



# 2<sup>nd</sup> Central Asia Climate Knowledge Forum Moving Towards Regional Climate Resilience

*May 13-15, 2014, Almaty, Kazakhstan*

*Summary of Discussions and Next Steps*



## About the Central Asia Climate Knowledge Forum

The *Central Asia Climate Knowledge Forum* emerged as a platform for learning, dialogue, and collaboration among Central Asia countries on climate-resilient development, including the building blocks of a regional program for climate resilience. Acknowledging that climate risks are crossing borders in Central Asia, the inaugural Forum held in June 2013 in Almaty (Kazakhstan) emphasized the need for collaboration to enhance resilience. It also concluded with a demand to establish the Forum as an annual event to continue knowledge and experience sharing, discussion, and concerted action among Central Asia stakeholders on cooperative solutions for resilience, at national and regional levels.

The *2nd Central Asia Climate Knowledge Forum: Moving towards Regional Climate Resilience* was thus shaped around moving forward the concept of a proposed regional program for climate resilience. This concept was prepared over March-April 2014 by a group of technical experts nominated by governments of the five Central Asia countries to work across borders and sectors on climate-smart solutions (so-called Central Asia Technical Working Group on Climate Change, or TWG). The Forum spanned across 3 days, with the first two days devoted to sharing regional and international experience in climate-smart development among practitioners, to inspire the vision for the proposed program. The Forum's third day consisted of a high-level discussion of the outline of the program among regional stakeholders, such as Policy makers, Development Partners, and Civil Society representatives. Additional activities occurred in the margins of the Forum, including a pre-Forum meeting, with TWG members and other Central Asia national stakeholders to prepare the presentation of the program's concept for the high-level discussions, and a post-Forum training, on data and tools for climate-smart decision proposed to interested participants [see Agenda in Annex I].

The Forum rallied a large attendance, from all Central Asia and beyond, which demonstrated vision, expertise, and passion in helping shape collectively the concept for a regional program for resilience in Central Asia. Nearly 200 participants from Central Asia national governments, regional organizations, civil society organizations, national and regional universities and research centers, World Bank and other development partners active in the region were present, or twice as much as at the inaugural Forum. National delegations headed by high-level government representatives and bringing together practitioners and experts from key line ministries and agencies to facilitate cross-sectoral coordination in response to climate change participated. Civil society organizations, a catalyst of climate action on the ground, were also well represented. Finally the forum was open to media, who covered in detail the event, including with a series of interviews of key participants: 11 Kazakh and one Kyrgyz journalist attended the Forum throughout the 3 days; 6 Bank's staff and over 10 Central Asia country representatives and donors were interviewed by both broadcasting and electronic media [see List of participants in Annex II].

Overall, the majority of participants considered the Forum useful. In particular, participants stressed the importance of broad stakeholder involvement, from key vulnerable sectors, from all five Central Asia countries and regional institutions, from governments, civil society organizations, private sector, and development partners. The Forum enabled participants to network, explore new opportunities for regional collaboration, and discuss the proposed regional climate change program with other countries, and exchange opinions and experiences. According to participants, the Forum was very informative and had a content-rich agenda. Participants noted professionalism of speakers and found international experience shared during the Forum very valuable. Providing more time for discussion and exchange, including through focused break-out group discussions during which lessons and experience can be discussed in greater detail among diverse stakeholders, were among salient suggestions for the next editions of the Forum [see Participants feedback and survey results in Annex III]. The Forum was made possible through funding from the Central Asia Energy Water Development Program (CAEWDP) and its partners: UK Department for International Development, European Commission and Government of Switzerland.

## Main outcome and messages

### *Significant Momentum behind a Regional Climate Resilience Program for Central Asia*

The Forum concluded with a call from all five Central Asia countries for a regional program on climate resilience, to be prepared by the World Bank, in partnership with Central Asia countries and development partners, and delivered in FY15, an ambitious target. This regional program, called **Climate Adaptation and Mitigation Program for Central Asia (CAMP4CA)**, aims to strengthen climate-smart **information, institution** and capacity for cross-sectoral and cross-country planning, **investment** preparation and implementation in order to increase regional collaboration in the long-term. By maximizing synergies across sectors and countries, CAMP4CA will help improve the effectiveness of the response in each country, enhancing climate resilience and future opportunities for green growth.

The program will be structured around three pillars: i) Institution – for capacity and coordination at national and regional level around climate action; ii) Information – for modern, comprehensive, open and collaborative datasets and information systems for climate-smart decision; iii) Innovation – for pilot investments in key vulnerable sectors, that can be easily replicated to scale-up resilience. Specific investments, while confirming to the overall strategy and goals of the regional program, may be prepared and financed independently. This positive outcome reflects the significant momentum behind collaboration for climate resilience in Central Asia since the 2013 Forum, with important milestones such as the establishment of the TWG to mobilize a durable network of experts across Central Asia.

### *A Call for Collaboration for Effective and Scaled-Up Resilience in Central Asia*

Countries in Central Asia face common climate change challenges, affecting key resources and sectors such as water and land, biodiversity and ecosystems, agriculture, energy or human health. Impacts are already being felt, from melting glaciers to droughts and floods in the lowlands, and are likely to intensify as current global mitigation pledges could lead to a 4°C warmer world by 2100, with more variability and instability in the region's water resources and rising costs for development sectors. Climate change risks, inefficient infrastructure and unsustainable land and water management, a large rural, and poor, population, all such factors contribute to make Central Asia a highly vulnerable region and building resilience to climate change is a priority.

Climate impacts extend across national borders, through inter-connections in land and water systems as well as social and economic interactions. As a result, a concerted regional approach is needed for effective and scaled-up resilience. Reasons for this include (i) complementarity (e.g., agriculture trade, regional power pool, insurance pool, etc.); (ii) economy of scale (e.g., shared research, knowledge, and capacity building efforts); (iii) strategic planning and financing (e.g., access to climate finance, dialogue with Development Partners); and (iv) innovations and experience sharing (e.g., replication and scaling-up across countries of successful pilots). The gains from closer regional collaboration were for instance highlighted during a session on Disaster-Risk Management, where cooperation for development of monitoring networks and data sharing mechanisms and platforms can go a long way for better prevention of, and response to, hydro-meteorological hazards.

All five countries agree that CAMP4CA is extremely timely and can build on, and strengthen, existing experience and initiatives in the region. Work by the Technical Working Group demonstrates there are many similarities among countries in terms of sectors/areas where resilience must be scaled-up (e.g., agriculture, water resources, climate-related disasters, human health, forest and biodiversity ) and of challenges for climate action (e.g., knowledge and capacity, lack of conducive regulatory framework, access to finance and technology). These commonalities lend themselves well to a systematic and integrated approach at the regional scale that can improve the effectiveness of the response in each country, by maximizing synergies across sectors.

## *Improved Data and Capacity for Climate-Smart Decision*

Advanced data technologies are readily available and can support more informed, timely, and inclusive climate-smart decision. Managing and coping with climate change necessitates a new era of modernization in Central Asia on data and analytical tools. Several sessions at the Forum showcased innovations in big data and associated analytics that can be used for cross-sectoral climate-smart planning to ensure resilience to the impacts of climate change in the water, environment, and agriculture sectors. They highlighted global examples of the use of public-domain modeling tools and demonstrated innovative approaches to sharing data in the public domain, including a live demo of the “Spatial Agent” mobile App being developed by the World Bank.

## *Engaging with Civil Society and Private Sector*

Engaging actors outside central government, such as utilities, industries, and small businesses as well as communities and households, is necessary to promote climate action in Central Asia. The Forum showcased several success stories in that regard, demonstrating champions within private sector and civil society are already at work in the region.

Commercial investment, which also contributes to resilience (e.g., water or energy efficiency), is happening today but scaling-up will necessitate aligning regulatory incentives, developing market interventions and financial products, and awareness-raising on climate risks and investment opportunities. Importantly, for these efforts to be successful, private sector must be engaged from the outset, starting at the programming phase when developing national adaptation strategies, to help to identify and prioritize actions that make most environmental and commercial sense.

Civil society can play a significant role in promoting resilience at community, national, and regional levels, by mobilizing communities for piloting innovative approaches, working with decision makers to reflect community issues (incl. gender dimension) in new legislation and institutions, applying and sharing experience through regional networks for faster uptake of resilience in Central Asia. Participants announced the establishment of the Central Asia CSO Climate Association - a coalition of environment and climate CSOs from all five countries. They expressed readiness and strong interest to be included in the national TWG teams for developing CAMP4CA.

## *Rallying Development Partners*

Development Partners support a regional approach to climate resilience in Central Asia: the climate change challenge is seen as a transboundary issue affecting regional ecosystems that know no borders. Coordination and cooperation across the five countries are important in facing climate change for lesson-learning and information-sharing. No one government can face the challenge alone; it must be a concerted effort.

Currently, partners are making substantial contributions to climate change adaptation and mitigation efforts through regional and national programs. Climate resilience is a growing area of focus and it is expected that the way forward will require more instead of less funding. Although new funding has not been identified, development partners are ready and prepared to help national governments, regional institutions, and civil societies prepare a regional approach to tackle climate change.

To help the region face the challenge, the development community will be looking for a firm commitment to collaboration from the countries at a senior government level to implement programs and there needs to be harmony between the national and regional initiatives. For efficiency, a clear coordinated approach to prioritizing focus areas is needed and future work needs to build on existing efforts and institutions.

## Next Steps

In collaboration with TWG Members and interested Partners, the World Bank will initiate preparation for CAMP4CA, starting with developing a Concept Note by June-July 2014. It will draw on feedback from Forum’s participants including on sectoral priorities, institutional structure, and role of Central Asia stakeholders as well as preliminary list of national and regional actions prepared by the TWG during the Forum’s week. The TWG will meet in the beginning of July to advance CAMP4CA design, especially activities to be included, nationally and regionally, under its three pillars (Institution, Information, and Innovation).

Outreach for CAMP4CA will start with a presentation at the CIF Partnership Forum in Montego Bay (Jamaica) over June 23-24, 2014.



## Annex I: Agenda of the Second Central Asia Climate Knowledge Forum

### Background:

A changing climate poses an undisputable challenge to developing economies in Central Asia. The next few decades, however, offer a window of opportunity for these countries to integrate climate change into core development planning – demonstrating a positive way forward through inclusive, greener and climate-resilient solutions. The inaugural *Central Asia Climate Knowledge Forum*, held last June in Almaty, Kazakhstan, showcased national responses to climate change that are being prepared in each Central Asian country (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan). It also highlighted that bilateral and multilateral partners are active in the region, and the event concluded on a demand for greater collaboration for effective and scaled-up action on climate risks since they extend across borders. Feedback received from the inaugural Forum overwhelmingly confirmed the demand to continue knowledge sharing between countries and across ministries with priorities on fostering regional cooperation on climate-related issues, on better understanding the economics of climate action, and on strengthening cross-sectoral dialogue and action on the ground.

### Forum Objectives:

The 2<sup>nd</sup> *Central Asia Climate Knowledge Forum: Moving Towards Regional Climate Resilience* will continue to promote knowledge and experience sharing among stakeholders on cooperative solutions for resilience at national and regional levels. The Forum will span across three days with the first two days consisting of technical discussions combining regional and international experiences in climate-smart development, integrated water resource management, and disaster-risk management. The Forum's third day will consist of a high-level discussion on a proposed Regional Climate Resilience Program for Central Asia. The Program would mainstream climate-smart policies, programs, and actions at the sectoral and cross-sectoral level to ensure effective resilience to the impacts of climate change at both national and regional levels. Such multi-year program, to be designed in partnership with Central Asian countries and development partners, would help improve the effectiveness of the response in each country by maximizing synergies across sectors and countries. It would focus on strengthening institutions for cross-sectoral investment preparation and implementation. Specific investments, while confirming to the overall strategy and goals, may be prepared and financed independently. The concept for such a program is being prepared by a Technical Working Group (TWG), consisting of cross-sectoral specialists, nominated by governments from all the countries in the region. This concept will be discussed among TWG and other Central Asia national stakeholders during a 'Pre-Forum' day and amongst the development partners during the Forum. A 'Post-Forum' day focusing on technical training will be provided for interested participants.

Specifically, the Forum aims to:

- Raise awareness on the science of climate change and implications for climate-smart planning and disaster-risk management;
- Foster knowledge and share experience within the region and with other parts of the world;
- Review and develop the concept for a proposed Climate Resilience Program being prepared by the TWG; and,
- Convene learning sessions and offer practical training on how to formulate and effectively prepare and implement a regional program for climate resilience.

### Target Audience:

- Central Asia national government representatives, policy makers and practitioners in key cross-sectoral and line ministries, the TWG, and regional organizations;
- National and regional universities and research centers;
- Civil society organizations and media representatives; and,
- Development partners' representatives and International experts.

### Expected Outcomes:

- Improved knowledge and understanding of climate risks and possible options for climate-smart action at both national and regional scales; and,
- Principles and Concept for a Climate Resilience Program further developed, incorporating the feedback from Central Asian countries as well as development partners.

| <b>Central Asia Climate Knowledge Forum: Moving Towards Regional Climate Resilience</b> |  |   |  |   |   |                     |
|---|--|---|--|---|---|---------------------|
| <b>Venue: Rixos Hotel, Almaty (Kazakhstan)</b>  |  |   |  |   |   |                     |
| Monday<br>May 12, 2014  | Tuesday<br>May 13, 2014  | Wednesday<br>May 14, 2014   | Thursday<br>May 15, 2014   |   | Friday<br>May 16, 2014                                    |                     |
| Pre Forum Meetings  | <b>TECHNICAL DISCUSSIONS</b>   |   | <b>HIGH LEVEL DISCUSSION</b>   |   |   | Post Forum Meetings |
|   | Scientific Evidence and International Experience<br><i>Session 1</i>                                       | Sectoral Approaches and Economic Considerations<br><i>Session 5</i>   | National and Regional Climate Resilience Program Design for Central Asia<br><i>Session 9</i>                 |   |   |                     |
|   | Opening Session<br><i>Session 2</i>  | Civil Society Participation for Climate Resilience<br><i>Session 6</i>  | Proposed National and Regional Program: Break-out Groups Discussion<br><i>Session 10</i>                     |   |   |                     |
|   | Actions for Low-Carbon Climate-Resilient Economy<br><i>Session 3</i>                                       | Challenges and Opportunities in Disaster-risk Management<br><i>Session 7</i>  | 10A Informing National Policy Makers on the Program Design   | 10B Development Partner Roundtable on Financing Options | 10C Tools and Techniques for Networking and Collaboration |                     |
|   | Climate Actions: International Experiences and Costs of Inaction<br><i>Session 4</i>                       | Cool Data for a Warming World: Climate-Smart Planning in Water, Environment and Agriculture (Part 1)<br><i>Session 8</i>            | Roundtable: Proposed way forward on National and Regional Program Principles and Design<br><i>Session 11</i> |   |   |                     |
|   | Engaging Private Sector and Local Institutions in Climate-Resilient Development<br><i>Wrap-up of Day 1</i> | Cool Data for a Warming World: Climate-Smart Planning in Water, Environment and Agriculture (Part 2)<br><i>Wrap-up of the Day 2</i> | Forum Summary and Closing Ceremony<br><i>Wrap-up of Day 3 Cocktail Reception</i>                             |   |   |                     |

## Pre-Forum Day (May 12, 2014): Central Asian Countries' Discussions on the Regional Program for Climate Resilience

| <b>Pre-Forum Meetings</b> |  |
|---------------------------|--|
| 8:30-10:00                | <p><b>Opening Remarks and Setting the stage</b></p> <ul style="list-style-type: none"><li>• Welcoming of participants and introduction of the pre-Forum day agenda – Laurent Debroux, Sector Leader, ECSSD, World Bank</li><li>• How did we get here and where do we go? Overview of the Regional Concept for Climate Change Resilience Process – Farzona Mukhitdinova, Operations Analyst, World Bank</li></ul> <p><b>Team Building Exercise:</b> Un-predicting the future – group game. Competition among the teams on the “least affected country”, “least affected region”</p>   |
| 10:00-10:30               | <p><b>Coffee Break</b></p>   |
| 10:30-12:30               | <p><b>Building Climate Resilience: A Case for Regional Collaboration</b></p> <p>The Central Asian countries will face a collective set of climate impacts that extend across national borders. As a result, without a concerted regional approach, national actions themselves would not allow countries to be fully resilient to the impacts of climate change. This session will present outcomes of the National consultations held on the Regional Concept for Climate Change Resilience with TWG support in all five countries and will discuss commonalities between all the countries and possible regional actions to build resilience through tangible regional collaboration.</p> <p><b>Moderator:</b> Alexander Merkuskin and Svetlana Dolgikh (Representing the TWG)</p> <ul style="list-style-type: none"><li>• TWG presentations on the results of National consultations in the countries</li></ul> <p><b>Open discussion:</b></p> <ul style="list-style-type: none"><li>• Exploring opportunities on how to include identified national priorities and regional commonalities in the program</li><li>• Identifying common themes in the discussion of regional priorities</li><li>• Discussing prioritization criteria for climate actions</li><li>• Identifying mechanisms for future networking and collaboration</li></ul>  |
| 12:30-13:30               | <p><b>Lunch</b></p>  |
| 13:30-15:00               | <p><b>Multidisciplinary Collaboration for Climate Resilience</b></p> <p>Responding to the climate change challenges entails a need to improve and consolidate climate, disaster risk and water resource management systems by identifying and implementing “no regrets” sectoral strategies that enhance resilience while generating development benefits. This session will discuss the multidisciplinary linkages in the context of a changing climate, in particular the role of energy and disaster risk management in building resilient future.</p> <p><b>Moderator:</b> Katherine Himes, AAAS Science &amp; Technology Fellow, Environment Officer &amp; Science Adviser, USAID, and Undala Alam, Water Resources and Climate Adviser, DFID</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"><li>• Disaster Risk Management for Climate Resilience – Joaquin Toro, Disaster Risk Management Regional Coordinator, ECSUW, World Bank</li><li>• Energy Sector Vulnerabilities to Climate Change – Daryl Fields, Sr. Water Resource Specialist, ECSAR, World Bank</li><li>• Central Asia Climate Risk Management Program (CA-CRM) – Michael Thurman, Practice Coordinator, UNDP and Yegor Volovik, Regional Programme Coordinator, UNDP</li><li>• Developing key messages for Turn Down the Heat in Central Asia – Philippe Ambrosi, Sr. Environmental Economist, ECSEN, World Bank</li></ul> |
| 15:00-15:30               | <p><b>Coffee Break</b></p>   |



|             |   |
|-------------|---|
| 15:30-17:30 | <p><b>Round Table on Building Regional Climate Resilience Program</b></p> <p><b>Moderator:</b> Erick Fernandes, Adviser, World Bank</p> <p><b>Open discussion / Round table:</b><br/> This session will provide an opportunity for participants to discuss ways to combine visions and comments of all the 5 TWG and reflect them, to the extent possible, in a Concept Note. Participants will also need to agree on a process of prioritizing climate smart actions common regional elements in the program and discuss format and structure of the presentation on Thursday morning.</p> |
| 17:30-18:00 | <p><b>Pre-Forum Day Wrap-Up</b></p> <ul style="list-style-type: none"> <li>• Technical Working Group Representative from each country</li> <li>• Laurent Debroux, Sector Leader, ECSSD, World Bank</li> </ul>   |
| 19:00-21:00 | <p><b><i>Evening Cocktail Reception</i></b></p>   |

## Forum Day 1 (Tuesday May 13, 2014): Scientific Evidence and International Experience

|             |   |
|-------------|---|
|             | <p><b>Forum Facilitators:</b></p> <ul style="list-style-type: none"><li>• Xiaolan Wang, Sr. Operations Officer, ECSUW, World Bank</li><li>• Daryl Fields, Sr. Water and Energy Specialist, ECSAR, World Bank</li><li>• Jitendra Shah, ECA Climate Change Adviser, ECSEN, World Bank</li></ul>   |
| 9:00-10:30  | <p><b>Session 1 - Opening Session</b></p> <p><b>Moderator:</b> Kulsum Ahmed, Sector Manager, ECSEN, World Bank</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"><li>• Welcome Address – Laszlo Lovei, Sector Director, ECSSD, World Bank</li><li>• Opening Remarks – Country and Regional Representatives</li><li>• Opening Speech – Central Asia and Climate Change: Collaboration for Local Solutions – Prof. Dr. Jürgen P. Kropp, Deputy Chair, Potsdam Institute for Climate Impact Research (PIK)</li></ul>   |
| 10:30-11:00 | <p><b>Coffee Break</b></p>  |
| 11:00-12:30 | <p><b>Session 2 – Actions for Low-Carbon Climate-Resilient Economy</b></p> <p>Climate change is considered to be one of the biggest threats to sustainable economic development. As we are on a path to a 4°C warmer world by the end of this century under the current global commitments, many countries are already embarking on innovative and progressive climate actions to mitigate and adapt to the effects of climate change. The session will demonstrate how Central Asian countries could lead in these efforts, by showcasing the existing national initiatives and outlining the potential way forward. The session will also discuss the ways of mobilizing climate finance for green and inclusive growth and low-carbon climate-resilient development.</p> <p><b>Moderator:</b> Alia Baidebekova, Project Manager, European Commission</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"><li>• Historical Risk Data in Central Asia – Muratbek Koshoev, Natural Disaster Response Advisor, UNOCHA</li><li>• Putting Science to Work: Climate-Smart Actions for Central Asia – James E. Neumann, Principal, Industrial Economics, Incorporated (IEC)</li><li>• Mobilizing Climate Finance for a Low-Carbon, Resilient Future – Neeraj Prasad, Acting Director, Climate Change Group, World Bank</li><li>• Showcasing Progressive Climate Action: Kazakhstan’s Emission Trading Scheme – Gulmira Sergazina, Director, Climate Change Department, Ministry of Environment, Kazakhstan</li></ul> |
| 12:30-13:30 | <p><b>Lunch</b></p>   |

|                            |   |
|----------------------------|---|
| 13:30-15:00                | <p><b>Session 3 - Climate Actions: International Experiences and Costs of Inaction</b></p> <p>In order to mainstream climate-smart policies and actions at cross-sectoral level and ensure resilience to the impacts of climate change, countries around the world are undertaking innovative initiatives. This session will discuss latest science along with regional and international experiences when incorporating disaster risk reduction and climate change adaptation and mitigation policies and programs into sustainable development planning and implementation.</p> <p><b>Moderator:</b> Philipp Reichmuth, Program Manager, GIZ</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"> <li>• Pilot Program for Climate Resilience Showcase – Kanta Rigaud, Lead Environmental Specialist, CCGPT, World Bank</li> <li>• ADB’s Climate Change Initiatives – Akmal Siddiq, Director, Environment, Natural Resources and Agriculture Division, Asian Development Bank</li> <li>• Adaptation under UNFCCC: Catalyzing National Responses – Olga Pilifosova, Manager, Adaptation Programme, UNFCCC Secretariat</li> <li>• Analytical tools to identify priority actions for climate-resilient communities – Kenta Usui, Policy Researcher, Institute for Global Environmental Strategies (IGES)</li> </ul> |
| 15:00-15:30<br>15:30-17:00 | <p><b>Coffee Break</b></p> <p><b>Session 4 – Engaging Private Sector and Local Institutions in Climate-Resilient Development</b></p> <p>In order to promote climate resilience in Central Asia, action is also needed to engage actors outside central government, such as municipalities and local authorities; utilities, industry and SMEs; and households. This session will discuss experience in reaching out to private sector and local institutions and engaging them on climate resilience, through understanding the market for climate-resilient interventions, improving enabling environments, and developing special-purpose financing instruments for resilience.</p> <p><b>Moderator:</b> Moazzam Mekan, Manager, CEUKZ, IFC</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"> <li>• Making a business case for private sector on climate action – Craig Davies, Sr. Manager, Climate Change, European Bank for Reconstruction and Development (EBRD)</li> <li>• Water service provision – Anarbek Orman, General Director, Shymkent Water Company</li> <li>• Unlocking finance for engaging local and private sector – Janna Fortmann, Project Manager and Nurzat Abdyrasulova, National Manager, Kyrgyzstan Sustainable Energy Finance Framework (KyrSEFF)</li> </ul>                       |
| 17:00-17:30                | <p><b>Wrap-up of Day 1</b></p> <ul style="list-style-type: none"> <li>• Iskander Buranov, Energy Specialist, World Bank</li> <li>• Nagaraja Rao Harshadeep, Sr. Environmental Specialist, The World Bank</li> </ul>   |

## Day 2 (May 14, 2014): Sectoral Approaches and Economic Considerations

9:00-10:30

### Session 5 - Civil Society Participation for Climate Resilience

Climate change impacts disproportionately affect the lives of poor and vulnerable people. In situations where people have no or poor access to climate forecast information and where decentralization processes have insufficient autonomy or capabilities, empowerment of civil society groups and community-based organizations through direct and effective participation is key to establishing citizen and government monitoring systems that will permit better adaptation to climate change risks. This session will consist of a panel discussion where civil society representatives from Central Asia will discuss their practical experiences in working with the state and citizens in climate change adaptation.

**Moderator:** Ilia Domashov, Deputy Chairman, Ecological Movement "BIOM"

#### Speakers:

- Community approach on managing climate risks in Tajikistan – Yuriy Skochilov, Youth Ecological Center, Tajikistan
- Moving green small business towards sustainable climate solutions – Yusup Kamalov, Union for Defense of the Aral Sea and Amu Darya, Uzbekistan
- Achievements and experiences in developing climate change legislation in Kyrgyzstan – Nurzat Abdyrasulova, Climate Network of Kyrgyzstan
- Shift to low carbon development – Svetlana Mogilyuk, EcoForum Network, Kazakhstan

10:30-11:00

### Coffee Break

11:00-12:30

### Session 6 - Challenges and Opportunities in DRM

Improvements in resilience can be better attained when hydromet information is effectively utilized in disaster risk management policies, plans and interventions. This session will provide general guidance on how hydromet services can inform climate resilience and DRM interventions as well as country specific initiatives which link these themes. This session will also address how a World Bank-funded DRM project facilitated resilience building and multi-sectoral coordination.

**Moderators:** Svetlana Shivareva, Executive Director, Regional Center of Hydrology and Xiaolan Wang, Sr. Operations Officer, ECSUW, World Bank

#### Speakers:

- Linkages between hydromet, climate change and DRM – Maryam Golnaraghi, Chief, Disaster Risk Reduction Programme, WMO
- Approaches for flood management – Yoichi Iwami, Chief Researcher on Hydrology and Hydraulics, Global Centre of Excellence for Water Hazard and Risk Management (ICHARM)
- World Bank engagement in DRM in the Kyrgyz Republic – Talaibek Temiraliev, State Secretary, Ministry of Emergency Situation, Kyrgyz Republic
- Building readiness for resilience and multi-sectoral coordination in DRM projects – Fikret Azili, Deputy Director, Istanbul Governorship Istanbul Project Coordination Unit

12:30-13:30

### Lunch Break

13:30-15:00

### Session 7 - Cool Data for a Warming World: Climate Smart Planning in Water, Environment and Agriculture (Part 1)

Managing and coping with climate change necessitates a new era of modernization in Central Asia – on data and analytical tools for accurate regional forecasting and early warning of climate and weather patterns and extreme events, while sharing and managing the risks within robust national planning and

regional information systems, are necessary for climate smart regional development to mainstream water security and climate resilient development. Appropriate analytical tools and data are needed for cross-sectoral climate smart planning to ensure resilience to the impacts of climate change. This session will showcase global and regional approaches to top-down big data and associated analytics, and in-field bottom-up experiences that underpin integrated water and land resources for climate smart planning and management.

**Introduction:** Daryl Fields, CAEWDP Program Manager, Sr. Water and Energy Specialist, World Bank

- Overview of the innovative analytical approaches to integrated water and land resources for climate smart planning and management

**Moderator:** Dinara Ziganshina, Deputy Director, SIC ICWC

**Speakers:**

- Application of Earth System Sciences Analytical Tools - International examples, demonstration in Central Asia through AralDIF – Erick Fernandes, Adviser, The World Bank
- Innovative Data Access and Visualization for Central Asia – Nagaraja Rao Harshadeep, Sr. Environmental Specialist, The World Bank
- Innovative Approach to Basin-wide Evapotranspiration Monitoring and Evapotranspiration Management - Chinese Experience – WU Bingfang, Head of Digital Agriculture, Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences, Beijing China
- Promoting Cooperation to Adapt to Climate Change in the Chu and Talas Transboundary Basins – Shamil Illiasov, Deputy Director on Science and Technology, Climate Change Center, Bishkek, Kyrgyz Republic
- Application of the Landscape Approach: Managing forests and farms together in a broader landscape, to achieve a climate-smart 'triple-win' – Malcolm Childress, Sr. Land Administration Specialist, World Bank and Nicole Wegner, Climate Change Coordinator, GIZ Regional Program on Sustainable Use of Natural Resources in Central Asia

15:00-15:30  
15:30-17:00

**Coffee Break**

**Session 8 - Cool Data for a Warming World: Climate Smart Planning in Water, Environment and Agriculture (Part 2)**

**Moderator:** Daryl Fields, CAEWDP Program Manager, Sr. Water and Energy Specialist, World Bank

**Speakers:**

- Opportunities in climate smart agriculture: Operationalizing adaptation strategies for food security – Dina Umali-Deininger, Sector Manager, ECSAR, World Bank
- Modeling climate change impacts and adaptation measures on farm income security in Central Asia – Aden Aw-Hassan, Director of Social Economic and Research program (ICARDA/CGIAR )
- No Till: A climate Smart Agriculture Solution for Kazakhstan – Murat Karabayev, Scientist, International Maize and Wheat Improvement Center

**Panel Discussion**

**Moderator:** Erick Fernandes, Adviser, LCSAR, World Bank

**Discussants:** Dinara Ziganshina, Deputy Director, SIC ICWC (TBC); Andrei V. Tolstopiatenko, Sr. Information Officer, WBIKE; Vitali Salinikov, Dean of Geography and Environmental Science, KAZ National University; Sandra Broka, Sr. Rural Finance Specialist, World Bank.

17:00-17:30

**Wrap-up of Day 2**

- Takuya Kamata, Country Manager for Uzbekistan, World Bank
- Joaquin Toro, Senior Disaster-Risk Management Specialist, World Bank

## Day 3 (May 15, 2014): National and Regional Climate Resilience Program Design in Central Asia

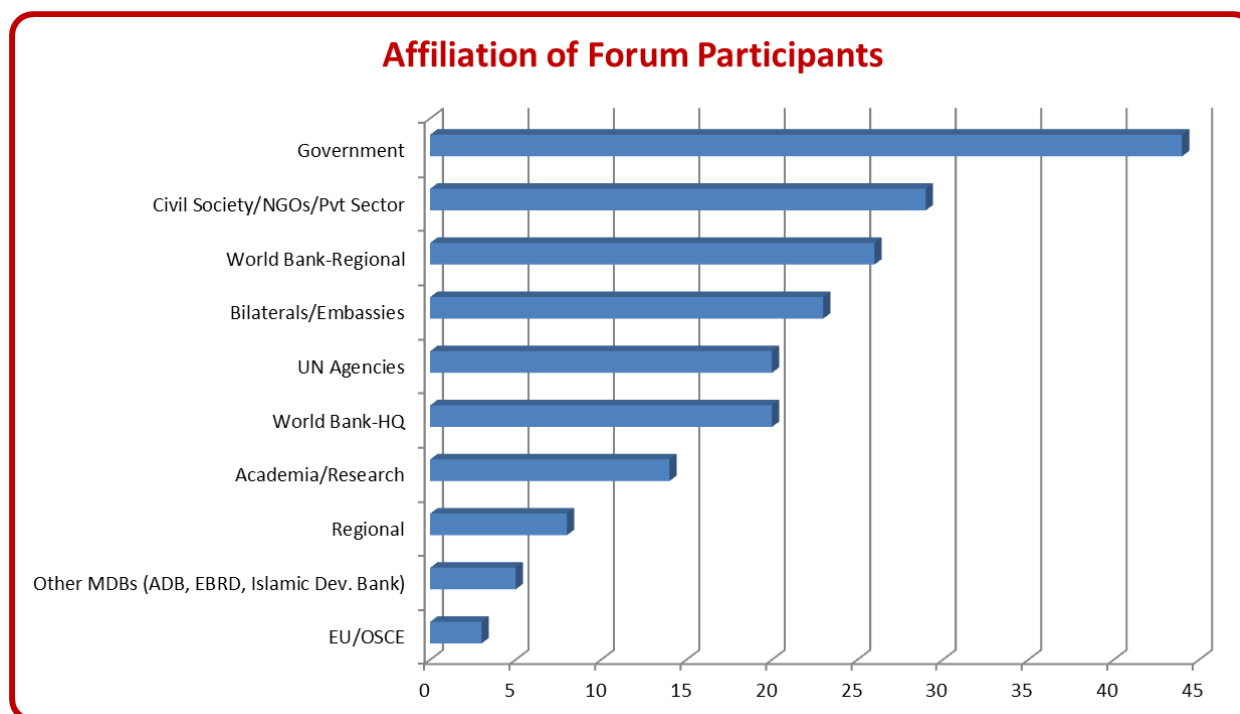
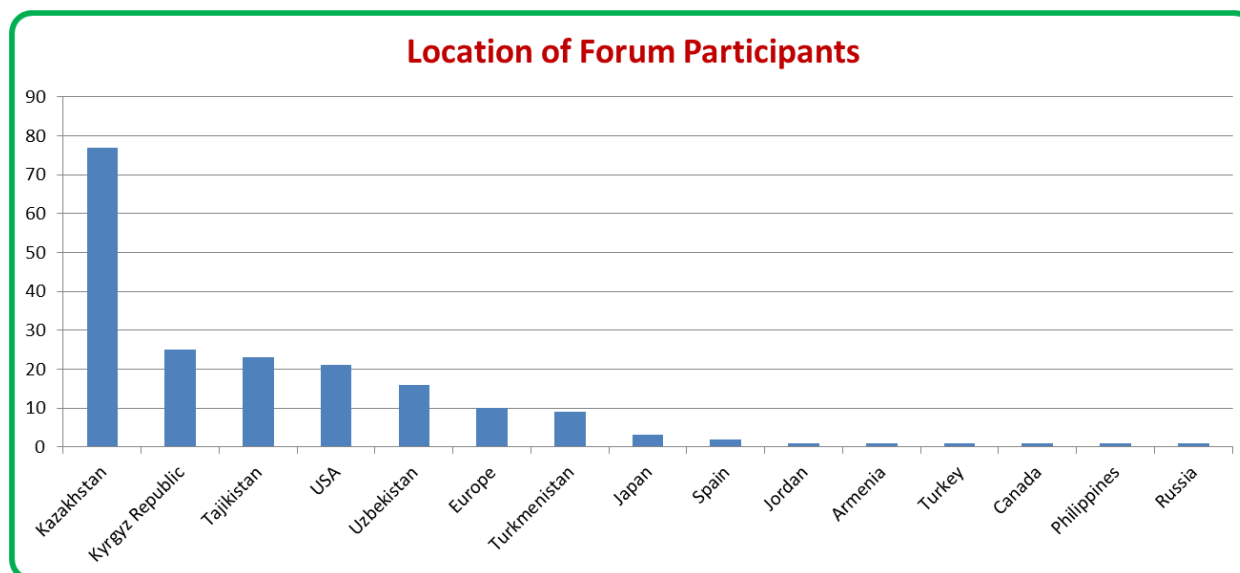
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|-------------|--|---|--|
| 9:00-10:30  | <b>Session 9 - Proposed Regional Climate Resilience Program</b>  |   |  |
|             | <p>Based on the inputs from the Technical Working Group and pre-Forum meetings, this session will present an outline of the proposed Regional Climate Resilience Program for Central Asia. The presentations will be followed by the break-out group discussions which will provide an opportunity for the Central Asian countries' representatives and others to further discuss a potential program.</p> |   |  |
|             | <p><b>Moderator:</b> Sascha Djumena, Country Program Coordinator, Central Asia, World Bank</p>   |   |  |
|             | <p><b>Speakers:</b></p>  |   |  |
|             | <ul style="list-style-type: none"> <li>• Overview of the Proposed Regional Climate Resilience Program - Representatives from Technical Working Group and World Bank</li> <li>• Plenary discussion</li> </ul>   |   |  |
| 10:30-11:00 | <b>Coffee Break</b>  |   |  |
| 11:00-12:30 | <b>Session 10A- Informing National Policy Makers</b>   | <b>Session 10B - Development Partner Roundtable on Financing Options</b>  | <b>Session 10C - Tools and Techniques for Networking and Collaboration</b>   |
|             | <p>This session is for five country delegations to inform their policy-makers on the Forum days' discussions, draft concept note for a potential regional climate resilience program. The session will also set the stage for a high level dialogue on moving from national to regional climate resilience to follow.</p>  | <p>This session will bring together bilateral and multilateral development partners to discuss the priorities and modalities of scaled-up climate finance in Central Asia. The focus and modalities for the proposed multi-year program, designed in partnership will be discussed.</p> | <p>This session will discuss innovative national and regional networking mechanisms and collaborative platforms which can facilitate coordination among practitioners and optimal sharing of good practices and solutions.</p> |
|             | <p><b>Participants:</b> Five country delegations and members of the technical working group only</p>   | <p><b>Moderator:</b> Daryl Fields, Sr. Water and Energy Specialist, ECSAR, World Bank<br/><b>Discussants:</b> Development Partners</p>  | <p><b>Moderator:</b> Andrei Tolstopiatenko, Sr. Information Officer, World Bank<br/><b>Discussants:</b> Tatyana Leonova Regional Coordinator , WBIMO, World Bank</p>   |
| 12:30-13:30 | <b>Lunch Break</b>   |   |  |
| 13:30-15:30 | <b>Session 11 – Roundtable: Way forward on National and Regional Program Principles and Design</b>   |   |  |
|             | <p>This session will bring together the high level representatives from the Central Asian countries and development partners organizations to discuss the ways forward for a potential regional climate resilience program.</p>  |   |  |
|             | <p><b>Moderators:</b> Saroj Kumar Jha, Regional Director for Central Asia, World Bank and Laszlo Lovei, Sector Director, ECSSD, World Bank</p>   |   |  |
|             | <p><b>Speakers:</b></p>  |   |  |
|             | <ul style="list-style-type: none"> <li>• Remarks by Central Asia Countries' Ministers and dignitaries</li> <li>• Remarks by representatives of development partners</li> </ul>   |   |  |
| 15:30-16:00 | <b>Coffee Break</b>  |   |  |
| 16:00-17:00 | <b>Session 12: Forum Summary and Closing Ceremony</b>  |   |  |

## Post-Forum Day (May 16, 2014)

### Training and Dialogue: Technical Tools and Moving Forward with Regional Climate Resilience Program

|             |   |
|-------------|---|
| 9:00-10:30  | <p><b>Central Asia Water Resources in a Changing Climate: An Analytical Framework</b></p> <p>Overview: Climate concerns in the Central Asia Region and making decisions under uncertainty</p> <p>Data: Innovative approaches to accessing and visualizing relevant data for water resources planning and management in a changing climate (including mobile applications (Apps))</p> <p>Modeling Tools: Global examples of analytical applications of relevance to the region (especially for climate-related water resources assessments)</p> <p><b>Presenters/Trainers :</b></p> <ul style="list-style-type: none"><li>• Erick Fernandes, Adviser, World Bank</li><li>• N. Harshadeep, Senior Environmental Specialist, World Bank</li></ul>  |
| 10:30-11:00 | Coffee Break  |
| 11:00-12:30 | <p><b>Central Asia Water Resources in a Changing Climate: A Collaborative Framework - Moving Ahead Together</b></p> <p>Knowledge Networks: Innovative Networking mechanisms (e.g. collaborative platforms, and leadership training)</p> <p>CAEWDP Roadmap: Outlining a vision of possible work on data, models, and collaboration in the region and interactive participant feedback</p> <p>Integrating Climate Change into Land Use Management: Tools for Assessment and Action Planning for Climate Change Adaptation</p> <p><b>Presenters/Trainers:</b></p> <ul style="list-style-type: none"><li>• Andrei Tolstopiatenko, Sr. Information Officer, World Bank</li><li>• Daryl Fields, Sr. Water and Energy Specialist, World Bank</li><li>• Malcolm Childress, Sr. Land Administration Specialist, World Bank</li><li>• Nicole Wegner, Climate Change Coordinator, GIZ Regional Program in Central Asia</li></ul> |
| 12:30-13:30 | Lunch Break   |
| 13:30-15:00 | <p><b>Regional Climate Resilience Program for Central Asia: Key Take-Aways and Way Forward</b></p> <p>Following the Forum days, Technical Working Group and other interested stakeholders will discuss the main take-aways for the proposed Regional Climate Resilience Program for Central Asia. The Group will also discuss and agree on the next steps that would lead to the development of the program.</p> <p><b>Moderator:</b> Jitendra Shah, ECA Climate Change Adviser, ECSEN, World Bank</p>  |

## Annex II: Second Central Asia Climate Knowledge Forum: List of Participants



|   | Name                   | Position  | Organization   |
|---|------------------------|---|--|
| <b>INTERNATIONAL AND REGIONAL ORGANIZATIONS</b> |                        |   |  |
| 1.  | Ms. Dinara ZIGANSHINA  | Deputy Director   | Scientific information Center, Interstate Commission for Water Coordination (SIC ICWC) |
| 2.  | Ms. Svetlana SHIVAREVA | Director  | Regional Center of Hydrology (RCH)   |
| 3.  | Mr. Nurken BULTEKOV    | Technical Manager, Central Asia Regional Hydromet Modernization Project | RCH  |



|     |                            |   |   |
|-----|----------------------------|---|---|
| 4.  | Mr. Iskandar ABDULLAYEV    | Executive Director  | Regional Environmental Center for Central Asia (CAREC)          |
| 5.  | Ms. Ludmila KIKTENKO       | Resource Mobilization Coordinator   | CAREC   |
| 6.  | Ms. Nailya MUSTAYEVA       | Program Manager, Climate Change and Sustainable Energy  | CAREC   |
| 7.  | Ms. Yekaterina STRIKELEVA  | Water Initiatives Support Program Manager   | CAREC   |
| 8.  | Mr. Akmal SIDDIQ           | Director, Environment, Natural Resources and Agriculture Division   | Asian Development Bank (ADB)                                    |
| 9.  | Ms. Undala ALAM            | Water Resources and Climate Adviser   | Department for International Development (DFID)                 |
| 10. | Ms. Heloise TROC           | Livelihoods Adviser   | DFID  |
| 11. | Mr. Craig DAVIES           | Senior Manager, Climate Change Adaptation, Energy Efficiency and Climate Change Team                                    | European Bank for Reconstruction and Development (EBRD)         |
| 12. | Ms. Sandugash BEISENBEKOVA | Associate Banker  | EBRD  |
| 13. | Mr. Tulegen SARSEMBEKOV    | Deputy Director, Department for Technical Assistance  | Eurasian Development Bank                                       |
| 14. | Ms. Yulia STERLIGOVA       | Chief Specialist, Sector Analysis Unit, Analytical Department   | Eurasian Development Bank                                       |
| 15. | Ms. Aurélia BOUCHEZ        | Ambassador, Head  | Delegation of the European Union in Kazakhstan                  |
| 16. | Ms. Alia BAIDEBEKOVA       | Project Manager   | Delegation of the European Union in Kazakhstan                  |
| 17. | Mr. Srdan STOJANOVIC       | Head of Office for Central Asia and Caucasus  | Directorate-General, Humanitarian Aid and Civil Protection-ECHO |
| 18. | Ms. Aigul ZHARYLGASSOVA    | Programme Officer   | Directorate-General, Humanitarian Aid and Civil Protection-ECHO |
| 19. | Mr. Batyr HAJIYEV          | Deputy Head, Economic Affairs Officer   | ESCAP/UNECE SPECA   |
| 20. | Mr. André FABIAN           | Project Manager, EU Regional Project Forest and Biodiversity Governance Including Environmental Monitoring – FLERMONECA | GIZ   |
| 21. | Mr. Philipp REICHMUTH      | Project Manager, Civil Society Fund   | GIZ   |
| 22. | Ms. Nicole WEGNER          | Climate Change Specialist of GIZ Regional Programme on Sustainable Use of Natural Resources in Central Asia             | GIZ   |
| 23. | Mr. Alexandr NIKOLAYENKO   | Regional Advisor, Transboundary Water Management in Central Asia Programme  | GIZ   |
| 24. | Mr. Daniyar ABYLKHANOV     | Energy Specialist   | Islamic Development Bank  |
| 25. | Ms. Madina IBRASHEVA       | National Economic and Environmental Officer   | OSCE Center   |
| 26. | Ms. Ilaria DALI            | Director of Cooperation   | Swiss Development Office in Uzbekistan (SDC)                    |

|     |                           |   |   |
|-----|---------------------------|---|---|
| 27. | Mr. Andrei BARANNIK       | Regional Environmental Adviser for Central and South Asia & OAPA  | USAID   |
| 28. | Ms. Laura GONZALEZ        | Private Enterprise Officer  | USAID   |
| 29. | Ms. Katherine HIMES       | AAAS Science & Technology Fellow, Environment Officer & Science Adviser   | USAID   |
| 30. | Mr. Sebastian STRIDE      | Consultant  | SIRIS Academic  |
| 31. | Mr. Gianluca COLOMBO      | Consultant  | SIRIS Academic  |
| 32. | Mr. Aden AW-HASSAN        | Director, Social, Economics and Policy Research Program   | International Centre for Agricultural Research in the Dry Areas (ICCARDA/CCAFA) |
| 33. | Mr. Stephen TULL          | UN Resident Coordinator   | UN Development Programme (UNDP) in Kazakhstan                                   |
| 34. | Mr. Michael THURMAN       | Practice Coordinator, Crisis Prevention and Recovery  | UNDP Regional Centre for Europe and CIS   |
| 35. | Mr. Vladimir GREBNEV      | Environment Protection for Sustainable Development Programme Coordinator  | UNDP in Kyrgyz Republic   |
| 36. | Mr. Yegor VOLOVIK         | Regional Programme Coordinator, Central Asian Climate Risk Management Programme (CA-CRM)  | UNDP in Kazakhstan  |
| 37. | Mr. Stanislav KIM         | Head of Energy and Environment Unit   | UNDP in Kazakhstan  |
| 38. | Mr. Yerlan ZHUMABAYEV     | National Coordinator, Climate Risk Management Project, Improving the Climate Resilience of Kazakhstan Wheat and Central Asian Food Security Project | UNDP in Kazakhstan  |
| 39. | Mr. Nikolay POMOSHCHNIKOV | Head, Sub-Regional Office for North and Central Asia  | UNESCAP   |
| 40. | Ms. Irina KOLYKHALOVA     | Disaster Risk Reduction Project Manager   | UNESCAP   |
| 41. | Mr. Bekhzod RAKHMATOV     | Associate Economic Affairs Officer  | UNESCAP   |
| 42. | Mr. Sergey LAZAREV        | Director  | UN Educational, Scientific and Cultural Organization (UNESCO)                   |
| 43. | Ms. Kristine TOVMASYAN    | Programme Specialist for Natural Sciences   | UNESCO  |
| 44. | Ms. Olga PILIFOSOVA       | Manager, Adaptation Programme   | UN Framework Convention on Climate Change (UNFCCC) Secretariat                  |
| 45. | Mr. Muratbek KOSHUEV      | National Disaster Response Adviser, Disaster Response Coordination Unit Secretariat   | UNOCHA  |
| 46. | Mr. Fedor KLIMCHUK        | Deputy Head   | UN (Regional Centre for Preventive Diplomacy for Central Asia (UNRCCA))         |
| 47. | Mr. Anatoliy KRUTOV       | Project Coordinator, Regional Coordination and Support for the European Union – Central   | WECCOOP   |

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|----------------------------|-------------------------|---|---|
|                            |                         | Asia Enhanced Regional Cooperation on Environment and Water                                 |   |
| 48.                        | Ms. Dinara ABZHAMILOVA  | Program Officer, Vulnerability Assessment and Mapping Unit                                  | UN World Food Program   |
| 49.                        | Mr. James DOURIS        | Project Officer, Scientific Officer   | World Meteorological Organization (WMO)                                   |
| 50.                        | Mr. Fikret AZILI        | Deputy Director, Istanbul Governorship  | Istanbul Project Coordination Unit  |
| 51.                        | Mr. Viktor NOVIKOV      | Project Manager   | Zoi Environment Network   |
| 52.                        | Mr. Jürgen KROPP        | Deputy Chair  | Potsdam Institute for Climate Impact Research (PIK)                       |
| 53.                        | Mr. Yoichi IWAMI        | Chief Researcher on Hydrology and Hydraulics,   | Global Centre of Excellence for Water Hazard and Risk Management (ICHARM) |
| 54.                        | Mr. Kenta USUI          | Policy Researcher   | Institute for Global Environmental Strategies (IGES)                      |
| 55.                        | Mr. James NEUMANN       | Principal   | Industrial Economics Incorporated (IEc)                                   |
| 56.                        | Ms. Elbegzaya BATJARGAL | Regional Coordinator  | Mountain Partnership Central Asia Hub                                     |
| 57.                        | Mr. Ysmaiyl DAIROV      | Executive Director  | Regional Mountain Centre  |
| 58.                        | Mr. Muratbek KARABAYEV  | Representative in Kazakhstan  | International Maize and Wheat Improvement Center (CIMMYT), Mexico         |
| 59.                        | Mr. Edward SCHATZ       | Associate Professor, Department of Political Science  | University of Toronto   |
| 60.                        | Mr. Kenji OKAZAKI       | Professor, Graduate School of Global Environmental Studies                                  | Kyoto University  |
| 61.                        | Ms. Jette FINDSEN       | Climate Change Coordinator and Senior Associate   | Abt Associates  |
| 62.                        | Mr. Yaroslav BEKISH     | Coordinator   | Green Alliance, Belarus   |
| 63.                        | Mr. Wu BINGFANG         | Head of Digital Agriculture   | Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences |
| <b>DIPLOMATIC MISSIONS</b> |                         |   |   |
| 64.                        | Mr. Jouko ESKELINEN     | Counselor, Development Aid Specialist   | Embassy of Finland in Kazakhstan  |
| 65.                        | Ms. Zanna IVANAINEN     | Attache   | Embassy of Finland in Kazakhstan  |
| 66.                        | Mr. Waseem SHAHZAD      | Head of Chancery/Third Secretary, Embassy of the Islamic Republic of Pakistan in Kazakhstan | Embassy of the Islamic Republic of Pakistan in Kazakhstan                 |
| 67.                        | Mr. Alexander KALMYKOV  | Senior Consul   | General Consulate of the Russian Federation in Almaty                     |

|                               |                            |  |  |
|-------------------------------|----------------------------|--|--|
| 68.                           | Mr. Derviz Ender OZTURK    | Commercial Attache   | Consulate General of the Republic of Turkey in Almaty                                |
| <b>NATIONAL DELEGATIONS</b>   |                            |  |  |
| <b>REPUBLIC OF KAZAKHSTAN</b> |                            |  |  |
| 69.                           | Mr. Bektas MUKHAMEDJANOV   | Vice Minister  | Ministry of Environment and Water Resources  |
| 70.                           | Mr. Bulat BEKNIYAZOV       | Deputy Chair   | Water Resources Committee  |
| 71.                           | Mr. Almat KUNAKOV          | Chief Expert, Department of Production and Processing of Plant Production and Phytosanitary Security           | Ministry of Agriculture  |
| 72.                           | Mr. Murat SYDYKOV          | Head, Division for Prevention of Emergency Situations, Department of Emergency Situations in Almaty Region     | Ministry of Emergency Situations   |
| 73.                           | Ms. Gulmira IMASHEVA       | Senior Expert, Division for Regulation of Use and Protection of Water Resources, Committee for Water Resources | Ministry of Environment and Water Resources  |
| 74.                           | Ms. Gulmira SERGAZINA      | Director, Climate Change Department  | Ministry of Environment and Water Resources  |
| 75.                           | Mr. Aibek MENDIGARIN       | General Director   | RSE Kazhydromet  |
| 76.                           | Ms. Bayan SAZANOVA         | Director, Hydrology and Meteorology Center   | RSE Kazhydromet  |
| 77.                           | Mr. Paiyzkhan KOZHAKHMETOV | Director, Climate Research Department  | RSE Kazhydromet  |
| 78.                           | Ms. Svetlana DOLGIKH       | Head, Climate Research Department  | RSE Kazhydromet  |
| 79.                           | Ms. Yelena SMIRNOVA        | Lead Research Officer  | RSE Kazhydromet  |
| 80.                           | Ms. Lidiya NIKIFOROVA      | Head, Hydrological Forecasting Department  | RSE Kazhydromet  |
| 81.                           | Mr. Timur USTABAYEV        | Junior Research Officer  | Kazakh Science and Research Institute of Water Resources, JSC KazAgroInnovation      |
| 82.                           | Ms. Saule OSPANOVA         | Research Analyst   | International Institute for Environment and Development                              |
| 83.                           | Mr. Vitaliy SALNIKOV       | Dean, Faculty of Geography and Environmental Sciences  | Al-Farabi National University  |
| 84.                           | Mr. Igor SEVERSKY          | Honorable Director   | Institute of Geography, Academy of Science   |
| 85.                           | Ms. Svetlana MOGILYUK      | Chair  | EcoForum NGO Network of Kazakhstan, "EKOM" NGO                                       |
| 86.                           | Mr. Anarbek ORMAN          | General Director   | Water Resources-Marketing LLP  |
| 87.                           | Mr. Eraly SHOKBAROV        | Director, Center of Seismic Stability of Buildings and Structures  | Kazakh Scientific and Research Institute of Construction and Architecture (KazNIISA) |

|                        |                          |   |   |
|------------------------|--------------------------|---|---|
| 88.                    | Ms. Valentina KRYUKOVA   | Director  | Climate Change Coordination Center                  |
| 89.                    | Mr. Murat BEKNIYAZOV     | Technical Director  | Kazgiprovodkhoz                                     |
| 90.                    | Ms. Irina YESSERKEPOVA   | Head of Department  | Zhasyl Damu JSC                                     |
| 91.                    | Ms. Kaisha ATAKHANOVA    | Director  | ARGO DRC  |
| 92.                    | Ms. Galina CHERNOVA      | Director  | Center "Globus" NGO                                 |
| 93.                    | Mr. Baurzhan DOSZHANOV   |   | Social Eco-Fund NGO                                 |
| 94.                    | Ms. Dariya MAKHASHOVA    | Independent Expert  |   |
| 95.                    | Ms. Kuralay KARIBAYEVA   | Director  | IESD Kazakhstan                                     |
| 96.                    | Ms. Johanna AKBERGENOVA  |   | Ecoldea NGO   |
| <b>KYRGYZ REPUBLIC</b> |                          |   |   |
| 97.                    | Mr. Abdymital CHYNGOJOEV | Deputy Director   | State Agency on Environment Protection and Forestry |
| 98.                    | Ms. Jyparkul BEKULOVA    | Head, Department for Ecological Policy and Strategy                                       | State Agency on Environment Protection and Forestry |
| 99.                    | Mr. Shamil ILIASOV       | Climate Change Advisor to Director, State Agency on Environmental Protection and Forestry | State Agency on Environment Protection and Forestry |
| 100.                   | Mr. Sanjar MUKANBETOV    | Deputy Minister of Economy  | Ministry of Economy                                 |
| 101.                   | Mr. Aidarkan JUSENBAYEV  | Chief Specialist for National Safety, Strategic Planning Department                       | Ministry of Economy                                 |
| 102.                   | Ms. Gulnaz JUMAKADYROVA  | Chief Specialist, Department of Strategic Planning  | Ministry of Economy                                 |
| 103.                   | Ms. Tatiana CHERNIKOVA   | Head, Department for Hydrometeorological Observations and Information Provision           | Kyrgyzhydromet                                      |
| 104.                   | Ms. Ekaterina SAHVAEVA   | Head, Information and Analytical Section  | Water Resources and Melioration Department          |
| 105.                   | Mr. Talaibek TEMIRALIEV  | State Secretary   | Ministry of Emergency Situations                    |
| 106.                   | Mr. Bolot SHARSHENOV     | Lead Specialist, Monitoring and Forecasting Department                                    | Ministry of Emergency Situations                    |
| 107.                   | Ms. Ainash SHARSHENOVA   | Head, Laboratory of Environment Hygiene and Toxicology                                    | Ministry of Health                                  |
| 108.                   | Ms. Aida GAREEVA         | Project Coordinator   | CAMP Alatoo NGO                                     |
| 109.                   | Ms. Zuhra ABAIKHANOVA    | Director  | Climate Change Center                               |
| 110.                   | Ms. Nurzat ABDYRASULOVA  |   | Civic Foundation "UNISON"                           |
| 111.                   | Mr. Ilia DOMASHOV        | Deputy Chairman   | Ecological movement BIOM                            |

|                                 |                              |   |   |
|---------------------------------|------------------------------|---|---|
| 112.                            | Mr. Maxim TSOY               | Reporter  | Vecherny Bishkek Daily                                  |
| <b>REPUBLIC OF TAJIKISTAN</b>   |                              |   |   |
| 113.                            | Ms. Gulru QAYUMOVA           | Deputy Minister of Economic Development and Trade                             | Ministry of Economy and Trade                           |
| 114.                            | Ms. Aykhon SHARIPOVA         | Deputy Chair  | Committee for Environment Protection                    |
| 115.                            | Mr. Jalil PIRIEV             | Head of Agriculture and Environment Department                                | Executive Office of the President                       |
| 116.                            | Mr. Faridun JURAEV           | Senior Officer, Engineering and Technical Department of Population Protection | Committee of Emergency Situations                       |
| 117.                            | Mr. Karimjon ABDUALIMOV      | Deputy Head   | SUE Tajik Hydromet                                      |
| 118.                            | Mr. Bakhrom GAFAROV          | Deputy Director   | Agency of Irrigation under the Government of Tajikistan |
| 119.                            | Mr. Anvar HOMIDOV            | Head, International Relations Department                                      | Committee for Environment Protection                    |
| 120.                            | Mr. Abdulkhamid KAYUMOV      | Director  | International Institute of Human and Environment        |
| 121.                            | Mr. Zainolobuddin KOBULIEV   | Director  | Institute of Water Problems, Energy and Ecology         |
| 122.                            | Mr. Zafar MAKHMUDOV          | PPCR, ELMARLP Coordinator   | Committee for Environment Protection                    |
| 123.                            | Mr. Holmahmad NAZAROV        | Head, Sanitary and Epidemiology Department                                    | Ministry of Health                                      |
| 124.                            | Mr. Sherali SAFAROV          | Head of Science and International Relationship and Renovation                 | Ministry of Agriculture                                 |
| 125.                            | Mr. Mirali SHARIPOV          | Senior Specialist, Department of Sciences and Water Resources                 | Ministry of Energy and Water Resources                  |
| 126.                            | Mr. Yuriy SKOCHILOV          | Director  | Youth Ecological Center                                 |
| 127.                            | Mr. Timur IDRISOV            | Executive Director  | Little Earth NGO  |
| 128.                            | Mr. Bojan KOLUNDZIJA         | Country Director  | OXFAM   |
| 129.                            | Mr. Farkhodzhon SOLIEV       | Director  | Asri Nav NGO  |
| 130.                            | Mr. Kobel KADYROV            |   | Tajik Agricultural Academy                              |
| <b>REPUBLIC OF TURKMENISTAN</b> |                              |   |   |
| 131.                            | Mr. Stanislav AGANOV         | National Expert for Economy, Ecology, Water Resources                         | UNDP Adaptation Fund                                    |
| 132.                            | Ms. Viktoriya AKOPOVA        | Communications Specialist   | Aarhus Center of Turkmenistan                           |
| 133.                            | Mr. Gurbangeldi ALLABERDIYEV | Project Leader  | Ministry of Nature Protection                           |
| 134.                            | Mr. Arslan BERDIYEV          | Leading Expert, Expert and Analytical   | Agency Ynanch–Vepa                                      |

|                               |                             |   |   |
|-------------------------------|-----------------------------|---|---|
| 135.                          | Ms. Guljamal NURMUHAMMEDOVA | Chairperson   | Ecological NGO Yashyl Shohle  |
| 136.                          | Mr. Serdar ALLEKOV          | Deputy Chair  | Society of Nature Protection  |
| 137.                          | Mr. Nazar KORPEYEV          | Director  | Tebigy Kuwwat NGO   |
| <b>REPUBLIC OF UZBEKISTAN</b> |                             |   |   |
| 138.                          | Mr. Khurshid SADIROV        | Deputy Head of the Emergency Control Center   | Ministry of Emergency   |
| 139.                          | Mr. Birodarjon BURJONJONOV  | Deputy Chief Department of Water Balance and Development of Water Saving Technologies   | Ministry of Agriculture and Water Resources                                 |
| 140.                          | Mr. Salamat EREJEPOV        | Chief Specialist of the Department for Monitoring of Environment Transboundary Pollution  | Uzhydromet  |
| 141.                          | Mr. Aleksandr MERKUSHKIN    | Deputy Chief of the Atmospheric Air and Surface Waters Pollution Service within the Uzhydromet, Coordinator of the preparation works on the National Communications on Climate Change of the Republic of Uzbekistan | Uzhydromet  |
| 142.                          | Mr. Dilshodbek KIRGIZOV     | Head of Department for Rural and Water Industry Development   | Ministry of Economy   |
| 143.                          | Mr. Afzal MUSAKHANOV        | Lead Specialist of the IFIs Department  | Ministry of Economy   |
| 144.                          | Mr. Anvar SHABANOV          | Chief Specialist, Main Department on Atmosphere Air Protection of the State   | Committee on Nature Protection  |
| 145.                          | Mr. Shamil KHAKIMOV         | Chief, Department of Antiseismic Construction   | ToshuyjoyLITI OJSC under the State Agency for Architecture and Construction |
| 146.                          | Mr. Abbas ALIMBAYEV         | Chairman  | Association "Enterprises of Alternative Fuel and Energy Sources"            |
| 147.                          | Mr. Ibragim DOMULADZHANOV   | Chair   | Association for Ecologically Clean Fergana                                  |
| 148.                          | Mr. Yusup KAMALOV           | Director  | Union for Defense of the Aral Sea and Amudarya                              |
| <b>WORLD BANK GROUP</b>       |                             |   |   |
| 149.                          | Ms. Ainur YERTLESSOVA       | Advisor to the Executive Director for Azerbaijan, Kazakhstan, Kyrgyz Republic, Poland, Serbia, Switzerland, Tajikistan, Turkmenistan, Uzbekistan  | Office of the Executive Director  |
| 150.                          | Mr. Laszlo LOVEI            | Sector Director, Sustainable Development Department   | World Bank  |
| 151.                          | Ms. Kulsum AHMED            | Sector Manager, Environment, Natural Resources Management and Land Unit   | World Bank  |
| 152.                          | Mr. Neeraj PRASAD           | Acting Director. World Bank, Climate Change   | World Bank  |

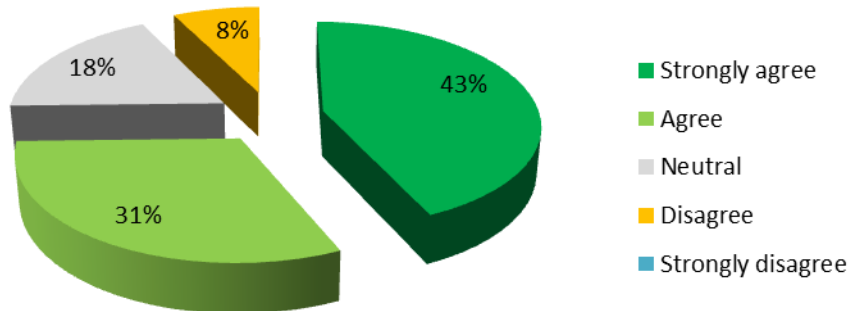
|      |                          | Group   |                                   |
|------|--------------------------|---|-----------------------------------|
| 153. | Ms. Dina UMALI-DEININGER | Sector Manager, Agriculture and Rural Development Unit        | World Bank                        |
| 154. | Ms. Sumila GULYANI       | Sector Manager, Urban, Water Supply & Sanitation              | World Bank                        |
| 155. | Mr. Saroj Kumar JHA      | Regional Director for Central Asia                            | World Bank                        |
| 156. | Mr. Moazzam MEKKAN       | Regional Manager  | International Finance Corporation |
| 157. | Mr. Sascha DJUMENA       | Country Program Coordinator for Central Asia                  | World Bank                        |
| 158. | Ms. Agata PAWLOWSKA      | Acting Country Manager for Turkmenistan                       | World Bank                        |
| 159. | Ms. Marsha OLIVE         | Country Manager for Tajikistan                                | World Bank                        |
| 160. | Mr. Alexander KREMER     | Country Manager for Kyrgyz Republic                           | World Bank                        |
| 161. | Mr. Takuya KAMATA        | Country Manager for Uzbekistan                                | World Bank                        |
| 162. | Mr. Laurent DEBROUX      | Sector Leader, Sustainable Development Department, World Bank | World Bank                        |
| 163. | Mr. Jitendra SHAH        | Climate Change Advisor  | World Bank                        |
| 164. | Mr. Philippe AMBROSI     | Senior Environmental Economist                                | World Bank                        |
| 165. | Ms. Daryl FIELDS         | Senior Water Resources Specialist                             | World Bank                        |
| 166. | Ms. Tatyana LEONOVA      | Regional Coordinator, World Bank Institute                    | World Bank                        |
| 167. | Mr. Ijsbrand DE JONG     | Lead Water Resource Management Specialist, Central Asia       | World Bank                        |
| 168. | Ms. Asli GURKAN          | Social Development Specialist                                 | World Bank                        |
| 169. | Mr. Talimjan URAZOV      | Operations Officer  | World Bank                        |
| 170. | Mr. Shynar JETPISSOVA    | Communications Associate                                      | World Bank                        |
| 171. | Ms. Tolkun JUKUSHEVA     | Disaster Risk Management Specialist                           | World Bank                        |
| 172. | Mr. Malcolm CHILDRESS    | Senior Land Administration Specialist                         | World Bank                        |
| 173. | Ms. Farzona MUKHITDINOVA | Operations Analyst, Agriculture and Environment               | World Bank                        |
| 174. | Mr. Bobojon YATIMOV      | Senior Rural Development Officer                              | World Bank                        |
| 175. | Mr. Faridun SANGINOV     | Consultant  | World Bank                        |
| 176. | Mr. Oraz SULTANOV        | Operations Officer  | World Bank                        |
| 177. | Mr. Dilshod KHIDIROV     | Senior Rural Development Specialist                           | World Bank                        |
| 178. | Mr. Rinat ISKHAKOV       | Operations Officer  | World Bank                        |



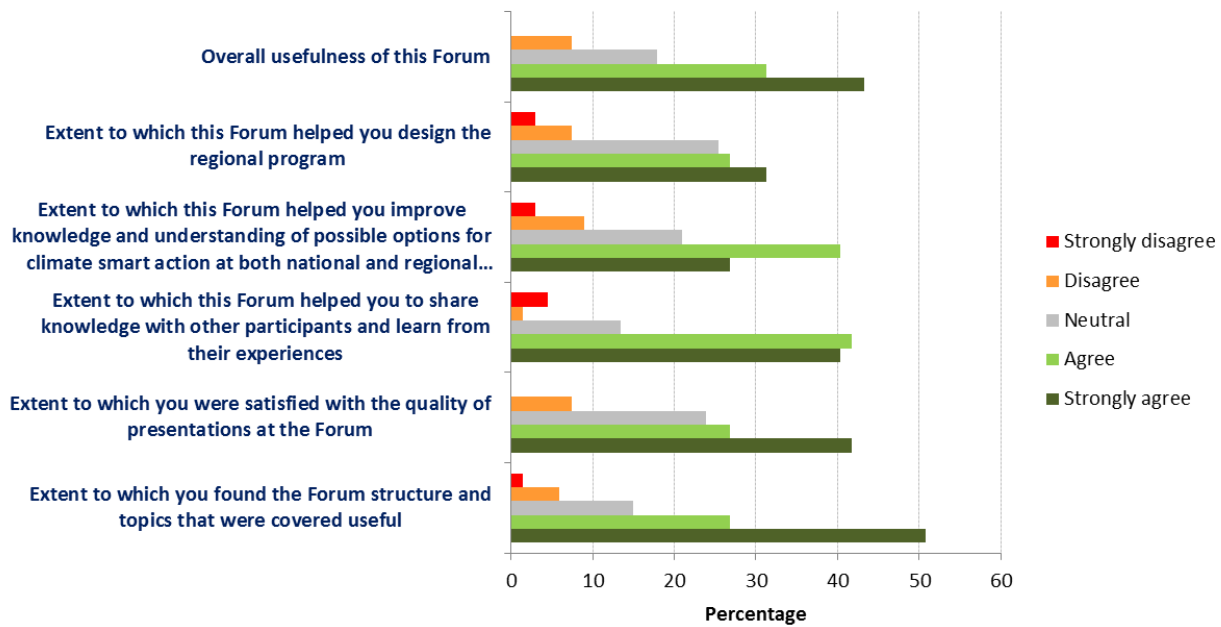
|      |                             |   |            |
|------|-----------------------------|---|------------|
| 179. | Mr. Iskander BURANOV        | Energy Specialist   | World Bank |
| 180. | Mr. Vigen SARGSYAN          | Senior External Affairs Officer                                       | World Bank |
| 181. | Ms. Abena AKUFFO-AKOTO      | Partnership Specialist  | World Bank |
| 182. | Ms. Sandra BROKA            | Senior Rural Financial Specialist                                     | World Bank |
| 183. | Mr. Erick FERNANDES         | Adviser, Agriculture, Natural Resource Management, and Climate Change | World Bank |
| 184. | Mr. Nagaraja Rao HARSHADEEP | Senior Environmental Specialist                                       | World Bank |
| 185. | Mr. Craig MEISNER           | Senior Environmental Economist  | World Bank |
| 186. | Mr. Ko TAKEUCHI             | Disaster Risk Management Specialist                                   | World Bank |
| 187. | Mr. Joaquin TORO            | Disaster Risk Management Regional Coordinator                         | World Bank |
| 188. | Ms. Xiaolan WANG            | Senior Operations Officer   | World Bank |
| 189. | Mr. Andrei TOLSTOPIATENKO   | Senior Information Officer, World Bank Institute                      | World Bank |
| 190. | Ms. Alexandra SOININEN      | Young Junior Professional   | World Bank |
| 191. | Ms. Manon CASSARA           | Sustainable Development Consultant                                    | World Bank |
| 192. | Ms. Yelena YAKOVLEVA        | Team Assistant  | World Bank |
| 193. | Ms. Togzhan ALIBEKOVA       | Team Assistant  | World Bank |

## Annex III: Participants' feedback

### Overall Usefulness of the Second Forum



### Participant Survey Results



Specific suggestions for future Forums included:

- Provide more time for discussions and exchange of opinions
- Reduce time for presentations to increase the time given for questions and answers
- Shorten duration of the Forum

- Redesign the format of the Forum so that participants could exchange opinions in groups, provide specific recommendations
- Involve more private sector organizations
- Include more NGOs into discussion
- Include sessions on lessons learned from CA regional organizations
- Make closing sessions more focused on the outcomes of previous days
- Invite speakers from agencies which have actual results on adaptation
- Select one-two specific topics for the Forum to discuss them in more detail
- Discuss coordination mechanisms with donors upfront
- Raise hard hitting questions

