

Global Water Partnership Central Asia and Caucasus (GWP CACENA)

Report

For July 2015

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1. Expert workshop on Decision-Support Tools for Policy Dialogues on Water-Food-Energy Nexus in the EECCA region

Dr. Vadim Sokolov, Regional Coordinator of the GWP CACENA took part in the Expert workshop on Decision-Support Tools for Policy Dialogues on Water-Food-Energy Nexus in the region of Eastern Europe, Caucasus and Central Asia (EECCA). The meeting was supported and organized by OECD on 2-3 July 2015 in headquarter of OECD in Paris, France. The workshop gathered about 30 experts from:

- international organizations active in the discussion on the Nexus (OECD, IEA, UNECE, WB, GWP and other IFIs, bilateral donors);
- EECCA countries;
- research institutions and other experts that have developed nexus-related tools and methodologies.

In most countries of Eastern Europe, Caucasus and Central Asia (EECCA), achieving water, energy and food security is among the key policy objectives. Some have included this objective in their National Development Strategies and other policy documents. A number of countries launched National Policy Dialogues (NPDs) aimed at improving water resources management, including its trans-boundary dimension, with the ultimate objective of achieving water-related Millennium Development Goals (MDGs).

The NPDs and other policy discussions in EECCA have so far focused on water, agro-food or energy sectors individually, and at best discussed water-energy and water–agriculture inter-linkages. More comprehensive discussion spanning the three sectors (water-food-energy nexus) is needed. Quantitative and qualitative tools that help assess the water-energy-food nexus will be useful to support and substantiate such discussions.

Objectives of the expert workshop:

- to identify most important nexus-related inter-linkages between the sectorial, social and other policies, as well as most significant risks and trade-offs, and synergies common for many or several EECCA countries;
- to identify existing decision-support tools that could allow for qualitative and quantitative analysis of the inter-linkages, costs, benefits and synergies, risks and trade-offs, as well as resilience analysis and measuring progress towards greater levels of water, food and energy security in EECCA;
- to examine the needs for adapting or further refining or extending existing tools, and if needed options for developing new (preferably simple and low-cost) tools; and
- to identify opportunities and benefits, as well as challenges, risks and constraints related to the development and use of generic DSTs for supporting NPDs to address the water-energy-food nexus in EECCA.

Meeting started by discussion of the experiences with policy dialogues on energy and food security and on water management policy in EECCA, which was presented by *Krzysztof Michalak, OECD EAP Task Force Water Programme*.

Then there were discussed key linkages, risk and trade-offs, and synergies between water-energy-food and other relevant policies, in EECCA.

The most interesting session was addressed to review of selected existing nexus-related tools: computer-based models and underlying methodologies. Three presentations were submitted:

Basin Economic Allocation Model (BEAM): approach and model characteristics – *Mr. Jesper Pedersen and Mr. Michael Jacobsen, COWI*

IIASA tool-kit – *Ms Elena Rovenskaya, IIASA*

Image 3.0 - *Tom Kram and Frits Hellmann, PBL*

During second day there were presented such tools as standards and legal instruments. Among them the most interesting was experience from Israel: a tool to assess multiple resource use efficiency (evaluation guidelines) – by Mr. Yaron Ben-Ari, Standards Institution of Israel.

Three presentations were addressed to indicators:

Indicators to measure food, energy and water security in Central Asia: the case of Kyrgyzstan Italy: nexus related well-being and sustainability indicators – *Ms Fabiola Riccardini, ISTAT*

Nexus-related Environmental & Green Growth Indicators - *Ms. Myriam Linster, OECD*

Final session of the meeting was addressed to identification of the needs for adapting or refining existing tools.

OECD is looking forward for fruitful cooperation with GWP in development the Tool-Kit to Support Policy Dialogues and Work on Water, Food and Energy Security (Nexus) in EECCA.





GWP was represented by Vadim Sokolov, Regional Coordinator GWP CACENA

On the left side Jesper Pedersen from COWI, Denmark - partner of GWP CACENA on BEAM model developments



That was opportunity to enjoy beauty of Paris and the hot weather (plus 40°C)



I found point close to my hotel in Paris from which you can see two Eiffel Towers

2. The Government's response to the appeal of CWP-Armenia

The letters in support for a dedicated water goal throughout the Post-2015 Development negotiations sent by CWP-Armenia to the Government were delivered to the Deputy Chief of the Government Executive office of the Republic of Armenia Mr. Gurgen Dumanyan, as well as to the Public Relations Advisor Mr. Aram Asatryan and to numerous NGOs, with appeal to support the Water Goal. The Government also sent a zero version of the preliminary document Post-2015, to be discussed in September. The letter caused a great resonance among the NGOs of Armenia.

3. Workshop “Methodology of environmental flow assessment for rivers in Armenia”

CWP-Armenia's representatives took part in the workshop "Methodology of environmental flow assessment for rivers in Armenia" held on 9-10 July 2015 in Yerevan. The workshop was organized by USAID within the "Clean Energy and Water" project.

The current methodology for calculating the environmental flows for rivers does not provide enough water in rivers to maintain the ecological balance of aquatic ecosystems and threatens the existence of hydrocoles. As a result, because of economic activity now 16 river ecosystems are in crisis and 3 - in catastrophic one.

The expert group of local and foreign experts in the framework of the "Clean Energy and Water" project has developed and presented a new methodology for calculating the environmental flows in rivers, which takes into account the hydrological, morphological, hydrochemical and biological conditions of aquatic ecosystems.



4. Introductory Training in the Framework of UNIDO Regional Demonstration project “Resource Efficient and Cleaner Production”

On 20-24 July 2015 CWP-Armenia coordinator Ms. Arevic Hovsepyan as a water management specialist participated in the Introductory Training in the Framework of UNIDO Regional Demonstration project "Resource Efficient and Cleaner Production" organized by UNIDO and Armenian office of REC Caucasus.

International expert conducted both theoretical and practical training on the efficient use of resources in the various industrial plants.



5. IWRM seminar in Khazri, Azerbaijan

CWP-Azerbaijan organized the IWRM seminar on 28 July 2015 in Khazri, Kusarsky region, Azerbaijan. This seminar was attended by local administration, specialists of irrigation systems from the Public Corporation on Land Reclamation and Water Management of Azerbaijan, local community (total: 24 people).

The CWP-Azerbaijan partner Mr. Gaibali Gadjimetov made presentation on efficient management of water resources and IWRM principles. The aim of seminar was to raise awareness about importance of water resources protection and efficient use. Participants were given the booklets, pens and folders with GWP logo.



6. Workshop "Adoption of gender approach and conflict resolution to water resources management"

Representatives of CWP-Kyrgyzstan and CWP-Turkmenistan participated in the Regional Workshop "Adoption of gender approach and conflict resolution to water resources management" organized by OSCE on 8-11 July 2015 in Almaty. CWP-Kyrgyzstan Coordinator made a presentation "Gender aspects in GWP activity".



7. Aarhus workshop in Talas

CWP-Kyrgyzstan participated in the workshop organized by the Aarhus centre on 9 July 2015 in Talas, Kyrgyzstan. CWP-Kyrgyzstan Coordinator made a presentation "Gender aspects in GWP activity". CWP-Kyrgyzstan's representative made presentation on land- and water- management in the Aarhus convention context.





8. Roundtable "Water for Environment in the upper reach of the Naryn River under climate change"

CWP-Kyrgyzstan organized the Roundtable "Water for Environment in the upper reach of the Naryn River under climate change" on 17-18 July 2015 for local administration, water managers, environmental NGOs (Total: 21 people, including 9 women) in Saltyn Tor.



9. Meeting on Low Impact Development in Water Sector of Mongolia

Discussion on introduction of the Low Impact Development (LID) Concept in Water Sector of Mongolia with Dr. Steve, USA, was held on 5 July 2015 in Ulaanbaatar. Output of meeting was following topics for better water management in Mongolia, focusing on Integrated Urban Water Management approach in Ulaanbaatar city:

- A. Issues with Conventional Storm Water Management
- B. Applying Low Impact Development to a Site
- C. Low Impact Development - Hydrologic Considerations
- D. Low Impact Development - Integrated Management Practices
- E. Case Studies

Main output of the meeting was development of the project proposal for LID and provide training for Mongolian water partnership members in October 2015.

Internet discussion on organizing the IUWM meeting

CWP-Mongolia has discussed with Mr. Francois Brikke the organizational issues of planned high level meeting on IUWM to be held in Mongolia in Autumn 2015, as well as the training course on modelling of IUWM. CWP-Mongolia met with the World Bank in Mongolia to decide dates and preparation of the IUWM meeting supported by GWP.

Main output was development of tentative program and budget for high level meeting and training course to be held on 28 September - 5 October 2015.



Integrated Urban Water Management

Draft Workshop Program

Mongolia, 28 September – 1 October 2015

1. Proposed agenda

| Time | Activities | Persons involved |
|---|------------------------------|--|
| Monday 28 September 2015 | | |
| High level "IUWM" meeting in Ulaanbaatar - State Government building, Conference Room A | | |
| 09:30 – 10:00 | Registration of participants | MWP |
| Introductory session | | |
| 10:00 – 10:05 | Welcome | Professor Basandorj, Coordinator Mongolia Water Partnership |
| 10:05 – 10:15 | Opening speech | M. Battsogt, Member of Parliament and President of Mongolian Water Partnership |
| 10:15 – 10:25 | Opening remarks | HE M. Tsogtbaatar, Minister of Construction and Urban Development |
| 10:25 – 10:35 | Opening address | World Bank Representative |

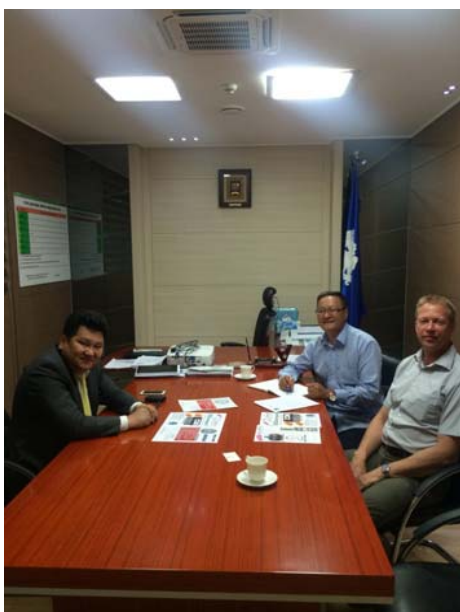
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|---|--|--|
| 10:35 – 10:45 | Objectives of the Workshop | M. Francois Brikke, Global Water Partnership |
| 10:45 – 11:00 | Presentation on Water Management in Ulanbaatar | M. Bat-Uul, Mayor of Ulanbaatar |
| 11:00 – 11:30 | Coffee break and group photo | |
| Introducing the Integrated Urban Water Management Approach | | |
| 11:30 – 12:00 | Presentation on Key concept and principles of IUWM | Dr Kalanithy Vairavamoorthy, IWMI |
| 12:00 – 12:20 | Presentation on IUWM case studies | Dr Seneshaw Tsegaye, USF |
| 12:20 – 12:50 | Panel discussion with participants | Dr Diego Rodriguez, World Bank |
| 12:50 – 13:00 | Conclusion and closing of session | M. Battsoqt, Member of Parliament and President of Mongolian Water Partnership |
| 13:00 – 14:00 | Lunch | 4 th floor building |
| Field visit Ulanbaatar and drive to Mandal Resort | | |
| 14:00 – 17:00 | Field visit in UB and drive to Mandal Resort (55km away from UB) | MWP |
| 17:00 | Arrival at external Workshop Site | |
| 19:00 – 20:00 | Dinner | |
| Tuesday 29 September | | |
| IUWM Technical Workshop | | |
| 08:30 – 08:45 | Introduction to the IUWM Technical Workshop | Dr Seneshaw Tsegaye |
| 08:45 – 09:15 | Presentation on Stakeholders Engagement | M. Francois Brikke |
| 09:15 – 10:00 | Group exercise on Stakeholders Engagement | All |
| 10:00 – 10:30 | Feed-back from group exercise | All |
| 10:30 – 11:00 | Coffee break | |
| 11:00 – 12:00 | Presentation on the IUWM Diagnostic Tool | Dr. Kalanithy Vairavamoorthy and Dr Seneshaw Tsegaye |
| 12:00 – 12:30 | Getting familiar with the tool on computers | All |
| 12:30 – 13:00 | Question and answers session | |
| 13:00 – 14:00 | Lunch | |
| 14:00 – 14:30 | Presentation: Integrating stakeholders engagement process and the IUWM diagnostic tool | M. Francois Brikke |
| 14:30 – 15:30 | Group exercise using the computerized model + planning for an appraisal mission | All |
| 15:30 – 16:00 | Coffee Break | |
| 16:00 – 17:00 | Feed back in plenary and discussion on the tool | All |
| 17:00 | Conclusion | |
| 19:00 – 20:00 | Dinner | |
| Wednesday 30 September | | |
| 08:30 – 08:45 | Recalling main lessons learnt from Day 1 and 2 | All |
| 08:45 – 09:45 | Presentation: Introduction to the Water Balance tool | Dr Seneshaw Tsegaye |
| 09:45 – 10:30 | Group exercise: Using the Water Balance tool | All |
| 10:30 – 11:00 | Coffee break | |
| 11:00 – 11:30 | Feed back in plenary | All |
| 11:30 – 12:00 | Presentation: Introducing the concept of beneficiation for sanitation | Dr. Kalanithy Vairavamoorthy |
| 12:00 – 12:30 | Presentation: examples from different cities | Dr Seneshaw Tsegaye |

| | | |
|---------------------------|--|--------------------------------------|
| 12:30 – 13:00 | Presentation: The Sanitation challenge in Mongolia and discussion | Prof Basandorj |
| 13:00 – 14:00 | Lunch | |
| 14:00 – 14:45 | Presentation: tackling the sanitation issue (from diagnosis to beneficiation and technology selection) | Dr Seneshaw Tsegaye |
| 14:45 – 15:30 | Group exercise: Tackling the sanitation issue | All |
| 15:30 – 16:00 | Coffee break | |
| 16:00 – 17:00 | Feed back in plenary and discussion | All |
| 17:00 | Conclusion | |
| 19:00 – 20:00 | Dinner | |
| 20:00 – 21:00 | Evening discussion: IUWM and the SDGs | M. FrancoisBrikke&Dr Diego Rodriguez |
| Thursday 1 October | | |
| 08:30 – 08:45 | Main lessons learnt from Day 3 | All |
| 08:45 – 09:15 | Presentation : Institutional Set-Up | M. Francois Brikke |
| 09:15 – 10:15 | Group exercise : Designing an institutional matrix and institutional analysis | All |
| 10:15 – 10:30 | Discussion on institutional set up | All |
| 10:30 – 11:00 | Coffee break | |
| 11:00 – 12:00 | Presentation : IUWM Economics | Dr Diego Rodriguez |
| 12:00 – 13:00 | Group exercise on IUWM Economics | All |
| 13:00 – 14:00 | Lunch | |
| 14:00 – 14:30 | Presentation on IUWM and finance | Dr Diego Rodriguez |
| 14:30 – 15:30 | Group exercise on IUWM and finance | All |
| 15:30 – 16:00 | Coffee Break | All |
| 16:00 – 16h30 | Presentation: Planning for and implementing IUWM | M. Francois Brikke |
| 16:30 – 17:30 | Group exercise: Planning for and implementing IUWM in Mongolia and next steps | All |
| 19:00 – 20:00 | Dinner | |
| 20:00 – 21:00 | Certificate Ceremony and Closing of Workshop | GWP, WPP |
| Friday 2 October | | |
| 09:00 | Departure to Ulaanbaatar | All |

10. Meeting on domestic wastewater treatment

CWP-Mongolia organized the meeting with the Vice Mayor of Ulaanbaatar Mr. Bat-Erdene and Mr. Harald Weber (Ammerman Company, Germany) on 25 July 2015. The aim was to discuss using of Germany technology for domestic wastewater treatment in Ulaanbaatar. The reason is that water pollution become serious problem in Ulaanbaatar city because of bad sanitation and untreated or not fully treated wastewater. Therefore CWP-Mongolia suggests to use an alternative technology for domestic wastewater treatment from Germany, which is most economic for use of electricity (spend only 12KW/ per month) and high efficient for wastewater treatment.

It was decided to test German technology for household area and to show result at the exhibition "Green technology for environmental protection" in late September 2015.



11. Discussion on reconstruction and new design of Central Wastewater Treatment Plant of Ulaanbaatar city

On 27 July 2015, CWP-Mongolia was invited by Ulaanbaatar city administration to discuss reconstruction and new design of Central Wastewater Treatment Plant of Ulaanbaatar city.



Meeting in Mayor's hall on 27 July 2015

Central wastewater treatment plant (WWTP) working since 1962 and effluent parameter for treated wastewater was not efficient and does not meet standard of treated wastewater and need to be improved and reconstructed, as well as to modernize the plant capacity of 180000m³/day.

Due to growing of Ulaanbaatar city and increasing water supply, CWP-Mongolia suggested to build new WWTP with capacity 250000 m³/day. Reconstruction and new design of Central WWTP will be done by French company Artella, this tendering job should be finished by November 2015.

It was decided to stop pollution of Tuul River and to increase a treatment rate of Central WWTP from 2016.

Prof. Basandorj Davaa was selected as national consultant from Mongolian side. The consulting work will be continued within 6 months.

12. Meeting on Green Growth

CWP-Mongolia took part in the meeting and discussion about challenges and opportunities of green growth of Ulaanbaatar city held on 29 July 2015 in the Ministry of Green Development and Environment of Mongolia.



13. Booklet "Science progress for 10 years"

The booklet "Science progress for 10 years" devoted to the International Decade "Water for Life 2005-2015" is published under support of CWP-Tajikistan and the Institute "TajikNIIGiM". As a result of scientific and practical work of the Institute of Agriculture, the Institute "TajikNIIGiM" and the Institute of Water Problems, Hydropower and Ecology of the Academy of Sciences of the Republic of Tajikistan (all organizations are members of CWP-Tajikistan) the Guidelines on the use of drip irrigation in Tajikistan (in Tajik language) was published. This publication (500 copies) have been distributed among stakeholders.



14. The field meeting on water saving and efficient use of land and water resources

With purpose to disseminate knowledge on water saving and efficient use of land and water resources of the Gissarsky CWP-Tajikistan organized the field meeting for 16 farmers and other stakeholders. Intensification of irrigated agriculture, harvesting crop more than 2 times a year etc. were considered.



15. Demonstration of irrigation technology for young researchers in Tajikistan

CWP-Tajikistan is creating a pilot plot for demonstrating results of demo-project within WACDEP CACENA in Tajikistan for young researchers in order to raising awareness on efficient irrigation technology under adaptation to climate change.





16. CWP-Tajikistan's support and help to sufferers from water disasters in July 2015

On 21-28 July 2015, CWP-Tajikistan's representatives visited the disaster areas (Shugnan GBAO), have met with and supported the victims, who live in tents.





17. Fourth Meeting of the EU-Central Asia Working Group on Environmental Governance and Climate Change

This meeting was held on 8-10 July 2015 in Tashkent, Uzbekistan. Representatives of three ministries of Turkmenistan (the Ministry of Water Resources, the Ministry of Agriculture, the Ministry of Nature) and social sector dealing with efficient use of natural resources contributed to preparation of the EURECA Concept -II stage.



CWP-Turkmenistan Coordinator Ms. Guldjamal Nurmukhamedova made presentation "What support do you get from the government and development partners?".

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The Global Water Partnership's vision is for a water secure world. Our mission is to advance governance and management of water resources for sustainable and equitable development.