

**Session Summary -
Regional Information Network (CARIN):
Regional and National Priorities for LCLUC
Research**

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Summarized in this document:

- **Panelists**
- **Critical Issues in CA**
- **Needs/Suggestions in CA**
- **Opportunities**

Panelists

- **Kazakhstan - Nadya Muratova, Alexey Terekhov**
- **Kyrgyzstan - Temirbek Bobushev, Bolot Moldobekov**
- **Tajikistan - Hasan Safarov**
- **Uzbekistan - Alim Pulatov**
- **Armenia - Lilit Vardanyan**
- **Azerbaijan - Eltekin Omarov**
- **Georgia - Georgi Gambashidze**

- **Others?**
- ***Absent: Mongolia and China***

Critical Issues

- **Water, snow and glacier monitoring (quantity and changes)**
- **Agricultural lands**
 - Irrigated areas, management, production and early warning, cotton residue treatments
- **Vegetative cover monitoring (Primarily for pastoral lands)**
- **Pests & crop disease monitoring**
- **Land degradation (of agricultural and pastoral lands); Lack of reclamation techniques**
- **Monitoring and conservation of critical ecosystems**
 - lakes (flora, diversity)
 - Forests (saxaul, high-elevation forests)

Needs/Suggestions

- **Joint international projects as a team addressing regional issues**
- **Joint workshop on common issues (bring all partners together)**
- **Collaborative effort on effective water management**
- **Development of climate-smart agriculture**
- **Remote sensing technologies to monitor resources (ag. forest and water)**
- **Need Soil erosion assessment and monitoring tools**
- **Capacity building (education, young scientists, techniques, and sharing experiences)**
- **Formation of regional agricultural network in CA**
- **Expansion of CARIN to include Caucasus region or develop a separate GOFC-GOLD network (Georgia, Armenia, Azerbaijan)**
- **Co-funding models for regional projects**
 - **Leverage funding from national governments**

Opportunities

- **Funding opportunities**
 - **USA: NASA's LCLUC Program calls for proposals on "synthesis" and "mountains" land use and land cover change issues**
 - **EU: Funding available for CA partners**
 - **Int'l: FAO may have funding for CA regional projects**
- **Building upon existing projects**
 - **A pastoral monitoring project welcomes participations**
 - **Monitoring stations are in place and it calls for joint data acquisition, sharing data, resources, and experience**

The End!

Thank You!

Ways Forward

- **Formation of CARIN (Possibly also under Future Earth in CA)**
- **Characteristics of CARIN**
 - **Driven by critical science and technology issues**
 - Water (P, S, I) security (use, monitoring, efficiency (technology & management))
 - Food (A. G.)security (production, distribution, and demand) under changing C.
 - Environmental degradation (soil erosion/salinity; lake ecosystems; dusts)
 - Climate change (extreme events, warning, and prediction)
 - **Formation of cluster projects**
 - Identify leaders / point of contact
 - Proposals, joint projects, and publication series (high potential under FE)
 - **Capacity building**
 - Annual workshop to share experiences on critical issues
 - Training on geospatial technologies (GIS, RS, GPS), methods, models, and applications on specific issues
 - Data portal and sharing
 - **Potential funding**
 - EU, NASA, NSF in USA
 - Chinese Funding Agencies
 - ADB, UNEP, UNDP, USAID