

**Objectives of the International
Regional Science Meeting
on
LCLUC and Water Resources in
Drylands of Central Asia
(November 11-13, 2013)**

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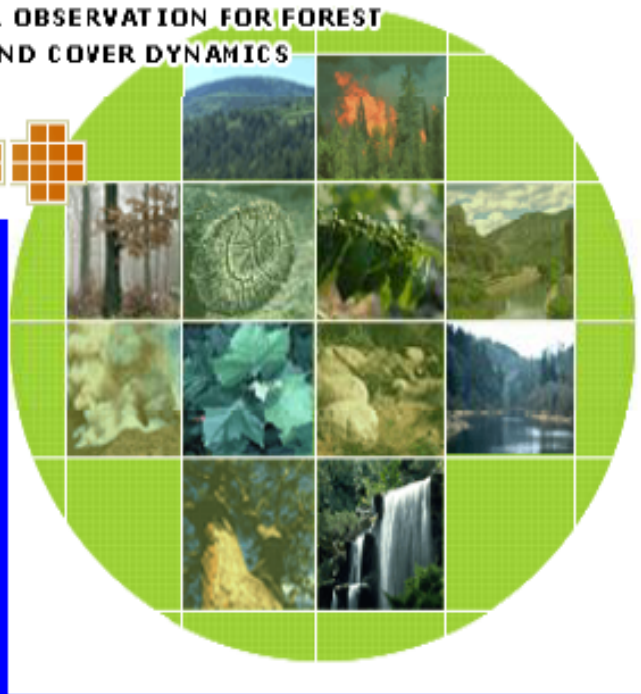
Why Land Use and Water Resources?

- Land Use and Water Resources are tightly linked in five countries of Central Asia – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
- The Soviet era model was to link the glacier mountains of Tajikistan and Kyrgyzstan with the arid lands of Kazakhstan, Uzbekistan and Turkmenistan that are rich in gas, coal and oil – large network of canals, dams and reservoirs put in place. More than 80% of arable land in Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan is irrigated
- Reservoirs on the Syr-Darya and Amu-Darya for irrigation of large areas of cotton, rice and wheat 90% of water is used for irrigation. Sustainable Water Resources and Energy are key to economic development – evident Environmental Impacts of macro policies – salinization remains an issue.
- Extreme Weather and Climate change are happening - large water infrastructure planning underway – with various security implications
- Land use is dynamic – policy, institutions, markets all play important roles
- Trans-boundary water access and water quality issues are of high relevance for sub-regional cooperation
- The institutional and legal frameworks for water resources management established in the early nineties are not well formulated for current trends

- **The objectives of this scientific meeting are to provide a better understanding of land use change and water resources in the drylands of Central Asia, to identify regional research priorities and discuss opportunities from international collaboration.**
- The meeting will include:
 - review of current programs and activities within the region related to land use change and water resources,
 - the latest research findings concerning regional climate, land use, agriculture and water resources issues in Central Asia,
 - discussion on how to promote sharing and exchange of data, information, and knowledge across the region as well as with international communities that promote strategies to mitigate food and water sustainability issues in the region,
 - understanding the role, availability and accessibility of Earth Observations for addressing the related science and applications questions,
 - strengthening the Central Asia Regional Information Network (CARIN) and encourage new networks such as Caucasus countries in the context of the international GOFC-GOLD Program
 - The meeting will also help plan future NASA LCLUC Program implementation in the Central Asia Region.

GOFC-GOLD

GLOBAL OBSERVATION FOR FOREST
AND LAND COVER DYNAMICS



GTOS

A science
panel of the
Global
Terrestrial
Observing
System

- Forum for users of satellite data to discuss their needs and for producers to respond through improvements to their programs
- Regional and global datasets with info on:
 - Location of different forest types
 - Major changes in forest cover
 - Biological functioning of forests (quantifying absorption and emission of greenhouse gases)

- GOFC-GOLD is a coordinated program of space-based and on-the-ground observations of forest and land cover for global monitoring of terrestrial resources and the study of global change

- Globally consistent data processing and interpretation methods
- International networks for data access, data sharing, and international collaboration
- Production of improved products

Previous
Central Asia
Regional
LCLUC/
GOFC-GOLD
Meetings



2009 Almaty



2007 Urumqi

Meeting Agenda I

- **Monday pm**
 - Meeting Objectives and LCLUC Programmatic Context
 - Panel 1: Aral Sea Basin Issues (Moderator: Gutman, Rapporteur: Vadrevu)
 - Poster session and reception
- **Tuesday am**
 - Invited Talk: Integrated Modeling of Land Cover/Land Use Change and Interactions - Rik Leemans
 - Panel 2: Agricultural Land-Use and Water Resources (Mod: Justice, Rapp: Henebry)
 - Panel 3: Regional Information Network (CARIN): Regional and National Priorities for LCLUC Research (Mod: Krankina, Rapp: Qi)
 - Regional Information Network (CARIN): Regional and National Priorities for LCLUC Research
 - International Panels
 - Towards a GOFC-GOLD Caucasus Regional Network
- **Tuesday pm**
 - Field trip to Charvak Water Reservoir - Mountain area

Meeting Agenda II

- **Wednesday am**

- Earth Observations and Remote Sensing Applications for LCLUC (Chair: Gutman)
- Invited Talk: Utilizing NASA's Earth Observations for Societal Applications - Shahid Habib
- Panel 4: Monitoring of Land Use, Water Resources and Fires and Impacts (Mod: Henebry, Rapp: Van den Hoek)

- **Wednesday pm**

- Panel 5: High elevations and water resources research (Mod: Shiklamanov, Rapp: Mynt)
- Summary of the Bukhara-Samarkand LCLUC summit and land-use transect field trip (Vadrevu, Pulatov)
- Plenary Discussion: Data and knowledge gaps and research priorities (Chair: Justice)
 - Summaries of Panel Discussions by Rapporteurs/Moderators
- Meeting Wrap Up – Gutman / Pulatov