Workshop on Peatland Fire Prediction and Warning in the ASEAN Region

Key Conclusions and Recommendations

The Workshop on ASEAN Peatland Fire Prediction and Warning was held in Kuala Lumpur on 13-14th July 2010. It was attended by more than 60 representatives from government agencies, research institutions, private sector and NGOs mainly from the ASEAN region. It was organised to support the implementation of the ASEAN Peatland Management Strategy 2006-2020 as part of the ASEAN Peatland Forests Project (APFP) supported by the International Fund For Agriculture Development (IFAD) and The Global Environment Facility (GEF). It was organised by the ASEAN Secretariat and the Global Environment Centre (as Regional Project Executing Agency) and was held in association with the Government of Malaysia through the Ministry of Natural Resources and the Environment (NRE), the Forest Department of Peninsular Malaysia and the Selangor Forest Department.

Expert presentations were given on the nature and significance of peatland fires in the ASEAN region; current status of fire danger rating and hotspot monitoring programmes; experience in fire prevention and control in peatlands. Working groups focused on strengthening peatland fire prediction and warning systems and enhancing fire prevention measures in peatlands.

Important outcomes of discussions were:

- Fires in peatlands are the most serious type of land and forest fires and over 90% of transboundary haze in the southern portion of SE Asia is linked to peatland fires.
- Governments in the ASEAN region have developed key strategies and plans and are making initial progress to reduce peatland fires.
- Fire danger rating systems especially the Drought Code Index is a good predictor of peatland fire risk but is currently not widely used.
- Fire danger rating should preferably be used in conjunction with fire susceptibility or fire risk maps based on fire history, land use, drainage and other factors.
- Hotspot monitoring is an effective monitoring tool to help detect fires – but initial analysis indicates that peatland fires may be harder to detect by hotspot monitoring compared to dryland forest fires especially at the early stage.
- Although peatlands cover 25 million ha in the region – the fire prone peatlands cover less than 10% and are primarily those areas that have been opened up and drained especially areas that may not be under prudent management.
- Poor water management (ie over-drainage) combined with periods of low rainfall are key factors enhancing hazard and risk of peatland fires.
- Important measures for peatland fire prevention include enhanced water and peatland management, awareness raising, promotion of zero burning agriculture and law enforcement.

- For fire prevention measures - it is essential to involve a broad range of local stakeholders including government, local community and land owners or private sector.
- Fire prevention for peatlands is more cost effective than peatland fire suppression – but local agencies often face resource constraints; in addition proper incentive mechanisms are needed to encourage the participation of other stakeholders.
- Capacity building related to prediction, monitoring and prevention of peatland fires should be enhanced and coordination and sharing of information and experience between agencies should be strengthened.

The workshop called for relevant agencies, private sector, research institutions and CSOs in the ASEAN region to strengthen efforts to enhance prediction and prevention of peatland fires in an integrated manner.

The workshop identified the following proposals to:

- Expedite the establishment of an enhanced Peatland Fire Prediction and Warning System (PFPWS) by combining information on peatland distribution and fire risk with FDRS and hotspot monitoring.
- Improve the effectiveness of prediction through refining thresholds and indices for hot spot monitoring FDRS and enhanced feedback between prediction and operation.
- Set up an effective outreach programme to disseminate fire danger alerts to fire prone peatlands through web, SMS and media.
- Establish a network of pilot sites in ASEAN countries (including APFP Pilot sites) with fire prone peatlands for the testing of the PFPWS.
- Develop susceptibility and risk maps and fire prevention plans for all fire prone peatlands.
- Increase the availability of data for prediction of fires through both automatic and manual weather stations in fire prone peatlands (including APFP Pilot sites) and remotely-sensed data sources.
- Require the active involvement of local community and private sector in fire prevention programmes including participation in fire patrols and fire control activities.
- Establish proper water management systems for agriculture and plantations in peatland areas to optimize production and avoid over-drainage and degradation.
- Strengthen conservation of remaining intact peatlands for their biodiversity, carbon and water resources and promote the integrated management of adjacent areas.
- Identify and rehabilitate degraded peatlands no longer under active use by improving water management and restoring vegetation or allocating for agricultural use.

- Establish, enhance or disseminate Standard Operating Procedures (SOPs) for peatland fire prevention to guide the work of government, private sector and communities.
- Strengthen enforcement while supporting resolution of land disputes and providing incentives for zero burning and sustainable livelihoods.