoring with expected outputs, outcomes and impacts, funding and implementation. The ST&I Senior Programme Coordinator prepared background papers when submitting the annual work programmes and related project profiles to CTA's finance committee for approval.

According to the Senior Programme Coordinator of the ST&I Programme: *"no differences were observed at the level of the ST&I programme between 2003–2010 and 2011–2014. In fact, 2011–2014 seemed to be business as usual when responding to the 'changing' requirements".*

Each year the ST&I Senior Programme

Coordinator prepared an overview of the achievements (products, services) for inclusion in the CTA annual report. ST&I Programme achievements were presented to account for the previous year's work and justify the next year's indicative programme of work and budget. Reports on unspent balances also indicated the budget expenditure versus commitment; these were monitored at several levels in the organisation including at level of the ST&I Senior Programme Coordinator. During the year, status reports on the ST&I Programme were presented to the CTA management and CTA's finance committee and, in the period 2004–2010, to the members of the Advisory Committee.

A feedback mechanism in terms of what has, has not or has not yet – been achieved in the running year and what can be learned from that for the next year, was part of the annual reporting cycle. At a higher level, the feedback mechanism with respect to what could be learned from the many evaluations of the ST&I Programme (see Section 1.3), the ST&I Senior Programme Coordinator states that all evaluation reports have made little to no impact on determining the next phase of the ST&I Programme. The ST&I Senior Programme Coordinator has monitored and reported on the evolution of partnerships and the centre has continued to leverage them where appropriate.

3.5 Impacts

Assessing the impacts of the ST&I Programme on ARD in ACP countries is not a straightforward task. This mainly stems from the complexity of trying to establish empirical causalities between the implementation of policy dialogue, capacity building and knowledge dissemination activities, and tangible and measurable changes in ARD (i.e. quality of life, economic growth indicators). For example, assessing the effect of a wide scale training programme for policy practitioners, on the level of revenue of individual farmers, would require using complex data collection and analysis methods that are beyond the means of this particular evaluation exercise.

The ST&I Programme has acknowledged this complexity itself, when stating that:

“... due to the complexity and relative opacity of impact pathways regarding policy advice and policy implementation, paired with the equally complex issue of identifying outcome indicators, evidence of the programme’s impact may be extremely difficult to demonstrate and quantify.” (Andriesse, 2013)

As a result of this, previous evaluations and assessments of the ST&I Programme have generated little evidence on the medium and long-term impacts of the programme. The impact analysis of the ST&I Programme conducted as part of the 2011 evaluation of CTA (MDF, 2011) for example states that:

“Partners (individuals and organisations) have benefited from the national, regional, and international exposure and opportunities to learn from each other and developed and expanded strategic partnerships for joint research and programme implementation and accessing additional funding to improve the environment for agricultural innovation”.

As illustrated by this statement, the assessment of impact is limited to the effects generated by the programme at the level of direct beneficiaries (in the studies terminology: expected outcomes), rather than on the ARD sector as a whole. There is no mention of farmers, consumers, sectors, or value chains for example (i.e. the ARD eco-system). Recognising this, the evaluation report goes on to state that:

“Outputs have been evaluated against ‘objectives’ and expected ‘outcomes’ of the (...) the ST&I strategies programme. However, at a higher level, the question remains what the usefulness of this capacity strengthening has been for the ARD sector at large... how have the developed capacities been further employed in the ARD sector and how has this improved ARD and the lives of its primary actors?”

In this evaluation we have structured the presentation of the results of the impact analysis according to the impact levels mentioned in the methodology chapter of this report. Not surprisingly, the lion’s share of the evidence on impact collected through this evaluation relates to the short-term impacts of the ST&I Programme (3.5.1). However, additional efforts have gone into analysis of the medium and long-term impacts of the programme, particularly with regards to the impact on of the programme on youth and gender (3.5.2). The section ends with the results of the survey where short and medium term impacts were measured (3.5.3)

3.5.1 Short-term impacts

The main intended direct impact of the ST&I Programme is to enable “ACP experts and knowledge institutions to support regional ARD policy processes, improve practice and increase responsiveness to development challenges”. The analysis of the extent to which this impact has actually been

generated is structured around the four main categories, at the level of direct beneficiaries of the programme. In other words this section seeks to provide an answer to the following question: To what extent has the ST&I Programme allowed for an increase of social capital, empowerment/political capital, human capital/ technical empowerment and wealth creation of its direct beneficiaries?

3.5.1.1 Social capital

In the current context, the development of networks is considered to be the main driver of social capital development. In this sense, the ST&I Programme has been very successful at allowing beneficiaries and partners to develop their networks of partners, and engage in collaborative practices within these networks. As can be seen in Figure 16 (Section 3.3.3), over 70% of survey respondents indicate that the programme has led to a substantial impact on the level of collaboration between CTA, its partners and its beneficiaries. According to one interviewee for example “The programme has helped to reshape the way collaboration works in our region”. As a matter of fact, the extensive network of partners and collaborators of CTA and its ST&I Programme are widely recognised as one of their outstanding trademarks. According to one interviewee:

“CTA brings to the table a catalytic component which causes people to work together, and also facilitates significant collaboration across ACP. That is not something that you can substitute very easily. Some of the networking that has been developed has been quite transformative... bringing people together, and facilitating cross-learning to look at the major obstacles ACP regions are facing, and come up with solutions at the global scale, that would be the major casualty if the ST&I Programme disappeared.”

The results of the interviews with the Stakeholders Group offer a wealth of tangible examples of collaborations and networks spurred and developed as a direct consequence of the ST&I Programme. The Advisory Committee for example is widely recognised as a forum “allowing for interaction between members and higher education functionaries, setting a basis for collaboration and not competition with partner organisations in the region”. The Committee is also seen a driver for improved South-South cooperation.

The Caribbean Research Innovation and Entrepreneurship Network (RIE Network) is an illustration of the collaboration and network driven activities supported by CTA. The network has not only allowed to conduct an number of capacity building and training sessions, but it has also enabled sharing knowledge and experiences among a large network of agricultural innovation stakeholders in the region (i.e. industry, entrepreneurs, research organisations, government institutions). Through the RIE Network, CTA has supported the development of an agricultural innovation community of practice in the Caribbean region. The dedicated website created for the network was not publicly accessible at the time of this evaluation.

Box 1 The Caribbean Research Innovation and Entrepreneurship Network

The RIE Network (Caribbean Research Innovation and Entrepreneurship Network) launched in 2010 embraces a range of key stakeholders throughout the Caribbean region active in the fields, of science, technology and innovation and the practical implementation of all three to develop progressive entrepreneurial business that advance the region economically and socially. RIE Network is a new initiative and aims to become a virtual community

Source: Knowledge for Development website

of interest that encourages the sharing of experiences, the transfer of 'know how' and the provision of role models for a new generation of entrepreneurs and innovators. There is a real need to bridge the gap between research and development persons and institutions, policy makers and entrepreneurial business persons in the private sector as communications between all three groups have been 'disconnected' for many years.

The new network links that were created during the ST&I meetings, especially the Advisory Committee meetings, had a direct impact at the policy level. For example, the Advisory Committee involved a number of high level policy-makers (directly or indirectly) and representatives from farmer's organisations, and managed to directly channel information into relevant ministries in ACP countries. Other networking activities such as the RIE Network also involved policy-makers, which leads us to assume that information generated and diffused by

means of the network was used as a basis for policy design and management.

CTA has also spurred collaboration between ACP and EU ARD stakeholders. According to one interviewee, as a result of the ST&I Programme "*many more collaborative ACP-EU projects are now on stream that specifically treat with ST&I issues*". The 10th European Development Fund (EDF) project 2012-2015 "*Improving Caribbean food security in the context of climate change*" is one example of a EU-ACP collaborative project that is a spin-off from the CTA ST&I Programme.

3.5.1.2 Empowerment and political capital

The evaluation identified evidence illustrating the impact the ST&I Programme has had on the policy-making process in ACP regions, in the field of ARD.

First of all it has allowed reinforcing the ST&I for ARD policy frameworks in ACP regions, through the introduction of regulatory and policy frameworks. The Caribbean "Science, Technology and Innovation for Sustainable Development Policy Framework" is a clear example of the type of policy development output primarily resulting from the CTA programme. The development of the framework was launched in 2004 through a large stakeholder consultation process, supported by the Caribbean Council for Science and Technology. The overall goal of the exercise was to "develop a policy framework for the Caribbean for the national and regional promotion, application and attainment of excellence in Science, Technology and Innovation for meeting social and economic goals" (CARICOM, 2007³¹). The document was endorsed by CARICOM. CTA provided support throughout the public consultation framework drafting process. "*CTA was very helpful in guiding and mentoring us to get (the policy framework) done, they had more experience that they transferred to us*".

The participatory nature of the Caribbean ST&I policy framework development process illustrates how the ST&I Programme has created spaces for a broader number of stakeholders to become involved in the ST&I policy-making process. The framework is the result of eighteen months of national consultations held on ten Caribbean Islands.

According to survey results, 60% of respondents believe that the ST&I

Programme has had a substantial or high impact on the participatory engagement of scientists in the development of ST&I policy. According to one interviewee, as a result of the ST&I Programme "*less and less policy is written by a few persons in isolation*".

Secondly, the ST&I Programme seems to have favoured the uptake of more participatory methods of working within the organisations they support and partner with. The CTA approach to project development has clearly had an influence on the working methods of these organisation, making them more inclined to taking into consideration the policy implications of their work while opening up projects to external stakeholders. In this way it has influenced and changed the policy-making process, particularly by reinforcing its 'inclusive' dimension. According to one of the interviewed agricultural R&D centre representatives:

"Over the last five years in all of our projects we have included a major stakeholder involvement program, particularly with policymakers. Every year they we have the week of agriculture, that allows to engage with policymakers. We make a presentation to the ministers with recommendations for new and improved policies. We have brought in policy briefs as one of the major tools for our arsenal. To make them sexy for the policy makers we have brought in people who are skilled in taking scientific information and putting it simple terms. That has been a revolutionary approach for us, very different compared to what they did previously".

Finally, the ST&I Programme seems to have played a role in encouraging the update of a ST&I policy paradigm based on the notion of Agricultural Science, Technology and Innovation (ASTI) systems. It has introduced new concepts

and allowed development of a different mind-set in terms of how ST&I policy should be designed and implemented. This has allowed a gradual shift away from the more 'linear' vision of the innovation process and the respective innovation support policies, towards a more holistic concept of innovation as a system.

"The (ASTI) approaches were very new to us at that time. Innovation systems have shifted us away from the linear

way of thinking, towards a model where innovation comes from a number of different places. That really changes the way that we write projects... The whole ASTI approach is one where you cannot simply look at the development at a particular sector (i.e. technological or biological improvement), you have to consider the policy environment that supported or did not support these developments".

3.5.1.3 Human capital and technical empowerment

Some of the examples presented in the previous section also illustrate the impacts of the ST&I Programme on human capital development and technical empowerment (i.e. development of skills in participative project design methods, scientific communication, ASTI approach). It is fair to state that the ST&I Programme has strongly stimulated the debate and discussion around ST&I policy for ARD in ACP countries, particularly by disseminating information and developing knowledge exchange platforms and fora.

The on-line survey results support this: as approximately 80% of respondents consider the programme to have substantially contributed to increasing interest in ST&I for ARD in ACP countries (see Figure 16).

Human capital and technical empowerment have been promoted through a number of capacity building activities: workshops and training courses, advisory committee meetings, knowledge and good practice exchange mechanisms, development of higher education curricula.

Important ST&I Programme activities and outputs that have led to the achievement of this impact category are for example

the Advisory Committee meetings and Auditing Instrument for Food Security in Higher Education (AIFSHE) online tool.

- The Advisory Committee provided very forward thinking on ST&I for ARD approaches leading to the development of enhanced capacities of a select group of ST&I system representatives. The Advisory Committee meetings allowed raising awareness on cutting-edge issues and technologies of direct relevance to ARD in a developing country context (i.e. biotechnologies, climate change, sustainable intensification), at the individual and institutional level.

"CTA is an excellent knowledge broker, has demonstrated leadership in bringing ACP-EU organisations together, has shown remarkable intuition in advancing emerging themes like biotechnology, nanotechnology, foresighting and more recently – addressing post-harvest losses, even before these issues became mainstream. CTA is definitely a centre of excellence in relation to innovation systems thinking, particularly ASTI approaches and methodologies".

- The Auditing Instrument for Food Security in Higher Education (AIFSHE) online tool is another example of an ST&I Programme activity leading to enhanced capacities (institutional and individual) to drive the agricultural ST&I

policy process in the field of food and nutrition security. The tool seeks to strengthen the engagement of Tertiary Agricultural Education institutes (TAEs) in agricultural and rural development policy processes by means of an on-line self-assessment tool. The use of the AIFSHE tool has made it easier for TAEs to depict their situation in their specific context and to set clear ambitions for a tailored transition to a food secure future. One of the users of the tool states that:

"the AIFSHE tool allowed us to test the readiness of the department, to identify the gaps in the curricula, and allowed us to train staff with respect to the use of the instrument... it was very helpful tool to place universities in a position to influence food and nutrition policies".

In the case of this particular TAE, the use of the tool led to the development of a training programme (food and security option in the MS on marketing and agribusiness) that allowed training at least two cohorts of post-graduate students in the area of food and nutrition security policy.

The K4D platform is the cornerstone of the ST&I Programmes' knowledge and information sharing strategy. As presented in the analysis of effectiveness of the programme (see Section 3.3) the platform is a fairly popular tool among ACP ST&I innovation stakeholders, as illustrated by the frequency of visits to

the site. Based on the findings of the evaluation of the K4D platform conducted in 2014 (Imani Development, 2014):

"A high percentage of portal users say that the portals have contributed to change their view or given them new insights (...). Some portal users (...) do share relevant information they gain from the portals with colleagues. Other sites including FAO, Wikipedia and Google Scholar provide links to the portals which indicate at least the influence, if not the impact, of the CTA portals. Some concrete examples were obtained by the team of impacts. However most people draw on many different sources and it is a combination of these that eventually may make a difference in the work that they do."

According to one interviewee:

"In terms of sharing information (the K4D platform) it is very useful. It is from that platform that a lot of the things coming out of the think tank are published. Over the years it has always been a good repository to get information and new information about ACP agriculture".

The programme has also enabled the creation of other new knowledge sharing platforms such as the RIE Network platform. However, the 'innovative' nature of this platform has not been assessed due to the fact that it is not accessible at this point.

3.5.1.4 Material wealth & wealth creation

As opposed to the three previous impact categories, the impact of the ST&I Programme on the availability of financial means to support ST&I policy

for ARD is less explicit. It is worth noting that out of all of the potential impacts of the programme listed in the electronic survey, the increase in funding available for agricultural research comes in last according to respondents.

3.5.2 Medium and long-term impacts

As mentioned in the previous section (3.5.1) assessing the mid and long-term impacts of the ST&I Programme is extremely challenging. As a result, previous evaluations of ST&I Programme have produced very little evidence on the impact of the programme on ARD in ACP countries, in the extended sense of the term.

In the framework of this evaluation, most evidence of impact at this level relates to the involvement of women and youth in ARD (see Section 3.3.2). Whilst youth and gender have certainly been included in ST&I activities with increasing intensity in the period being evaluated, it has not been possible in this evaluation to quantify the degree to which these activities have had an impact on ACP ST&I policy and programme processes.

There is very little or no information available of the impact of the programme on final beneficiaries such as farmers or other agro-food value chain stakeholders; as well as on any macro-level development indicators such as jobs or national product. In spite of this, a number of evaluation findings shed light of on some of the effects the programme has had on policymakers and ARD eco-system stakeholders, outside of the circle of direct beneficiaries.

The ST&I Programme also allowed increasing the general level of awareness of the importance of ST&I for ARD, including among policy-makers. It contributed to embedding science into the policy-making process, by creating links between knowledge and government institutions, and shedding light on the importance of using science as a source of information for evidence-based policy-making. A number of ST&I Programme outputs and activities such as the ST&I policy framework adopted in the Caribbean are a clear illustration of the contributions

made by the programme in this regard. However, it is not clear to what extent the programme led to the introduction of specific pieces of legislation or ST&I support programmes in ACP countries. It is also unclear whether it provided ACP national authorities with more political clout within international fora, allowing accessing of resources destined to support the cause in their respective countries (i.e. international development aid).

The impact of the programme on the capacities and skills of policy makers is also unknown. There is very little or no information available, for example, on the level of participation of this type of stakeholder in ST&I activities e.g. attendance of policy makers at capacity building activities or workshops. The same holds true of the impact of the programme on final beneficiaries, particularly farmers. Whilst participation of farmers' organisations' representatives in Advisory Committee meetings and the use of the K4D platform is evident, this evaluation has not looked for further evidence of any particular skills or capacities being reinforced at the grassroots level as a result of a 'trickling down effect' of the programme. However, during the interviews such evidence was mentioned. For instance the use of the AIFSHE tool as previously mentioned, did lead to the training of students in the field of food and nutrition security. It is believed that most of these students went on to work in public administrations. The evaluations recently done by CTA and its partners in the ACP regions (see Footnote 10) also show that such trickling down to the end-users has been taken place: *"in Malawi the innovation platforms developed by three trainees helped to establish viable local distribution systems for improved varieties of sweet potatoes, cassava and Nerica rice. The platforms were able to engage 45 farmer groups in multiplication of sweet potato vines, 100*

households have adopted Nerica rice, while 150 households took up planting of moringa trees and adopted agro-forestry practices" (CTA and RUFORUM, 2013)

Finally, based on the evidence collected as part of this evaluation, it is impossible to come to a conclusion on the extent to which the ST&I Programme has allowed for increase in the level of funding (public or private) allocated to supporting ST&I policy development. The ACP-EU projects implemented as a result of the ST&I Programme do suggest an increase in investment, but this investment would be fairly modest compared to the overall expenditure on ARD ST&I. In addition,

it is unclear whether the increased interest and awareness in ACP countries generated by the ST&I Programme has been translated into higher expenditure in the field. Even if a link were to be identified between the ST&I Programme and a specific public expenditure, which is not the case for the time being, it would still be plausible to think that this investment would have taken place without the existence of the ST&I Programme.

3.5.3 Impacts on the short-term: results of the survey

The results of the on-line survey conducted as part of the evaluation show first of all that the respondents generally consider that the ST&I Programme has had a substantial impact in a number of pathways. They are in line with the results describes above.

Impact seems to be particularly high in terms of awareness raising and level of interest in ST&I in the field of ARD as well as in terms of network development and collaboration within these networks (i.e. approximately 80% of respondents indicate that the programme has had a substantial or high impact on the increased interest in ST&I topics for ARD). For the remaining indicators, at least 50% of respondents agree that the ST&I Programme has had substantial or high impact on them. The level

of impact of the programme on the availability of funding for agricultural research is somewhat lower compared to other indicators; approximately 40% respondents consider the programme generating impact at this level (Figure 16).

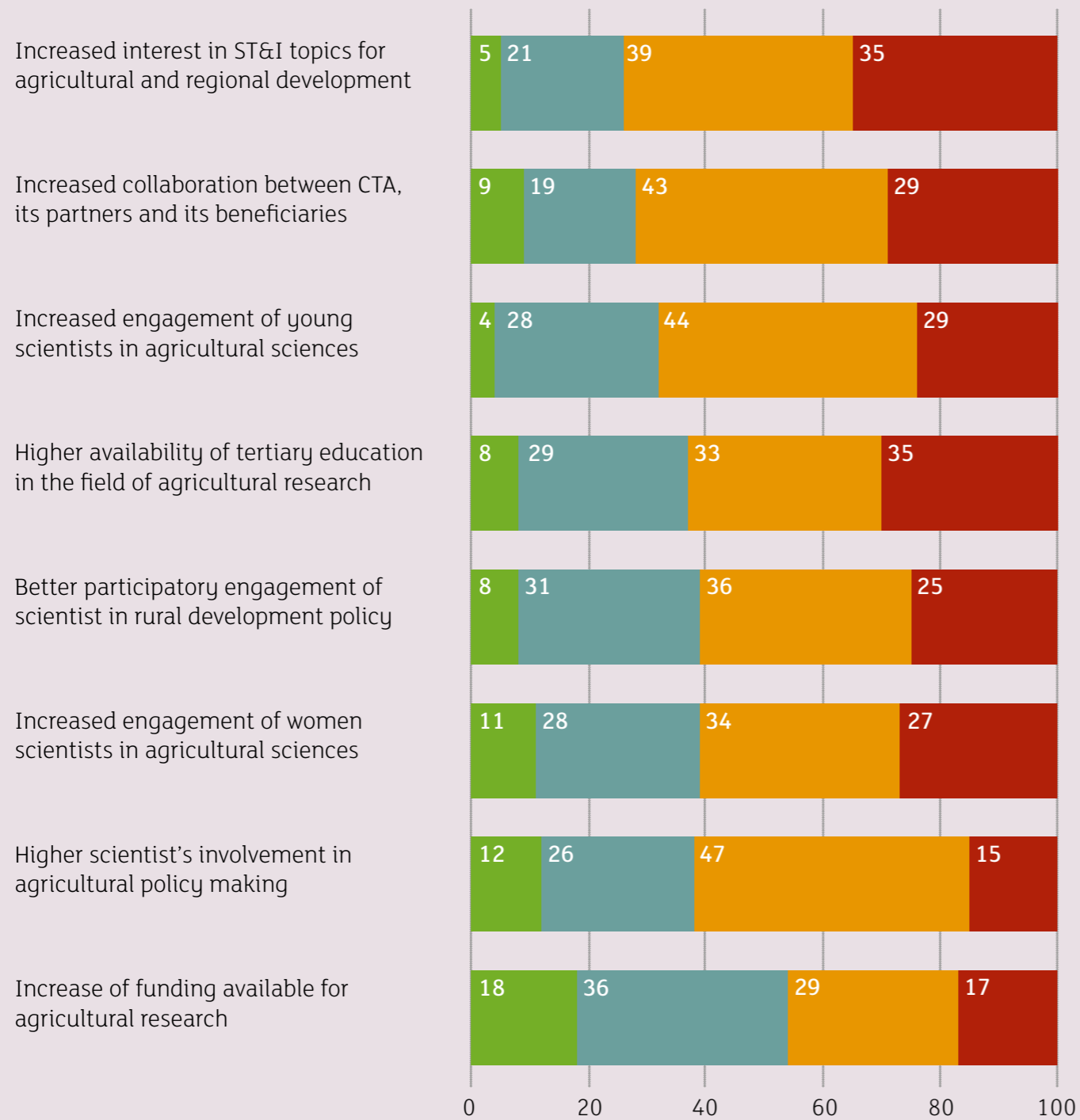
In terms of the programme's activities, training and information sharing/ dissemination activities among agricultural scientists are perceived to have generated the highest impact, according to survey respondents. Networking and collaboration-promotion activities were also frequently cited as high-impact activities. On the other hand, activities aimed at involving agricultural scientists, and particularly female scientists, in policy-making activities, are perceived to have generated a lower level of impact (Figure 17).



Figure 16 Level of impact of the ST&I Programme by indicator: survey results

- Not or very little impact
- Little impact
- Substantial impact
- High Impact

Share of respondents

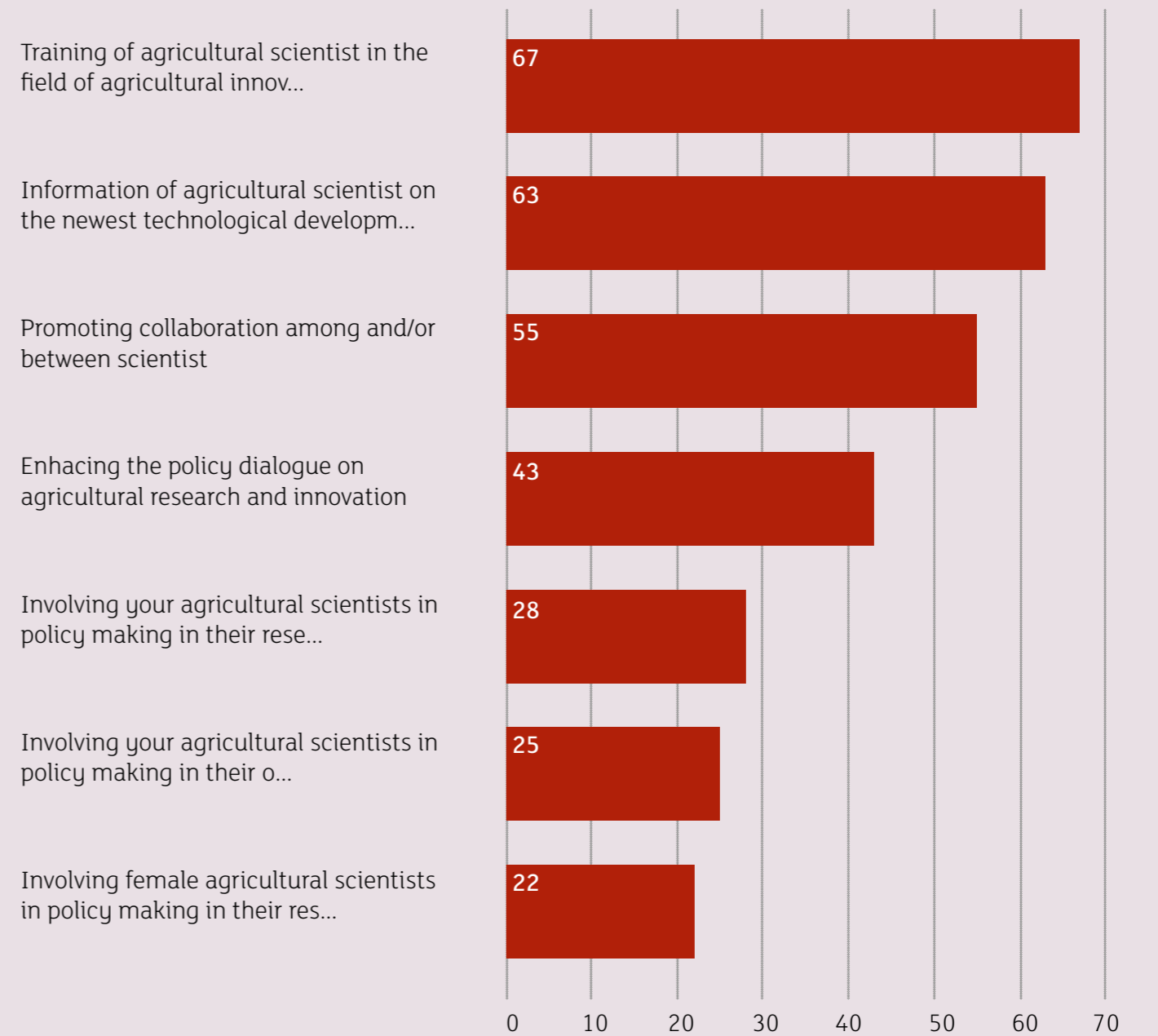


N = 85

To which extent did CTA's STI programme have an impact on the following aspects in your country/region?



Figure 17 ST&I activities and impact generated: survey results



N = 114

Please select three STI activities of CAT that had the most positive impact in your country/region

3.6 Sustainability

Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn.

Partners and beneficiaries of the ST&I Programme were asked during the interviews which benefits from the ST&I Programme are likely to persist should funding cease. The

The benefits most frequently mentioned by the interviewees are:

- the capacities that were built by the programme;
- the networks created;
- the knowledge transferred.

These will be discussed in more detail in the next three sub-sections.

3.6.1 Capacities built by the programme

Through its capacity building activities, the ST&I Programme should obtain long-term sustainable benefits. The programme has put efforts into building a pool of scientists that are able to transfer their knowledge and understanding of innovation processes to a wider circle of stakeholders and lead training activities in their regions.

In addition, CTA encourages all trainees to share what they have learned in their institutions and this seems to be followed up: *"I shared what I have learned with my colleagues and this was highly appreciated by team and by the institute's management"*.

Capacity building is also carried out at the institutional level, and the ST&I Programme ensures that several people in the institution are trained to ensure sustainability of the skills and knowledge within the institution: *"Skills and knowledge you don't unlearn them. For example what has been done for our library service, if the computers break down, we can still replace them all our librarians know how to use them"*.

Capacity strengthening in ASTI approaches is something that is likely to continue as it is being integrated in intervention programmes of several partners and NEPAD has also launched an ASTI programme.

3.6.2 The networks created

The ST&I Programme has contributed to the creation and strengthening of networks at regional level, at ACP level and with the EU. The partners have learned to work together and their relationships are, therefore, likely to persist should funding cease.

Nevertheless, efforts are still necessary to strengthen collaboration between academics/researchers, policymakers and the private sector.

Another risk would be the loss of CTA in its role as an independent broker providing

a catalytic component and allowing people from different backgrounds and different regions to work together. CTA's ST&I Programme brought a significant contribution in allowing collaboration across ACP regions. This cannot be substituted easily as no other actor in the field of ARD intervenes at ACP level. Yet this is very valuable for the programme partners who claim they have benefitted highly from cross-regional learning and coming up with solutions at the global scale.

3.6.3 The knowledge transferred

The information function of the Knowledge4Development website is very important as it allows access to a large number of beneficiaries.

Nevertheless the portal requires an important amount of work and has considerable running costs and its benefits would not persist without the funding for its maintenance.

3.6.4 Quality of the human resources dedicated to the programme

Beyond the issue of the funding, several stakeholders have mentioned the importance of the quality of the staff working on the ST&I Programme, in particular the competencies and involvement of the ST&I Senior

Programme Coordinator at CTA. Such competencies and commitment have been success factors of the programme in the past and might be a condition for its continuity and sustainability. Nevertheless relying on one person may be considered a weakness.



4. Overall conclusions and recommendations

In this chapter the overall conclusions of the evaluation of the ST&I Programme are presented following the evaluation framework with the OECD DAC Criteria Relevance, Effectiveness, Efficiency, Impact and Sustainability (Sections

4.1 – 4.5) using the impact pathways for analysing the mid and long-term impacts of the programme. In Section 4.6 the recommendations are presented and in Section 4.7 the limitations of the study.

4.1 Relevance

CTA's ambition to develop ACP country capacity to understand and strengthen agricultural science, technology and innovation systems is consistent with the challenge of promoting agricultural innovation as a driver for economic, social and environmental growth and sustainability. This ambition is also a direct answer to the lack of public and private investment in agricultural innovation including in ACP.

The ST&I Programme also appears to be in line with the specific needs expressed by partners and beneficiaries (at the institutional, country and regional level). The same applies to specific country needs identified by interviewed stakeholders, as well as to the relevance of specific activities implemented as part of the ST&I Programme.

One of the main assets of the programme is its capacity to adapt activities and available means to the specific needs of target groups and beneficiaries through a bottom-up approach to agenda/priority setting. At a more specific level, there is also evidence that specific components of the ST&I Programme are relevant, given the current needs and challenges faced by ACP countries and the strategic objectives established by CTA. This includes, for example, the K4D portal.

Activities and objectives of the ST&I Strategies Programme (2003–2010) are fully in line with CTA's mandate. The objectives of this programme and the strategic ambitions set forth by the programme for the period 2003–2010 were also suited to the expectations of donors. However, with the adoption of

CTA's 2011–2015 strategy, the role which ST&I is meant to play in fulfilling the strategic objectives of the centre, is much less explicit. There is a lack of awareness of CTA's current strategy and objectives among the interviewees from the Stakeholder Group. As a result, it seems that there is a lack of understanding among partners and beneficiaries of how and where ST&I is positioned among the centres' broader on-going strategic ambitions.

CTA and its ST&I Programme operate within an increasingly crowded policy and geographical space. The ST&I Programme has shifted its focus from providing support to policy framework development, to a focus on developing capacities of a wider number of agricultural innovation system stakeholders. This has implied developing more direct forms of collaboration with actors such as higher education institutions, farmers associations, knowledge exchange organisations; at the grassroots level. The evaluation has

not identified any evidence pointing to the existence of overlaps between the ST&I Programme and other donors/organisations, which are detrimental to CTA's efforts to promote ST&I for ARD in ACP countries. Not only does CTA occupy a particular 'niche' in the field of ARD ST&I due to its size and flexibility, but it has also taken steps to ensure its activities are coherent with those of other major international organisations and donors. In spite of this, the risk of overlap between the support provided through the ST&I Programme and that of other regional and international organisations will continue to represent a challenge for CTA, which needs to be addressed by current and future CTA strategies. The CTA partnership strategy has contributed to the centre's efforts to reduce this risk, by aligning activities/objectives between the centre and its partners. It has also successfully allowed leveraging local networks and capacities to advance the centre's objectives.



4.2 Effectiveness

The ST&I Programme has been effective in supporting and facilitating policy dialogue and beneficiaries consider CTA to be a credible actor due to the relevance of issues selected for discussion and their sound understanding of the technology needs in ACP regions. Policy dialogue activities have contributed to raise awareness among policy makers on ARD issues. CTA is contributing to engaging the scientific community more in policy processes and for policy makers to learn to trust the scientific community and to use inputs from scientists when designing policies. CTA are also effective in developing and reinforcing a range of networks.

CTA's ST&I Programme has developed a wealth of information. The Knowledge 4 Development portal is an effective means of providing high quality information and cross-country contacts of considerable use to researchers. Capacity building by various means aims to build a pool of experts from national and regional R&D organisations and universities who could lead future training and facilitate innovation processes. The ST&I Programme has been successful in introducing and enhancing the understanding of the ASTI system

concept. Training and training material disseminated by the ST&I Programme is much appreciated; however, there is a need to reach small illiterate farmers.

The main conclusion from investigating the youth and gender activities and their outcomes is that the ST&I activities have increased awareness of youth and gender issues. CTA is seen as a 'Youth and ICT in agriculture' specialist. Nevertheless it was also concluded that there is the need for more targeted information about gender and youth.

In general interviewees consider CTA to be a leading institution or a Centre of Excellence in the three focus areas (pillars) of the ST&I Programme with a comparative advantage especially in capacity building and knowledge sharing, but also bringing actors together from Europe and the ACP regions. Several strengths and weaknesses of CTA's ST&I programme were mentioned. Interviewees saw future opportunities for the programme in Youth and ICT, involvement of young professionals, knowledge management and capacity development. Only few comments were made by interviewees about policy support.

4.3 Efficiency

The interviewees have the impression that the ST&I Programme activities are organised in an efficient way. CTA's activities are always communicated in a clear way. There is some criticism of the management of the programme as this rests on the shoulders of only one person; this is not without risk.

From the interviews with Stakeholders Group and the ST&I Senior Programme

Coordinator it can be concluded that the efficiency of the ST&I Programme is at an acceptable level. CTA has mechanisms in place for planning and monitoring of its annual activities and the reporting of its results. This facilitates an efficient way of working, and CTA can justify the spending of the funds it receives from its funder.

4.4 Impact

The ST&I Programme has been very successful in the creation of Social Capital, especially in allowing beneficiaries and partners to develop their networks of partners, and engage in collaborative practices within these networks. The impact of the programme on the development of Empowerment/ Political Capital appears to be three-fold. First of all it has allowed for reinforcing ST&I for ARD policy frameworks in ACP regions, through the introduction of regulatory and policy frameworks. Also it has influenced and changed the policy-making process, particularly by reinforcing its 'inclusive' dimension. Finally it has injected new concepts and allowed development of a different mind-set in terms of how ST&I policy should be designed and implemented. This has been made possible through ST&I activities aimed at human capital development / technical empowerment (i.e. development of skills in participative project design methods, scientific communication and the ASTI approach). The impact of the ST&I Programme on the availability of financial means to support ST&I policy for ARD is less evident. Also there is very little or no information available about the impact of the programme on end users such as farmers or other agro-food value chain

stakeholders; as well as on any macro-level development indicators such as jobs or national product.

Survey results show that in terms of the programme's activities, training and information sharing/dissemination activities among agricultural scientists are perceived to have generated the highest impact, followed by networking and collaboration-promotion activities. Activities aimed at involving agricultural scientists, and particularly female scientists, in policy-making activities, are perceived as to have the lowest impact. This may be explained by CTA being innovative in their approach and activities and there is a time-lag until perceptions of involving scientists in policy matters are changed.

It is not possible to come to a conclusion on the extent to which the ST&I Programme has allowed for increase in the level of funding (public or private) allocated to supporting ST&I policy development. Also it cannot be concluded whether the increased interest and awareness in ACP countries generated by the ST&I Programme has led to higher expenditures in ARD research and innovation.

4.5 Sustainability

The benefits of the ST&I Programme that would sustain are mostly the capabilities that have been built. A pool of scientists has been educated and trained to transfer their knowledge and understanding of innovation processes to a wider circle of stakeholders, they now lead training activities in their regions. Second are the networks that have been created. The partners have learned to work together

and their relationships are, therefore, still likely to persist even though funding ceases. The information function of the Knowledge4Development website is perceived as very important; it allows access by a large number of beneficiaries. However, the interviewees are very well aware of the fact that the website would not persist without the funding for its maintenance.

4.6 Recommendations

The following recommendations are made with a view to helping CTA exploit the most valuable assets in the ST&I Programme in the future through this learning exercise.

The evaluation shows that **a number of ST&I activities are highly valued**. This especially applies for knowledge sharing and activities concerning young professionals, particularly those related to ICT. For this reason it is recommended to:

- Assess possibilities of sourcing stable funding for K4D.
- Build on training and information sharing/dissemination activities among agricultural scientists as well as maintaining networks.
- Build on successful activities with youth and ICT.

The **impact of the ST&I Programme** on policy-making needs to be further improved.

For that reason it is recommended to:

- Work more with empowerment in connection with influencing policy.
- Focus work on key countries in order to improve the chance of activities having a larger impact on ARD policy making.

CTA's strategy to work in partnerships with other organisations in ARD development for ACP regions has been very successful. In order to continue this strategy the following recommendations could be of help **to sustain its success in the future**:

- In light of some of the key emerging ST&I issues in ACP countries and recent institutional shifts (i.e. dissolution of the CDE), CTA needs to re-think if and how it wishes to engage with private sector stakeholders to as part of its mission to support ST&I for ARD.
- Continue efforts on issues built into the centre's gender and partnership strategies.

- Increase the awareness of CTA's ST&I activities in Europe with a view to strengthening partnerships with likeminded or complementary organisations.

It is not unusual for elements of a discontinued programme to be integrated into new projects/ programmes. This is being done in the current situation, but is **not clear for outsiders and can be improved**. For that reason it is recommended to:

- Improve the clarity of organisational structure and communicate this for improved understanding by partners and beneficiaries.

As ST&I activities within the centre's organisation structure is **not very visible** and basically relies on one member of staff, it is recommended to:

- Reduce the vulnerability of the management of CTA's ST&I activities to possible staff changes and strengthen the institutional memory by improving the integration of ST&I competencies and experience into the CTA team.

For future evaluations of CTA's ST&I activities it is important to have **all relevant data on performance indicators** easily available. For this it is recommended that:

- CTA's format of the 'Project profile and Review Form' lists the indicators (for output, outcome and impact) based on the OECD DAC criteria and impact pathways and that project coordinators report on the performance of these indicators in the annual reporting.
- The forms have an Excel (or similar) format so that extraction of data collection can be rather straightforward. These data are important input for the evaluation of the individual projects and the programme (a specific group of projects).

4.7 Limitations to the evaluation

We close this chapter with few comments on the limitations of this evaluation, which have complicated coming to a coherent and balanced analysis of the ST&I Programme.

The first limitation deals with the evolution of ST&I activities during the period 2003–2014 from being a well-defined programme and group of activities (ST&I Strategies Programme implemented in 2003), to a more diffuse set of activities providing cross-cutting support to different components of CTA's current strategy (2011–2015) and the fact that this was not very well communicated to and known by actors outside CTA. This was an issue in the evaluation (see also Chapter 4.6), but not for the interviewees and the survey respondents. They were not aware of the break in 2011, when the ST&I Strategies programme that was supported by the CTA Strategy stopped, the new CTA Strategy Plan started and a number of ST&I activities continued but were now organised in a three years project under the PMI unit. Hardly any interviewees know about the specific status of the ST&I activities (programme, project) within CTA.

This implied that we could not communicate with interviewees and survey respondents about 'the programme' as a well-known and described item. Instead we had to go to

the level of ST&I activities that CTA had organised. This proved to be a rather large number of various types of ST&I activities, many of which were organised jointly with a number of different partners. The interviewees knew about the activities they had participated in and some about other ST&I activities. This means our conclusions on the programme are formulated on the basis of interviews with a limited number of persons that know and have participated in a few ST&I activities for a certain period of time. With this comes the limitation that from the group of interviewees, we have not been able to interview sufficient persons from the Pacific in the Stakeholders Group and from the Pacific and Caribbean in the Non-participants Group. Also these regions were not very well represented in the groups of survey respondents

The last limitation deals with the fact that the activities and scope of the programme, the needs of intended beneficiaries, and overarching objectives of the CTA have undergone changes since 2003, making it challenging to produce general statements regarding the programme throughout this entire period. While the programme developed within a constantly evolving policy framework and context, such nuances could not be caught in the analysis that is presented in this report.

Annex

Appendix A

Terms of Reference

Independent external evaluation of CTA's Science, Technology and Innovation (ST&I) Programme

1. Introduction

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement. Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management in ACP countries. It provides access to information and knowledge, facilitates policy dialogue and strengthens the capacity of agricultural and rural development institutions and communities.

CTA's results-oriented strategic plan covering the period 2011 – 2015³² sets the Centre three strategic goals:

- Enhanced agricultural policy processes and strategies that involve and empower everyone engaged in the food chain, especially smallholder producers, women and youth;

- Enhanced agricultural value chains for the benefit of small-scale producers;
- Enhanced ACP countries and institutions to gather, use and communicate information, enabling them to promote policies, innovations and efficient business models that benefit rural communities.

CTA pursues these goals through two programmes -- Policies, Markets and ICTs (PMI) and Knowledge Management and Communication (KMC) and a unit responsible for promoting organisational learning-- the Learning, Monitoring and Evaluation (LME) Unit.

CTA's Management is commissioning an independent, comprehensive and forward-looking strategic evaluation of the Centre's "ST&I programme"³³. The LME Unit will manage this evaluation in close collaboration with the PMI programme.

2. Background to the ST&I Programme

2.1 Structure and Current Status of the ST&I programme

The ST&I programme was one of two thematic programmes at CTA³⁴ established in 2003. With the introduction of a new organisational structure in 2011 and the consolidation of the Centre's programmes into 5 master projects in 2013, the ST&I programme and related activities were subsumed under master project (MP) 1 -- : Strengthening the CAADP and related ARD Policy Processes (Africa and Intra-ACP)³⁵. A new project re-classification in 2013, has led to the further sub-division of MP1 into three sub-projects, with the ST&I programme

now falling within the "Supporting policy coherence and implementation for improved food and nutrition security" sub-project.

The main activities of the ST&I programme include, expert consultations, support for studies and developing methodologies; publications and disseminating of findings and lessons through conferences/workshops as well as the Knowledge for Development (K4D) website. An average of ~ Euros 800,000 was spent annually on the ST&I programme from 2003 – 2013.

2.2 Strategic orientations (2003 – 2013)

The ST&I Strategies Programme was launched in November 2003. The overall objective of the Programme was to enhance ACP agricultural performance and economic development through increased investments in knowledge, ST&I as an engine of growth. The idea underlying the programme was that the ACP scientific and academic communities must be able to inform and influence national policies and programmes, identify and set priorities and support developmental goals that are needed for addressing the complex challenges of ARD. In order to do this effectively, the ACP scientific and academic communities must play a greater leadership role in national and regional development, articulate their priorities to national governments and regions and international bodies and contribute to the current global change and reform processes. Agreement was reached with ACP stakeholders for the programme to focus on three main pillars:

- Pillar 1: Facilitating/advancing the ST&I policy dialogue;
- Pillar 2: Information management

and communication (ICM) on key and emerging ST&I issues through the web portal 'Knowledge for Development';

- Pillar 3: Knowledge development with emphasis on capacity building -through training and support for case studies- on agricultural science, technology and innovation (ASTI) systems, including valuing farmer innovations, and measuring the performance of agricultural innovation systems.

In the Strategic Plan, *2007–2010* the programme was mentioned as a cross-cutting theme, within which the Centre identified five specific challenges to be addressed in ACP countries: namely:

- To overcome the barriers to effective dialogue among the members of the S&T community and policy and decision makers, farmers and other actors in the agricultural innovation system.
- To increase access to information and to provide opportunities to the S&T community to generate and disseminate its own information on emerging ST&I issues.
- To build capacity to lead ST&I processes and mobilise investments in support

of agricultural research, science, technology development, tertiary education and innovation.

- To identify ST&I strategies and concrete approaches that can have sustainable impact on agricultural and rural development.
- To be, as scientific and academic communities, forward thinking and at the same time to build synergies and strengthen alliances with international partners for anticipating and predicting future ST&I trends.

Within the context of the current strategic plan (2011-2015), various studies and workshops revealed that:

- ACP knowledge institutes (universities, research organisations and extension agencies) were not sufficiently involved in ARD policy processes such as CAADP; and that
- The science informing climate change was not extensively studied in African universities which in turn played little role in informing climate change policies at country level³⁶.

In line with these findings and the orientations outlined in CTA's 2011–2015 strategic plan, the ST&I programme was re-directed towards interventions that would enable ACP national knowledge institutions and regional networks to play

a greater role in ARD policy processes for policy impact in ACP countries. CTA's efforts aimed to reinforce clearly identified regional and continental ARD policy processes by engaging national, regional and international actors for framing issues and improving implementation to achieve the desired impact.

Consequently, the Programme focused on: (i) piloting methodologies for skills development to strengthen the capacity of ACP regional and national knowledge institutes and networks in ARD policy processes; (ii) promoting and strengthening intra and inter ACP, ACP-EU and ACP/EU-international S&T networking for foresighting, policy research and coherence for informing policy processes; (iii) establishing new networks and strengthening existing ones on ST&I to address regional, international and thematic issues of policy relevance; (iv) generating new knowledge and disseminating related ST&I information for strengthening ARD policy processes. In addition to addressing key priority themes, engaging women scientists and young professionals remained a priority cross-cutting issue so that these two marginalised communities can make a greater contribution to ARD policy processes.

2.3 The Advisory Committee (AC) / ACP/EU Think Tank on ST&I

The Advisory Committee was established in 2003³⁷ and met annually to provide advice to the ST&I programme on policy and approaches and endorsed the programmes undertaken. The main objectives of the AC³⁸ were to:

- Serve as a knowledge platform on Science, Technology and Innovation (ST&I), identify and deliberate on priority emerging issues and trends impacting on ACP agriculture (including fisheries and forestry), propose ST&I

policy options and interventions, facilitate inter and intra regional and ACP-EU cooperation and dialogue and encourage greater integration of ST&I in national, regional and international agendas in support of ACP agricultural and rural development;

- Provide timely alerts and information on relevant ST&I issues and contribute to developing policy guidelines / positions and strategies for achieving sustainable development and food security goals, enhanced agricultural performance and national, regional and

international competitiveness. Policy briefs shall be prepared and finalised through a consultative process and published and disseminated to ACP and EU governments and stakeholders, international organisations.

- Identify suitable institutions for building knowledge platforms at the national and regional levels in support of ST&I policy formulation and strategic decision making for improving the performance of ACP agriculture.

Members of the AC were drawn from national organisations across the 6 ACP regions, (sub-)regional and Pan-African organisations, ensuring that senior scientists, women, young professionals, policymakers, farmers and agro-entrepreneurs were represented.

Since 2007, the AC meetings had addressed the following subjects: Advancing the ST&I Policy dialogue – increasing performance and impact (2007); Building a critical mass (2008); ICTs transforming agricultural science and innovation (2009); and Science, indigenous knowledge and innovation – implications for ACP agriculture (2010). The AC held its last meeting in 2010 under the “AC” banner.

2.4 Partnerships

The ST&I policy dialogue has been promoted by developing a strong network of ACP and EU partner organisations in ST&I and a multi-disciplinary expert think-tank at a very senior level representing a wide cross section of interests. This group meets physically and virtually to consider relevant issues impacting on ACP agriculture and rural development. In addition to this core team of experts, the programme has built networks of experts on a wide range of ST&I issues, e.g., biodiversity, biofuels, dry lands, fisheries, livestock, tertiary education, national research

In 2012, the name of the AC was changed to the “ACP/EU Think Tank on ST&I” and meets periodically. The “Think Tank” acts as forward thinking group on key strategic issue and identifies priority issues for investigation and action for CTA and its ACP and European partners. Four (4) key impact areas for CTA and the ST&I Programme were identified:

- Impact 1: ACP/EU ST&I actors mobilised and influencing the ACP ST&I policy agenda and processes in support of agricultural and rural development;
- Impact 2: ACP/EU ST&I collaboration strengthened and joint programs implemented that improve the quality and relevance of ST&I for agricultural and rural development;
- Impact 3: Investments in agricultural research and development, tertiary agricultural education and agricultural extension increased;
- Impact 4: Women, young professionals and other marginalized actors actively participating in ACP ST&I policy and program processes from formulation to implementation and evaluation.

systems, women in science and young professionals who have contributed to the preparation of various policy positions and supported advocacy on ST&I themes.

The ST&I Programme’s approach is to work with strategic partners, both in the EU and in ACP countries, to increase the outreach of activities. With its partners, long-term collaboration has been created in the fields of ST&I information access, exchange and dissemination. The partners consist of universities, EU and ACP research institutions, government bodies and NGOs and ACP regional platforms and networks.

The forming of alliances, through capacity development in ST&I issues, serves as a vehicle for lobby and advocacy at the partner level, in order to influence research agendas, to mainstream issues in policy agendas, to recommend policies to develop the capacity of women and young professionals in science, and to have partners jointly submit projects to access ACP/EU funding grants for R&D and ST&I capacity building. The ST&I partner alliance has focused on influencing policy agendas and lobbying for more ST&I funding by national, regional and global institutions.

Key partners of the ST&I programme include(d):

Africa: AGRA, ANAFE, ATPS, FARA, CORAF/WECARD, NEPAD, RUFORUM

Caribbean: CARDI, University of the West Indies, NIHERST/CCST, Caricom Secretariat

Pacific: University of the South Pacific, NARI

EU/International: CAASTNet, PAEPARD, GCARD, WUR-CDI

2.5 Website

The Knowledge for Development (K4D) website (<http://knowledge.cta.int>) was launched in 2004 and underwent a design-change in 2008. It promotes collaboration between agricultural research and development scientists

and technicians in ACP countries, and facilitates dialogue between ACP and European communities with the aim of strengthening policy formulation on science and technology issues and thereby encouraging agricultural innovation.

2.6 Management

The ST&I Programme is managed by one Senior Programme Coordinator, supported a “shared”³⁹ project assistant and periodic assistance from interns for very specific tasks. An external service provider manages the technical platform

of the K4D website, and contributes to the identification of relevant documents, articles, etc. and upload of the same⁴⁰.

2.7 Existing Baseline Information

A wealth of baseline data exists on the ST&I programme. These include:

Planning documents

- Various background documents which formed the basis for the initial strategy development⁴¹;
- Document identifying CTA’s niche to support young professionals in S&T.

Evaluation reports and feedback:

- The independent external evaluation of CTA’s 2007 – 2010 strategy;

- Reports from past surveys of the K4D website (2006 & 2010);
- External reviews of the K4D website conducted in 2006 subsequently in 2013 along with two other CTA web portals;
- Impact stories collected for a number of CTA institutional publications;
- Capacity-centred impact pathway analysis (CcIPA) reports.

3. Evaluation Rationale Programme

CTA regularly conducts systematic and well-targeted evaluations aimed at providing reliable and pertinent information on the performance and impact of its projects and services. The information obtained from these exercises helps decision making and programme implementation, promotes organisational learning and provides the basis for greater accountability to the various categories of stakeholders.

The current evaluation of the ST&I programme has been requested by CTA's management for the following reasons:

- While the ST&I programme was in operation for over 10 years and had a number of smaller evaluations looking at specific components, it has not been evaluated in its entirety as a programme in its own right;

- Concerns about the continued relevance of the ST&I programme in light of priority areas set out in the SP 2011 – 2015 and the shift in target groups;
- Limited budgets and increased demand for CTA's products and services, means that critical decisions will need to be made regarding the most effective and efficient use of funds;

The evaluation will respond to strategic questions such as where CTA should focus its support and opportunities available for the ST&I programme in the current ARD context in ACP countries.

4. Objectives and Expected Outputs of the Evaluation

The aim of the evaluation is threefold; (i) to analyse the results and performance of the ST&I programme from 2003 – 2013; (ii) to obtain up-to-date information on factors that have facilitated or impeded the ST&I's performance and growth during that period, and (iii) to obtain feedback and recommendations that would allow the ST&I programme to contribute to the effective implementation of CTA's new strategy.

The expected outputs will include the following:

Assessment of:

- a. Relevance, effectiveness, efficiency, impact and sustainability of the ST&I programme, its activities, outputs and outcomes;
- b. The impact pathways through which the interventions contribute to CTA's overall theory of change;
- c. The extent to which CTA has contributed to the capacity-building of its ACP partners.

Recommendations pertaining to impact orientation, sustainability and consistency with overall and specific CTA's strategies (youth, partnership, gender and regional).

5. Key Issues and Evaluation Scope

5.1 The DAC criteria

The following specific evaluation questions/issues should be addressed with respect to the expected outputs listed above:

Relevance:

- i. To what extent is the ST&I programme in line with CTA's current vision, mandate, and activities? How does it support the results framework of the Centre and other relevant ACP ARD regional priorities?
- ii. Does the Programme complement efforts of other national, regional or international ARD institutions operating in ACP countries?
- iii. What are the Programme's opportunities of working with various donors and development agencies to complement its activities?
- iv. What are the emerging issues in the field of ST&I in agricultural and rural development in ACP countries and what are the implications of such issues for ST&I strategies and programme?

Effectiveness:

- i. Have the objectives and priorities for the Programme been achieved?
- ii. In general, to what extent do the outputs and services meet the needs of the intended beneficiaries?
- iii. How have the capacity-building elements of the Programme contributed to the strengthening of the ACP professionals, organisations and networks?

- v. In which areas is CTA considered as a leader/centre of excellence?
- vi. Does CTA have the comparative advantage in the services and products offered by its ST&I programme?

Efficiency:

- i. How cost-efficient were Programme activities?
- ii. Were objectives achieved on time?
- iii. How efficient was the programme implementation compared to alternatives?
- iv. How efficient are the processes to plan, implement and monitor the Programme?

Impact:

- i. What have been the significant short-, medium- and long-term effects on direct and indirect beneficiaries (i.e. individuals, organisations, networks and communities of practice) over the past 7-10 years? This should be answered through a series of specific questions including the impact framework (non-exhaustive) below.

Sustainability:

- i. To what degree will the Programme's benefits persist should funding cease?
- ii. What chief factors were responsible for the achievement or failure of the Programme's overall sustainability?

5.2 Impact pathways

With regard to impact, CTA has developed an impact framework based on past evaluations conducted. This should be used to guide the search for information but should not be considered exhaustive or obligatory. The framework may still be adapted to this evaluation based on preliminary findings and inception note and can be used to assess impact both at the level of partner organisations (their capabilities and organisational capacity) as well as on other beneficiaries.

The evaluation scope may be further delimited as follows:

- The evaluation should not duplicate other evaluations produced over the past years.
- The emphasis of the evaluation will be on the period 2003 – 2013.

Category of impact	Dimensions of impact	Outcome	Indicator
Social capital	Networking	<ul style="list-style-type: none"> • Extent to which partners/beneficiaries have maintained contact, interacted, communicated with CTA and between themselves 	<ul style="list-style-type: none"> • Increased links with new/existing networks • Amount of collaboration in project formulation, implementation • Increase in number of organisations/beneficiaries that have become important actors/partners or research
	Influential relationships		
Empowerment/political capital	Policy – Decision making	<ul style="list-style-type: none"> • Level of awareness and stimulated action on improving enabling environment 	<ul style="list-style-type: none"> • Review of existing policies, adoption of new/ implementation of policies, sectoral reforms (at level of government, , partner organisations, represented organisations) – macro-economic policies, rules and regulations, • Empowerment of women and youth groups or individuals

continued on next page

Category of impact	Dimensions of impact	Outcome	Indicator
Human capital /technical empowerment	Competencies/ skills development	<ul style="list-style-type: none"> • Level of understanding on knowledge, skills and infrastructure required • Extent to which steps have been taken towards developing skills 	<ul style="list-style-type: none"> • Identified knowledge, skills, infrastructure required for ARD promotion • Amount of available training opportunities • Adaptation of existing training, tools and methodologies • Increase in number and type of beneficiaries with new knowledge, skills
	Change in professional discourse	<ul style="list-style-type: none"> • Extent to which the ST&I programme has stimulated debate • Increased interest in participatory extension methodologies 	<ul style="list-style-type: none"> • Increase in focus by organisations on ST&I themes • Focus of other organisations changed, new terminology/ concepts adopted by others • Increase in level of discussions and interaction on ST&I related issues/ topics
	Platforms for knowledge management/ information sharing	<ul style="list-style-type: none"> • Extent of documentation/ dissemination/ utilisation of innovative tools and approaches • Availability of knowledge sharing platforms 	<ul style="list-style-type: none"> • Range of available channels for information sharing on value chains, innovations, new tools and methods, opportunities • Range and relevance of available information on value chains for various actors in the chain • Level of utilisation of available information
	Organisational development	<ul style="list-style-type: none"> • Value added by participants to their organisation 	<ul style="list-style-type: none"> • Use of knowledge, materials, contacts gained from ST&I, requests for information, advice, support by conference organisers
Material wealth/ wealth creation	Income	<ul style="list-style-type: none"> • Increase in resources being devoted 	<ul style="list-style-type: none"> • Investments by government, private sector, other development partners
	Resources mobilised		<ul style="list-style-type: none"> • New opportunities for funding of organisations represented
	Tools and equipment		<ul style="list-style-type: none"> • Member organisations/beneficiaries use of new ICT tools

6. Methodology

The evaluation is to be conducted in compliance with a well articulated methodology that draws on elements of the OECD DAC criteria and tools and approaches for evaluating organisational capacity development⁴², which have been partially adapted to CTA's needs

(see item 5 above). Desk studies at CTA should be complemented by feedback from a representative sample of CTA's main stakeholder groups in all six ACP regions, as well as the information from the Centre's EU and international collaborators.

7. Implementation Schedule

- September 2014: Selection & appointment of consultants
- October 2014–May 2015: scheduled duration of the evaluation:
 - o October 2014: Briefing meeting at CTA Headquarters
 - o October 2014–end February 2015: Desk studies and field missions
 - o End March 2015: Submission of draft report to CTA
 - o End May: Submission of final report.

8. Reporting & Deliverables

The report should be produced in English or French, and should not exceed 40 pages (excluding annexes) with an executive summary in both languages, a list of major findings and recommendations.

Two bound copies of the final report, as well as electronic versions in word and PDF formats should be provided to CTA.

9. Sources of information (not exhaustive)

- In addition to the baseline documents listed in section 4, the following documents and online sources will be made available to the consultant:
- CTA's Strategic Plan 2007–2010
 - CTA's Strategic Plan 2011–2015
 - K4D marketing and communicational outreach strategy
 - Social media outreach strategy (Facebook & Twitter) (2010)
 - Annual work programmes developed from 2004 onwards (including logframe)
 - Google analytics accounts
 - The SWOT analysis of the ST&I programme (2013)
 - Statistics on the K4D website usage and newsletter.

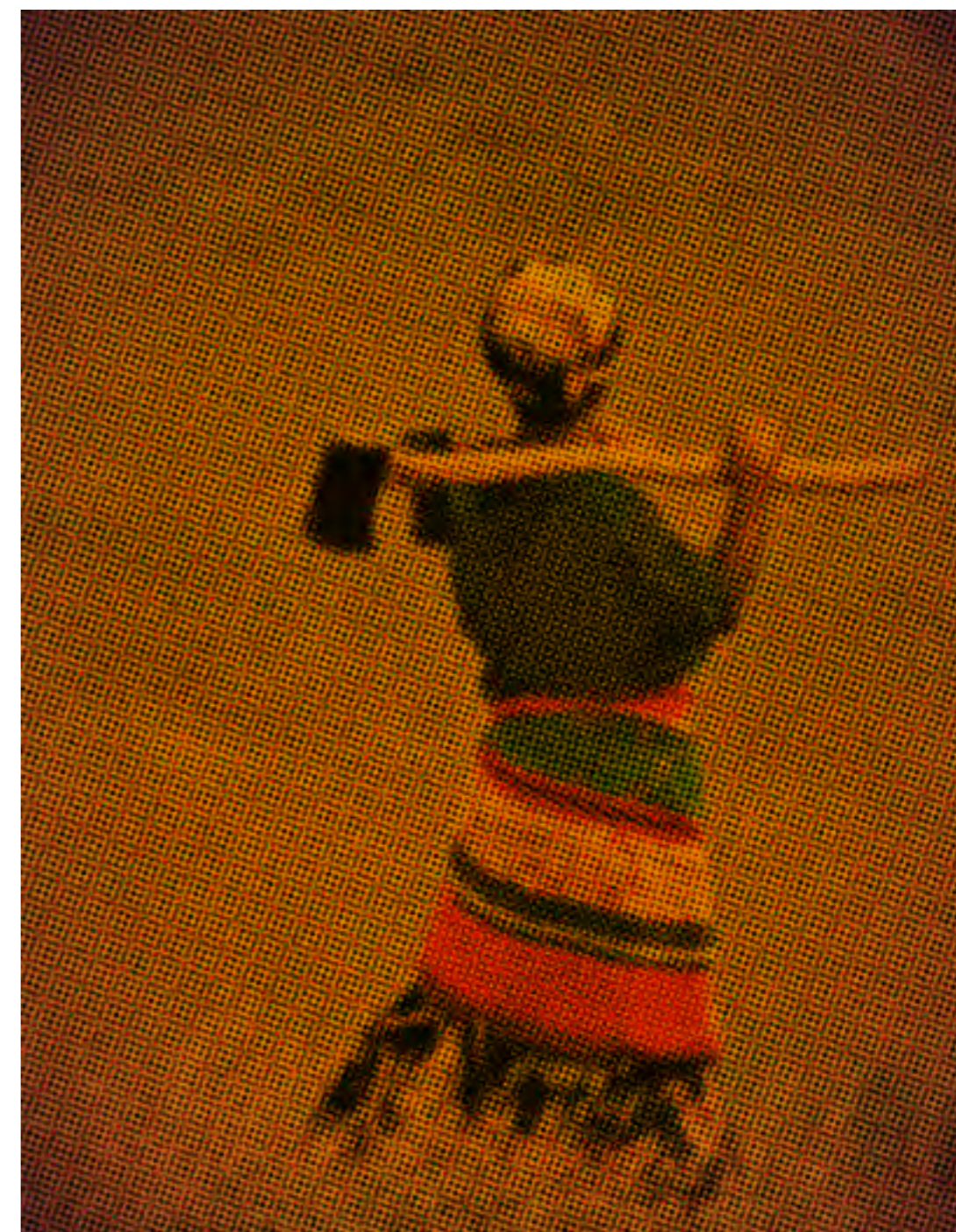
10. Evaluation Team & Expertise Required

A team of 2-4 experts with representation from the ACP and EU countries is required. The team should have the ability to work in both English and French. Team members should bring together experience from agriculture and rural development in particular as it relates to understanding the policy and related ST&I issues, and proven experience in conducting multi-stakeholder evaluations.

The team leader, who will also have the overall administrative responsibility for

the assignment, should have more than 10 years of experience in agriculture and rural development, agricultural research, policy and/or extension issues in one or more of the ACP regions and at least 5 years experience in conducting evaluations.

The other team members should have at least 5 years experience in conducting evaluations and in-depth knowledge of the international ARD sector.



Appendix B

Questionnaires

for interviews

B1. Questionnaire for Stakeholders Group

A. Information about the interviewee

Name: _____

Male/female: _____

Email address: _____

Telephone number: _____

Organisation(s) for which you work at the moment: _____

Organisation(s) for which you have worked in the period 2003–2010: _____

The region in which you work at the moment (tick the box):

- Central Africa
- East Africa
- West Africa
- Southern Africa
- Caribbean
- Pacific
- Europe
- Other

A1: Did you also work in this region in the period 2003–2010? If not, in which region did you work?

B. Knowledge of and involvement in CTAs ST&I Programme

B1. Could you briefly describe what you perceive to be the objectives of CTA's ST&I Programme?

B2. Which part of the ST&I programme activities do you know (please tick relevant box(es))?

Policy dialogues facilitating activities:

- Expert face to face consultations
- Conferences, meetings for facilitating the ST&I policy dialogues,
- Advisory Committee meetings
- Others, please specify:

Information and Communication management:

- Knowledge 4 Development website/web portal
- Information Platforms – e-discussions on key ST&I issues
- Others, please specify:

Capacity building:

- Capacity building through training activities, regional/national workshops (ASTI systems), development of national case studies
- Women and Young professionals in science competition
- Others, please specify:

B3. In which of these activities have you been involved in, and in what way (tick relevant box(es) and describe below)?

Policy dialogues facilitating activities:

- Expert face to face consultations
- Conferences, meetings for facilitating the ST&I policy dialogues,
- Advisory Committee meetings
- Others, please specify:

Information and Communication management:

- Knowledge 4 Development website/web portal
- Information Platforms – e-discussions on key ST&I issues
- Others, please specify:

Capacity building:

- Capacity building through training activities, regional/national workshops (ASTI systems), development of national case studies
- Women and Young professionals in science competition
- Others, please specify:

B4. Can you briefly describe the way you were involved in these activities:

B5. In which year did you have contact with ST&I for the first time?

B6. How many years have you been involved in ST&I programme activities?

B7. Were you in contact as (tick as relevant):

- an individual
- mandated by your organisation
- other , please specify:

B8. In what capacity have you had contact with ST&I (tick as relevant):

- Member of the Advisory Committee/Think Tank
- Recipient of CTA grant or award
- Project partner
- Others, please specify:

C. Evaluation questions based on OECD DAC Criteria

Relevance of ST&I's programme

C1. Are you informed about CTA's current vision and new strategy? (yes/no) If yes: to what extent is the current ST&I programme in line with CTA's mandate?

C2. In your opinion, does the ST&I programme currently support relevant priorities in your region in the field of agricultural and rural development? (yes/no) If yes: can you specify in what way?

C3. In what way did CTA's ST&I programme (or specific activities of the programme) complement the efforts of other national, regional or international institutions in the field of agricultural and rural development operating in your region? Please specify (which efforts by which other agricultural and rural development institutions, which complementary activities and when).

C4: Has this role of CTA's ST&I programme evolved over time (since 2003) and can you describe in what way?

C5. In your region, have there been any opportunities for the ST&I Programme to work together with other donors and development agencies in order to complement their activities? (yes/no). If yes, can you specify which donors/development agencies and which complementary activities have taken place?

C6. What could the ST&I programme CTA do to further support the work of your organisation based on your existing needs?

C7. a) Are you aware of other programmes similar to the ST&I Programme? (yes/no). If yes: can you provide details about the programme (website)

b) What are the pro's and con's of the ST&I Programme compared to the(se) other programmes?

c) Do you know if the(se) programmes has been evaluated? (yes/no). If yes, when? Is the evaluation report publicly available (where can we find it?)?

C8. What are the emerging ST&I issues in the field of agricultural and rural development in your region, at this moment?

C9. Which of these issues should be addressed by the ST&I programme?

Effectiveness of ST&I's programme

C10. How would you assess the contribution of the ST&I programme to the following aspects, b) Can you explain your answer and c) Do you have any specific examples that illustrate your opinion?

The ST&I programme has achieved that ...	a) Please choose which option suits best your opinion: (please tick)	b) Please explain your choice	c) Have you any specific examples that illustrate your opinion?
... local ST&I actors are more engaged in agricultural and rural development policy processes in your country or region	<input type="radio"/> Strong Agree <input type="radio"/> Agree <input type="radio"/> Disagree <input type="radio"/> Strong disagree <input type="radio"/> No opinion		
... ACP-EU ST&I collaboration has been strengthened	<input type="radio"/> Strong Agree <input type="radio"/> Agree <input type="radio"/> Disagree <input type="radio"/> Strong disagree <input type="radio"/> No opinion		
... ACP-EU ST&I joint programmes have been implemented that improve the quality and relevance of ST&I for agricultural and rural development	<input type="radio"/> Strong Agree <input type="radio"/> Agree <input type="radio"/> Disagree <input type="radio"/> Strong disagree <input type="radio"/> No opinion		
... investments for agricultural and rural development, tertiary education and extension have increased in your country or region			

The ST&I programme has achieved that ...	a) Please choose which option suits best your opinion: (please tick)	b) Please explain your choice	c) Have you any specific examples that illustrate your opinion?
... women are more actively participating in ST&I policy and programme processes (from formulation to implementation and evaluation) in your country or region	<input type="radio"/> Strong Agree <input type="radio"/> Agree <input type="radio"/> Disagree <input type="radio"/> Strong disagree <input type="radio"/> No opinion		
... youth professionals are more actively participating in ST&I policy and programme processes (from formulation to implementation and evaluation) in your country or region	<input type="radio"/> Strong Agree <input type="radio"/> Agree <input type="radio"/> Disagree <input type="radio"/> Strong disagree <input type="radio"/> No opinion		

C11. Can you illustrate, with examples, ST&I Programme activities in which you were involved (workshops meetings, training seminars, case studies, etc.) and how these activities met the needs of your organisation?

C12. Was your organisation also the intended beneficiary of these activities and if not: who were the intended beneficiaries and did these activities meet their needs? Please specify?

C13. From what you know of ST&I activities in which you were not involved: to what extent do they meet the needs of the intended beneficiaries? Please specify?

C14. To what extent has the ST&I programme contributed to dialogue and sharing of experiences and best practices among professionals, organisations and networks in your region or country? Please give examples.

C15. Can you give examples of how capacity-building activities of the ST&I programme have contributed to strengthening professionals in your institution and at other institutions in your region or country?

C16: In which areas or activities of the ST&I Programme do you consider CTA as a leading institution, or a Centre of Excellence?

C17. Do you consider CTA have a comparative advantage in the services and products they offer(ed) through the ST&I programme? Please explain your answer. To which organisation(s) do you compare CTA's ST&I programme in this respect?

Efficiency of ST&I's programme

C18. From what you know about the ST&I programme activities, do you consider these activities as being organised in a cost efficient way? Please explain your answer.

Impact

Please select three to five ST&I programme outputs (i.e. products, services, or other achievements), which you think have had the largest impact and list these activities:

C19. For each of these activities, you are asked to answer the following questions which are in the table below: a) What has been the short, medium and or long term impact for this activity for this impact indicator? b) Please explain you answer.

Intended impacts	a) What impact for this indicator at the ...			b) Please explain you answer
	... short term (= within one year after the STI activity took place)	... medium term (= within 2-4 years after the STI activity took place)	... long term (= after 4 years after the STI activity took place)	
The networks (partners, beneficiaries, CTA) and collaboration within these networks has increased	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
The interest of organisations in ST&I issues in the field of agricultural and rural development in your region has increased.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
The debate on ST&I issues in the field of agricultural and rural development in your region has increased.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
The interest in the use of participatory methods for ST&I policymaking in the field of agricultural and rural development in your region has increased.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.



Intended impacts	a) What impact for this indicator at the ...			b) Please explain your answer
	... short term (= within one year after the STI activity took place)	... medium term (= within 2-4 years after the STI activity took place)	... long term (= after 4 years after the STI activity took place)	
The level of knowledge and skills on ST&I issues in the field of agricultural and rural development in your region has increased	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
The involvement of organisations in policymaking on ST&I issues in the field of agricultural and rural development in your region has increased	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
More funding is being devoted to ST&I in the field of agricultural and rural development in your region	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.



C20. In case there would have been no ST&I programme of CTA: What would you have missed most? Please explain your answer

Sustainability of ST&I's programme

C21. Which benefits from the ST&I programme are likely to persist should funding cease? Please justify your answer.

Gender and Youth issues

C22. In your opinion: In what way has the ST&I programme contributed most to the empowerment of women and young professionals in your region?

C23. In this respect, what have been the main effects of the ST&I programme in your region?

C24. Given the list of five ST&I programme outputs under question C19: In what way have gender and youth issues been addressed and in what way have this led to specific impacts on the empowerment of women and youth. If not: How could they be addressed?

D. Other aspects and issues

Any other comments

D1. Do you have any last comments which you think may help the evaluation but which have not been covered by the interview?

Survey respondents

The team intends to reach out to a much greater number of respondents by sending out a survey.

D2. If I send you the link to the survey would you mind circulating it to relevant colleagues in your institution or network and to policymakers and other relevant organisations in your region? Yes/No

Non CTA/ST&I partners

Lastly the team wishes to interview a group of persons who know of the CTA/ST&I programme, but for some reason have not been partners.

D3. Could you please make a suggestion as to a person who might fulfil this role and who the team could contact?

B2. Questionnaire for Non-participants Group

A. Information about the interviewee

Name:

Male/female:

Email address:

Telephone number:

Organisation(s) for which you work at the moment:

Website of your organisation:

Organisation(s) for which you have worked in the period 2003–2010:

The region in which you work at the moment (tick the box):

- Central Africa
- East Africa
- West Africa
- Southern Africa
- Caribbean
- Pacific
- Europe
- Other

A1: Did you also work in this region in the period 2003–2010? If not, in which region did you work?

A2: What are the emerging ST&I issues in the field of agricultural and rural development in your region, at this moment?

B. CTA and the ST&I Programme

B1. Which part of the CTA's ST&I programme activities do you know?

Policy dialogues facilitating activities:

- Expert face to face consultations
- Conferences, meetings for facilitating the ST&I policy dialogues,
- Advisory Committee meetings
- Others, please specify:

Information and Communication management:

- Knowledge 4 Development website/web portal
- Information Platforms – e-discussions on key ST&I issues
- Others, please specify:

Capacity building:

- Capacity building through training activities, regional/national workshops (ASTI systems), development of national case studies
- Women and Young professionals in science competition
- Others, please specify:

B2. In which of these activities have you been involved (tick relevant box/boxes)?

Policy dialogues facilitating activities:

- Expert face to face consultations
- Conferences, meetings for facilitating the ST&I policy dialogues,
- Advisory Committee meetings
- Others, please specify:

Information and Communication management:

- Knowledge 4 Development website/web portal
- Information Platforms – e-discussions on key ST&I issues
- Others, please specify:

Capacity building:

- Capacity building through training activities, regional/national workshops (ASTI systems), development of national case studies
- Women and Young professionals in science competition
- Others, please specify:

B3. Can you briefly describe the way you were involved in these activities?

B4. In which year did you have contact with CTA for the first time?

B5. Were you in contact as (underline as relevant):

- an individual?
- mandated by your organisation?
- Others, please specify:

B6. In what capacity have you had contact with CTA (underline as relevant):

- Recipient of CTA grant or award
- Project partner
- Others, please specify:

B7. a) Does your organisation organise similar activities as those mentioned under question B1? Yes/No. b) If yes, which activities?

C. Evaluation questions

C1. a) In which areas or activities of the ST&I Programme do you consider CTA as a leading institution, or a Centre of Excellence? b) Please specify.

C2. a) Has CTA a comparative advantage in the services and products they offer(ed) through the ST&I programme as compared to other organisations, or in the way they organise them? b) Please explain your answer. c) To which organisation(s) do you compare CTA's ST&I programme in this respect?

C3. In your opinion, what are the strengths and weaknesses of CTA's ST&I programme activities?

C4. What recommendations do you have for CTA to improve its ST&I programme activities in order to increase the results CTA aims for?

C5. In case there would have been no ST&I programme of CTA: What would you have missed most? Please explain your answer

C6. In your opinion: In what way have CTA's ST&I programme activities contributed most to the empowerment of women and young professionals in your region?

C7. a) In your opinion, does the CTA's ST&I programme activities currently support relevant priorities in your region in the field of agricultural and rural development? (Yes/No). b) If yes: can you specify in what way? c) If no: what should CTA do in order to do support them?

C8. a) In what way did CTA's ST&I programme activities complement the efforts of other national, regional or international institutions in the field of agricultural and rural development operating in your region? b) Please specify (which efforts by which other agricultural and rural development institutions, which complementary activities and when).

C9. a) From what you know about the ST&I programme activities, do you consider these activities as being organised in a cost efficient way? b) Please explain your answer.

D. Other aspects and issues

Any other comments

D1. Do you have any last comments which you think may help the evaluation but which have not been covered by the interview?

Appendix C

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Pardey, P. G., N. M. Beintema, S. Dehmer, and S. Wood. 2006. *Agricultural Research: A Growing Global Divide?* IPFRI Food Policy Report 17. Washington, DC: International Food Policy Research Institute.

World Bank, 2007. *Cultivating Knowledge and Skills to Grow African Agriculture: A Synthesis of an Institutional, Regional, and International Review*. World Bank, Washington, DC.

World Bank, 2012. *Agricultural Innovation Systems: An investment sourcebook*. Washington, D.C.

Appendix D Publications of CTA's ST&I Programme 2011–2014

2014 (all publications)

Policy Briefs

- EC/FAO/CTA/WBG, 2014. – “Agriculture and Nutrition a Common Future: A Framework for Joint Action”. (joint collaboration)
- CTA/ASARECA Policy Brief, 2014 – “Seed Systems, Science and Policy in East and Central Africa”.

Webportal

- Webportal - Knowledge for Development (<http://knowledge.cta.int>). Regularly updated including social media content; monthly e-newsletters (12); 5 new dossiers including 10 lead articles and 12 new lead articles for existing dossiers.

Other Publications

- CTA/FARA, 2014. CD-ROM - Agricultural innovations for sustainable development: Contributions from the 3rd Africa-wide Women and Young

Professionals in Science competitions. Volume 4: Issue 3 plus French abstracts.

- <http://publications.cta.int/en/publications/publication/1828/>
- CTA/IFS, 2014. Life stories of African women and young professionals in science: 3rd Africa-wide women and young professionals in science competitions. <http://publications.cta.int/en/publications/publication/1830/>
- CTA/IFS, 2014. Portraits de femmes et de jeunes professionnels du monde scientifique africain: 3e édition des concours panafricains “Femmes et sciences” et “Jeunes professionnels et sciences”: <http://publications.cta.int/en/publications/publication/1838/>
- CTA, 2014. Seed Systems, Science and Policy in East and Central Africa (CTA/ASARECA policy brief & 12 policy and research papers): <http://publications.cta.int/en/publications/publication/1832/>

- Francis, J.A. 2014. Biotechnology Research and Development in Africa. Lead Paper. USAID Conference Proceedings. “
- Francis, J.A. and Addom, B., 2014. Modern ICTs and rural extension: Have we reached the tipping point? Rural 21 – 01/2014.
- ISHS, 2014. Postharvest Technological initiatives to improve food security and market access. Proceedings of the IIIRD International Conference on Postharvest and quality management of horticultural products of interest in tropical regions”. Acta Hort 1047. M. Mohammed and J. Francis (editors) (CTA supported)
- CTA / Wageningen UR, 2014/2015. “Innovation Systems: Towards effective Strategies in support of Smallholder Farmers”; (13 lead papers/chapters – In print)
- CTA Top 20, 2014/2015. Innovations that Benefit Smallholder Farmers (2 lead papers and 20 innovation stories – In print)
- CTA/CCST, 2014. CD-ROM – 2nd Caribbean Science and Agriculture Film & Video Competition (35 Films)
- Extension country case study reports from Benin, Ghana, Malawi, Nigeria, Papua New Guinea (final report delayed), Kenya (featuring 6x5 success stories)
- CTA, 2014. International Forum Report “Unleashing ST&I for FNS” plus 4 commissioned papers on research (by A. Gurib-Fakim, J. Mugabe, M. Jacobs & L. Mytelka) and Key messages derived from the Forum (published on K4D webportal)
- CTA, 2014/2015. Guidebooks, brochures, fact sheets – CTA Top 20 Innovations (In print)
- CAASTNet Plus, 2014. “Africa-EU Research Collaboration on Food Security: A Critical Analysis of the Scope, Coordination and Uptake of Findings”. Francis, J.J. and Nkobou, A.T., CTA.
- PACENet Plus, 2014/2015 – “EU-Pacific STI cooperation on food and nutrition security, sustainable agriculture, marine and maritime science and the bio-economy: State of the art report” (In Print)
- PACENet Plus, 2014. “Exploring the convergence of science and traditional knowledge in aqua- and agriculture for sustainable, healthy living in the 21st century” Bremen Think Tank Report – Think Tank 2. Francis, J. and Jeanneret, C. (CTA) and Gembiak, K. (ZMT)

2013 (most important publications)

Policy Briefs

- Integrated Seed System Development (ISSD) 2013. Synthesis Workshop report
- ISSD Communiqué, 2013. ISSD in Africa: The Role of Entrepreneurship for Joint Action
- ISSD 2013. Briefing Notes (6) – Assessment of the Role of Universities in ISSD in Burundi, Ethiopia, Ghana, Malawi, Uganda, Zambia (based on CTA commissioned case studies; SWOT of University engagement in ISSD)

Webportal

- Knowledge for Development web portal (regularly updated including social media)
- K4D Webportal: 6 new dossiers/folders including 12 lead articles on - Seed Systems; Research Quality, Relevance and Impact; Research Collaboration in a Globalized world; Sorghum; Dairy; Nutrition etc.

- K4D Webportal: 12 lead articles for existing dossiers on - Soil health; EU S&T Policy Dialogue; Water; Foresighting; Biofuels; Rice value chain
- Knowledge for Development printed - December 2013. Vol VIII / Connaissance pour le développement printed - Décembre 2013. Vol VIII
- <http://publications.cta.int/en/publications/publication/1773/>

Other Publications

- CTA, 2013. Innovations in Extension and Advisory Services. International Conference Proceedings. J. Francis, Chief editor
- CTA/CARDI, 2013. Caribbean Coconut Industry Development Workshop Outcomes Report: Towards a Shared Vision and Road Map
- CTA, 2013. Synthesis Report of the 2012 Meeting of the ACP-EU Think Tank on S&T for ACP Agricultural and Rural Development. A Forward Look: Water Governance for Agriculture and Food in the ACP Region. Uphoff, N. (Cornell University)
- CTA, 2013. University Case Study Reports: Mainstreaming Tertiary Education in ARD Policy Processes; Improving Food and Nutrition Outcomes” - Université Abomey-Calavi – Benin; Université Abdou Moumouni & Université de Maradi – Niger, Université de Thiès - Senegal; Université Polytechnique de Bobo Dioulasso & University of Ouagadougou – Burkina Faso; Kenyatta University – Kenya; UWI –Trinidad; USP – Fiji; Sokoine University, Tanzania
- Poster, 2013. J. A. Francis (CTA), O. Bello (WUR) & A. Wals (CSD&FS-WUR) “Strengthening the Engagement of Tertiary Education Institutions: Reducing Hunger and Food Insecurity” . Presented at Elsevier First International Conference on Global Food Security

- CTA, 2013. Case study reports on Analysis of the Postharvest Knowledge system in Ghana (cassava, University of Ghana); Trinidad and Tobago (pumpkin, UWI), Senegal (rice, ITA) (synthesis papers published on Knowledge website)
- CTA policy brief, 2013. Improving the Reproductive Potential of Smallholder Dairy Cows: Enhancing the Earning Potential of Smallholder Dairy Farmers
- CTA, 2013. Technical and Financial Evaluation of Oestrous Synchronization in Ethiopia for the Ministry of Agriculture. Patterson Agri Services.
- CTA/ African Poultry Network, 2013. Technical Report: The African Poultry Network Workshop
- CTA Sponsored Delegates, 2013. Summary Reports (7) on the 9th Triennial African Potato Association Conference

2012 (most important publications)

Policy Briefs

- CTA/CCST Policy Brief, 2012. Strategic Guide for Food and Nutrition Security in the Caribbean

Webportal

- Knowledge for Development website (regularly updated); monthly e-newsletters (12) and printed newsletter: Vol VII (1)

Other Publications

- ACP-EU Think Tank, 2012. Key Messages from CTA-WUR ACP/EU Think Tank GCARD2 Side Event on Partnerships for Research, Capacity Building, Innovation and Foresighting; Managing Water for Agriculture and Food in ACP countries. J. Francis
- CTA/CCST Workshop Report, 2012. “Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option”.

- CTA/CCST, 2012. “Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option: Survey and Synthesis Report on Agro-processing enterprises in the Caribbean”. N. Badrie.
- CTA/CCST, 2012. “Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option: The Role and Impact of State Marketing Boards and Agencies”. I. Ivey
- CTA/CCST, 2012. “Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option Nutrition Trends and Changing Dietary Patterns in the Caribbean. P. Thompson
- CTA/CCST, 2012. “Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option: Cassava Value Chain in Jamaica. C. Anderson
- CTA, 2012. Agricultural Extension: A Time for Change (booklet EN–FR)
- CTA/USP/PACENet Plus Communiqué, 2012. Pacific Islands Regional University Network.
- CTA/USP/Expert Consultation Report, 2012. Pacific Islands Regional University Network and Science Policy Dialogue.

2011 (most important publications)

Policy Briefs

- Agricultural extension – policy brief – linking knowledge to policy and action for food and livelihoods + FR

Webportal

- Knowledge for Development website (regularly updated); monthly e-newsletter (12)
- RIENet website

Other Publications

- 10th AC meeting - Key Messages
- CTA/WUR Inception Workshop Report, 2012. “Mainstreaming Tertiary Education in ACP ARD Policy

Processes: Increasing Food Supply and Reducing Hunger”

- Francis, J. Ivey, I. and Superville, L. 2012. “Science, innovation and entrepreneurship: Being unique will shape ‘new agriculture’”
- CTA/FARA, 2011. Africa-wide women & young professionals in science competition. Volume 3: Issue 2:
- CTA/FARA, 2011. Contributions des finalistes de l’édition 2009/2010 des concours scientifiques ouverts aux femmes africaines et aux jeunes professionnels. Volume 3: Issue 2
- CTA, 2011. Extension and advisory services country case studies (6): Jamaica, Malawi, Benin, PNG, Nigeria, Kenya
- CAADP Pillar IV report: Mainstreaming African Tertiary Agricultural Education Institutions in the Comprehensive Agriculture Development Programme (CAADP)

Footnotes

1. Manning-Thomas, 2009. *Changing the Emperor: ICT-Enabled Collaboration Transforming Agricultural Science, Research, and Technology into an Effective Participatory and Innovations System Approach*.

2. Draft Proposal for CTA's Science and Technology Programme, Submitted by Judith Ann Francis, Programme Coordinator, Science and Technology Strategies, 2003.

3. This group was composed of representatives of national organisations from the six ACP regions, (sub-) regional and Pan-African organisations. It served as a knowledge platform on ST&I and during its lifetime it had 10 meetings, the last one was in October 2011.

4. Budget information on the 2014–2016 project was not available.

5. Huijsman et al., 2011. *Independent Evaluation of the ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA)*, November 2011.

6. SWOT stands for: Strengths, Weaknesses, Opportunities and Threats.

7. Andriesse, 2013. *The EU/ACP Science, Technology and Innovation Landscape*. Study for CTA.

8. Kaufmann, 2013. Report of a SWOT Analysis of the CTA Science, Technology and Innovation Strategies Programme (ST&I), November 2013.

9. Survey report on Knowledge for Development Newsletter and Website, August 2009.

10. CTA and ANAFE, 2015. Joint impact assessment of CTA's support to ANAFE (2003–2013). Sebastian Chakeredza, Aissetou Yaye and Enid Kaabunga.

CTA and CARDI, 2013. Joint impact assessment of CTA's support to CARDI (2004–2012). Allister Glean and Steve Maximay.

CTA and NARI, 2015. Joint impact assessment of CTA's support to NARI, Maxie Dominic and Dr Birte Komolong.

CTA and SPC, 2015. Joint impact assessment of CTA's support to SPC.

CTA and RUFORUM, 2013. Joint impact assessment of CTA's support to RUFORUM (2003–2013). Agnes Akwang Obua-Ogwai and Godfrey Kayobyo.

11. Francis, 2003. Draft Proposal for CTA's Science and Technology Programme and: Francis, 2004a. S&T Strategies 2004 Work Programme.

12. CTA, 2012. Project profile and Review Form of project 'Strengthening the engagement of ACP knowledge institutes in ARD policy processes.

13. Judith Francis in Andriesse, 2013.

14. This question was originally listed in the ToR as an evaluation question under 'Effectiveness'.

15. OECD, 2009. *Growing Prosperity. Agriculture, Economic Renewal, and Development*. Draft outcome document from the Experts Meeting "Innovating Out of Poverty", OECD, Paris.

16. Beintema and Elliott, 2009. *Setting Meaningful Investment Targets in Agricultural Research and Development: Challenges, Opportunities, and Fiscal Realities*. Paper prepared for the Expert Meeting on How to Feed the World in 2050, FAO. Rome.

17. Pardey et al., 2006. *Agricultural Research: A Growing Global Divide?* IPFRI Food Policy Report 17. Washington, DC. International Food Policy Research Institute.

18. World Bank, 2007. *Cultivating Knowledge and Skills to Grow African Agriculture: A Synthesis of an Institutional, Regional, and International Review*. World Bank, Washington, DC.

19. World Bank, 2012. *Agricultural Innovation Systems: An investment sourcebook*. Washington, D.C.

20. MDF training and consultancy, 2011. *Independent evaluation of the ACP-EU technical centre for agricultural and rural cooperation (CTA): Final Report*.

21. Francis, 2004b. Progress report on CTA's ST&I strategies programme, Report to the Advisory Committee on Science and Technology. CTA.

22. Imani Development, 2014. *Combined Evaluation of CTA's Agritrade and Knowledge for Development Portals and the Brussels Development Briefings*.

23. CTA, 2014. *CTA's Partnership Strategy: Bringing the regions into focus*.

24. This issue has not been directly addressed by any of the previous evaluations or assessments of the ST&I Programme.

25. CTA Annual Report_Science Technology Innovation Strategies_PSSD 2010.

26. Francis, 2011. *ST&I for development : lessons from CTA*, CTA, September 2011.

27. CTA Annual Report_Science Technology Innovation Strategies_PSSD 2010.

28. <http://Publications.cta.int>.

29. <http://knowledge.cta.int>.

30. JAF/ISSD_AR07/Capacity building_22_10_07, Annual Report S&T Input_ISSD.

31. CARICOM, 2007. *Science, Technology & Innovation for Sustainable Development: Caribbean Regional Policy Framework for Action*.

32. CTA has also adopted strategies covering gender, youth and partnerships. Regional strategies are currently being developed.

33. CTA's organisational structure was revised in 2011 to give rise to 2 programmes mentioned in Section 1 § 4 above. The ST&I programme was subsumed under one of the master projects created under these new programmes (cf. section 2.1 below). For the purposes of the evaluation however, we will continue to refer to the ST&I programme.

34. The second was the AgriTrade programme.

35. The Agritrade programme was subsumed under master project 3 – Enhancing Value Chain Governance and Competitiveness across ACP regions.

36. The same is true for the Caribbean and Pacific regions.

37. The AC was called the ST&I "Informal Working Group" when initially established.

38. Pre-2012.

39. The project assistant also provides administrative assistance to two other CTA project officers.

40. Two other external service providers provide content for dossiers and folders; ACP and EU experts also contribute articles, etc.

41. White papers from the ACP Secretariat on e.g. ACP sustainable development, ACP-EU Fora on Research for Sustainable Development; Meeting report of the ACP informal working group on S&T; a.o.

42. Cf. CTA's CcIPA studies drawing on the 5Cs methodology, logic model and impact categorisation.





The Technical Centre for Agricultural and Rural Cooperation (CTA) is a joint international institution of the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU). Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management in ACP countries. It provides access to information and knowledge, facilitates policy dialogue and strengthens the capacity of agricultural and rural development institutions and communities.

CTA operates under the framework of the Cotonou Agreement and is funded by the EU.

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