

CCAFS
3rd INDEPENDENT SCIENCE PANEL MEETING

24-25 October, 2012
Ouagadougou, Burkina Faso

MINUTES

- Participants: Thomas Rosswall (Chair)
Bruce Campbell (Program Director) (*ex officio*)
Thierry Lebel
Takeshi Horie
Rik Leemans (*ex officio*)
Holger Meinke
Mary Scholes (Vice-Chair)
Lindiwe Majele Sibanda
- Apologies: Ariel Dinar
Fatima Denton
Ram Badan Singh
Lisa Schipper (*ex officio*)
Christof Walter
- Invited participants: Andy Jarvis (Theme 1) (for agenda items 1-13)
Jim Hansen (Theme 2) (for agenda items 1-13)
Eva “Lini” Wollenberg (Theme 3) (for agenda items 1-13)
Patti Kristjanson (Theme 4) (for agenda items 1-13)
Philip K. Thornton (Theme 4) (for agenda items 1-13)
James Kinyangi (East Africa) (for agenda items 1-7)
Robert Zougmore (West Africa) (for agenda items 1-13)
Gopal Bhatta (South Asia) (for agenda items 1-13)
Torben Timmermann, CCAFS Coordinating Unit (Secretary) (for agenda items 1-13)
Sonja Vermeulen, CCAFS Coordinating Unit (for agenda items 1-13)
Gloria Rengifo, CCAFS Coordinating Unit (for agenda items 1-13)

1) Welcome by the Chair and announcements

The Chair opened the meeting, welcomed the participants and noted the apologies. He noted that Lisa Schipper, the CIAT BoT *ex officio* member already during initial consultations had expressed her unavailability on the proposed dates due to participation in IPCC meetings. An alternate CIAT BoT representative had been identified, but it later turned out that this person was also unavailable. He also noted that one Regional Program Leader, Pramod Aggarwal, had excused himself from this ISP meeting in order to participate in the IPCC meeting as well. Regional Program Leader James Kinyangi could participate only in day 1 of the meeting, since he needed to travel to the Global Conference on Agricultural Research for Development (GCARD2) for a pre-conference meeting. The Chair said that the ISP is delighted to finally be able to hold a meeting in West Africa after a couple of cancellations due to unrest in the region. He thanked Regional Program Leader Robert Zougmore for organizing the field trip the day before, which had been an important experience for all participants. He also noted that this was the first ISP with a high-level segment. The Chair requested that a member address list should be included in meeting documents at future meetings. Members are requested to ensure that the information is up-to-date. Torben Timmermann provided practical information about lunch, check out etc.

2) Agenda, minutes and matters arising

2.1 Adoption of agenda

The Chair invited the members to review the agenda and suggest any additional issues that might be discussed. It was agreed to add to agenda item 9 a reflection of the recent EC review of CCAFS. For agenda item #13 Any other business a discussion on new ISP members as of the end of 2013 was added. The Chair noted that Ram Badan Singh and Lisa Schipper had sent written comments on the Annotated Agenda and they would be considered in the appropriate place on the agenda.

The Chair asked that CCAFS ISP members voluntarily and openly declare any conflict of interest and that in such cases they would be excused from the particular discussion. The Chair noted that CCAFS and FANRPAN in September 2012 had started to engage in a capacity enhancement collaboration during 2012 and 2013 to support African engagement in United Nations Framework Convention on Climate Change (UNFCCC) COP18 and COP19 after an open tender procedure. He also recalled the collaboration between Theme 1 and the Stockholm Environment Institute (SEI) that was initiated in late 2011 and will be finalized shortly.

Decisions:

- To adopt the agenda item #9 a reflection on the EC review of CCAFS and a discussion of new ISP members to agenda item #13.
- To request that all Powerpoint presentations to be discussed at the meeting be included in the background material, even if only in draft form.

2.2 Minutes of the previous meeting and matters arising

The Chair noted that the minutes had been approved following an email consultation with the ISP in the weeks after the 2nd ISP meeting. The minutes had been placed on the CCAFS website.

The Chair elaborated on matters arising:

Under “*Meeting #2, Item 6: Program Director’s report on progress*” it was agreed “To request a presentation and discussion on the farmer participatory research being conducted throughout the program at a subsequent meeting to ensure an adequate level of investment in such activities.” It would have been too challenging to get a comprehensive picture of this for this meeting, including across all CGIAR Centers, and would be better accomplished in the annual reporting process from Centers. It is proposed that this be an agenda item at the 4th meeting of the ISP.

Of the various topics discussed in the email consultation amongst members for the agenda of this meeting the one that was earmarked for this meeting, but has not been placed on the agenda (for reasons of time), is “Mobilizing effective partnerships”. This and a number of other topics (e.g. scope and depth of engagement with the private sector; big picture review of progress towards desired impacts and outcomes) will be placed on the ISP agenda for 2013.

Meeting #2, Item 8: Report on internal learning

The ISP requested a presentation at the 3rd meeting. Given that the ISP usually focuses on internal learning in the May meeting the presentation of the results of the self-assessment and Center feedback on the “Leadership”, “Partnerships” and “Science” success factors those topics would be deferred to the 4th ISP meeting.

Decisions:

- To note that the minutes have been approved by the ISP via email consultation.
- To request a presentation and discussion on farmer participatory research at the 4th ISP meeting to ensure an adequate level of investment in such activities.
- To request that also the following topics be placed on the agenda of the 4th ISP meeting: “Mobilizing effective partnerships”; “Scope and depth of engagement with the private sector”; “Review of progress towards desired impacts and outcomes”.

3) Thematic CCAFS issues

3.1 CCAFS and “food security”

CCAFS approach and research content in relation to a comprehensive “food security” concept was discussed. To justify the approach to “food security” in moving forward, there was also reference back to the overall CCAFS goals and some refined impact pathways.

i. A comprehensive approach to food security

In writing the CCAFS proposal a comprehensive concept of food security was embraced, i.e. a concept that includes access, utilization and stability and other components of food availability (exchange, trade, storage, transport) beyond agricultural production. The Program Management Committee (PMC) and ISP have confirmed support for the comprehensive concept. The recent report of the Commission on Sustainable Agriculture and Climate Change also supports the comprehensive approach, indicating in their seven recommendations that access, consumption and waste are crucial elements of a sustainable global food system. However, given the historical strengths of the CGIAR, the PMC has recognized that it has a long way to go in order to truly tackle food security in a comprehensive manner. Currently work on food security is embedded in all Themes, but arguably in a dispersed and disconnected manner.

CCAFS response

The CCAFS PMC proposed that CCAFS invests in filling gaps, via strategic research or partnerships, to address food security in its wider sense. This required a decision from the ISP on which (from none to all) of the key areas of potential work on food security are strategic for CCAFS, in terms of how important the issues are, where the comparative advantage of CCAFS lies, and what the opportunities are for achieving impact via strong science and partnerships:

- i. Non-yield aspects of food production, i.e. on nutritional quality and food safety
- ii. The supply chain beyond the farmgate, including post-harvest losses (storage, transport, processing) and modelling of future emissions in rapidly transforming food chains
- iii. Diets and consumption patterns as drivers of mitigation and adaptation options
- iv. Interaction of prices, livelihoods and incomes in determining food security for women and men
- v. Governance of food systems under future climate change

The two chief impact pathways for food security issues at the global level are the Committee on Food Security (CFS) and the G20. CCAFS has engaged successfully with the first, via the International Food Policy Research Institute (IFPRI) lead authorship of the commissioned report on climate change to the CFS in 2012; links with the G20 have largely been via the Commission on Sustainable Agriculture and Climate Change under the French Presidency in 2011. However, it is acknowledged that these global channels do not have the political imperative of equivalent processes for climate change (UNFCCC). The main pathways for impact will be at the national level, with some opportunities at the regional level where there are regional economic communities that have a food security agenda.

ii. ISPC perspectives

The February 2011 Independent Science and Partnership Council (ISPC) commentary on the revised proposal for CRP 7: Climate Change Agriculture and Food Security noted that “food production must increase by about 70% by 2050 to meet projected food demand of 9 billion people. It is therefore surprising to find that none of the research or outcomes in this CRP explicitly addresses the challenge of increasing food production capacity under changing climates”. The ISPC called for “further explanation of the role of this CRP in relation to the commodity crop CRPs is needed, not just in co-financing activities but in the relative deliverables” as work plans for each CRP are developed. CCAFS PMC noted that co-financing is no longer an issue as the CGIAR Consortium decided that additional budget lines related to co-financing were unworkable, so in essence the issue outstanding is how CCAFS partners with the “productivity” CGIAR Research Programs (CRPs) under CRP3.

CCAFS response

PMC proposed a meeting with the productivity CRPs to establish practical links on priority-setting, impact pathways and related indicators (IDOs)¹, deliverables, activities, research sites, data sets, analytic tools and partnerships.

¹ IDOs = Intermediate Development Outcomes. The development of IDOs is a Consortium-led exercise that will move the CGIAR to a performance-based system. The IDOs need to link CRP outputs to the Strategic Results Framework (SRF) of the CGIAR

Decisions:

- CCAFS to consider the whole food value chain, but primarily not as an implementer of new research but rather to define key questions and attract various partners to address the issues thus identified. CCAFS should also stimulate the development of important synthetic outputs based on research results from a variety of partners.
- CCAFS to coordinate with the “productivity” CGIAR Research Programs (CRP3) by initiating activities with several of the CRP3 programs in early 2013.
- CCAFS to engage in discussions with the CRP on Agriculture for Nutrition and Health (CRP4) and the Water, Land and Ecosystems CRP (CRP5) to address how collaboration can be strengthened and more clearly define the relative responsibilities among the programs.
- To request the Program Management Committee to consider how transformative change can be address, for example in Theme 4.3.
- To emphasize the need to put CCAFS work on climate change and food security in a global context through appropriate channels. Recognizing the specific character of food security in the different regions, an analysis is also needed on how the food security policies can be addressed at national and regional level.

3.2 Scope of CCAFS mitigation research

ISP was asked for input related to (1) the regional strategy for pro-poor mitigation research and (2) stakeholder opposition to mitigation. Mitigation does not have the same biophysical, technical, social or political feasibility in all locations. Mitigation in low potential sites may have only marginal impacts on emissions. Mitigation actions in some sites may also have marginal impacts on poverty (via carbon trading, climate finance, or enhanced productivity and resilience). Yet many of the countries with low mitigation potential in agriculture are also those most supportive of mitigation in international negotiations, eligible for international climate finance through Nationally Appropriate Mitigation Actions (NAMAs), and where agriculture and land use are often significant sources of emissions or mitigation potential.

Should CCAFS test mitigation options across both low and high potential regions to provide an evidence base for decisions and help make mitigation options and benefits more generally accessible in the developing world, or focus strategically where conditions are currently most conducive? While a more thorough analysis is needed, Latin America and South East Asia appear, for example, to have a higher biophysical mitigation potential than West or East Africa. The overall impact of mitigation effort is likely to be higher. Yet CCAFS could continue research on low emissions development in countries supportive of mitigation, even if their mitigation potential is low, because of the opportunities for development finance, meeting future emissions commitments and maintaining awareness of best management practices.

Meanwhile, stakeholder opposition to mitigation, whether among NGOs or national governments, has discouraged scientific and partner engagement in some places. CCAFS often face political sensitivities related to communicating and conducting mitigation research. As a research program, what is the CCAFS stance on supporting pro-poor mitigation where powerful stakeholders are

opposed to mitigation? How can CCAFS balance the need to be responsive to stakeholders, yet also not let current political positions on mitigation by selected stakeholders drive the CCAFS research agenda?

Decisions:

- To agree that CCAFS mitigation work should focus on pro-poor mitigation and the links between mitigation and adaptation, as appropriate for each region.
- To provide evidence on mitigation potential along the value chain from farm to table, particularly with respect to the role of women, in LED countries, in production, distribution, storage, processing and utilization of food.
- To continue development of the assessments of agricultural contributions to greenhouse gas emissions as a basis for evidence-based policy making taking the entire food value-chain into account.

3.3 Theme 2 activities in West Africa

This case is given as an example of the interaction of Theme and Regional Program Leaders, and the strategy used to implement theme activities in regions. Theme 2 has three objectives:

- (a) Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods;
- (b) Identify and test tools and strategies to use advance information to better manage climate risk through food delivery, trade and crisis response; and
- (c) Support risk management through enhanced prediction of climate impacts on agriculture, and enhanced climate information and services.

Each year the Theme Leader proposes a set of activities related to the overall CCAFS implementation plan (e.g. the three year logframe), while each of the Regional Program Leaders suggests priority activities in their regions. Bilateral discussions between the Theme Leaders and Regional Program Leaders result in an agreed workplan that is also subject to scrutiny by the PMC.

The three Regional Program Leaders agreed on a common set of priorities, all of which include Theme 2 components:

- Attention to models, data, crop/rangeland/pest/disease forecasting, and Decision Support Systems;
- Policy analysis and communications;
- Capacity enhancement;
- “Climate-Smart Villages” for Participatory Action Research (PAR) across Themes;
- Exploiting opportunities for South-South cooperation.

In West Africa, some of the specific Theme 2 activities are as follows:

- (a) Tailoring climate information to the needs of West African Farmers (largely Senegal, also Mali and Burkina Faso; work with national meteorological services, AGRHYMET, USAID, EU, AfDB, World Vision, FAO and WFP).

(b) Methodology and capacity for analyzing and fostering gender and social equity within participatory action research focused on climate risk management (Senegal; work with University of Florida).

(c) Historic weather data reconstruction methodology development, data set development and capacity building (CILSS countries; work with national meteorological services, Princeton University, IRI, and partners in the AMMA program: TAMSAT (University of Reading), AGRHYMET).

(d) Documentation and preparation of AMMA data in support of crop forecasting (work with AGRHYMET).

(e) Evaluation of Mali's agrometeorological advisory program, with a view toward strengthening and upscaling (Mali, and to be extended to other Sahel countries; work with USAID, IRI, ICRISAT, IER; Mali's agrometeorological advisory service).

There are a number of emerging opportunities:

(a) WASCAL. The West African Science Service Center on Climate Change and Adapted Land Use (WASCAL) program will be investing heavily in capacity-building (e.g. 1000 Ph.D. students over the next few years). It is a promising opportunity, relevant to all four CCAFS Themes, for leveraging resources to build research capacity.

b) USAID and CSP. The climate adaptation program, under the E3 division of USAID, plans to invest substantial funds to strengthen climate services in West Africa. CCAFS partnership with USAID on the Mali evaluation, and co-sponsorship of the upcoming workshop in Dakar, have opened the door to future partnership and scaling up CCAFS research.

c) AMMA is an international research program that aims to understand the variability of the West African Monsoon. This certainly requires in-depth reflections and discussions between CCAFS and AMMA program to develop concrete actions to be implemented in synergy.

Decisions:

- To express appreciation for the Theme2/West Africa presentation as an example of theme-region collaboration noting that it is important for CCAFS to clearly demonstrate the strength of this matrix approach.
- To note the importance of an appropriate focus on agriculture and food security as well as climate change in the development of Theme 2 activities in West Africa.
- To recognize that AMMA generates scientific knowledge that could serve CCAFS work in West Africa and to define the data needs that would be of interest of CCAFS. Contacts should be established with AMMA at the highest level to avoid redundant activities and to define complementary research.

3.4 Strategies in place for Linking Knowledge with Action

Theme 4.1 is evolving in response to changes in the new foci in the Consortium, including much greater attention to gender issues and 'Intermediate Development Outcomes' - IDOs).

Objective 4.1, Linking Knowledge with Action, is primarily about how CCAFS does the research so as to increase the probability that the knowledge generated will lead to actions (changes in strategies, techniques, technologies, policies, institutions). Theme 4.1 has strategies in place related to three 'Linking Knowledge with Action' principles, and has been coordinating efforts across the Themes, Regions, and the Centers to ensure comparability in, and sufficient attention to:

- Outcome-oriented participatory engagement and partnership building processes
- Multiple and innovative communication strategies and knowledge management approaches
- Learning approaches that include capacity enhancement

PMC sought ISP perspectives on whether the current strategy in Objective 4.1 of focusing on engagement/partnerships, communications and learning is appropriate.

The amount of time spent on coordinating gender and social differentiation-related research across Themes, Regions and Centers has gone up considerably for Objective 4.1 in the last year. Given that all themes and regions are now investing in gender-targeted work (i.e. CCAFS has succeeded in mainstreaming it), the PMC seeks feedback from the ISP as to whether there is a need to also make it more visible within Objective 4.1. (The current Output 4.1.3 is: 'Analyses providing evidence of the benefits of, strategies for, and enhanced regional capacity developed in, gender and pro-poor climate change research approaches that will increase the likelihood that CCAFS-related research will benefit women and other vulnerable as well as socially differentiated groups').

Theme 4.1 is closely linked to the communication and dissemination work conducted by Regional Program Leaders and the Coordinating Unit. Much more dissemination needs to be done to reach national and regional stakeholders who are key to achieving outcomes in policy processes. In 2012 some attention was given by the Coordinating Unit to supporting regional programs. So one issue the PMC sought advice from the ISP was as to whether CCAFS should strengthen this process even further, reducing global efforts (given the resources available and the fact that CCAFS is now well recognised globally) and enhancing regional efforts, for example?

Concerns have been raised that the Participatory Action Research (PAR) within the CCAFS sites is not well integrated and communicated, and concerns have been expressed that Centers are not doing the bulk of their work at CCAFS sites. Outcome mapping/impact pathways exercises have been initiated and are planned. These will contribute greatly to an enhanced understanding of who is doing what and where and to stronger partnerships. The PMC sought the ISP's advice as to whether there are other processes or approaches that the PMC should be considering to enhance integration and attract more Centers to working in CCAFS sites?

Decisions:

- To encourage further development of impact pathways from the bottom-up as a complement to the generic impact pathways in the business plan.
- To underline the importance of scenarios work in providing a link between local and global.
- To ask the Coordinating Unit to increase its activities with Regional Program Leaders, even if this means downscaling global engagement and communication.
- To engage the wider CCAFS partnership in outreach activities and to identify champions that

can assist.

4) Monitoring and evaluation strategy

At its 2nd meeting the ISP concluded "To note the slow progress on devising monitoring indicators for CCAFS implementation assessment, given the deliberations at the CGIAR Consortium and Fund Council, but to ask that the Program Director present the proposed system at the 3rd ISP meeting." The Consortium is still in discussion on the CGIAR-wide performance management system, but Intermediate Development Outcomes (IDOs) are expected to be in place for each Consortium Research Program by mid-2013. These IDOs will measure CGIAR Research Program (CRP) outcomes and will be used as a basis for priority-setting and resource allocation among CRPs. They will link the CRPs to the Strategic Results Framework (SRF) of the Consortium. CCAFS will incorporate the IDOs into its overall Strategy for Priority Setting, Monitoring and Evaluation.

A CCAFS Strategy for Priority Setting, Monitoring and Evaluation is now submitted to the ISP. It recognizes three areas for monitoring and evaluation: (1) priority-setting, (2) internal planning, reporting and "smart learning loops" and (3) assessment of outcomes and impacts. It builds on the plans outlined in the original CCAFS Program Plan by demonstrating progress and developing systems under each of these three areas. The strategy is already implemented successfully in CCAFS, and the intention is to update it once the Intermediate Development Outcomes are in place across the CGIAR.

Decisions:

- To note the current status of CGIAR Consortium discussions on the performance management system and associated priority-setting (resource allocation).
- To approve the CCAFS Strategy for Priority Setting, Monitoring and Evaluation (Annex 1), on the understanding that the strategy will be updated following the agreement with the CGIAR Consortium on the CGIAR-wide performance management system and the associated CCAFS IDOs.
- To interact with the CGIAR/ISPC Standing Panel on Impact Assessment (SPIA) to consider further work on impact assessments of institutional changes and policies at national and global levels.
- To request the PMC to consider, with some urgency, approaches to evaluate the outcomes reported by Centers, Regions and Themes.

5) Data management strategy

CCAFS is mandated to produce international public goods. A Data Management Strategy (DMS) has been developed by the Statistical Services Centre of the University of Reading and CCAFS staff to enable the program to fulfil its obligations with respect to making data and the relevant supporting documentation from its research activities available to the global community.

The aim of the DMS is to guide the creation of an enabling environment where scientists and partners are able to produce and share high quality data outputs throughout CCAFS, while at the same time enabling a variety of data management procedures and good practices at project level. The DMS is built around the notion of "data portals" specifically designed for common types of data where scientists can publish their data. The DMS refers to "Data+", a term used to indicate the

actual data generated by the research process once it has been cleaned and is considered of good quality, as well as the documentation that will enable the use of these datasets in the future. The DMS is also concerned with the provision of guidance and support to scientists and CGIAR Centers to facilitate producing well-managed and documented datasets that are easy to use both now and in the future.

Guiding principles for this strategy are: accessibility, ease of use, ethical use and sharing of data about people, provision of support to data generators, ensuring that credit and visibility go to data generators, and adherence to international standards for data documentation, curation and storage. The support package for the implementation of the DMS is currently under development, and will include planning and reporting templates, a database to facilitate CCAFS's management and evaluation of submitted Data+, and practical guidance on meta-data, data management, data quality assurance and ownership/authorship. The full package will be available to Centers in early 2013 so that the DMS can be implemented for at least part of the 2013 planning and reporting cycle.

Decisions:

- To note the development of the DMS and to note its contribution to Consortium discussions on a high-level Data and Knowledge Management Strategy for the CGIAR as a whole.
- To utilize the CCAFS links with the climate research community, for example through WCRP, to ensure constructive feed-back on the use of climate data in the context of food security.
- To encourage CCAFS to provide a testing ground for climate data in the context of agriculture and food security.
- To approve the CCAFS Data Management Strategy (Annex 2), on the understanding that the implementation of the strategy will be closely monitored over the next year.

6) Rio+20 reflections

CCAFS participated in a number of events at Rio+20, with a focus on Agriculture and Rural Development Day (ARDD) and organized the ICSU session on food security within the Forum on Science, Technology and Innovation for Sustainable Development. Both events were well received. ARDD attracted 500 persons and the same number of on-line viewers. It reached 600,000 persons through social media and had over 70 published media stories. The event included presentations by three Brazilian Ministers, President IFAD, Vice-President World Bank, Head of United Nations Forum on Forests (UNFF), amongst many others. The event also involved a major collaboration with the CGIAR Consortium Office as the CGIAR had most of the afternoon talking spots and sessions. The overall outcome for agriculture and food security was positive in Rio, though the emerging agreement is at a very generic level. CCAFS will now keep a watch on what emerges from Rio+20. One area to get involved in is probably the to-be-defined Sustainable Development Goals, where integrated measures of progress towards a sustainable food system are needed.

Decisions:

- To note the achievements at Rio+20.
- To acknowledge the further development of Agriculture and Rural Development Day into a more holistic approach of the Agriculture, Landscapes and Livelihoods Day 5 (ALL-5 Day) that will be organized in conjunction with UNFCCC COP18 in Qatar in December 2012 and to express appreciation to the Program Director for providing continued leadership in the evolution of the

concept.

- To note the engagement of CCAFS in the organization, together with the government of Qatar and the World Bank, of the Ministerial Dialogue within the International Conference on Food Security in Drylands in Qatar in November 2012.

7) Transition from GEC programmes to Future Earth

ESSP is part of the transition to Future Earth, the new organisation that will lead global change research. CCAFS has participated in a number of events and consultations, largely through the ISP Chair. The ESSP Observer to the ISP has been part of the transition process and has also been able to represent CCAFS views in key meetings. The final shape of Future Earth is near to completion. Rik Leemans has discussed the future link of CCAFS with ICSU and the Transition team. It has been suggested that CCAFS would directly fall under ICSU and that either the Director or one of their Board or a staff member would replace the current ESSP Observer to the ISP. This is regarded as better than being linked to one of the four individual global change research programmes because CCAFS will have support at the highest level and also an immediate link to the Alliance setting up Future Earth.

Decisions:

- To note that the global change research funding community, through the Belmont Forum, has selected food security as a focus for a call for proposals in 2013 and that the tentative objective has been given as “the two-way interactions between food security and land use change, and its consequences on other ecosystem services (e.g. fibre, energy, carbon sequestration and biodiversity)”. CCAFS will attend a scoping workshop in December.

- To recommend that ICSU replaces ESSP from 2013 as an interim *ex officio* member and thus providing a crucial link to the further development of Future Earth.

8) Business Plan and budget 2013

8.1 Overall issues

General

The Business Plan 2013 describes the proposed major activities in 2013, and lays out the budget requirements. The format for the Business Plan follows that used in 2012 with some minor adjustments. The document will be tabled at the CIAT Board meeting for approval.

Major thematic and regional initiatives in 2013

The Business Plan describes the major activities of the Themes and Regions in relation to impact pathways and communication efforts. It also describes cross-Center activities. Themes and Regions point out the major issues to be tackled going forward – these are summarised across all themes and regions in a section below.

Changes made to Objectives, Outputs, Milestones

No major changes are proposed at the Objective or Output level. There are some changes at the Milestone level related to slippage and rescheduling, and to consolidation, but none of these are of a major strategic nature. The PMC does, however, signal that it wishes to rethink Theme 4 during 2013 given that the Theme Leader for Objective 4.3 has departed, many policy issues have been

mainstreamed into Themes 1, 2 and 3, and there has been a major expansion of activities related to gender and social differentiation, and to monitoring and evaluation.

Major issues that need to be tackled going forward

In 2011 the CCAFS Independent Science Panel (ISP) called for extra attention and strengthening to a number of topics. These topics and the proposed follow up to evaluate progress on each of them is given in the table below.

Topics/research areas requiring strengthening	Proposed follow up
Adaptation strategies for agricultural and food systems into policy and institutional frameworks (Theme 1, Objective 3)	These are discussed in each Theme in the Business Plan, and in the Overview in the Business Plan
Managing the whole food system (Theme 2, Objective 2)	
Climate Information services (Theme 2, Objective 3)	
Institutions and incentives for pro-poor mitigation (Theme 3, Objective 1)	
Participatory Action Research (PAR)	Stocktaking in the last quarter of 2012 for feeding into the Science Meeting 2013
Process and tools needed to improve national level decisions	
Gender analysis	Stocktaking on the basis of the 2012 reports from Centers, Regions, Themes
Inter-Center programs of work	Each Theme and Region reports on this aspect in the current Business Plan

There has been progress towards addressing the Theme/Objectives listed above, in that various activities and partnerships have been initiated. But the PMC recognises that for all these specific Theme activities, the process of strengthening needs to continue.

Many Participatory Action Research (PAR) activities were initiated in 2012 but the PMC also recognises that much more needs to be done. The PMC plans to do a major stocktaking in the last quarter of 2012 of what is being conducted and will use that as input into the annual CCAFS Science Meeting of 2013. The PMC will do the same for “processes and tools needed to improve national level decisions”.

Gender analysis has also advanced considerably. The PMC plans to discuss next steps once the annual technical reports for 2012 are finalised from Centers, Regions and Themes.

There has been an upsurge in inter-Center activities, but huge challenges remain. The PMC still sees many areas of weakness, lack of synergies and individualistic behaviour, and will continue to prioritise facilitating inter-Center activities.

To the above list of topics the PMC wants to add two further areas requiring substantial attention in 2013.

Outcomes and performance-based management

This topic relates to the proposed performance management system of the consortium including the development of Intermediate Development Outcomes (IDOs). By mid-2013 it is expected that CCAFS will have developed IDOs. In addition, CCAFS will have to develop “value propositions” for each IDO – the cost to achieve each outcome, enabling an analysis and assessment of value for money provided by each of the CGIAR Research Programs (CRPs) in their contribution to the system. CCAFS are also likely to be part of a trial in relation to the CGIAR Consortium’s 2014 Financing Plan. It is expected that CRP Leaders, and through them the partners that implement the CRPs, would negotiate with the Consortium both the minimum, or satisfactory levels of investments and outcomes for which they will be held accountable, as well as, where appropriate the rewards associated with outperformance. Given the emphasis on performance-based financing in this Business Plan the PMC has used a performance-based method to allocate some of the 2013 resources (see budget section). In 2013 the PMC plans to expand the system to include assessment of 2012 outcomes and to use those in the decisions on allocating resources.

Given the focus on outcomes, we need to step up attention to outcomes in Themes, Regions and Centers. Too many Center activities are removed from any impact pathways or impact pathways lack clarity. CCAFS plans to develop outcome mapping at site level to ensure focus and connection to impact pathways and spend some time with Center scientists discussing scaling up, so as to ensure that research is more targeted and feeds into impact pathways. In addition, the PMC plans to make some shift of resources in communications, from global outreach to more support to regions to facilitate reaching stakeholders on the impact pathways.

Food Security and Food Systems

As discussed in a previous agenda item, CCAFS is dominated by work on the production component of food security. CCAFS needs to invest in filling gaps, via strategic research or partnerships, to address food security in its wider sense.

Decisions:

- To recognize the need to rethink the strategy within Theme 4 and to request a presentation on the new Theme 4 strategy at the meeting in October 2013.
- To agree that all of the topics listed in the above table become substantive agenda items in 2013 ISP meetings.
- To endorse the extra attention to performance-based management and outcomes, including outcome mapping and working with Centers to ensure an outcome focus.
- To endorse the proposal to make additional investments in research to address food security in its wider sense.
- To recommend that Regional Program Leaders develop a mapping and profiling of relevant regional partners and to provide inputs in the form of position papers and policy briefs for relevant regional events.
- To note that the budget distribution amongst Centers needs to be better aligned with CCAFS

strategic objectives through appropriate *ex ante* analysis and priority setting.

- To further define capacity enhancement activities with regional partners.
- Wherever possible to twin universities based in high-income countries that are sub-contracted as research partners with universities in the CCAFS regions, from project inception, as a means to ensure capacity enhancement for research and a credible and sustainable interface between science and policy.
- To express appreciation to the PMC for its hard work.

8.2 Cross-cutting issues

The Business Plan deals with the following cross-cutting issues:

- Global partnerships, engagement and communications
- Capacity enhancement
- Social differentiation and gender
- Impact assessment, internal learning, monitoring and evaluation
- Administration, coordination and management

CCAFS is now starting to experience some degree of stability, as multi-year partnerships are implemented (e.g. for capacity enhancement activities) or as strategies are finalised (e.g. for gender). Thus for most of these cross-cutting issues it is attention to strengthening of existing commitments and processes rather than initiating new activities.

As discussed in a previous agenda item, the one strategic decision is to change the CCAFS communications focus. The global communications efforts have been largely successful and in 2013 the “central” communications team will put a greater effort into supporting Regional Program Leaders so as to help build national and regional outcomes. This will include support to FARA’s Africa Science Week and key meetings in the regions (e.g. East Africa high level regional policy meeting).

Decisions:

- To endorse the proposed activities laid out in the Business Plan for the cross-cutting issues.
- To request the PMC to make an assessment of partnerships to ensure that the selection is based on strategic considerations driven by the CCAFS agenda noting the need for academic and research partnerships with institutions also in the target regions.

8.3 2013 budget

Annual budgeting process

According to the contract between CIAT and Centers, six months’ notice needs to be given to Centers if there is to be a budget reduction, and that this budget reduction has to be upon the recommendation of the ISP. These requirements give many problems for building a budget for the following year, as the approval of the ISP only comes in the last quarter of a year, which gives less than six months prior to the start of the year. In order to circumvent this problem, it was proposed that a conservative budget (e.g. reduced from the previous year by about 20%) can be communicated from the PMC to Centers before 30 June of each year. In building the final budget for the following year (in the Business Plan for each year), it is hoped that many Centers will get increased budgets as determined by priorities and performance. In the case where an even larger

budget cut is required (e.g. more than the 20% indicated above), it is recognised that Centers would need to implement the cut gradually (e.g. small cuts at the start of the year, but major cuts by the end of the year). In the cases where small reductions in budget are required that relate to procurement and administrative issues (e.g. capital equipment purchases disallowed) the ISP asks that the PMC work with CIAT administration to implement the budget cut.

State of the 2012 budget and expenditure

The final 2012 allocated budget from the Consortium from Windows 1/2 was \$41.4 million. Since the ISP meeting in May when the 2012 budget was presented CCAFS has made some extra allocations of funds. The first extra allocation has already been communicated by email to the ISP. The second allocation was made based on a competitive call amongst Centers, the results of which are shown in the Table below. The call for proposals focussed on getting additional Center work in CCAFS sites.

CENTER	TOPIC	\$(000)
ICRISAT	Vulnerability, Production Risk and Farm Technology Adoption in Climate Change Prone Rain-fed Eco-systems of Karnataka and Andhra Pradesh States, India. (T2)	\$250
	Participatory Evaluation and Promotion of integrated sorghum - legume technologies for improved food security and income in Wote district of Eastern Kenya (T2)	\$100
WORLD FISH	Gender inequality: A barrier to climate adaptation behavior? (T1)	\$132
CIAT	Playing out transformative adaptation in CCAFS benchmark sites in East Africa: When, where, how and with whom (T1)	\$300
BIOVERSITY	Varietal diversification to manage climate risk in East Africa (T2)	\$350
IFPRI	Increasing Women's Resilience to Confront Climate Change (T4)	\$220
	Assessing the impact of appropriate risk management financial packages on household's asset portfolios in Bangladesh, Ethiopia and Uruguay (T2)	\$170
IITA	Building climate smart farming systems in Rakai - Uganda (T4)	\$133
TOTAL		\$1.655

As of 30 September CCAFS has received 38% of the funds from the Consortium and has disbursed to Program Participants 34%. The overall W1 and W2 execution as of June 30th is 31%. We have followed up with those Centers who reported executions levels below 30% and enquired about the lack of implementation.

The discussion included financial matters related to ILRI. Lindiwe Sibanda noted that she is on the ILRI Board and asked whether there would be a potential conflict of interest. The Chair did not foresee conflict of interest in the discussion and asked Lindiwe Sibanda to stay for the discussion. It was noted that there were some peculiarities in the ILRI expenditure reports in relation to the closing of the accounts for the Challenge Program. The audited reports submitted to University of Copenhagen did not match with figures reflected in their Center Audited Financial Statements (2010). CIAT is now in discussion with ILRI and it is hoped that the matter would be sorted out in the coming weeks.

2013 budget

The 2013 budget is presented in the Business Plan, based on a total budget projection of \$56.8 million. Given CCAFS has only recently been given a likely total budget figure for Window 1 and 2 (90% of expenditure in 2012) we have yet to return to Centers to revise their initial budget submissions.

Some of the key items to note in the budget are:

- 66% of the total budget is expected to be financed with Window 1 and Window 2 funds.
- Funds going to partners are 24%, down from the stated amount (30%) in the CCAFS Program Plan which included inter Center partnerships.
- 40% of the CCAFS budget is intended to Theme 1, 16% to Theme 2, 18% to Theme 3 and 26% to Theme 4.
- 17% is going to Gender and social differentiation related activities

\$500,000 W1&W2 funds remains to be allocated. It is proposed that this goes to strengthening the focus on the wider food security agenda, as well as ensuring continuity of strategic initiatives begun in 2012. It is noted that two new regions are included in the budget, though budgeted at lower levels than the on-going regions, because a slow start-up is expected..

The bulk of the funds have been allocated to Centers (\$20.3 million). In fitting with the direction of the CGIAR Consortium, these have been allocated using a performance-based allocation process as described in the Business Plan. Ten variables were considered for making the allocation decision, related to strategy, degree of recognition of CCAFS principles (e.g. gender analysis), degree of ambition in activities and outcomes, and administrative efficiency. The PMC weighted the variables and then scored Centers against the variables. The final weighting was as shown below. It was decided that the “outcome” variable would not be used in this 2012 planning process due to CCAFS only having fully completed one year, but would be incorporated in the 2013 planning process (the outcome variable was thus removed and the other scores re-scaled).

VARIABLE		WEIGHT
Strategy	Strategic fit of activities	0.20
	Degree of representation in CCAFS portfolio	0.09
Reflection of CCAFS principles	Gender: activities and reporting	0.07
	Partnership budget	0.05
	Communicating CCAFS	0.06
	Inter-Center synergies	0.08
Ambition	Bilateral percentage	0.06
	Ambition of activities and deliverables	0.12
	Reporting of outcomes	0.25
Admin efficiency	Timelines	0.02

The table below shows how Centre budgets have changed relative to 2012. The 2012 basis for calculating the variance excludes funds carried over from 2011 and all the extra allocations made in 2012.

Center	Variance
AfricaRice	-21%
Bioversity	-20%
CIAT	-13%
CIFOR	-20%
CIMMYT	-28%
CIP	-24%
ICARDA	-30%
ICRAF	-20%
ICRISAT	-18%
IFPRI	-10%
IITA	-20%
ILRI	-15%
IRRI	-13%
IWMI	-17%
WorldFish	-11%
Center subtotal	-20%

Decisions:

- To approve the procedure of giving an early (before the 30 June each year) conservative budget figure to each Center, in order to allow for needed budget cuts, strategic re-allocations and performance-based management in the finally approved Business Plan.

- To request the PMC to work with CIAT administration to implement budget cuts that involve procurement and administration.
- To endorse the performance-based budget allocation process.
- To recommend that the CIAT BoT approves the CCAFS Business Plan and budget 2013, - To note that Challenge Program funds held by ILRI still need to be fully accounted for and to urge ILRI and CIAT to urgently resolve inconsistencies and inform the CGIAR Consortium.

9) Topics for Center/ISP-commissioned external evaluation and EC review

CCAFS should have two external evaluations per year, with at least one of these being on programmatic issues. The other can be on administrative, legal and/or financial issues, and would be discussed and decided on by the CIAT Board. Thus the ISP needs to plan for at least one external review per year on programmatic issues.

These evaluations should be designed so that they can be inputs into the major evaluation that will happen in Year 5 commissioned by the International Science and Partnership Council (ISPC). The PMC has suggested a number of topics that can possibly be covered in the period 2013-2015, and these have been supplemented by topics that emerged thorough the discussions with the EU evaluators (from the current evaluation of CCAFS). The long list of possible topics is as follows, with an attempt to group them under different headings.

Outcomes and science products

- Review of the Theme by Region matrix and how it is managed, including a review of the efforts to ensure integration across themes. This would include review of whether CCAFS has the appropriate mix of local, national, regional and global activities. Part of the review would take a case study approach, looking at particular CCAFS deliverables and activities, and how these have contributed to International Public Goods and development outcomes. It is expected that the case studies will cover work in all the three initial CCAFS regions (West Africa, East Africa, South Asia)
- A review of policy engagement and influence on evidence-based policy making at national, regional and global levels. This would include examining whether evidence/recommendations from CCAFS research has penetrated into processes for national prioritization for adaptation funds. It will also include the role of CCAFS publications and outreach in shaping global, regional and national debates around policies for agriculture, food security and climate change

Monitoring and Evaluation

- Review of CCAFS site selection and baselines strategy. Baseline surveys – the degree to which they will meet our needs? Any suggested follow up required?

Partnership

- Review of the CCAFS partnership strategy and the degree to which it is successfully implemented. In particular, an examination of the degree to which CCAFS has successfully fostered collaboration between the agricultural and global change communities.
- Review of capacity strengthening of national and regional partners

Research methods

- An assessment of how successful CCAFS has been in co-designing research with stakeholders. This would include analysis of CCAFS builds linkages across scales from local to global. Do participatory processes at field level have links into designing future research? How are stakeholders incorporated at different levels?
- Review of scope and depth of research that involves gender and social analysis.

The first external evaluation of CCAFS by the European Commission (EC) focused on how CCAFS was performing in relation to the CGIAR reform process. The report from the evaluators is still in draft form, but is very positive, including on the role of the ISP and the PMC. The issues to be tackled as a result of the recommendations are relatively minor. As soon as the final report is received CCAFS will make formal response and present this to the ISP and CIAT BoT.

Decisions:

- To note the EC review and request that the final review is an item for discussion at the next ISP meeting and be presented to the CIAT BoT.
- To note the array of topics mentioned, all of which are important. The ISP agrees that a subset should be covered by external evaluation, and other topics will be examined in depth by the PMC and ISP at future meetings.
- To commission an external review in 2013: Review of the Theme by Region matrix and how CCAFS is delivering International Public Goods and development outcomes. The review should cover the approach used by CCAFS to work across scales from local to global.
- To agree on a timeline for additional programmatic external reviews:
2014: An assessment of how successful CCAFS has been in co-designing research with stakeholders.
2015: A review of policy engagement and influence on evidence-based policy making at national, regional and global levels.

10) Chair's annual report to CIAT Board of Trustees

The Chair will attend the 66th CIAT BoT meeting on 18-20 November 2012 in Cali and present his annual report. This follows the presentation by the CCAFS Program Director at the May BoT meeting, where CCAFS progress was presented and discussed. At that meeting the Terms of Reference for the governance and management review was also discussed and finalized (see Annex 3).

The Chair will present the CCAFS Business Plan, and in particular make the case for the major changes that are proposed in the 2013 plan and the proposed budget allocation. The Chair will also revisit the governance and management issues that relate to the interaction of the CIAT BoT and ISP to ensure there are no misunderstandings. The Chair will also present the list of proposed internally commissioned external reviews of programmatic issues. The Program Director will provide programmatic updates via a video-link.

Decision:

- To note that the following issues will be considered by the CIAT BoT: 1. Plan for internally commissioned external reviews of CCAFS, 2. 2013 Business plan, 3. 2013 budget, 4. CCAFS

programmatic update.

11) Future meetings, inc. date and place for the 4th and 5th ISP meetings

It had been decided to hold the 4th ISP meeting on 6-7 May 2013 in Hanoi, Vietnam. The annual CCAFS Science Meeting to take place before the Hanoi ISP meeting had been moved to March 2013. Instead it was discussed to look into member availability for informal external activities with key local stakeholders on 5 May, preferably in collaboration with the Vietnamese commissioner on the Commission on Sustainable Agriculture and Climate Change. Based on Doodle feedback it had been proposed the 5th meeting in Rome, Italy on 10-11 October 2013. It was agreed to look into the possibility of adding a day in order to meeting with Rome based agencies.

Decisions:

- To hold the 4th ISP meeting in Hanoi on 6-7 May 2013 and to use the opportunity to interact with key people in the region. The Coordinating Unit to do a Doodle for members' availability on 5 November for informal activities with key local stakeholders.
- To hold the 5th ISP meeting (two days) and organize meetings with Rome based agencies (one day) in Rome, Italy in the period 9-12 October 2013. The Coordinating Unit to circulate an updated Doodle request to look into members' availability.

12) Results of the ISP self-assessment from the 2nd meeting

A self-assessment by governance structures is a common tool used to monitor effectiveness. The tool is usually standardized and used on an annual basis allowing for comparison to be made across years. The ISP has only been in place for two meetings and there are a total of 10 members, 6 of whom completed the assessment form. The form is completed anonymously.

Some of the members of the ISP have recently been appointed and are not very familiar with the functioning of the CGIAR system nor with the finer details of the CCAFS program. This led to a number of responses which indicated this unfamiliarity. In addition the CCAFS program has undergone a number of changes over the last few years and whilst there has been a lot of discussions around the planning of the science program there has been very little time to assess whether the program is being appropriately implemented or whether correct and sensitive indicators have been chosen to allow measurement of impact. Many of the responses on the self-assessment reflected that not sufficient time has passed for an accurate assessment. Budgeting, promises of funding and payment deadlines continue to be a moving target and at this stage the ISP can only play a simple oversight role. The nature of the relationship between the ISP and the CIAT BoT is also only emerging in 2012 and difficult to assess.

Decisions:

- To note the results of the self-assessment from the 2nd meeting.
- To request that the Coordinating Unit, in collaboration with the Vice-Chair, redesign the self-assessment form to include the functioning and competence of the ISP.
- To hold at the 5th meeting an in depth discussion on the functionality of the ISP and the development of the program.
- To allocate time at future meetings for evaluation of the current meeting.

13) Any other business

The ISP members who had been members of the Challenge Program CCAFS had received letters of reappointment from CIAT. In order to ensure staggered rotation two members will step down from the ISP by the end of 2013. A discussion of replacement should take place at the next ISP meeting, and it is important to ensure continuation of the right mix of members in terms of various forms of expertise – scientific, regional, gender, nationality etc. Members were encouraged to send the Chair suggestions for names that he would then discuss with the Director General of CIAT, Ruben Echeverría and the ESSP/Future Earth representative.

The Chair noted that he would contact the members of the ISP whose terms started in 2011 and which will end by the end of 2013 regarding their availability for second term, and to ensure staggered rotation.

Members are urged to send back to Torben Timmermann any updates to the overview document with ISP member experience and expertise that was discussed at the ISP meeting in Copenhagen and circulated in hard-copy for the meeting.

The Chair thanked Rik Leemans who would step down as ESSP *ex officio* member of the ISP for his outstanding contribution to the Challenge Program SC and the Research Program ISP, and not least his imperative role of supporting the strategic link between the CGIAR and the global change community. CCAFS has been fortunate to have a member of Rik Leemans' calibre on its SC and ISP.

Decisions:

- To request members to send names for new ISP members to the Chair for his discussions with the CIAT Director General and the ESSP/Future Earth representative.

14) Closed meeting without management

15) Closed meeting without management and Chair

Thomas Rosswall
Chair

Bruce Campbell
Program Director

Annex 1

CCAFS Strategy for Priority Setting, Monitoring and Evaluation

This document shows how CCAFS is dealing with monitoring and evaluation (M&E), and to demonstrate the cascade from the overarching logframe down to project activities in specific sites. There are three elements to the overall process:

1. Priority setting: how does CCAFS decide on what should be done (***what should we do?***)
2. Work planning and reporting: showing the links from plans at different levels to activities in the field and then the reporting stream back up to the overall logframe and the way in which activities are monitored (***how should we do it, and how do we know we've done it?***).
3. Evaluating research outcomes: a set of baselines that can be utilised at some stage to meet some of the needs of ex-post impact assessment (EPIA), whatever CCAFS works on, PLUS project-specific baseline and other data collection to enable a suite of EPIAs to be carried out and documented in later years of the program (***what effects did it have?***).

Three sections below address each of these in turn. Each section provides the text from the formal CCAFS Program Plan (<http://ccaafs.cgiar.org/sites/default/files/assets/docs/CGIAR-Climate-Program-Plan-web.pdf>) and a short report on progress to date.

Foresight and priority setting

1. CCAFS Program Plan

Targeting food security, poverty reduction and sustainable natural resource management interventions that are robust in the face of a changing and uncertain climate requires a strong *ex-ante* analytical capacity to diagnose points of vulnerability and assess the impacts and trade-offs between socioeconomic and environmental goals associated with alternative strategies. Major components of this CGIAR Research Program (CRP) will involve foresight studies, vulnerability assessment and *ex ante* impact assessment. These components will have a strong capacity enhancement component, ensuring persisting use of the methods beyond CCAFS, and a strong methodological component, developing new approaches to undertake such activities. In addition, baseline indicators in all target regions will be identified and collected in the first year of regional activities in preparation for impact analysis.

Foresight studies and action involve critical thinking concerning long-term developments, debate to create wider understanding of potential future trajectories, and action to help shape the future. These are all crucial activities in relation to climate change impacts and solutions, given that climates will progressively change over long periods, and given that a multitude of other drivers will influence how such change plays out for agriculture and food security. Thus, Objective 1 in Theme 4 is scenario development. In this Objective we will explore, with a range of stakeholders, possible scenarios of the future, potential options for influencing trajectories of change, and opportunities for achieving outcomes and impact. The stakeholder engagement process for the scenario development will draw on emerging results from all CCAFS Themes. A major focus will be at the regional scale, but global and local work will also be conducted. Some participants will work at a number of scales (e.g. representatives from national farmer's organizations working with CCAFS in national level activities will also participate at regional level). Kok et al. (2007) recognise that a major methodological challenge is to achieve coherence and synergies when conducting scenario development across scales. CCAFS will do novel work to tackle that challenge and will develop both qualitative scenarios and quantitative analyses, at all scales, as well as using modeling tools developed in Theme 4 Objective 2 and Objective 3. Debate during the engagement process will inform priority setting. Theme 4 Objective 1 will focus on vulnerability assessment, using novel techniques to capture elements of adaptive capacity in communities, and thus earmark areas where specific adaptation and mitigation options may be feasible.

Considerable effort in CCAFS will be given to the bringing together of existing, and development of new, *ex ante* tools for assessing the costs and benefits of different adaptation and mitigation options (Theme 4, Objective 2 and Objective 3). These will be designed so as to examine the synergies and trade-offs among the different goals for agricultural development (poverty alleviation, food security and environmental health). The tools will also be designed to assess the synergies and trade-offs between adaptation and mitigation options, a topic running throughout Theme 3. These tools need a comprehensive and quantitative framework that both interrogates and pulls together what is known about the climate system and other drivers of change, how they may change in the future, the associated impacts on agro-ecosystems and the livelihoods of those who depend on them, food security, and feedbacks to the earth system. While much is known about many components, no integrated framework yet exists and there are key gaps and uncertainties in knowledge. The work proposed under Theme 4, Objective 2 and Objective 3 is designed to address these gaps, many of which CCAFS is uniquely placed to fill. This is a key innovation of CCAFS. By Year 3 these tools, supplemented where appropriate by such tools as the Delphi technique, will be used with regional and local partners to drive priority setting in CCAFS and help determine the future allocation of funds to Themes and Objectives. The tools will also be international public goods (e.g. for use by development agencies in making strategic choices among different options).

While foresight debates, vulnerability assessments and *ex ante* tools can give insight into priorities, priority setting can be undermined by the self-interest of CCAFS participants and institutional politics. This culminates in priorities and budget allocations that are more a result of self-centeredness and compromise than by strategic allocation of resources to those endeavors that will lead to the highest impact. CCAFS is fortunate in that it cuts across the entire CGIAR, and if, for example, aquaculture is the key option within a specific context, then it should be possible to allocate funds in that direction. For this to happen the Independent Scientific Panel needs to play a key role in terms of considering strategic programmatic directions and partners selected, and being able to advise on how funds should be allocated, without pressure from the Lead Center or Participating Centers/Partners. This independence then has to be a cornerstone of the governance and management system.

2. Progress to date

CCAFS is still a young program and a substantial proportion of current activities grew out of the original planning documents that were assembled, with considerable internal and external consultation and consensus building, for the original Challenge Program and then again for the CRP. Nevertheless, various extensions are being made to the portfolio, particularly with respect to global coverage, and some gaps are being filled, some of which have been identified through CCAFS-commissioned stock-taking activities. Accordingly, a certain amount of priority setting has been done. Two examples are (1) the identification of new CCAFS target regions and research sites, and (2) identifying climate-resilient yet under-researched crops to strengthen agronomic and modelling research into these crops in the appropriate Centres with suitable partners.

CCAFS's priority setting work has to be set within the yet broader priorities of the CGIAR itself. The CGIAR's Strategy and Results Framework (SRF) provides the overarching outcomes that all CGIAR research is expected to contribute to. This document and the associated Monitoring & Evaluation strategy are currently being finalised by the Consortium Office. Once this is done, CCAFS will refine its system to ensure congruence.

One of the key outputs of Theme 4 of CCAFS within the first five years is a set of *ex-ante* assessment tools to evaluate the likely impacts of different research and development approaches, building on previous integrated assessment work at many different institutions and integrating different components in novel ways. CCAFS is having the opportunity to drive budget allocations by foresight

analysis and ex-ante impact assessments in the context of climate change. The suite of tools that CCAFS and partners are applying (and in some cases, developing) for priority setting include:

- Global integrated assessment partial equilibrium models: IFPRI's IMPACT model and IIASA's GLOBIOM model;
- Semi-quantitative static methods (congruence, scoring methods, and hybrid methods);
- Quantitative, static tools based on economic surplus methods; and
- Modelling tools at levels other than the agricultural sector, such as household, crop and livestock models.

Priority setting will remain a key activity within CCAFS in the coming years, given the dynamism of the agriculture – development – climate change nexus. It is envisaged that much of this priority setting will be linked to the regional scenarios being developed and quantified in each of the CCAFS target regions. Indeed, the regional scenarios are providing an integrating mechanism for assessing adaptation, risk management and mitigation options using an iterative approach that evaluates costs and benefits at different levels in the hierarchy, and examines how different options may play out at farm, regional and global levels in different, plausible futures.

Monitoring, evaluation, reporting and smart learning loops

1. CCAFS Program Plan

The CGIAR envisages that monitoring and evaluation will be centrally coordinated across all CRPs. CCAFS will follow this CGIAR-wide process. In addition, CCAFS will undertake its own efforts to ensure rigorous appraisal and internal learning. The CCAFS Program Director and Program Management Committee will establish an annual monitoring system on approval of the ISP, with a set of performance indicators against stated Milestones, Outputs, and higher-level Objectives, compiled into an annual report. This system will be as simple as possible so as to not over-burden partners. The indicator data and reports will be compiled by the Centers and partners and synthesized by the CCAFS Coordinating Unit for deliberation by the Independent Science Panel (ISP) for transmission to the Lead Center Board.

Inter-institutional programs that tackle such complex issues² as those at the nexus of climate change, agriculture and food security, conducted at multiple scales, are difficult to implement in a coherent and impact-orientated manner. CCAFS will be implemented using principles of adaptive management, with attention to the multiple cornerstones needed for effective research for development. CCAFS learning will center on teamwork, partnerships (including inter-Center effectiveness; effectiveness of the ESSP (Future Earth)-CGIAR partnership), building consensus around objectives, approaches, problems and solutions, and internal and external communications. Smart learning loops among CCAFS staff, partners and stakeholders will be the framework for iterative improvement of the program. CCAFS will regularly undertake reflection and review through the following mechanisms:

- Twice yearly meetings of the Independent Scientific Panel (ISP) to provide critical guidance on the direction of the program. The ISP will provide the key mechanism to ensure that the emerging results from *ex ante* analyses are leading to strategic allocation of resources, and that CCAFS is being effective in meeting its intended Outcomes and Impacts.
- Use of the logframe as a living document to guide and measure the performance of CCAFS, with full participatory review on an annual cycle.
- Annual progress reporting, including on indicators for capacity enhancement, gender and social differentiation, and at least twice yearly meetings of the Program Management

² Sayer and Campbell (2004).

Committee (PMC) to reflect on learning and progress, respond to the guidance of the ISP and collectively build on these inputs for coherent future planning.

- Monthly teleconferences amongst the full team of CCAFS implementers (Theme Leaders, Regional Program Leaders).
- At least one meeting per year among the PMC and the Contact Points from the CGIAR Centers to undertake shared critical review of scientific progress and identify emerging opportunities for policy impact and research coordination.
- Annual meetings with key stakeholder groups in all regions to gather critical appraisal of CCAFS progress and contributions to policy processes in the region, with equivalent processes at the global level with key policy partners.
- Annual reflection exercise among Theme Leaders, Regional Program Leaders, Science Officers and the Program Director, facilitated by a professional facilitator, experienced in change management and the implementation of complex programs, to expose weaknesses, seize opportunities and, most importantly, build the cohesion of the team³.
- Continual monitoring as part of the communications strategy to provide rapid feedback on the utility of science and policy outputs from CCAFS.
- Active links with Chief Scientific Officer and staff at the CGIAR Consortium Office to be fully integrated into CGIAR processes for monitoring and evaluation and to benefit from cutting-edge approaches to internal learning.

Two formal reviews of CCAFS are planned in Phase 1. After 18 months a governance and management review will be conducted by independent evaluators, and in Year 5 a comprehensive external evaluation of CCAFS will be conducted.

2. Progress to date

Work planning and reporting in CCAFS is designed as a cascade from the global to the local level. Table 1, provided in an annex to this document, shows the logic of planning (Table 1a) and associated reporting (Table 1b). The highest level, level 0, addresses the over-arching outcomes that the entire CGIAR seeks to bring about, as specified in the Strategic Results Framework document. CCAFS contributes to these as one of 15 CGIAR Research Programs (CRPs). The CGIAR Consortium Office is currently leading a process to develop a monitoring and reporting system that synthesises across the CGIAR. CCAFS will ensure consistency with the Consortium-wide system and indicators as these develop in the latter part of 2012.

Operationally, CCAFS planning and reporting occur at three levels: level 1, the overall logframe; level 2, annual workplans that go to the level of activities for Centers and CCAFS Theme Leaders and Regional Program Leaders; and level 3 (most detail), workplans and terms of reference in individual contracts with partners for certain deliverables for Theme and Region activities. Examples from each level of this planning cascade are given in the fourth column of Table 1a. Note that for level 2, there are two types of activity plans: a consolidated activity plan of all Center-led, Theme-led and Region-led activities for the year; and basically the same information broken down into 15 activity plans, one per Center.

Activity reporting occurs at the same levels, shown in Table 1b: level 1, the annual report to the CGIAR Consortium, level 2, narrative reports and activity reporting tables for each Theme, Region

³ In the CCAFS proposal development process, three such facilitated meetings were conducted.

and Center, and level 3, project reports from specific contracts on specific deliverables. The reports at level 1 and level 2 follow standardized formats. Examples from each level of this reporting cascade are given in the fourth column Table 1b.

Given the different sizes of the budgets across Program Participants, and concomitantly the different scope of activities, three levels of funding are recognised for Annual Activity Plans, each with their specific reporting requirements (budget amounts mentioned below are based on total budget, i.e. from the Fund Council (Window 1 and Window 2), bilateral funding and other sources of funds): small: < US\$1.5 million/annum; medium: US\$1.5 million/annum – US\$3 million/annum; large: > US\$3 million/annum. The level of detail required for different reporting components (see section below) is as follows (Table 2).

Table 2. Reporting detail for different levels of funding to Annual Activity Plans

Component in report	Small (< US\$1.5 million/annum)	Medium (US\$1.5-US\$3 million/annum)	Large (> US\$3 million/annum)
Numbers of outcomes	At least 1 outcome every third year	At least 1 outcome every second year	At least 1 outcome per year
Formal ex-post impact assessments	1 every 5 years	1 every 4 years	1 every 3 years
Succinct summary of activities (total pp.)	1/2 page	1 page	2 pages
Case studies (1/2 page each)	2 per year	3 per year	4 per year

Further, as outlined in the CCAFS Program Plan, CCAFS uses “smart learning loops” among staff, partners and stakeholders for iterative improvement of the program. In 2011 and early 2012 CCAFS undertook reflection and review through the following mechanisms:

- Two meetings of the Independent Science Panel (ISP) (Cali, Colombia in November 2011; Copenhagen, Denmark in May 2012) to provide critical guidance on the direction of the program. The ISP has provided the key mechanism to ensure that the emerging results from *ex ante* analyses are leading to strategic allocation of resources, and that the research program is being effective in meeting its intended Outcomes and Impacts.
- Use of the logframe as a living document to guide the program, through development and critique of the 2012 Business Plan by the CCAFS Program Management Committee (PMC).
- Annual reporting to CIAT (Technical Report), the CGIAR Consortium (Consortium Report) and the wider network of stakeholders and general public (Annual Report).
- Four face-to-face meetings of the Program Management Committee (PMC) to reflect on learning and progress and to respond to the guidance of the ISP (Copenhagen, February 2011; Bonn, June 2011; Cali, November 2011; Copenhagen April 2012).
- Monthly video conferences among the full team of research program implementers (Theme Leaders, Regional Program Leaders, CCAFS Coordinating Unit).
- Two meetings of the PMC and the Contact Points from the CGIAR Centers to undertake shared critical review of scientific progress and identify emerging opportunities for policy impact and research coordination (Bonn, June 2011; Copenhagen, April 2012).
- Stakeholder meetings with key stakeholder groups in all three regions to gather critical appraisal of CCAFS progress and contributions to policy processes in the region (several national consultative meetings with key decision makers in Kenya, Ethiopia, Tanzania and

Uganda; establishment of a regional exchange platform between researchers and policy makers in partnership with CORAF in West Africa; stakeholder consultation and policy dialogue among senior policy makers in India, Nepal and Bangladesh).

- A reflection exercise among Theme Leaders, Regional Program Leaders, Science Officers and the Program Director, facilitated by a professional facilitator, experienced in change management and the implementation of complex programs, to reflect on the key risks facing CCAFS and how best to manage these (Cali, November 2011).
- A full review of communications activities over the year at the global level, carried out by the CCAFS Coordinating Unit (January 2012).
- Active links with Chief Scientific Officer and staff at the CGIAR Consortium Office to be fully integrated into CGIAR processes for monitoring and evaluation and to benefit from cutting-edge approaches to internal learning, including visits by Andrew Ward to the CCAFS Coordinating Unit in August 2011 and April 2012.

One outstanding task is the development and measurement of a set of management indicators. A preliminary list has been established and the numbers will be collated for 2011. Indicators include those focussing on communications successes, quality of science outputs, partnership etc.

Impact assessment

1. CCAFS Program Plan

Across all regions in which CCAFS works, Regional Program Leaders and Theme Leaders will work with partners to select and measure key indicators that can be used to monitor and evaluate CCAFS progress towards outcomes and impacts. A globally common set of appropriate baseline indicators, on agricultural productivity, rural livelihoods, and biogeophysical attributes, will be collected at selected study sites, so that monitoring and *ex post* impact assessment can be carried out. These global indicators will be supplemented by regional and sub-regional indicators where deemed appropriate by partners and Regional Program Leaders. Care will be given to ensuring that indicators capture cross-scale impacts. The integrated assessment framework described above in the section on impact assessment will also be used for *ex-post* assessment of the research work, its outputs, and its outcomes, in relation to the baseline indicators.

Existing baseline surveys will be used where possible. For example, ICRISAT's Village Level Surveys or IFPRI's panel household surveys in Ethiopia might be targeted for additional visits that collect climate-specific information. These indicators will relate, for example, to human well-being, the status of natural resources, and the institutional, infrastructural, and socio-cultural context of households in the study sites. Some of the indicators collected will pertain to social differentiation, including wealth classes and gender, such as statistics related to women's roles in agricultural decision-making and local and regional networks.

The performance of CCAFS will be measured against ten-year outcomes and three-year Intermediate performance indicators (Table 2).

Table 2. Intermediate performance indicators for outcomes to be achieved by Year 3

CCAFS sub-goals	Intermediate performance indicators (Year 3)
1. To identify and test pro-poor adaptation and mitigation practices, technologies and policies for food systems, adaptive capacity and rural livelihoods	12 pro-poor adaptation and mitigation practices, technologies and policies, which have been developed and tested by CCAFS partners for food systems, adaptive capacity and rural livelihoods, adopted in 6 countries
2. To provide diagnosis and analysis that will ensure the inclusion of agriculture in climate change policies, and the inclusion of climate issues in agricultural policies, from the sub-national to the global level in a way that brings benefits to the rural poor	CCAFS partners' findings consistently used in IPCC, in global policy processes on food security, and in climate change and agriculture policies in 6 countries, as evidenced in policy documents, documentation of processes and inclusion of stakeholders from both agriculture and climate change circles

CRP outcomes	Intermediate performance indicators
Outcome 1.1: Agricultural and food security strategies that are adapted towards predicted conditions of climate change promoted and communicated by the key development and funding agencies (national and international), civil society organizations and private sector in at least 20 countries	One to five flagship technical and/or institutional approaches identified and developed with farmers, key development and funding agencies (national and international), civil society organizations and private sector in three regions, which would directly enhance the adaptive capacity of the farming systems to the climate change conditions
Outcome 1.2: Strategies for addressing abiotic and biotic stresses induced by future climate change, variability and extremes, including novel climates mainstreamed among the majority of the international research agencies who engage with CCAFS, and by national agencies in at least 12 countries	Breeding strategies of regional and national crop breeding institutions in three target regions are coordinated, informed by CCAFS-led crop modeling approaches that are developed and evaluated for biotic and abiotic constraints for the period 2020 to 2050
Outcome 1.3: Portfolio of information sources, guidelines and germplasm available for using genetic and species diversity to enhance adaptation and resilience to changing climate are adopted and up-scaled by national agencies in at least 20 countries and by international organization for the benefits of resource poor farmers	Breeders and NARES use global information systems to select and make available to farmers varieties of crops pre-adapted to projected future climatic conditions in five countries
Outcome 2.1: Systematic technical and policy support by development agencies for farm- to community-level agricultural risk management strategies and actions that buffer against climate shocks and enhance livelihood resilience in at least 20 countries	One to five flagship risk management interventions evaluated and demonstrated by farmers and agencies at benchmark locations in three regions
Outcome 2.2: Better climate-informed management by key international, regional and national agencies of food crisis response, post-crisis recovery, and food trade and delivery in at least 12 countries	Three food crisis response, post-crisis recovery, and food trade and delivery strategies tested and evaluated with partner crisis response organizations at benchmark locations in three regions
Outcome 2.3: Enhanced uptake and use of improved climate information products and services, and of information about agricultural production and biological threats, by resource-poor farmers, particularly vulnerable groups and women, in at least 12 countries	National meteorological services and regional climate centers trained and equipped to produce downscaled seasonal forecast products for rural communities in two countries in each of three regions
Outcome 3.1: Enhanced knowledge about agricultural development pathways that lead to better decisions for climate mitigation, poverty alleviation, food security and environmental health, used by national agencies in at least 20 countries	Findings and evaluation tools on mitigation and livelihoods benefits of alternative agricultural development pathways used by global agencies and decision-makers in two countries in each of the three regions
Outcome 3.2: Improved knowledge about incentives and institutional arrangements for mitigation practices by resource-poor smallholders (including farmers' organizations), project developers and policy makers in at least 10 countries	Decision-makers in three regions better informed re options and policy choices for incentivizing and rewarding smallholders for GHG emission reductions

CRP outcomes	Intermediate performance indicators
Outcome 3.3: Key agencies dealing with climate mitigation in at least 10 countries promoting technically and economically feasible agricultural mitigation practices that have co-benefits for resource-poor farmers, particularly vulnerable groups and women	Project design and monitoring guidelines for smallholder agriculture in developing countries produced and contributing to global standards
Outcome 4.1: Appropriate adaptation and mitigation strategies mainstreamed into national policies in at least 20 countries, in the development plans of at least five economic areas (e.g. ECOWAS, EAC, South Asia) covering each of the target regions, and in the key global processes related to food security and climate change	Agriculture mainstreamed into the global climate change policies, and major international food security initiatives fully incorporate climate change concerns
Outcome 4.2: Improved frameworks, databases and methods for planning responses to climate change used by national agencies in at least 20 countries and by at least 10 key international and regional agencies	Global database and set of tools for climate-smart agriculture established and used by key international and regional agencies
Outcome 4.3: New knowledge on how alternative policy and program options impact agriculture and food security under climate change incorporated into strategy development by national agencies in at least 20 countries and by at least 10 key international and regional agencies	New knowledge on how alternative policy and program options impact agriculture and food security under climate change incorporated into strategy development by at least 3 national agencies, and 3 key international and regional agencies

2. Progress to date

The CCAFS baseline is being implemented across three levels – household, village and organisations. It collects indicators that describe current behaviour in relation to livelihood systems and farming practices in the CCAFS sites over time, as well as changes made to agriculture and natural resources management strategies in the recent past. Other indicators are helping CCAFS to understand the enabling environment that mediates these practices and behaviours (e.g., natural resource conditions, policies, institutions), as well as the provision of agricultural and climatic information at each site by the organizations that work there. The objective is to capture diversity across communities and households, while aiming for sufficient precision in some of the indicators to capture changes that occur over time.

The key aim of the CCAFS baseline is to provide snapshots of current behaviour at the sites using instruments that can be applied unchanged in all the CCAFS regions. The same households and communities will be revisited after roughly 5 years, and again in 10 years, to monitor what changes have occurred since the baseline was carried out. The same survey is being carried out in very diverse locations across all of our target regions. To date, close to 4,500 households have been surveyed in over 220 villages, 16 communities in 16 CCAFS sites participated in qualitative focus group discussions and over 160 organizations have been interviewed at these sites. This allows for valid and robust cross-site and cross-regional comparisons to be carried out. As a result, baselines are broad rather than deep; the intention is that complex relationships will be explored in further research in the same locations and through the use of secondary data.⁴

The emphasis on being able to carry out cross-site comparisons has two costs. First, the baselines do include some site characterisation information, but typically not in sufficient detail for (say) farming systems studies: more information is being collected to complement the site characterisation information in the baselines. Second, the baselines do not contain all the information needed to be able to carry out mainstream ex-post impact assessment (EPIA). Such studies are usually designed to evaluate specific technological or policy changes in a location and to attribute the changes to specific activities carried out by specific agents. The CCAFS baseline meets the first objective of impact

⁴ All CCAFS baseline guidelines and tools for data collection, processing and analysis, as well as the data itself and the reports, are publicly available at <http://ccafs.cgiar.org/resources/baseline-surveys>.

assessment well (tracking change over time), but does not allow us to attribute these changes to specific activities. The goal is not to attribute these changes to the program, but to be able to assess what kinds of changes have occurred and whether these changes are helping households adapt to, and mitigate, climate change.

Nevertheless, formal EPIAs will be carried out at several of the CCAFS sites in the next 2-3 years. CCAFS and partners are contractually required to carry out EPIAs on a regular timeframe as detailed in Table 2 above, and these will build on the baseline data already collected, complemented with additional site- and intervention-specific data as needed.

Appendix: Table 1: Cascade for planning and reporting in CCAFS

Table 1a. Planning cascade

Level	Document	Timeframe	Responsibility for developing	Weblink	Content	Responsibility for implementing
0	Strategy & Results Framework (SRF)	5-10 years	CO	http://consortium.cgiar.org/wp-content/uploads/2011/08/CGIAR-SRF-Feb_20_2011.pdf	Identifies four system-level outcomes that will shape the CGIAR's research	Centers, CRPs
1	CCAFS logframe	Rolling 3 years	PMC	http://ccafs.cgiar.org/sites/default/files/assets/docs/ccafs_consolidated_logframe-2012-2015.pdf	Identifies Objectives, Outcomes, Outputs and Milestones, with associated performance indicators and means of verification (i.e. outputs), assumptions, and partners involved	PMC
2	Activity plans	Annual	PMC, CPs	http://ccafs.cgiar.org/sites/default/files/assets/docs/TL%20RPL%20CENTER%20Consolidated%202012%20Activities.xlsx	CCAFS consolidated activity plan: A complete set of activities for the year, arranged by CCAFS Theme, giving Milestone to which it contributes, an activity description, the region the work is being carried out in, the deliverables for the year, who is leading the activity (Center, Region or Theme), the partners involved, and the type of funding being used	Centers, TLs, RPLs
			CPs, PMC	http://ccafs.cgiar.org/sites/default/files/assets/docs/ICRISAT%202012%20Center%20Activity%20Plan%2031%20March.xlsx	Center activity plans: Similar information as in the CCAFS Consolidated activity plan, but separated out by individual Center	Centers, TLs, RPLs
3	Partner contracts	Variable (days to years)	Centers, TLs, RPLs	<p>Example 1:</p> <p>http://ccafs.cgiar.org/sites/default/files/assets/docs/CCAFS%20bn%20ICRISAT%20%20UICNPACO.pdf</p> <p>http://ccafs.cgiar.org/sites/default/files/assets/docs/Proposal%20for%20CC%20ME%20project%20IUCN%20CCAFS%20final.pdf</p> <p>http://ccafs.cgiar.org/sites/default/files/assets/docs/TOP%20MECCA%20Agrhyet%20english%20edition.pdf</p>	<p>Contracts with partners and Centers to produce deliverables: these range from several-day personal consultancies to multi-year contracts with other organisations. They contain detailed workplans or terms of reference, a budget, and financial and technical reporting requirements, among other things.</p> <p>Examples shown are for West Africa/Ghana:</p> <ol style="list-style-type: none"> 1. Participatory M&E to strengthen the adaptive capacity to climate change of farmers and institutions in West African countries: <i>Case study in Burkina Faso, Ghana, Mali and Niger</i> 2. Contribution to the Global 	Partners

				<p>Example 2:</p> <p>http://ccafs.cgiar.org/sites/default/files/assets/docs/CAAFS%20Partner%20SGA_AgTrials_CSIR-SARI_Ghana-final_1Feb2012-fully%20signed.pdf</p>	Initiative on Multi-Site Agricultural trial Database for Climate Change Analysis: Rescue, Inventory and Gathering of Data across Ghana	
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Table 1b. Reporting cascade

Level	Document	Responsibility for reporting	Weblink	Content	Responsibility for evaluating	Method of evaluation
0	Consortium report	CO	n/a	To be decided	Fund Council	Not yet determined
1	Annual report to the CO	PMC	http://ccafs.cgiar.org/sites/default/files/assets/docs/CAAFS%20annual%20report%20Consortium%202011.pdf	Key messages, progress in producing outputs and outcomes, measured against agreed performance indicators, risk management issues, lessons learnt, and financial tables	CO	Not yet determined
2	Annual report forms	CPs	http://ccafs.cgiar.org/sites/default/files/assets/docs/ICRISAT%202011Technical%20Report.docx	From each Summary activity reports by Output, plus a technical report and case studies, plus documented impact assessments as specified	PMC	Qualitative ranking of report adequacy, and revisiting the goodness-of-fit of each activity with the appropriate Milestone, Output, Outcome and Objective of the logframe; revisiting the scope of the portfolio of activities for each Theme and Region with a view to adjustment as necessary
		TLs, RPLs	http://ccafs.cgiar.org/sites/default/files/assets/docs/merged_tlrpl_activity_plan_report.pdf	By CCAFS Theme and Region, summary reports covering outcomes achieved, impact studies undertaken if	PMC, ISP	Qualitative ranking of report adequacy, and revisiting the goodness-of-fit of each activity with the appropriate

				these are due, an activity summary, publications list, case studies, and a thematic synthesis		Milestone, Output, Outcome and Objective of the logframe; revisiting the scope of the portfolio of activities for each Theme and Region with a view to adjustment as necessary
3	Reports of outputs from partner contracts	Partners	http://ccaafs.cgiar.org/sites/default/files/assets/docs/ccaafs_hbs_lawra_jirapa_ghana.pdf http://ccaafs.cgiar.org/sites/default/files/assets/docs/ccaafs-wp-19-participatory_gender_approaches.pdf http://ccaafs.cgiar.org/sites/default/files/assets/docs/ccaafs-wp-17-gender_adaptation_ghana.pdf	Reports of deliverables: for example, workshop report, published journal paper, policy brief, systematic review, a video, a global dataset, a web site.	Centers, TLs, RPLs	Checking deliverables are indeed delivered and are of appropriate quality

Key:

CO, Consortium Office of the CGIAR
CP, CGIAR Center Contact Point for CCAFS
CRP, CGIAR Research Program
ISP, Independent Science Panel
PMC, Program Management Committee
TL, Theme Leader
RPL, Regional Program Leader

Annex 2

CCAFS Data Management Strategy⁵

Introduction

CCAFS is mandated to producing international public goods and has developed this Data Management Strategy (DMS) to enable the programme to fulfil its obligations with respect to making data and the relevant supporting documentation from its research activities available to the global community.

The Program Participant Agreements (PPA) established with CGIAR Centers and other partners stipulate that data is to be made freely available and sets up the time scales for data publishing by scientists involved in CCAFS research activities:

“The Contracted Party agrees to publicly share any data and/or models generated as a result of activities under this Agreement through CCAFS’s data portals as soon as practically possible, but no later than twelve (12) months of generation for meta data and twenty four (24) months for other data and/or models. Such data portals include, but are not limited to, the CCAFS agricultural trial data repository (www.agtrials.org), the Adaptation and Mitigation Knowledge Network (www.amkn.org) and the CCAFS climate data portal (www.ccafs-climate.org). Access to the data should be fully granted to the CCAFS data manager at CIAT, who will guide the process of adding each dataset to the proper data portal and will provide the necessary help and support.”

The aim of the Data Management Strategy (DMS) is to guide the creation of an enabling environment where scientists and partners are able to produce and share high quality data outputs throughout CCAFS, while at the same time enabling a variety of data management procedures and good practices at project level. This is achieved through creating “data portals” specifically designed for common types of data where scientists can publish their data and by the provision of guidance and support to scientists and CGIAR Centers to facilitate producing well-managed and documented datasets that are easy to use both now and in the future.

Guiding principles for this strategy are: accessibility, ease of use, ethical use and sharing of data about people, provision of support to data generators, ensuring that credit and visibility go to data generators, adherence to international standards for data documentation, curation and storage.

CCAFS aims to providing a “one-stop shop” for data generated by its research activities and expects to attract data contributions from scientists working in related areas even if not directly managed or funded by CCAFS. It will increase accessibility and visibility of scientific outputs to a global community for adding even more value to the products of CCAFS research with development outcomes in mind.

In this strategy we use the term “Data+” to indicate the actual data generated by the research process once it has been cleaned and is considered of good quality, as well as the documentation that will enable the use of these datasets in the future. This includes but is not restricted to documents about the methodology for data collection/generation, computer

⁵ For more information on CCAFS, go to: www.ccafs.cgiar.org

programs used for data manipulation and data processing, data quality assessment, and any metadata that helps in building a description of the context in which the data have originated.

In defining this strategy, we have adopted the following principles:

It has to be easy to implement and any burden to researchers that is generated from its implementation must be balanced by the benefits that the researcher will get from making his/her data available, and by the support that CCAFS will provide.

It should not affect the autonomy of scientists to carry out their research; the strategy ensures the independence and creativity of scientists in the collection of data that is relevant to the CCAFS research objectives.

Goal

The goal of this DMS is for CCAFS *Data+* products to be archived and made available for the long-term for use by partners and the scientific community.

Objectives

The objectives of this strategy are as follows:

1. To make available quality-assured *Data+* to potential users now and well into the future;
2. To encourage appropriate levels of standardization, adoption of international standards and harmonization so that data from separate research activities can be brought together to enrich our understanding of processes, outcomes and impacts in the areas of the world where CCAFS works;
3. To set the path for building a useful, complete and accessible depository of data for future research;
4. To guide CCAFS in designing and implementing support mechanisms to reach the goal.

Scope

This DMS looks at making *Data+* available in public archives. It does not include research outputs such as papers and publications resulting from analysis of primary data. CCAFS is utilizing alternative portals to share this type of information.

Supporting mechanisms

Supporting mechanisms will be necessary for the implementation of this strategy. These include:

1. Providing guidelines for making data available in such a way as to respect the trust that information providers have deposited on CCAFS scientists;
2. Creating, maintaining and supporting portals to the data repositories. These portals should enhance visibility of *Data+* provided by researchers with credit clearly attributed to the data generators; support the work of CCAFS PMC; and ensure accessibility to the data through human generated searches and automatic searches by web search engines.

Strategic Elements

Programme Level

In order to achieve the objectives set out above, the CCAFS programme needs to:

- Based on Consortium level policies, discuss, define and adopt a data sharing and data ownership policy and Intellectual Property policy;
- Negotiate and coordinate actions with the Consortium Office of CGIAR (CO), as well as CGIAR Centers and partners that are part of CCAFS;
- Include the required elements of these policies into the contracts established with Centers – e.g. CCAFS Program Participant Agreements (PPAs);
- Develop and provide a package of supporting materials to Centers:
 - Provide guidelines on how data can be accepted into the system;
 - Provide a clear definition of data so that the data management strategy contributes but does not encroach into the management of research outputs;
 - Support projects in achieving good data management, quality assurance and the timely delivery of data;
- Set up and resource mechanisms to receive and archive data in the following data portals;
 - Socio-economic and other data: Dataverse;
 - Trial data: AgTrials;
 - Climate data: CCAFS climate portal;
 - Spatial data: We are currently seeking guidance from the CO;
- Establish a mechanism to promote the existence of the data archive; facilitate accessibility, visibility, and links to web search engines.

Center Level

In order to fulfil Center contractual obligations under the Program Participant Agreements (PPAs), CCAFS expects that Centers will pro-actively do the following:

- Allocate sufficient resources to allow for the implementation of the DMS;
- Utilise the provided support package for the implementation of the DMS;
- Submit their *Data+* to the CCAFS appropriate data repository in a timely manner.

Implementation of Strategy

Three key elements are essential to the implementation of the strategy:

1. Establishing a **process**

A clear process for data sharing and management must be established, from legal agreements through to operating and reporting principles. This will require all CCAFS activities to identify data products, and the data information specialist to liaise with the researchers to ensure that the data is generated, managed and made available through appropriate systems. All data produced in CCAFS should be reported, and the data information specialist should establish a data pipeline, and prioritise the most important products for sharing based on extent, scope, and relevance.

2. Facilitating the **systems**

For each of the data types identified, the most appropriate system (for instance, the CCAFS portals) established to ensure that data is archived, and shared following the principle of open-access. The system for each data type should be identified through a robust analysis of different technical options, and implemented by the data information specialist of CCAFS. Support, clear guidelines and documentation of the system should be established, and shared with all researchers in CCAFS.

3. Enabling a data *culture*

The hope is that all researchers follow the principles and processes established by CCAFS, but this requires significant cultural shifts with program participants. The appropriate incentives should be established to promote data sharing across CCAFS. Metrics on data sharing from each program participant should be used as a criteria for measuring performance, and appropriate incentives put in place to follow up and reward those most effective in managing and sharing the data generated under the CCAFS program. Researchers and their data technicians participating in CCAFS should also be trained on the use of the systems for making data available with clear user guides to be established by the CCAFS data information specialist.

- Among the conditions to facilitate the establishment of the data culture CCAFS must make it easy to submit data;
- Highlight benefits to researchers derived from data sharing such as increased visibility and reputation;
- Availability of statistics about data downloading and use so as to be able to use this information as a planning tool for the programme to promote CCAFS's research agenda and that of our scientific partners among the global audience.

Annex 3

TERMS OF REFERENCE FOR THE GOVERNANCE AND MANAGEMENT REVIEW OF THE CGIAR RESEARCH PROGRAM ON CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY (CCAFS)

August 2012, prepared by CIAT BOT

Introduction

CCAFS was approved by the Fund Council of the CGIAR in November 2010. An external review was to be done in June 2012. However, given the longer than expected period of time taken to finalize all legal documents and initial disbursements throughout 2011, CIAT and CCAFS proposed in early 2012 to postpone the review until January 2013. The Consortium Board and Fund Council agreed to that proposal.

Objective

To undertake an evaluation of the effectiveness and efficiency of the governance and management arrangements of CCAFS

Background

As outlined in the CCAFS Program Plan – the Lead Center CIAT will conduct a “governance and management review based on initial experience in CCAFS and fast-tracked CRPs (CGIAR Research Programs)”. The review was proposed during the program preparation stage in relation to comments received by the Fund Council and Independent Science and Partnership Council (ISPC) on the governance systems (in particular the relationships between the CCAFS Independent Science Panel and the CIAT Board) and the complex multi-dimensional collaborations that have to be managed.

The review will address the following areas:-

Programmatic structure:

Reviewers will evaluate

1. the mechanism by which programmatic strategic decisions are made by the Program Management Committee (PMC) and the Independent Science Panel (ISP) of CCAFS
2. the relationship between the CCAFS ISP and the CIAT Board of Trustees, regarding programmatic decisions and in particular how potential or real conflicts of interest issues are identified and resolved
3. the relationship between the CCAFS PMC and its center partners in relation to programmatic decision-making, and in particular how conflicts are resolved.
4. how the boundaries between CCAFS and other CRPs are managed in relation to programmatic directions and potential and actual overlap, redundancies and synergies

Governance and Management structure:

Reviewers will address the following questions.

5. Does CCAFS have an appropriate and efficient management structure and organization in place to shape and influence the evolving CCAFS research agenda and ensure its implementation throughout the CCAFS partnership structure? How does the matrix of regions and themes functions? How does the Center Contact Point System function? Is staff expertise appropriate to carry out the functions of CCAFS?
6. What is the relationship between the CCAFS governance structure and the governance structure of the Lead Center (Board of Trustees)?
7. Does the governance structure of CCAFS provide adequate financial oversight and risk assessment for CCAFS activities?
8. What perceived or real conflicts of interest between CCAFS and CIAT are likely to arise at the governance level and how effectively are they identified and addressed?
9. How does the CCAFS governance and management structure compare to that of other CRPs and what lessons can be learnt across CRPs? *To what extent has CCAFS added another layer of management in the CGIAR? Has CIAT's management role been reduced because of added CCAFS management layers or because of a reduced number of restricted projects as expected as part of the CGIAR reform?*

Monitoring and Evaluation:

Reviewers are encouraged to take into consideration the ongoing evaluation by the EU of this item and add value to their recommendations.

Reviewers will address the following questions.

10. Is there an effective monitoring and evaluation system in place to track CCAFS contribution to specific development outcomes?
11. Is there an effective system for internal knowledge sharing and communication?

Assurance and Financial Management:

Reviewers will address the following questions

12. Does CCAFS have an appropriate and efficient financial budgeting, management and reporting function in place?
13. Does the internal audit function of CIAT provide adequate assurance to management and the Board on CCAFS activities beyond the boundaries of CIAT?

Review process

The review will take place during the first quarter of 2013. Two evaluators will work on this

assignment. The team leader will be an expert on governance and management systems and be engaged for an estimated total of 35 working days, including travel. The other evaluator is expected to cover the assurance and financial management questions (10 days).

The evaluator will work closely with CCAFS Program Director and the Coordinating Unit in Copenhagen and Cali and with CIAT Management (HQ in Cali, Colombia).

It is expected that most of the work will be done via interviews by teleconference, plus specific visits to CGIAR Centers and relevant CCAFS partners. A work plan including proposed visits will be prepared for approval during the first 5 days of work.

In terms of a comparative analysis of other CRPs (see the last question under “governance and management structure”) a comprehensive analysis is not expected. The reviewer is expected to review the appropriate documents from two other CRPS and conduct telephone interviews with 2-3 key stakeholders from those CRPs (it is expected that the other fast-tracked CRP will be covered – GRiSP – as well as one other CRP involving multiple centers, e.g. CRP5).

A detailed report will be delivered to the CIAT Board Secretary, Maria Fernanda Reyes (mfreyes@cgiar.org) by 1 May 2013, and presented to CIAT’s Board and Management at the 13 – 17 May 2013 CIAT Board meeting to be held in Nairobi, Kenya. Following this, it will be delivered and presented to the CCAFS – ISP and Management Team.