CCAFS Commission on Sustainable Agriculture and Climate Change

Meeting Summary

10 May – Brasilia, Brazil

Commission guidance

- The Commission should direct primary attention towards the UNFCCC, the Rio+20 Earth Summit and the G-20. Individual Commissioners can assist with linkages to these processes.
- For the Commission's report, more limited emphasis should be placed on characterizing the current food system and major emphasis should be placed on investigating essential technical, political, financial and social investments for an alternative future food system with attention to both near- and long-term.
- Final Commission products should include: (1) a 1-pager focused on action messages; (2) a 30-40 page report focused on why action is needed; and (3) a compendium of more detailed background information.
- Commissioner working groups should be formed to advance the report development including:
    1. Review of current situation and new analysis of: (1) patterns and drivers of price volatility and trade, and (2) eating patterns in relationship to food systems;
    2. Future trajectories and a portfolio of near- and long-term actions for an alternative future system.
- The Secretariat should prepare a taxonomy of the tactics and targets, as well as regularly produce a 1-2 page written briefing document, with accompanying slides, that contains vetted messages regarding the Commission's activities, findings and plans.
- The Secretariat should convene an information exchange and planning group composed of Communications specialists from CCAFS, GDPRD and Commissioners' home institutions.

Next Steps

- Establish and coordinate the activity of the working groups
- Produce a taxonomy of targets and tactics for policy engagement / communications
- Engage external collaborations, as appropriate
- Produce regular communication pieces
- Coordinate policy engagement activities
- Convene the information exchange and planning group to implement communication activities
- Plan for the third Commission meeting

Meeting Summary

1. Introduction to the Meeting

Sir John opened the meeting and affirmed that the aim of the Commission is to identify policy actions to achieve sustainable agriculture that contributes to food security and poverty reduction. He acknowledged CCAFS as the convenor of the Commission and CCAFS and GDPRD as sponsors. (*See list of meeting participants below*.) Sir John explained the meeting agenda, noting the background materials prepared by the Secretariat:

1. Summary of Secretariat progress
2. Summary of global media launch
3. Matrix of topics
4. Report outline
5. Bios and pictures of Commissioners
6. Operational strategy (including work plan, communications and timeline)
7. Summary of parallel initiatives
8. Terms of Reference of the Commission and Commissioners

2. Progress since 15 February meeting

Sir John invited Dr Negra to provide a brief report on the Secretariat's implementation of Commission guidance, including the global media launch. Progress was reported for the following categories:

- Finalizing Commission and Secretariat
- Progress towards the Commission report including Commissioner interviews, list of priority topics and matrix of evidence from major assessment reports
- Media outreach / communications including the 11 March global media launch, Commissioner interaction with specific media outlets and website updates
- External engagement undertaken through briefings, phone calls and emails with key individuals and institutions
- Planning for the May Commission meeting
- Preparations towards participation in key meetings including 'Planet Under Pressure' and other upcoming events.

Dr Negra also expressed appreciation for the contributions to the Commission meeting made by Mr David Howlett (University of Leeds), Dr Elizabeth Warham, Dr Rebecca Fisher-Lamb (UK Government Office for Science), Dr Sonja Vermeulen (CCAFS Head of Research), Ms Vanessa Meadu (CCAFS Communications Manager) and Ms Ratih Septivita (CCAFS Meeting Planner).

3. Commissioner presentations on priority topics

The majority of the morning session was dedicated to presentations by individual Commissioners on a set of priority topics (identified by the Secretariat, based primarily on interviews with Commissioners), followed by questions and discussion. Presentations were focused on critical problems and risks, evidence base and recommendations, and potential actions, solutions and benefits (slide presentations have been distributed to all Commissioners). This session was structured into three overarching questions. The main points from each presentation are summarized below:

What are the major components and drivers of the current food system and what will this system look like in the future?

- Food availability and nutrition, by Dr Sharma
    - Four components of food security (availability of, access to, absorption of and appropriate food)
    - Life cycle approach to nutrition and synergy with sustainable agriculture
    - Case studies of national policy approaches from India
    - Potential solutions: (1) recognition of multi-dimensional nature of food security integrating science based and local knowledge; (2) life-cycle approach to nutritional security; and (3) factoring in nutrition aspects in all R&D programs/projects
- Market volatility and food prices, by Dr Clark
    - Food price: trends (trade), drivers (economic growth, production, stocks, utilization, changes in food demand), relationship to nutrition, potential paradigm shifts, policy responses
    - Knowledge gaps: stock balances, long-term structural factors, covariance of volatility, impact of risk on key actors, land use, arable land, integrating economic and biophysical models
    - Proposed: (1) synthesis of existing knowledge on food price trends and volatility, (2) review of tools and approaches to understanding food and other commodity markets - minerals and energy, and (3) consideration of additional drivers and policy responses.
- Towards a sustainable food supply chain, by Dr Guillou
    - Interactions among: food and nutritional security, supply chain patterns with consumers, ecological / productive agriculture, trade regulation, and poverty reduction
    - Impact of changing diets on production balance and natural resources
    - Large potential for reducing waste in food supply chains (regional variability)
    - Needs for action: (1) food and health, eating patterns (social patterns) epidemiological studies, high throughput biology (metagenomic), and (2) reduction of food and wastes - losses (technology for valorization co-products and recycling (eco-technologies), and adaptive technologies (storage, process)
- Maps, stratification and impacts, by Prof Scholes
    - Geographic stratification for understanding food systems, projecting changes, and informing decision makers (major farm systems, and climate zones)
    - Agricultural GHG emissions: significant and variable. Acknowledge win-win and win-lose for mitigation and food security. Quantify potential for mitigation, and financial rewards.
    - Agricultural sensitivity to climate change: need for improved modeling
- Land Use Change from a Food Security Perspective, by Prof Lin Erda
    - Food security challenges: population, diet change, and land competition
    - Biofuel risks: commodity price increases due to expansion of 1st generation liquid biofuels; competition for land, water, other resources; and externalities (GHG emissions, lost ecosystem services)

- Solutions: (1) sustainable land production intensification, integrated/rational land use planning, and (2) development of second-generation biofuel technologies
- Case study: national land use planning in China.

What does an alternative future food system look like and how can this system be brought into being?

- Sources of GHG emissions from agricultural sector, by Prof Mamo
  - Agricultural mitigation methods (carbon sequestration, on-farm mitigation energy efficiency); and potential for economic development
  - On-farm mitigation: improved livestock feeding practice, fertilizer/manure management, composting, zero till.
  - Risks (eg, carbon saturation, impermanence) and barriers to uptake (credit access, transaction costs, incentives not accessible in developing countries, gap between technical and feasible potential)
  - Adaptation mechanisms and barriers
  - Solutions: (1) simultaneous adaptation and mitigation to climate change; (2) streamline measurement; enforcement of offsets, financial flows, and carbon credits for investors; and (3) enhance and reform global financial facilities.
- Integrated use of new and off -the-shelf technological interventions, by Dr Nobre
  - Brazilian experience with managing land use change (eg, national climate law; Forest Code; and domestic politics)
  - Increase in agricultural productivity (ie, much more in export crops)
  - Agricultural GHG emissions: direct and indirect; very high amounts
  - Gaps: climate change impacts on agriculture; feasible incentives to producers for mitigation; creating economic value from biodiversity; and impact of biofuels;
  - [Crop breeding (primarily wheat, maize, rice) was also discussed]
- Staged transitions, by Dr Fernandez
  - Investments in socio-economic and environmental sustainability
  - Synergistic approaches to food security and environmental sustainability
  - Barriers: increasing agricultural emissions, misaligned domestic policies
  - Agricultural mitigation practices: highly context-specific (depending on type of ecosystem, crop, culture, country etc); and some general principles (halt agricultural expansion, increase efficiency, shift diets, sustainable biofuels, coordinate prices / subsidies across finance, environment, water management and agriculture)
  - Solutions: (1) elimination and decoupling of ecosystem and climate damaging subsidies (fuels, electricity, pesticides); (2) introduction to well targeted compensation schemes for the poor; scale up deployment of efficient irrigation technologies; and (3) expansion of climate mitigation practices (methane capture, electricity generation from crop residues)
  - Need: case studies / evidence of compatible, climate-friendly agricultural practices

What investments (technical, political, financial, social) are essential to an alternative future food system and who can make them?

- Forecasting climate change through the use of models, data collection and investing in infrastructure, by Prof Jahn
  - Information management infrastructure: bring scientific analysis (eg, earth observations, modeling, socio-economics) into decision-making; and identify targets
  - Parcel-scale decision support systems: shift beyond local maxima and balance long- and short-term considerations

- Solutions: (1) new investment in information management infrastructure/institutions relevant to land-sourced productivity; and (2) integration of economic agricultural management and environmental/ecological information;
- [Use of teledetection was also discussed]

- Integrated information & response systems, by Dr Nguyen
  - Food security and farm income, biodiversity, biofuels (need global and regional policy as well as assurance measures)
  - Regional approach to harmonizing benefit between hydropower and water for agriculture (eg, Mekong River)
  - Climate change impacts: geographically variable; and already happening
  - Link land suitability with market forces
  - Solutions: (1) long-term strategy for climate change mitigation and adaptation (maximizing use of biotechnology tools, improving crop varieties and animal breeds); (2) awareness of public rather than of only scientists and policy-makers; and (3) agronomic and soil management practices need to pay attention to agronomic efficiency of nutrients as well as environmental impact.
- R&D to Support Agriculture under Climate Change, by Dr Asaduzzaman
  - Tradeoffs (eg, food vs non-food (cash crop) agriculture, crops vs livestock, crop/livestock vs forestry, marine vs freshwater fisheries)
  - Three elements of food security: availability, affordability / access and nutrition
  - Spatial / temporal variation in adaptation: uncertainties, and extreme events (type, extent, second round physical impacts e.g. water availability)
  - R&D plus farmer uptake (depends on future prices of inputs / outputs, easy of use, extension, and policy / finance support)
  - Solutions: (1) aligning R&D: public / private, national / international (including north/south and south/south co-operation) to improve synergy while reconciling different motives; (2) collaboration between climate change modelers and agricultural scientists to understand unfolding effects of climate change and adapt research ideas as quickly as possible for particular agro-ecology areas; and (3) continuous review of relative susceptibility of plants and animals to climate change, and cultural practices which obviate need for major changes in existing ones and are less costly

4. Strategy for Commission report

Sir John invited Dr Vermeulen to present some framing ideas and questions for the Commission's operational strategy for producing the Commission report. Dr Vermeulen reiterated that there have been many influential and scientifically robust reports in recent years on sustainable agriculture and thus the key challenge for the Commission is to add value to these and to amplify key messages. Hence the Commissioners may want to focus more on pathways to impact than on scientific analysis.

Dr Vermeulen posed several questions to the Commissioners, including:

- Of the 3 overarching questions explored in the first session of the meeting, what should be the relative distribution of emphasis / effort?
- For the overall set of topics under "What does an alternative future food system look like?" how should the Commission position itself given that this is a very dynamic area? Some examples of options:
  - Characterize the landscape of approaches and initiatives working to define an alternative system
  - Evaluate the set of existing ideas (contribution would be the set of evaluation criteria and a summary of pros / cons)

    - Take the lead in defining a particular conception of the optimal / most feasible alternative system
- Strawman proposal to create Commissioner working groups for the following four topics:
    1. What are the major components and drivers of the current food system and what will this system look like in the future? (Focus to be on developing a break-through presentation of the current conditions that clearly and compellingly demonstrates the pathways, barriers, etc.)
    2. What does an alternative future food system look like and how can this system be brought into being? (eg, sustainable practices at multiple scales with multiple tools.)
    3. What no regrets investments (technical, political, financial, social) are essential to an alternative future food system and who can make them? (Focus on identifying the investments that are most feasible and likely to have real potential for near-term implementation, ie, make sense for a wide array of perspectives on an optimal future system. Focus on G20, UNFCCC.)

Following group discussion, it was agreed that:

- More limited emphasis should be placed on characterizing the current food system, with emphasis on a review of key drivers, targeted new analysis and effective communication;
- Most emphasis should be placed on investigating essential technical, political, financial and social investments for an alternative future food system with attention to both near- and long-term.
- Communication products should include: (1) one or more 1-pagers focused on action messages; (2) a 30-40 page report focused on why action is needed; and (3) a compendium of more detailed background information, most likely web-based rather than hard-copy.

Commissioners also noted the many parallel initiatives and proposals for links with the Commission. The Commission endorsed positive opportunities for joint communications and cross-referencing where messaging is aligned. These positive opportunities include the World Bank-led multi-stakeholder initiative on climate-smart agriculture, the 2012 EcoAgriculture review of integrated agricultural landscape strategies, the Meridian Institute process on agriculture in th UNFCCC, and scaling up of the IFPRI/CCAFS country studies on adaptation and mitigation to all of the Commissioners' countries. The Commission's Secretariat will also continue to keep up with other major initiatives such as the Global Research Alliance on Greenhouse Gases, the Global Forum on Agricultural Research, the Food Security, Agriculture and Climate Change Joint Programming Initiative, and Solutions from the Land.

5. Policy engagement strategy

Sir John invited Dr Negra to address the Commission's policy engagement strategy (as outlined in the operational strategy document). Dr Negra emphasized that a tiered policy engagement strategy will inform the Commission's findings, distribute and amplify key messages, and build international consensus on policy action.

Commissioners shared their views regarding the highest priority policy venues and issues to address. These included:

- Elevating the discussion of food security and climate change, emphasizing the compatible dimensions;
- Tech transfer and information infrastructure;

- Communicating (especially to finance ministers) the need for resources for adaptation (including R&D and Extension), while acknowledging real limits of adaptation;
- Understanding food price volatility and shifts in diet; and
- Investing in new tools for including agriculture in climate change targets and improving food system governance.

The Commission reaffirmed that its primary attention should go toward the UNFCCC, the Rio+20 Earth Summit and the G-20. Other policy venues should be included on an opportunistic basis. Dr Nobre offered to link the Commission to the Brazilian planning process for Rio+20. Dr Guillou offered to share Commission findings and recommendations through key committees of the 2011 G-20 process (ie, June meeting of agriculture ministers) and the Global Research Alliance (ie, June meeting in Rome). Dr Jahn offered to follow up on linkages with the AAAS meeting (in Vancouver in February 2012).

The Commission reviewed and approved the list of tactics and tools proposed in the operational strategy and requested that the Secretariat prepare a taxonomy of the tactics and targets (ie, key stakeholders). Commissioners also requested that, at regular intervals, the Secretariat produce a 1-2 page written briefing document, with accompanying slides, containing vetted messages regarding the Commission's activities, findings and plans. The purpose of these communication tools will be to enable Commissioners to integrate these messages in their ongoing interaction with policy makers and other stakeholders. The first of these should draw on the compilation of findings from the sixteen major assessment reports.

6. Commission work plan and roles

Sir John invited Dr Negra to outline the set of timebound activities and roles to be undertaken by the Commission and the Secretariat. Subsequent discussion produced agreement on the following points:

- Commissioner working groups should be formed to advance the report development (with a mandate to commission sub-studies, as appropriate) including:
    - Review of current situation and new analysis of: (1) patterns and drivers of price volatility and trade (lead: Dr Clark), and (2) eating patterns in relationship to food systems (lead: Dr Guillou).
    - Future trajectories (lead: Prof Scholes with likely involvement by Dr Carlos Nobre and Prof Lin Erda)
    - Portfolio of near-term actions for an alternative future system (likely involvement by Dr Rita Sharma, Dr Nguyen Van Bo, Prof Tekalign Mamo and Dr Judi Wakhungu)
    - Portfolio of long-term investments for an alternative future system (likely involvement by Dr Mohammed Asaduzzaman, Dr Adrian Fernandez and Prof Molly Jahn)
- The activity of the working groups will include:
    - Refine scope & identify collaborations / sub-studies
    - Use networks to get input / feedback
    - Shepherd progress; and present to Commission
    - Review drafts and develop key messages

The Commission affirmed that the Secretariat should convene an information exchange and planning group composed of Communications specialists from CCAFS, GDPRD and Commissioners' home institutions. This group will assist with implementation of Commission outreach (eg, media, webpages, blogs, e-bulletins, and audio-briefings).

The Commission reviewed the list of upcoming events and identified those with highest priority:

Date	Description	Place

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June	World Bank climate-smart agriculture meeting. Hague Conference Follow-up.	Washington, DC
6-17 Jun	**34th session of the UNFCCC Convention Subsidiary Bodies** (Participation by Asaduzzaman, Fernandes)	Bonn, Germany
20-24 June	Global Soil Map Workshop 2011. (Participation by Clark, Nguyen, Scholes)	Ispra, Italy
22-23 June	**G20 agriculture ministers meeting**. (Participation by Guillou)	Paris
24-Jun	Global Research Alliance Ministerial meeting	Rome, Italy
25 June – 2 July	FAO Conference – 37th Session (Note election of new Director General)	Rome, Italy
Sept	**African Ministerial meeting on climate-smart agriculture** (Possible participation by Beddington, Scholes)	South Africa
5-9 Sep	**Research synthesis meeting** at Rockefeller facility at Bellagio	Bellagio, Italy
12-13 Sep	**G20 Conference of the Agricultural Research Systems** (Participation by Guillou)	Montpellier, France
18-22 Sep	Soil Science in a Changing World Conference (Participation by INRA)	Wageningen, Netherlands
26-27 Sep	XXV EURAGRI Conference (Participation by INRA)	Prague
26-29 Sep	Farming Systems Design Conference. The conference will be run in conjunction with the 5th World Congress of Conservation Agriculture. (Participation by CSIRO)	Brisbane
17-19 Oct	**Science Forum 2011** (Participation by Guillou, CCAFS)	Beijing
24-26 Oct	**Scientific conference on agriculture, food security and climate change** (Possible keynote by Beddington)	Wageningen, NL
3-4 Nov	**G20 Summit**	Cannes
6-8 Nov	**IFPRI-CAAS meeting** (with BRIC countries)	Beijing
14-15 Nov	**Second Intersessional Meeting for UNCSD** (Link through Nobre)	New York
28 Nov - 11 Dec	**UNFCCC COP17** Side events. ARDD – 3 Dec. Forest Day 5 – 4 Dec	South Africa
15-16 Dec	**2nd Intersessional Meeting of UNCSD**, UN Secretariat. Main meeting for preparation of Rio+20. (Link through Nobre)	New York, USA
January	**Follow-on meeting from Oct 2010 meeting in The Hague.**	Vietnam
February	**Landscapes for People, Food & Nature** (link through EcoAg Partners)	TBD
16-20 Feb	**Annual Meeting of the American Association for the Advancement of Science (AAAS): Flattening the World: Building the 21st Century Global Knowledge Society.** (Link through Beddington, Jahn)	Vancouver, Canada
26-29 Mar	**Planet under Pressure Conference (ICSU**)	London
14-16 May	**UNCSD or Rio+20 Conference**. www.earthsummit2012.org	Rio de Janeiro

It was further decided that the Commission should convene by videoconference in July to report on progress made through the working groups and also meet again in person in

September or October to agree a final version of its report. Meeting location will be decided off-line.

7. Next steps

Dr Negra provided a recap of Commission guidance from earlier discussions and proposed next steps including:

- Establishing and coordinating the activity of the working groups
- Producing a taxonomy of targets and tactics for policy engagement / communications
- Engaging external collaborations, as appropriate
- Producing regular communication pieces (ie, 1-pager with slides)
- Coordinating policy engagement activities
- Convening the information exchange and planning group to implement communication activities
- Planning for the third Commission meeting

8. Wrap Up

Sir John reflected that the Commission had “reached the end of the beginning” and that there will be significant work to tackle. He emphasized his confidence that the work would be accomplished and would make an important contribution to policy making.

Meeting participants

Commissioners via video link:

Dr Megan Clark, Australia

Dr Marion Guillou, France

Dr Rita Sharma, India

(Due to time differences some remote Commissioners could not join in for the entire meeting.)

Commissioners present:

Professor Sir John Beddington, United Kingdom (Chair)

Dr Mohammed Asaduzzaman, Bangladesh

Professor Lin Erda, China

Dr Adrian Fernández Bremauntz, Mexico

Professor Molly Jahn, United States

Professor Tekalign Mamo, Ethiopia

Dr Carlos Nobre, Brazil

Dr Nguyen Van Bo, Vietnam

Professor Bob Scholes, South Africa

Dr Judi Wakhungu, Kenya, sent her regrets as she was unable to participate due to a long-scheduled meeting in Germany.

CCAFS, Secretariat and other staff present:

Dr Sonja Vermeulen, CCAFS Head of Research

Dr Christine Negra, Commission Coordinator

Dr Joanna Dally, Private Secretary to Sir John Beddington

Ms Ratih Septivita (“Vita”), CCAFS Meeting Planner