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SESSION REPORT

(I) Regional Statement of the Northeast Asia Region

General Fire Assessment

In Northeast Asia, some forest ecosystems are becoming increasingly vulnerable to fire as a consequence of regional climate change, careless fire use and reduced institutional capacities to manage fires. These include mixed forests of the Far East of Russia, which are not fire-adapted but during the last decade have been subject to large wildfires. The same refers to the Northeast of China where wildfires often burn at large scales involving high losses of valuable forests and humanitarian problems such as air pollution, injuries and fatalities of wildland firefighters.

Transboundary fires are noted between neighboring countries which are sharing a land- border, e.g. between China and Russia, or between South and North Korea. Cross-boundary transport of smoke and regional smoke pollution has become a regular phenomenon. The last fire and smoke pollution period in the Northeast Asia Region occurred in April 2015, resulting from wildfires in the Transbaikal Region of the Russian Federation, resulting in long-range transport of smoke pollutants to the Korean Peninsula and stretching as far as the West Coast of North America (Canada, U.S.A.).[1] Such large-scale events require coordinated transboundary actions. As part of such actions, the Pan-Asia Wildland Fire Network Cluster was established after the 5th International Wildland Fire Conference in order to synergize with the Regional Wildland Fire Networks covering the vast territories of Asia. In addition, in order to enhance regional fire preparedness and response, the Asia Wildland Fire Training Program was initiated.

Conclusions

The work of the Northeast Asia Wildland Fire Network is embedded in the cooperative work of the Pan-Asia Wildland Fire Network Cluster. The initial participation of wildland fire scientists and state authorities of some countries has revealed a high interest in sharing information and resources for capacity building and joint fire management in the region. The active participation, including provision of finances, by national authorities and international organizations, however, should be increased. In order to realize this, a strategic plan including a timetable of concrete actions in fostering international cooperation must be developed. One of the important steps is the organization of the follow-up work at national level in each country. The major steps in cooperation must be carried out at the national level, including annual meetings of the Regional Wildland Fire Networks and the biennial participation of the meetings of the UNISDR Wildland Fire Advisory Group (WFAG), and joint projects of implementation. Being aware that in most countries the problems associated with excessive application of fire in land use and socio-cultural activities, the humanitarian and security consequences of fires and fire emissions are not yet solved. The participants of the Northeast Asian region recommend to the authorities at all levels and international organizations:

Recommendations

1. To support the Pan-Asia Wildland Fire Network through developing cooperative cross-boundary regional fire management capacity and enhancing international cooperation as a hub of wildfire information exchange, education, training and international cooperation;

2. To support the operation of the Asia Wildland Fire Training Program in Korea, a follow-up project of the 6th IWFC initiated by the Korean government. In this regard, the government of Korea seeks cooperation from countries around the world on the establishment of the Program; and

[1] http://www.fire.uni-freiburg.de/GlobalNetworks/CentralAsia/MongoliaFireManagementWeek2015.html

3. To support the Pan-Asia Wildland Fire Conference (second conference to be held in Indonesia in 2017), which will be held every four years at half intervals between the International Wildland Fire Conferences.

(II) Regional Statement of the South Asia Region

General Fire Assessment

In the South Asia region almost all fires are human-induced, some of which are linked with livelihoods of the people. Wildfires, among other natural disasters, have been emerging as a significant threat during the last decade, adversely impacting socio-economy and environment in the region.

Recently, the South Asia region has experienced a number of increasing incidence of unprecedented large and disastrous wildfires affecting forests and other natural vegetation, and an increasing vulnerability to communities and secondary effects of fire; e.g. accelerating sediment-related disasters (e.g. soil erosion, landslides, floods etc.) and impacts of fire and smoke pollution on human health and security. Particularly, the forests of the Hindu Kush-Himalaya region are more vulnerable to wildfire due to increasing human interventions in the fragile mountain ecosystems. In addition, wildfire incident management is extremely difficult due to steep mountain landscapes that are difficult to access, have scarce water sources; poor communication and a lack of infrastructure is a challenge. This is further aggravated by the lack of national capacity and resources to assist in fire response in remote communities and in large fire situations. With the consequences of climate change, notably the dwindling mountain ice and snow cover and thus decreasing water supply, the overall development is entering a vicious cycle in the region, resulting in serious threats to human lives and property, the destruction and degradation of valuable forest ecosystems and natural and cultural heritage sites each year. The combination of wildland (vegetation) fire emissions, including agricultural burnings, with industrial emissions generate the “Asian Brown Cloud”, a major regional environmental pollution phenomenon.

Most of the countries lack fire management capabilities, including early detection, monitoring, early warning, response, impact assessment, and agreements for cross-border cooperation in fire management. Moreover, transboundary fires and smoke pollution are evident and call for enhanced international cooperation in sharing of technological and financial resources for capacity building in wildland fire management.

In many instances, wildfire prevention and mitigation activities are only indicative at the level of implementation. Firefighting is entirely ground-based with limited availability of advanced technologies such as aerial firefighting assets. The key stakeholders, for instance government organizations, regional organizations / institutions, are often working in isolation and need to create synergies for collective actions aimed at increasing resilience of communities and nations to wildfire disasters and climate change adaptation.

In this scenario, the community-based fire management approach is strategically becoming accepted in the region. Experiences of participatory community fire management initiatives from Nepal can be an example for sharing with neighbours as was demonstrated in the “Regional Pan-Asia / Pacific Consultation on Building Advanced National and Regional Capacities in Integrated Fire Management based on Participatory Involvement of Local Communities” held in Lalitpur, Nepal, in November 2012. Both capacity building of local communities and international exchange of expertise in fire management, has been facilitated by the UNISDR Regional South Asia Wildland Fire Network in the spirit of the recommendations of the 4th and 5th International Wildland Fire Conferences of 2007 and 2011.

Conclusions

The increasing threats to ecosystems, economies and people in South Asia, require targeted responses by developing fire management policies and local to national fire management capabilities.

As the UNISDR Regional South Asia Wildland Fire Network is playing an increasing role in providing an informal but efficient platform for policy dialogue and communication, information sharing and technology transfer through project implementation in the region, the Network should be formally recognized as a key

partner and be supported by the United Nations and other donors including international cooperation agencies working in developing countries.

It should also be noted that it is important to encourage the key stakeholders for cooperation and collaboration, for instance government organizations, international/regional organizations/ institutions (e.g. UNISDR, GFMC, FAO, ITTO, SAARC, ICIMOD, AFoCo, etc.) in the Asian region to get involved in and support the UNISDR- South Asia and Pan Asia Wildland Fire Networks. The International Wildfire Preparedness Mechanism (IWPM) offers an international platform for sharing expertise in fire management.

Recommendations

For the implementation wildland fire management activities in the South Asia region, it is recommended to:

1. Enhance existing national / regional capability in fire management, including early detection, monitoring, early warning, fire response and impact assessment;

2. Enhance cooperation among countries within the region and at inter-regional levels, aimed at sharing technology, expertise and data exchange in fire management; the activation of the International Wildfire Preparedness Mechanism (IWPM) may offer an appropriate opportunity;

3. Integrate fire as a component of land use and forest management tool by giving emphasis on:
   - Improving participatory / community-based fire management approaches and institutional and technological capabilities at all levels;
   - Building capacity to 'wise-use-of-fires' for habitat management and biodiversity conservation;
   - Promoting education and awareness-raising programmes on wildland fires;
   - Supporting countries to conduct national fire and fire management assessments, formulate legal frameworks and strategies, build sustainable fire management capabilities and institutions, develop fire management plans and human resources;
   - Developing policies, strategies and action plans aimed at building capacities in local, national and transboundary forest fire management.

4. Implement the mandates and objectives of the UN-ISDR Wildland Fire Advisory Group / Global Wildland Fire Network and Global Fire Monitoring Center (GFMC) and to support implementation of building fire management capability at both local and national levels, as well as through bilateral and multilateral cooperation agreements;

5. Share the learnings from Southeast Europe, Eastern Europe and Central Asia and establish a Regional South Asia Fire Management Resource Center, which will serve as a regional center of excellence for capacity building and a facilitator of cross-boundary cooperation in fire management, operating as a decentralized regional center of the GFMC within the Global Wildland Fire Network;

6. Create an enabling environment from all possible donors including national, international, bilateral, multi-lateral and private foundations for financial, technical and other resource support for wildland fire management; and

7. Call for North-South, South-South regional cooperation in fire management to support fire management without borders in emergencies: Development of global principles for collective action.

(III) Regional Statement of the Southeast Asia Region

General Fire Assessment

Most of the vegetation fires occurring in the member countries of the Association of Southeast Asian Nations (ASEAN) are due to human interventions, notably by local communities and industrial corporations. Similar to traditional shifting cultivation, which is not very common anymore, fire is still used for removing native vegetation, accumulated plant biomass, to prepare land for planting agricultural crops, or to establish plantations. Apart of fires set for land clearing, recurrent fires are common in seasonally dry forests, notably in dry dipterocarp forests in mainland Southeast Asia and on degraded lands occupied by grass cover (notably *Imperata cylindrica*). Observations by satellite remote sensing reveal the extent and patterns of fire used for land clearing, and that these practices continue to be a major regional phenomenon.

This issue remains controversial in the ASEAN member countries, as in 2014, all countries ratified the ASEAN Agreement on Transboundary Haze Pollution, which was previously signed in 2002 in Kuala Lumpur, Malaysia. The overall goal of the agreement is to reduce fire use and thus the negative consequences of fire and fire-generated smoke pollution on the environment and on society. Ministerial meetings at the regional level, under the coordination of the ASEAN secretariat, are regularly conducted with the aim to find solutions to reduce and combat fires and transboundary haze pollution, e.g. by working with local communities with the main objective to minimize fire use and uncontrolled spread of wildfires in the region. Unfortunately, the reality in the field shows that there are no significance changes in the fire activities in the ASEAN member countries. Thus, the efforts to reduce greenhouse gas (GHG) emissions and the negative effects of fire smoke pollution on human health and security are in vain. The regional level solution is calling for intensive cooperation and joint action not only by government authorities but also by scientists and civil society, notably at the level of local communities.

Experience has shown that the problem of excessive use of fire cannot be solved only by a policy that has been developed by bureaucrats who are unfamiliar with the realities and the needs and constraints of the natural and socio-economic environment in which fire is used. Policies can be of limited use if there are no clear and realistic guidelines, concrete involvement of local communities and also strict law enforcement.

There is also the trend to focus on fire management solutions that are not really addressing the root problems. Investments in using aircraft for firefighting or production of artificial rain have often a limited efficiency and are costly. Financial resources should better be used to educate and train local communities in alternatives to fire use, wildfire prevention and self-defense of local assets by villagers, volunteers and local fire units.

Conclusions

It is recognized that since the 5th International Wildland Fire Conference (2011), the application of fire in land use and land-use change, the occurrence of wildfires and the negative impacts of fires on the environment and society of Southeast Asia have not changed and the overall situation has not improved.

Successful solutions for these problems at the regional level not only depend on the bilateral or regional collaboration like with ASEAN, but most importantly depend on the governance and capacity how each country manages its own problems. Advanced technology is often considered the best solution to solve the problem. However, unfortunately it can work only if the entire chain of prerequisite conditions is available, efficiently coordinated and functioning.

By end of 2014, the ASEAN Agreement on Transboundary Haze Pollution has been ratified by all Member States and appropriate actions are due. International attention is increasing on curbing deforestation, biodiversity loss and GhG emissions by reducing unnecessary application of fire. Thus, it is assumed that in the near future more attention will be given to fire management solutions based on best science and having realistic outreach to society. The Regional Southeast Asia Wildland Fire Network offers a platform for an informed dialogue among ASEAN member countries concerning the development of fire management policies and pragmatic approaches in capacity building at all levels. Since the 5th International Wildland Fire Conference in 2011, the Regional Network has contributed to

a number of national, regional and international initiatives in cross-boundary cooperation in fire research and fire management. However, the network requires continued support by national agencies, NGOs and international organizations.

Recommendations

Considering the unchanged situation of fire in land use and land-use change, the following recommendations, which were made at the 5th International Wildland Fire Conference (South Africa, 2011) remain unchanged:

1. To strengthen forest fire research, especially on peat fires and forest ecosystems;

2. To continue and intensify inter-regional cooperation in wildfire disaster reduction through ASEAN, GOFC/GOLD Regional Networks, UN-ISDR Wildland Fire Advisory Group / Global Wildland Fire Network and Global Fire Monitoring Center (GFMC) and other international agencies.

3. The activities of the Pan-Asia Wildland Fire Network Cluster, notably the training activities under the AFoCo programme, should be financially supported;

4. To continue integrating fire management in climate-change projects such as REDD++, transboundary haze and smoke pollutions;

5. To develop mitigation and adaptation strategies to be prepared for the anticipated change of fire regimes in the region in a future climate change scenario;

6. To encourage and support organizing forest fire management at the community level.

7. To share successful experiences of community-based fire management throughout the region and beyond;

8. To develop rehabilitation and restoration techniques in degraded burned peat swamp forest and other forest ecosystems.