



“Organic Agriculture, Climate Change and Environment” and Organic Buffet Lunch

A side event on the occasion of the 21st Session of the Committee on Agriculture (COAG)

**Wednesday 22 April 2009, from 12:00 to 14h:00 hours
Iran Room, FAO Headquarter, Rome**

The event was an initiative of the Danish Ministry of Food, Agriculture and Fisheries. It was organized by the Danish International Centre for Research in Organic Food Systems (ICROFS) in collaboration with the International Federation of Organic Agriculture Movements (IFOAM) and FAO. About 120 persons participated into the event, including delegates from at least 42 countries.

The Side Event was chaired by Soren Skafte, Denmark and welcoming remarks was delivered by Cristina Grandi, IFOAM and Alexander Mueller, ADG/NR.

Denmark has been named “Organic Country of the Year 2009” and will be hosting the UNFCCC Conference of the Parties (COP15) in Copenhagen in December 2009. The side event was organized in recognition of the important value that organic agriculture could play in answering to the social and environmental challenges that food systems are facing and the need to cope with growing food demands in times of climate change. The interdependencies and relationship between agriculture, environment and climate change will have to be taken into consideration for the choices made by humanity in order to secure a sustainable production of food and fiber.

Niels Halberg, Director, ICROFS, Denmark, presented the multi-dimensional challenges of future food and farming systems. He highlighted the role of organic agriculture in improving smallholder viability, income earning (through remunerative exports), food security, soil quality and agro-ecosystem diversity. He referred to the eco-functional intensification option offered by organic agriculture, through the combination of traditional knowledge and modern science. He however cautioned that this entailed intensive knowledge, thus the need for innovation and adaptation of agro-ecological methods in order to realize the full potential of organic agriculture. Organic agriculture deserves more research investments and ICROFS encourages and supports international collaborative efforts such as Organic E-prints, Core Organic II and the FAO-led Organic Research Centres Alliance (ORCA).



Urs Niggli, Director, Research Institute for Organic Agriculture, Switzerland, presented the latest scientific evidence on the potential of organic agriculture for climate adaptation and mitigation. Using long-term comparative experiments (20 years) and peer reviewed scientific studies, he demonstrated that organic agriculture, without and with no tillage, can sequester 3.5 to 5 Gt of CO₂ equivalents. This means that enhanced Carbon sequestration rates for arable lands, permanent crops and pastures, combined with improved farm and crop management such as done in organic agriculture, can compensate for all today's greenhouse gas emissions by agriculture. Although the scenario presented is hypothetical, it implies that with present technologies, agriculture can be carbon neutral. Other positive side effects of organic management include reducing energy requirements by 25-50 percent and improved yield stability; both aspects are relevant to the changing climate and energy environments.

Tewolde Berhan, Director General, Environmental Protection Agency, Ethiopia, described how community-led watershed management has reversed severe degradation in Tigray. Between 1996 and 2008, gully rehabilitation, terracing, agroforestry and composting brought back water, food and life: 1.8 million ha of land (about 16% of total cultivated land in the country), belonging to approximately 2 million farm families (also about 16% of the total in the country), were fertilized with compost. While in the Tigray Region, the total urea applications decreased almost by half (from 14 to 8 thousand tonnes) between 1999 and 2006, total crop yields almost doubled (from 713 to 1353 thousand tonnes between 2003 and 2006). In 2009, 137 822 ha of land, cultivated by 110 861 farmers, were certified organic. The speaker called for the consideration, during the Kyoto Protocol negotiations, of the role of agriculture. In particular, he stressed the need to review Carbon trading mechanisms in favour of forests as well as to ecological and organic agriculture.

Vitoon Panyakul, Director, GreenNet, Thailand, illustrated organic agriculture in Southeast Asia, practiced on 2.88 million ha by 234 147 certified producers, mainly in marginal areas, which improved land productivity while reducing cash costs. With climate variability, he underlined that organic farmers were generally less affected, due to more diversified farms and adaptive management practices. Even though organic agriculture is over-regulated, government enabling support is generally lacking. Areas deserving attention is organic rice farming in the new context of low energy input, as well as adaptive management to face climate change challenges. The speaker proposed the establishment of a regional mechanism to support least-developed countries converting to productive organic systems. He called for support to related research, extension and public-private partnerships.