



Global Conference on Agriculture, Food Security and Climate Change Bulletin



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GLOBAL CONFERENCE ON AGRICULTURE, FOOD SECURITY AND CLIMATE CHANGE HIGHLIGHTS: MONDAY, 1 NOVEMBER 2010

On Monday morning in plenary session, participants heard keynote presentations that framed the issues for the subsequent sessions of the day and a message from the African Conference on Agriculture, Food Security and Climate Change. Two working groups were then formed focusing on exploring issues, challenges and opportunities related to agriculture, food security and climate change, and stocktaking of innovations, with presentations of country case studies. In the afternoon, participants heard presentations by two keynote speakers and then convened in two working groups to discuss practical and replicable models as well as lessons learned from successful practices.



Country flags outside the venue

PLENARY SESSIONS

In the morning plenary, Chair Henk Bleker underlined that current food, energy and financial crises require a paradigm shift to include agriculture as a solution. He outlined the outcome of this Conference as a roadmap with concrete actions linking agriculture-related investments, policies and measures to address food security and enable the transition to climate-smart growth.



Chair **Henk Bleker**, Minister for Agriculture and Foreign Trade, the Netherlands

Rhoda Peace Tumusiime, African Union Commission, presented recommendations by the African Conference on Agriculture, Food Security and Climate Change held from 6- 8 September in Addis Ababa, Ethiopia, which include: developed countries and other partners to support piloting and scaling up programmes in climate-smart agriculture and food security; countries to adopt, at UNFCCC COP 16, a decision for a programme of work on agriculture; and the international community to develop mechanisms to simplify access



Rhoda Peace Tumusiime, African Union Commissioner for Rural Economy and Agriculture

to carbon markets by smallholders and other stakeholders. She urged that these recommendations be considered as part of the roadmap resulting from this Conference.

Kanayo Nwanze, President, International Fund for African Development, urged participants to recognize that agriculture, food security and climate change are inseparable issues that often must be reconciled. He suggested that tools and approaches do exist and should be leveraged to launch an evergreen revolution. He shared three steps to support the revolution: engaging and supporting smallholders; scaling up approaches to reduce risks from climate change; and empowering



Kanayo Nwanze, President, International Fund for Agricultural Development

local communities to blend traditional knowledge systems with modern technology for example through partnerships with the private sector.

Louise Fresco, University of Amsterdam, the Netherlands, expressed concern about the climate change focus in agriculture, noted that short-term climate variability is a more immediate stressor for farmers and said that poor farmers need buffers to increase their resilience to this variability. She suggested that bringing back a sense of entrepreneurship to farming is one of the challenges to increasing agricultural productivity, and that closing the agricultural cycles is the best contribution agriculture can make to climate change mitigation

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A view of the plenary room

and adaptation. She urged that the roadmap address agriculture intensification, including modernization of land use and new technologies for better food with less environmental impacts.

In the afternoon, Robert Watson, University of East Anglia, UK, suggested that improving infrastructure and management of food could eliminate post-harvest loss by 30-40%. He articulated that agriculture, utilizing current technology and knowledge sharing, could address food scarcity in the face of climate change and that genetic modification is not required, although research should continue to develop seeds resilient to human-induced climate change.

Jeremy Hobbs, Executive Director, Oxfam International, outlined principles for addressing the food, economic and financial, and climate crises, including: increased



Jeremy Hobbs, Executive Director, Oxfam International

investment, particularly public investment, in smallholder farming; increased focus on adaptation for smallholder farmers; development of agro-ecological approaches and endogenous solutions which are based on resources available to farmers; building resilience and capacity to withstand climate change impacts; and recognition of resource constraints as climate change impacts increase.

WORKING GROUPS

WORKING GROUP MORNING SESSION

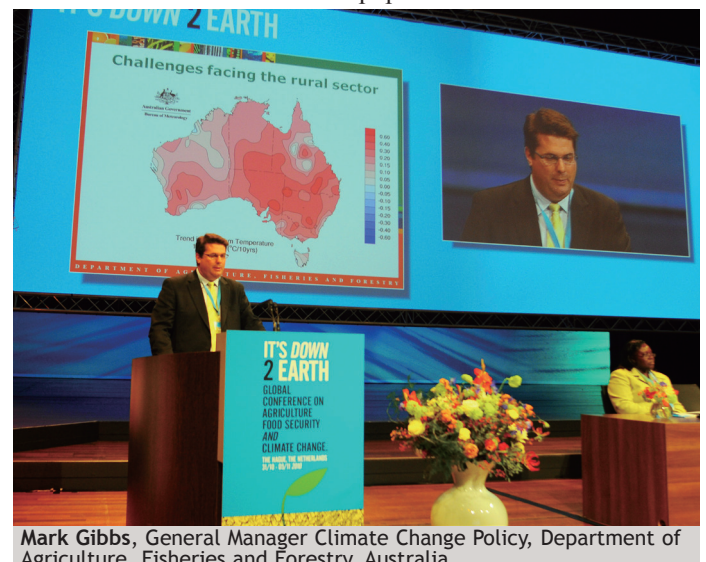
In the morning participants convened in two working groups to discuss challenges and opportunities in agriculture, food security and climate change and stocktaking of innovations.

WORKING GROUP 1

Mark Gibbs, Department of Agriculture, Fisheries and Forestry, Australia, noted the expected rise in temperatures and reduction in rainfall in the most populated areas of Australia



Louise Fresco, University of Amsterdam, the Netherlands



Mark Gibbs, General Manager Climate Change Policy, Department of Agriculture, Fisheries and Forestry, Australia



Ann Onyango, Director of Policy and External Relations, Ministry of Agriculture, Kenya



Sergey Kiselev, Head of Department of Agroecconomics, College of Economics, Lomonosov Moscow State University, Russian Federation

needs. Regarding trade-offs between agriculture productivity and mitigation, she said the primary focus is on food security. Burundi called for considering farmers as business people, and for encouraging peasant farmers to enhance production. Ethiopia emphasized the need to use appropriate technologies particularly at the grassroots level.

WORKING GROUP 2

Sergey Kiselev, Lomonosov Moscow State University, Russian Federation, presented challenges and opportunities in agriculture and forest management in the Russian Federation. He described climate change impacts on his country, highlighting that these are mostly favorable, such as warmer winters, earlier springs and later autumns, enabling increase in agriculture-suitable land and durability of vegetation; but include some unfavorable impacts, such as increased frequency of dangerous weather events and anomalies, decline in water resources and degradation of soil fertility. He gave the example of wheat production and highlighted that despite increased dangerous weather events, the 2010 harvest is expected to be higher than during previous droughts, partly due to the increased share of winter wheat, which is more drought-resistant. He also identified lessons learned, including the need for: joint efforts between federal and local governments, businesses and NGOs; special climate change adaptation programmes; and increased funding for agriculture measures.

Luis Muñozcano, Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food, Mexico, shared successful climate change mitigation and adaptation strategies, such as development of an insurance system to respond to increasing varied and uncommon weather phenomena. He explained that this insurance system blends mechanisms that transfer weather risk to insurance companies and provide direct support for areas that are uninsured and affected by extreme weather events. Muñozcano also emphasized the importance of finding ways to support small farmers and lowest-income populations using existing instruments.

In the ensuing discussion, participants commented on: efforts to ensure growth in agricultural livestock in light of serious climate problems; the required level of state investment in the agriculture sector; efforts to improve access by farmers to new technologies and best practices; possible contribution of the agriculture and agro-food sector to food security and climate change solutions; incentives for engaging local communities in agriculture programmes; and mechanisms for integrating water and agriculture policies.

and the expected decline in agricultural production if no action is taken. He highlighted: policy reforms in support of sustainable farming, agriculture research and extension; the Carbon Farming Initiative to develop national and international markets for soil carbon; monitoring and reduction of methane emissions from the livestock sector; risks of competition for water and land between forestry plantations and agricultural production; and the Global Research Alliance on Agricultural Greenhouse Gases.

Ann Onyango, Director of Policy and External Relations, Ministry of Agriculture, Kenya, presented strategies and programmes for agriculture development and food security, including: a shift to commercial agriculture while maintaining sustainability; investments in water harvesting; provision of technical and financial support to orphans for crop production; market and trade policies; institutions for service delivery; low-cost credit for farmers; strengthened early warning systems; conservation agriculture and soil and water conservation policies; water storage systems; subsidies for access to seeds, animal breeds, fertilizers and agrochemicals; incentives for farmers to allocate 10% of farmland to forestry; and an afforestation and rural infrastructure youth programme.

In the ensuing discussion, the presenters clarified that subsidies programmes in Australia and Kenya have focused on mineral fertilizers but that organic fertilizers will also be targeted. Responding to a question on the risk of increasing nitrous oxide emissions in the Carbon Farming Initiative, Gibbs clarified that the programme targets different soil types and climates in Australia. The African Union emphasized that climate change has direct effects on food production and livelihoods in Africa as 95% of agriculture lands are under rain-fed systems. Network of Farmers' and Agricultural Producers' Organisations of West Africa noted the need to link agriculture and climate change discussions to World Trade Organization commitments, and to facilitate farmers' access to funding mechanisms. Onyango stressed the need to consider the whole production chain to avoid post-harvest losses for farmers. She described: a control system to ensure sale of quality seeds to farmers; a coordination unit integrating various research institutions; and an extension coordination mechanism linking private sector production and farmers'



Carlo Galli, Nestlé



Eduardo Alvarado Corrales, Ministry of Environmental, Rural and Marine Affairs, Spain

WORKING GROUP AFTERNOON SESSION

In the afternoon, participants convened in two working groups to discuss practical and replicable models with lessons learned from successful current practices.

WORKING GROUP 1

Idrissa Semde, Ministry of Agriculture, Waterworks and Water Resources, Burkina Faso, presented climate change adaptation efforts in his country, including: restoration of degraded lands through specific planting techniques; water retention schemes and small-scale irrigation that allow cultivation outside normal growing seasons; use of organic fertilizers; production of season-adapted seeds; and an early warning system for pest management. He said that the main principles for implementing adaptation measures are decentralization, participation of local populations, and response to sustainable development research. He also noted that an insurance system for agriculture and animal husbandry is being planned.

Carlo Galli, Nestlé, underscored the role of the global food industry in the food security debate noting, *inter alia*, the high dependence of urban populations on global foods and the financial capacity of the industry to invest in productivity and sustainability of the resource supply. He also highlighted water scarcity and water use issues in agriculture, namely: productivity of rain-fed agriculture; more efficient irrigation through new technology; water pricing; and the virtual water trade.

Jerzy Kozyra, State Research Institute, Poland, presented the Rural Development Program of his country, which contains measures that have had positive adaptation and mitigation effects, including: requirements for proper crop storage and crop rotation; prohibition of burning crop residues and using heavy equipment in wet conditions; and incentives for the maintenance of grasslands.

Responding to questions, Semde said the techniques he presented can be replicated in other countries and regions. Lesotho shared experience with a type of kitchen garden known as a 'Keyhole Garden' as a way to cope with droughts. Samoa described a toolbox with 20 best practices for mitigation, suggesting this could be included as a tool in the roadmap for action. Participants also emphasized aspects to be reflected in the roadmap, including: alternative finance sources for agriculture; the importance of coherent agriculture and food security policies at the global level; the need to address trade policies; the importance of smallholders and local markets; assistance for farmers to become entrepreneurs; appropriate and affordable technology; investment needs for climate-smart agriculture; holistic approaches to water conservation and rain-fed agriculture; the need to link the climate change discussions to sustainable development; collaborative research;

and extension to reach farmers. Participants expressed different views on whether the focus in the roadmap should be on adaptation or both mitigation and adaptation.

WORKING GROUP 2

Carlos Pagador, National Water Authority, Peru, described a successful water management system, which: requires users to apply and pay before delivery; engages users with regional and national water authorities; and ensures that distribution is transparent and measurable. He said the system has increased water irrigation efficiency by 40% through monitoring water use and improving the understanding of the characteristics of the canals and irrigation systems, and noted that in the future, it will collect water use data for specific crops.

Eduardo Alvarado Corrales, Ministry of Environmental, Rural and Marine Affairs, Spain, discussed water- and drought-related issues in Spain's agriculture sector. He explained that Spain has implemented special plans to address droughts, such as a drought status map showing drought spots and occurrences divided into normal, pre-alert, alert and emergency cases, which determines the nature and timing of intervention taken.

Girma Balcha, Ministry of Agriculture and Rural Development, Ethiopia, presented community-based watershed management initiatives for conserving biodiversity, ensuring food security and helping smallholders adapt to climate change. He explained that these practices can be expanded within Ethiopia, but require additional financial and capacity-building support.

In the subsequent discussion, Iran noted the need to coordinate different sectors for effective planning and implementation of watershed management projects and suggested that this issue be included in the roadmap for action. In response, Balcha said his government has established watershed teams comprising disciplines such as livestock, agriculture and home economics. Madagascar outlined efforts to reduce methane emissions from rice production and animal husbandry, using the alternate wet/dry irrigation system. Responding to questions, Alvarado noted that the ability to respond successfully to emergencies lies in the capacity to plan ahead, engage multiple stakeholders and take step-by-step actions to utilize water resources sustainably.

Egypt described efforts to address food security sustainably, through intensification of agriculture and the use of modern irrigation systems. Balcha said the problem of periodic droughts is being addressed using watershed management, food security and other conservation methods, such as small-scale irrigation. Pagador highlighted the need to not only improve infrastructure but also management, *inter alia* through appropriate economic analysis. The FAO underlined the need to manage and increase agricultural productivity.