Special Event on Fire and Climate Change
COFO, 18 March 2009

Forest and other vegetation fires contribute to climate change through CO2 and other greenhouse gas emissions, and fire risks are increasing as a consequence of climate and societal changes. This has consequences for sustainable forest management.

Within FAO's strategy to enhance international cooperation in fire management the voluntary guidelines detail the principles and strategic actions required for integrated approaches to forest and vegetation fires that incorporate monitoring, early warning and detection, preparedness, prevention, suppression response and restoration following fire events.

Presentations were made to reflect fire and climate change from global (Johann Goldammer, GFMC/UNISDR), Mediterranean region (Nora Berrahmouni, WWF Mediterranean Programme Office) and the USA (Tom Harbour, USDA Forest Service) perspectives. All speakers stressed that the incidence, scale, severity and impacts of major fires were increasing as extreme weather events increased. These were causing changes in forest species composition and reducing the carbon storage capacity of forests.

The net global release of carbon into the atmosphere from forest fires is estimated to be 0.6 Gt/year which not only contributes to climate change but negatively impacts human health. As fire is a significant contributor to deforestation and forest degradation, any REDD initiatives must incorporate fire monitoring and assessment, modelling and management.

In the Mediterranean region about 50,000 fires burn up to 1 million hectares of forest each year. The risk and vulnerability to fire is projected to increase with climate change and extreme weather events (drought, high temperatures, winds) but also because of societal and land-use changes in the region that result in more unmanaged vegetation fuel in some instances and greater fragmentation and over-exploitation in others. It is recognized that building smart landscapes by adopting integrated fire management strategies and policies, greater cooperation and benefit sharing between sectors and actors (including communities, farmers and public), capacity building, better information and sharing through networks were necessary.

In the USA, about 100 million hectares of forests burn annually, however, the incidence of extreme fire events was increasing in frequency and severity of impacts, including reduction of carbon stocks and emitting greenhouse gases. To reduce the fire risk and fuel loads, programmes of prescribed burning and active management of forests have proven very successful i.e. mitigation of climate change through fire management. This requires integrated approaches to fire management.

Participants were requested for their guidance on the FAO fire management programme in the context of climate change, as well as national commitments regarding fire management and climate change. Prescribed burning programmes in Western Europe in collaboration with communities and farmers had proven successful in reducing fire risk and changing attitudes of the public, foresters and firemen. In Northern Africa improved strategy development and fire risk mapping had reduced the incidence and impacts of fire. In Africa fires affect not only climate change but also sustainable development and livelihoods public awareness and education with communities and more training and better equipping of fire specialists is necessary.

Specific requests included:

1. Incorporate fire management issues into the COFO report.
2. More information on the use of prescribed burning be made available to African countries
3. Country capacity in integrated approaches to fire management be strengthened, with special emphasis on prevention, public awareness, community based fire management and strategic planning