Workshop
Development of agricultural systems and climate smart agriculture in developing countries
In the light of COP 16 UN meeting in Cancun and the Hague conference on Agriculture, Food Security and Climate Change
February 23-25, 2011, Copenhagen

Venue: Eigved Pakhus, Denmark, 23 – 25 February 2011

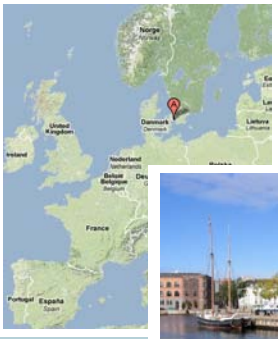
Web site www.xxx.dk

Scope:

The workshop will discuss challenges and opportunities for more efficient agriculture in the long term, contributing to thinking beyond Cancun and The Hague. It will also explore synergies between adaptation, mitigation and biodiversity to respond to competing pressures on land and water from agriculture, forests and other ecosystems, growing population and urban expansion, as well as energy needs.

The focus will be on analysis of opportunities and constraints of agriculture-environment nexuses; this should consider climate change adaptation, efficient management of inputs (including nutrient, land and water management); waste management, development of low carbon agriculture and farming with an ecosystem approach.

Venue:



Time: 23-25 February 2011
Venue: Eigtveds Pakhus, Asiatisk Plads 2 G 1448 Copenhagen, Denmark
Contact: jensg.hansen@agrsci.dk

The workshop is sponsored by the Food and Agriculture Organization and the European Union.

Expected outcomes:

- Identification of practices that would facilitate the adaptation of smallholders to climate change while contributing to climate change mitigation and conservation of biodiversity in different climates in developing countries.
- Analysis why these practices could be considered efficient - opportunities for adoption and dissimination, and the potential constraints in doing this.
- Proposals for concrete actions to be taken to overcome barriers and the role of different actors in implementing this.

Local organizers and Partners:

Aarhus University, Dept. of Agroecology and Environment /*Research Professor Jørgen E. Olesen*
University of Copenhagen, Faculty of life science / *Professor John R. Porter*
Challenge Program on Climate Change, Agriculture and Food Security (CCAFS) /*Secretariat staff director Bruce Campbell*
International Centre for Research in Organic Food Systems (ICROFS) / *Director Niels Halberg*
Food and Agriculture Organization of the United Nations (FAO) / *Caterina Batello*

Key note speakers

Pramod Aggerwal, IWMI
Use of innovative technologies in climate change adaptation

Peter Holmgren, FAO
Opening speech: What are the challenges?

Jørgen E. Olesen, AU
Linking adaptation and mitigation

Jules Pretty, University of Essex
Growing more food with less impact using agoecological methods

Eva Lini Wollenberg,
University of Vermont
Landscape and catchments approaches to adaptation and mitigation

Wendy Mann, FAO
What did happen in The Hague and Cancun and directions from here

Provisional programme:

Wednesday 23 February	
12.00 – 13.00	Registration & Lunch
13.00 – 13.20	Welcome & Introduction: Jens G. Hansen & Peter Holmgreen
13.20 – 14.45	Three keynotes - setting the scene: Wendy Mann & Jørgen E. Olesen and NN
14.45 – 15.00	Discussion
15.00 – 15-30	Coffee break
15.30 – 16.30	**Sesssion 1: Utilization of innovative technologies, biotechnology and genetic resources. Keynote: Pramod Aggarwal (IWMI) (30 minutes) Panel: David Howlett, John Porter, nn (10 minutes)**
16.30 – 17.30	Discussion
Thursday 24 February	
8.30 – 10.00	**Session 2: Development of agro-ecological methods for food security and sustainable development. Keynote: Jules Pretty (30 minutes) Panel: Lindiwe Sibanda, Hans Herren, Niels Halberg (10 minutes)**
10.00 – 10.30	Discussion
10.30 – 11.00	Coffee break
11.00 – 12.30	**Session 3: Landscape and catchments approaches to adaptation and mitigation: Keynote: nn (30 minutes) Panel: Cynthia Awuor, Abdulai Jalloh, Mensah Bonsu (10 minutes)**
12.00 – 13.00	Discussion
13.00 – 14.00	Lunch
14.00 – 14.30	**Open space mediation (facilitator) – discussion of concrete actions**
14.30 – 16.00	Open space meeting on concrete actions – four groups
16.30 – 17.10	Presentation of results of open space meetings
17.10 – 17.30	Discussion
19.00 –	Social Dinner

Programme continued

Friday 25 February	
8.30 – 09.00	**Introduction to group work on concrete actions identified on day 2**
09.00 – 10.00	Work in groups
10.00 – 10.30	Coffee break
10.30 – 11.30	Work in groups continued
11.30 – 12.30	Presentation of work in groups and discussion
12.30 – 13.30	Lunch
13.30 – 14.00	Wrap up and conclusions – to do list on concrete actions
14.00 – 14.30	Closing speech by Bruce Campbell

Sessions

After a keynote talk of 30 minutes each member of a three-person panel give a 10- minutes talk to broaden the view of the session topic. Finally, one hour discussion based on keynote + panel member presentations.

Sesssion 1: Utilization of innovative technologies, biotechnology and genetic resources.
Keynote: Pramod Aggarwal (IWMI) (30 minutes)
Panel: David Howlett, John Porter, nn (10 minutes)

Session 2: Development of agro-ecological methods for food security and sustainable development.
Keynote: Jules Pretty (30 minutes)
Panel: Lindiwe Sibanda, Hans Herren, Niels Halberg (10 minutes)

Session 3: Landscape and catchments approaches to adaptation and mitigation
Keynote: Eva Lini Wollenberg (30 minutes)
Panel: Cynthia Awuor, Abdulai Jalloh, Mensah Bonsu (10 minutes)

Open Space meeting:

Open space and group discussions should be structured around: '**what research questions and how do research recommendations and results link up to different actors re. barriers and implementation**'

Working groups on concrete actions (WG):

1. Policy options for a climate-smart agriculture.
2. "What needs immediate synthesis for policy processes?"
3. Development options for climate smart agriculture
4. "What are the knowledge gaps that need to be closed for implementing development-smart agricultural technologies and practices?"

One additional WG prepare suggestion for open letter to donors and structure and contents of planned review paper

Invitation list

ID	Role	Name	Institution	Country	e-mail
1	Opening Speech	Peter Holmgren	FAO	Italy	Peter.Holmgren@fao.org
2	Org.	Caterina Batello	FAO	Italy	Caterina.Batello@fao.org
3	Keynote	Wendy Mann	FAO	Italy	Wendy.Mann@fao.org
4	Closing speech	Bruce Campbell	CCAFS	Denmark	brca@life.ku.dk
5	Panel 1	John Porter	KU/Life	Denmark	jrp@life.ku.dk
6	Keynote	Jørgen E. Olesen	AU/DJF/JPM	Denmark	Jorgene.olesen@agrsci.dk
7	Org.	JensG.Hansen@agrsci.dk	AU/DJF/JPM	Denmark	Jensg.hansen@agrsci.dk
8	Panel 2	Niels Halberg	ICROFS	Denmark	Niels.halberg@agrsci.dk
9	Org.	Lise Andreasen	ICROFS	Denmark	Lise.andreasen@agrsci.dk
10	Keynote	Pramod Aggarwal	IWMI	India	Pkaggerwal.iari@gmail.com
11		David Howlett	Africa Collage, Univ. of Leeds, and DFID	UK	d.j.b.howlett@leeds.ac.uk
12	Panel 2	Hans Herren	IAASTD	USA	hh@millennium-institute.org
13	Panel 2	Lindiwe Sibanda	CEO, Farnpan	South Africa	lmsibanda@fanrpan.org
14	Keynote	Eva Lini Wollenberg	University of Vermont	USA	Lini.wollenberg@uvm.edu
15		James Kinyangi	CCAFS/ILRI	Kenya	J.Kinyngi@cgiar.org
16	Keynote	Jules Pretty	University of Essex	UK	jpretty@essex.ac.uk
17		Robert Zougmore	ICRISAT	Burkina Faso	rb_zougmore@hotmail.com
18		Lijbert Brussard	Wageningen	the Netherlands	Lijbert.Brussaard@wur.nl
19		Muhammad Mohsin Iqbal	GCISC (IPCC)	Pakistan	mohsin.iqbal@gcisc.org.pk
20	Panel 3	Cynthia Awuor	CARE	Kenya	cynthia@care.or.ke
21	Panel 3	Harold Roy-Macauley, or Abdulai Jalloh	CORAF	Senegal	h.roy-macauley@coraf.org; abdulai.jalloh@coraf.org
22		George Wamukoya	COMESA	Zambia	gwamukoya@comesa.int
23		Lucy Muchoki	PanAAC	Kenya	lmuchoki@panaac.org
24		Henry Mahoo	Sokoine University,	Tanzania	mahoohenry@yahoo.com
25		K.P.C. Rao	ICRISAT,	Kenya	K.P.Rao@CGIAR.org
26		Dr. Ralph Kaufmann	FARA	Kenya	r.von-kaufmann@CGIAR.ORG
27		Dr. Shamie Zingore	IPNI	Kenya	SZingore@ipni.net,
28		Dr. Zeyaur Khan	ICIPE	Kenya	zkhan@icipe.org ; zkhan@mbita.mimcom.net
29	Org	Ratih Septivita	CCAFS	Denmark	ccafs.cgiar@gmail.com
30	Panel 3	Mensah Bonsu	KNUST	Ghana	mensbons@yahoo.com

Background material

"Climate-Smart" Agriculture
Policies, Practices and Financing for Food Security, FAO, 2010

Developing climate-smart agriculture is crucial to achieving future food security and climate change goals. This paper examines some of the key technical, institutional, policy and financial responses required to achieve this transformation. Building on case studies from the field, the paper outlines a range of practices, approaches and tools aimed at increasing the resilience and productivity of agricultural production systems, while also reducing and removing emissions. The second part of the paper surveys institutional and policy options available to promote the transition to climate-smart agriculture at the smallholder level. Finally, the paper considers current financing gaps and makes innovative suggestions regarding the combined use of different sources, financing mechanisms and delivery systems.

Access this publication by clicking here

Agriculture, Food Security and Climate Change:
Outlook for Knowledge, Tools and Action**.** CCAF, 2010

Background paper prepared for The Hague Conference on Agriculture, Food Security and Climate Change on behalf of the CGIAR by the Program on Climate Change, Agriculture and Food Security of the Consultative Group on International Agricultural Research (CGIAR) and the Earth System Science Partnership (ESSP).

Access this publication by clicking here

Synergies between the mitigation of, and adaptation to, climate change in agriculture.
P. SMITH and J. E. OLESEN *The Journal of Agricultural Science, 2010*

There appears to be a large potential for synergies between mitigation and adaptation within agriculture. This needs to be incorporated into economic analyses of the mitigation costs. The inter-linkages between mitigation and adaptation are, however, not very well explored and further studies are warranted to better quantify short- and long-term effects on suitability for mitigation and adaptation to climate change. In order to realize the full potential for agriculture in a climate change context, new agricultural production systems need to be developed that integrate bioenergy and food and feed production systems. This may possibly be obtained with perennial crops having low-environmental impacts, and deliver feedstocks for biorefineries for the production of biofuels, biomaterials and feed for livestock.

Access this publication by clicking here

Climate change: farmers' solutions by IFAP

This IFAP document, written for the conference on agriculture, food security and climate change, highlights the great potential for agriculture to provide climate change solutions and how farmers worldwide are prepared to actively contribute to tackling the global threat of climate change. The great potential of agriculture will be efficiently utilized if the proposed solutions will maintain farmers' incomes and allow the efficient management of risks. Such an approach will have a positive long-term effect on the modernization and sustainability of the agricultural sector, lifting millions of rural people out of poverty.

Access this publication by clicking here

Food, fibre and forest products. Chapter 5 from the Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC

"Climate Change 2007: Impacts, Adaptation and Vulnerability", is the second volume of the IPCC Fourth Assessment Report. After confirming in the first volume on "The Physical Science Basis" that climate change is occurring now, mostly as a result of human activities, this volume illustrates the impacts of global warming already under way and the potential for adaptation to reduce the vulnerability to, and risks of climate change. Chapter 5 illustrates this for the topic "food fibre and forest products".

Access this publication by clicking here

Food security and agricultural mitigation in developing countries: options for capturing synergies by FAO

This paper explores potential synergies between food security, adaptation and climate change mitigation from land-based agricultural practices in developing countries, which could help to generate the multiple benefits needed to address the multiple demands placed on agriculture. It indicates promising mitigation options with synergies, options that involve trade-offs, possible options for required financing, and possible elements in designing country implementation processes.

Access this publication by clicking here

Coping with a changing climate: considerations for adaptation and mitigation in agriculture by FAO

This document elaborates on issues of less-than-perfect information on climate impacts and vulnerabilities, and need for better informed decisions on "resilient adaptation" by merging adaptation, mitigation and prevention strategies. It offers new perspectives for policy-makers, institutions, societies and individuals on improved ways of identifying most at-risk communities and "best practices" of coping with current climate variability and extreme climate events.

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The World Development Report 2010, chapter 3: Managing Land and Water to Feed Nine Billion People and Protect Natural Systems by the World Bank

This chapter first discusses what can be done at the national level to increase productivity of agriculture and fisheries while more effectively protecting natural resources. It next discusses what can be done to support national efforts, focusing on international cooperation and the essential role of information both at the global and the local level. Then it focuses on how incentives might change to accelerate implementation of beneficial practices and to help societies balance the need for increased production with better protection of natural resources.

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The World Development Report 2008: Agriculture for Development by Worldbank

This *Report* addresses three main questions:

• What can agriculture do for development? Agriculture has served as a basis for growth and reduced poverty in many countries, but more countries could benefit if governments and donors were to reverse years of policy neglect and remedy their underinvestment and misinvestment in agriculture.

• What are effective instruments in using agriculture for development? Top priorities are to increase the assets of poor households, make smallholders—and agriculture in general—more productive, and create opportunities in the rural nonfarm economy that the rural poor can seize.

• How can agriculture-for-development agendas best be implemented? By designing policies and decision processes most suited to each country's economic and social conditions, by mobilizing political support, and by improving the governance of agriculture.

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Agricultural Development under a Changing Climate: Opportunities and Challenges for Adaptation by worldbank

A joint discussion paper by the Agriculture and Rural Development & Environment Departments at the World Bank

Access this publication by clicking here

Land & climate: the role of sustainable land management for climate change adaptation and mitigation in Sub-Sahara Africa by Terrafrica

This paper seeks to help address these threats and achieve the potential of these opportunities by informing policy makers, development practitioners, and others concerned about these issues about the linkages between climate change and sustainable land management (SLM), the opportunities and constraints to promoting climate change mitigation and adaptation through SLM, and the policy and institutional options to overcome the constraints and realize the opportunities that are now or are becoming available.

Access this publication by clicking here

Climate change impact on agriculture and costs of adaptation by IFPRI

This report presents research results that quantify the climate-change impacts on agriculture, assesses the consequences for food security, and estimates the investments that would offset the negative consequences for human well-being. This analysis brings together, for the first time, detailed modeling of crop growth under climate change with insights from an extremely detailed global agriculture model, using two climate scenarios to simulate future climate.

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Climate, agriculture and food security: a strategy for change by CGIAR

To highlight the importance of agriculture, livestock, forestry and fisheries in relation to climate change adaptation and mitigation and to demonstrate the importance of the CGIAR in moving the science agenda forward, the Alliance of the CGIAR Centers commissioned this report. The report is organized around the six themes of the CCAFS science plan to emphasize the importance of this new strategic initiative and to show how this new Challenge Program builds on, and complements, the work already done by the centres and the other Challenge Programs.

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Climate change and agriculture: impacts, adaptation and mitigation by OECD

This report considers the economic and policy issues related to the impacts of climate change on agriculture and adaptation responses, and mitigation of greenhouse gases from agriculture; outlines research undertaken and underway in other national and international research agencies; and highlights some of the knowledge gaps in the impacts of climate change on food production and the uncertainties of those impacts in a global context that warrant further research efforts.

A particular feature of the report is the analysis of marginal abatement cost curves – which show the relative costs of achieving reductions in greenhouse gas emission through implementing different actions in the agricultural sector.

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Climate change implications for fisheries and aquaculture by FAO

This document was prepared in response to the request from the twenty-seventh session of the Committee on Fisheries (COFI) that the FAO Fisheries and Aquaculture Department (FI) should undertake a scoping study to identify the key issues on climate change and fisheries. It contains the three comprehensive technical papers that formed the basis for the technical discussions during the Expert Workshop on Climate Change Implications for Fisheries and Aquaculture held from 7 to 9 April 2008 at FAO headquarters.

Access this publication by clicking here

Challenges and opportunities for carbon sequestration in grassland systems by FAO

This report reviews the current status of opportunities and challenges for grassland carbon sequestration. Based on these observations, the report then identifies components that could foster the inclusion of grasslands in a post-2012 climate agreement, and the development of policies to improve grassland management.

Access this publication by clicking here

Roadmap for terrestrial carbon science: research needs for carbon management in agriculture, forestry and other land uses by the Terrestrial Carbon Group

This report assesses the scientific and technical advancements needed to support land-based mitigation. It identifies priority research needs that must be addressed, globally and in specific regions, and recommends technical investments and actions needed to accelerate avoided emissions and sequestration of terrestrial carbon.

Access this publication by clicking here