

## Bringing the Climate Change Debate Down to Earth

*On Wednesday 23 November 2011, the Tian Shan Policy Center (TSPC) organized its first scientific practical conference at AUCA. The main objective of the conference was to discuss land and water management issues, especially as they are affected by the changing climate. New strategies for water and land management are needed to protect Kyrgyz communities and livelihoods. Over 30 representatives of different government and international agencies as well as universities attended the conference. This summary was compiled by the conveners of the Conference and Roundtable, Rodger Dillon, Michelle Leighton, and Martin Ossewaarde.<sup>1</sup>*

*Please see our website for participants list, conference presentations, and other materials, [www.auca.kg/en/tspc](http://www.auca.kg/en/tspc).*

Daniyar Ibragimov, head of UNDP's Environmental Unit first gave an overview of his organization's work with Kyrgyzstan on issues of climate, land, and water management. He stated that Kyrgyzstan is exposed to negative aspects of the growing climate change problem. "If the necessary measures are not taken, it will negatively affect the economy and health", he said. He described a number of UN-financed projects in this area including the Climate Risk Management regional project, which has created special groups to analyze gaps in legislation, and which favors the adoption of a national strategy on climate change. Mr. Ibragimov pleaded for stronger cooperation between state agencies, scientists, civil society and other interested parties to achieve common goals, to avoid duplication of activities, and to raise awareness among the population about the issue of climate change.

The first research presentation was on international conflict and cooperation in water resource management in Central Asia by Sarah Hummel, a research fellow at the Social Research Center AUCA. Ms. Hummel provided an evaluation of past performance of CA countries in water management, with particular attention to the difference in perspectives and interests between downstream and upstream countries. Having investigated cooperative and non-cooperative events since the collapse of Soviet Union, Ms. Hummel concluded that so far no lasting regime of water and environmental management has been achieved. According to her calculations, cooperation among CA countries is more likely when the scarcity of water is high.

Next, Elena Rotoklya, Assistant Professor of the Natural Sciences Department at AUCA, presented “The Challenges of Integrated Water Resources Management (IWRM) in Central Asia”. Ms. Rotoklya concluded that proper application of IWRM methodology by CA countries would result in consensus on sharing water between upstream and downstream countries, better water quality and economic efficiency.

The third presentation was made by another SRC Research Fellow, Beatrice Mosello, on “Institutional Adaptive Capacity as a Way Towards Sustainable Water Governance” based on the case studies of Italy and Kyrgyzstan. Ms. Mosello focused on how water will be managed in these two countries in the context of the changing climate. She discussed to what extent these countries are institutionally ready for natural disasters and how to build adaptive capacity. She concluded with the phrase “It’s cheaper to brush your teeth twice a day than going to the dentist”, suggesting that it’s better to start fighting the problem before it reaches a critical level.

Finally, TSPC Deputy Director Michelle Leighton talked about the “Impact of Land Degradation on Community Livelihoods in a Climate-Changed World” with additional comments from Tologon Mamatov, the KG National Manager of “Sustainable Land Management, High Pamir-Alai Mountains” (i.e., the PALM Project). The presentation provided an overview of land degradation problems and hazards in Kyrgyzstan, and climate change estimates for Central Asia. Mr. Mamatov discussed issues related to the Pamir-Alai Mountains in the border area of Kyrgyzstan and Tajikistan, and pilot projects being undertaken to strengthen agricultural land and forest management in the Pamir-Alia region .

After several questions and comments following the last presentation there was a coffee-break followed by a **roundtable session** moderated by Associate Professor of Sustainable Development, Martin J. Ossewaarde.

The first question that was raised during the round table session was about key challenges for Kyrgyz government agencies and local communities in managing water and lands for the future. One suggested challenge was that the Kyrgyzstani administration cannot seem to get into a ‘proper policy cycle’ with measurable goals, monitoring and evaluation and follow-up. Certainly, the political instability and budgetary situation are partial causes for this. Moreover, current governments seem almost totally unresponsive to the significant economic consequences of climate change for the country.

The next question addressed possible conflicts that exist among policies advanced by different agencies in Kyrgyzstan and international agencies. The participants of the round table concluded that governmental and international agencies indeed have different goals and agendas. The problem is that Central Asian states heavily depend on donors and do not yet have their own strategies on dealing with the impacts of climate change. More coordination between the agencies is desirable, as is reporting about project effectiveness. Also, Kyrgyzstan does not have all of the technical expertise it needs to

remedy land, water, and energy problems in all spheres. For example, it lacks scientific capacity and laboratories to test water samples for contamination from pesticides; if it did, the country wouldn't need to send samples abroad for costly analysis. Another response was that international organizations should better take into consideration the local population's interests, while building strategies on preventing the climate change impacts on water and land.

Also participants discussed how Kyrgyzstan could better address land and water management issues to assist communities in context of Climate Change predictions—that is, how to help local agricultural communities better adapt to the changing environment. Forests are decreasing at a time that they should actually increase in order to sustain livestock and crop productivity, and to prevent hazards such as landslides and mudflows.

Some said that those under threat from climate-related disasters should organize themselves to lobby for solutions, because climate disasters might also cause political problems. The issue of land degradation was discussed as another reason why increased extreme weather events might aggravate soil erosion, land slides and flooding. Several participants suggested that the introduction of sustainable development thinking in schools and universities should be speeded up with special emphasis for fieldwork and case studies of real life situations. Participants were reminded that the Kyrgyzstani government is involved in UN efforts to boost Education for Sustainable Development in this decade from 2005 till 2014. While the government and UNESCO provide a fair deal of support for schools, universities are left to fend for themselves. Nevertheless, several universities have begun collaboration. The American University is among the leaders in this field, as it is developing new curriculum in sustainability and is planning to build its new campus according to strict energy efficiency standards and using geothermal energy for space heating. NGOs such as MoveGreen will be implementing an educational program to involve youth in sustainable development.

Are regional land and water management institutions useful and feasible? Many of the participants who responded to questions provided examples and specific issues.

### **Summary of Issues and Recommendations**

- There is a need for the **government agencies in Kyrgyzstan to develop goals that incorporate key environmental benchmarks and indicators to monitor the impacts of environmental laws, policies and practices on a consistent basis.** Establishing such a framework would provide the government with tools to better assess current problems, identify critical needs for the future, and undertake reforms targeted at improving environmental and agricultural sustainability.
- **Improving collaboration among environmental agencies, NGOs, and universities** would strengthen the impact of current projects and facilitate a more coordinated strategy among various sectors not working in tandem in the environment, development, and energy fields.
- The failure of international agencies and the government to harmonize information on successful pilot projects, respond to them and build on their lessons through future programmatic development tends to weakens the prospect for Kyrgyz sustainability and makes

inefficient use of resources. **International donors and KR officials should better analyze pilot programs and harmonize lessons learned for incorporation into future programs.**

- **Conflicts exist between national policies and the practical needs of local communities** struggling to address land and water management issues. National policies, for example, should better support the efforts of pasture committees and collective land management to ensure fairer and more sustainable natural resource use. There should be a fuller assessment of such conflicts and remedies built into the law, and **more monitoring at the field level to identify needed reforms that promote sustainable land management.** The assessment of economic impacts at the local level is needed as well as mechanisms to hold officials accountable for fair implementation of natural resources allocation and management policies.
- **The public media is underutilized** by agencies, institutions, and other groups seeking to improve outreach and awareness-raising on implementation of environment and development programs, and increased efforts to involve the media to spread ideas and inform the public is warranted.
- Due to the changing politics and lack of priority focus on climate change issues, **KR officials have not yet taken advantage of opportunities for significant funding from global climate fund** sources that can be channeled to agricultural development and adaptation for local Kyrgyz communities—recognizing that neighboring Kazakhstan and Tajikistan obtained USD\$100 million and \$50 million respectively in such funding already.
- Establishing **more centralized planning and facilitation of climate related programs via an independent Climate Institute** could be considered as a means to facilitate the concerted involvement of the science, academic, NGO, and the expert community to assist KR agencies in their planning around climate issues. Successful models can be found in other countries.
- There is also a tremendous need for additional education and training in KR, to **support the development of university programs to improve training on environment and sustainable development** among future leaders in industry, and for environmental laboratories that can facilitate training at KR universities. Many students must go abroad to receive training and many do not return, leaving a gap in scientific and engineering expertise needed to help Kyrgyzstan develop and prosper.
- **Education and training programs should assist agricultural communities** to receive training through extension programs, training centers, and pilot conservation programs.
- **Continued exploration of transboundary natural resource management is warranted** as climate change impacts are likely to enhance tensions between neighboring countries in Central Asia on access to growing scarcities in land and water resources.

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<sup>i</sup> The summary was assisted by AUCA students who took notes during the Conference: Aman, Alymkanov, Saikal Nogoibaeva and Maksat Sharabidinov.