



International Union of Forest Research Organizations

Union Internationale des
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IUFRO Meeting Report Form

Organizers of IUFRO meetings and IUFRO focal persons at IUFRO co-sponsored meetings, respectively, are kindly requested to **fill in and return this form within two weeks after the meeting** by email (wolfrum@iufro.org), fax (+43-1-877 01 51-50) or mail (IUFRO Headquarters, c/o BFW, Hauptstrasse 7, 1140 Vienna, Austria). This information will be posted at the relevant IUFRO web pages and may be used for IUFRO News and the IUFRO Annual Report.

(Note: Save this file under a new name and write directly into the form.)

1) IUFRO focal person/meeting organizer:

Name: John Stanturf

Function in IUFRO: Coordinator, RG 1.06.00 Restoration of Degraded Sites; Deputy Coordinator, Task Force Forest Adaptation and Restoration Under Global Change

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2) Meeting report (max. 100 words per paragraph)

Key issues discussed/latest findings in the field:

- a) Mountain forests in Central Asia provide critical provisioning, regulating, supporting, and cultural ecosystem services (ES). Investigations of the ES benefits of forests in the region include numerical weather modeling to evaluate the services of forested watershed. Other research is underway in the walnut and spruce forests. An Ecological and Economic Accounting System is under development for monitoring global policy frameworks and incorporating the value of ecosystem services into national GDP accounting. A preliminary assessment showed an increase in the share of the forest sector in GDP in the Kyrgyz Republic from 0.05% to 1.24%.
- b) All major rivers in Central Asia originate in the mountains and all are transboundary. The importance of mountain water resources are amplified in dry regions with large populations such as Central Asia. For example, between the foothills and deserts irrigated oases are home to the bulk of Uzbekistan's population. Irrigated arable land occupies only 3.5-4.0 million ha, but these lands are critical and directly dependent on river flow from the mountains. One of the measures to stabilize this ecosystem is the creation of protective forest stands on irrigated land, the basis of a system of interconnected forest shelter belts.
- c) Central Asian countries are exposed and vulnerable to natural hazards, natural processes that affect people and property and cause damages and fatalities. Mass movements are often triggered by earthquakes but there are many other natural hazards in the region. The greatest threat to human lives, vital infrastructure, and settlements are earthquakes, landslides, mudflows and floods, avalanches, and glacial lake outburst floods (GLOF). The population exposed to seismic-related hazards ranges from 30% (Kazakhstan) to 100% (Kyrgyzstan). New methods are needed to anticipate, forecast, and warn people of future threats, risks and hazards. A comprehensive and systematic approach must be implemented.
- d) Glacial meltwater influences volume, timing, and consistency of water flows to lowlands. Glacial melt accounts only for 8% of annual runoff in Central Asia, but in the Northern Tien Shan it contributes 28% of annual runoff and 40-70% of summer runoff. Recent warming in Central Asia has accelerated glacial retreat. The upward trend in warming could lead to quicker

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snow and glacier melt. An increase in temperatures in Central Asia is well documented, however there is no discernable trend in precipitation. Forested landcover could mitigate water loss.

Conclusions *(if possible, summarize key conclusions across presentations):*

Outlook to future activities *(proceedings, future meetings, other): A proceedings is being developed. There will be further discussion at the Asia-Oceania Regional Congress in Beijing in October.*

Background information *(meeting context):* This was the third RG meeting held in Central Asia (Ulaanbaatar, Mongolia in 2014 and Bishkek, Kyrgyzstan in 2015).

3) Other information:

Meeting data:

Full title of the meeting: International Expert Workshop on Ecosystem Services and Natural Hazards of Mountain Forests in Central Asia

Date and venue: 18 – 22 July 2016, Kapriz Center, Baktuu – Dolonotu, Kyrgyz Republic

Meeting website: none

Number of participants: 40

Countries represented: (9) Kyrgyzstan, Tajikistan, Kazakhstan, Uzbekistan, Mongolia, Russia, Australia, China, USA

Organization of the meeting:

All IUFRO Units involved: 1.06.00, Restoration of Degraded Sites; TF Forest Adaptation and Restoration under Global Change; 8.03.00, Natural hazards and risk management

Host organization(s) and sponsor(s): Forest Research Institute of National Academy of Sciences of the Kyrgyz Republic; Korea Forest Service; US Forest Service

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Study tour(s) to: Lake Issyk-kul, Tien-Shan Mountains

Communication activities (dissemination of information about the meeting; promotion of IUFRO):

Related publications /websites: Book of extended abstracts on IUFRO website; proceedings forthcoming

4) Photos

Landslide.jpg

Legend: An old landslide in the Tien-Shan Mountains near Lake Issyk-kul. Occurring n the night in 1906, villages below the mountain were affected with fatalities.

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Mudflow.jpg

Legend: Ironically, travelers from Bishkek to the conference center were delayed by a mudflow across the highway that followed heavy rains.

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