CACIP Platform

Report of Regional Consultation

The joint workshop was held on 27th of September 2019 in Dushanbe (Tajikistan) to conduct the regional consultation for Central Asian Climate Information Platform (CACIP), the event also hosted inception workshop of Assessment of the Costs of Environmental Degradation (CoED) in Tajikistan. The main objective of CACIP is to help stakeholders for one-stop access, analyse, and visualize public-domain data to support improved awareness, assessment, and decision support. This is expected to make available comprehensive and up-to-date relevant data and information, linking with high-quality datasets from global, regional, and local sources, provide analytical tools and interfaces for the visualization and interpretation of data, maps and information (e.g. mapping tools to layer data, map hotspots and areas at risk, screening tools, etc.).

For more information, please visit sites:
> https://mel.cgiar.org/projects/cacip
> www.CentralAsiaClimatePortal.org

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Contents

Highlights

The workshop was held on 27th of September 2019 in Dushanbe (Tajikistan) to conduct the regional consultation for Central Asian Climate Information Platform (CACIP). The event was jointly hosted by the Tajik Academy of Agricultural Sciences (TAAS) and the State Committee on Environmental Protection (CEP) of Tajikistan.

Representation of participants by organization type

- Government Agency
- International Organization
- Academia, National agricultural research and extension services
- Regional and sub-Regional Organizations
- Financing Institutions (including Foundations)
- NGO & Private Sector & Joint Venture Institution
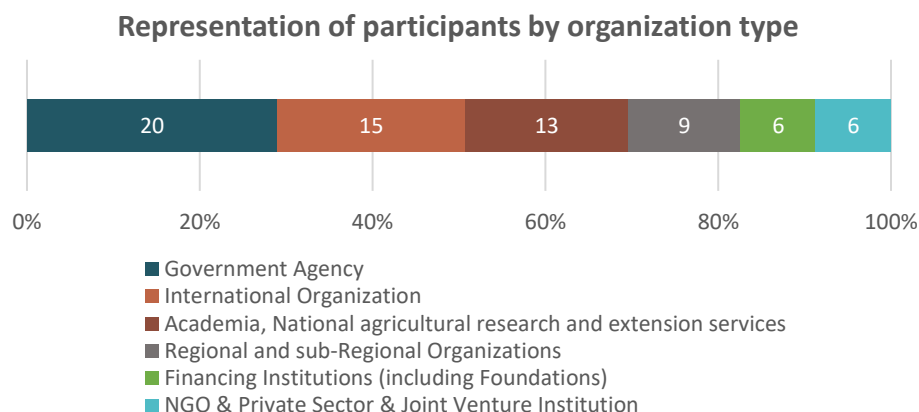
Figure 1 Number of participants by organization type

The workshop brought together 69 delegates from five Central Asian countries and partner organizations, alongside agricultural research organizations, academia, financial and international institutions, nongovernmental agencies and policy makers. Alongside with CACIP demonstrations, the participants discussed local and international experiences on environmental degradation, ecosystem services evaluation, economics of land degradation.
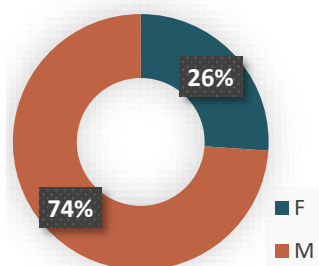
Figure 2 Representation of participants by gender

Media outreach

The event has been shared for media outreach at The Regional Program for Sustainable Agricultural Development in Central Asia and Caucasus in English and Russian News.

The Video reportage and interviews of Mr. Jan-Peters Olters the World Bank Country Manager for Tajikistan, Turkmenistan and Mr Ram Sharma the Regional Coordinator at ICARDA-Central Asia and Caucasus are at this link.

The materials of the Joint workshop had been shared in the repositories of MELSpace, as well as at Twitter page of Monitoring, Evaluation & Learning (MEL) @MEL_CGIAR.

Introduction

The Regional Consultation is a follow up event to summarize the results from a series of country consultations conducted in all Central Asia countries from June to September 2019. The regional event serves to set the scene and discuss the platform from user and contributor perspective, and helped to finalize the CACIP framework and support the development of the sustainability plan.

About project:

CACIP will help stakeholders to access, analyse, and visualize public-domain data to support improved awareness, assessment and decision support on climate change. This is expected to make available comprehensive and up-to-date relevant data and information, linking with high-quality datasets (including time series and spatial information) from global, regional, and local sources. The project includes five Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Central Asian Climate Information Platform (CACIP) is funded by the World Bank within the framework of Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB). The project is implemented by the Central Asia Regional Environmental Center (CAREC) and International Center for Agricultural Research in Dry Areas (ICARDA).

Workshop

The Regional consultation hosted in total 69 participants (18 female, 51 male) from Central Asian countries and partners organizations (Annex 2). The representation of participants by organization type can be seen in Table 1 and Figure 1 below.

Table 1 Participants by organization type

Organization type	Participants	Ratio
Government Agency	20	29%
International Organization	15	22%
Academia, National agricultural research and extension services	13	19%
Regional and sub-Regional Organizations	9	13%
Financing Institutions (including Foundations)	6	9%
NGO & Private Sector & Joint Venture Institution	6	9%
Grand Total	69	100%

Programme and speakers

The one-day event is consisted of three main sessions:

I.   **Plenary**

The Plenary session was hosted by representatives of national, regional and international organizations as:

Anvar Khamidov - the Committee of Environmental Protection of the Republic of Tajikistan.
He gave an overview of the projects on climate change adaptation and measures being taken in Tajikistan: Institutional Development of the State Agency for Hydrometeorology of Tajikistan; Building Climate Resilience of Vulnerable and Food Insecure Communities through Capacity Strengthening and Livelihood Diversification in Mountainous Regions of Tajikistan; Tajikistan: Scaling Up Hydropower Sector Climate Resilience; GCF-EBRD Sustainable Energy Financing Facilities; Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB).

Tanzila Ergasheva - Scientific Secretary, the Tajik Academy of Agricultural Sciences (TAAS)
She gave an overview about the activities of TAAS comprising of six national research institutes in agriculture, horticulture, soil science, animal husbandry, veterinary science and agricultural economics. TAAS promotes development of new varieties and breeds for crop and livestock production, conservation and sustainable use of genetic resources, adaptation of technological developments in farming practices, conducts research in agricultural economics and food security. There are 488 scientific staff members, 30 doctors of science, 122 PhD holders, 8 academicians, 7 corresponding members in the Academy.

Saltanat Zhakenova – Specialist, CAMP4ASB project, CAREC

She gave two presentations about CAREC projects. She also stressed the importance of climate change information and access to it. To make informed decisions about climate change, policy-makers will need timely and useful information about the possible consequences of climate change.

Jan-Peters Olters - Country Manager for Tajikistan and Turkmenistan
He has spoken about the World Bank led projects in the region, including Mitigation Program for the Aral Sea Basin Project for Central Asia (CAMP4ASB) and Central Asian Climate Information Platform (CACIP). He had talked about the importance of the projects to the region and local population to mitigate and adapt to climate change, benefits from projects to vulnerable communities.

Ram Sharma - Regional Coordinator, ICARDA-Central Asia and Caucasus
He gave presentation about ICARDA projects in the region and briefed the participants about the major achievements of ICARDA together with the CGIAR centers in the region in the areas of genetic resources and crop improvement, crop diversification, water management, socio-economics, livestock improvement and rangeland, geo-informatics, knowledge management. He concluded his speech by summarizing the major challenges ahead, such as ever-degrading natural resources, negative impact of climate change, poor seed production system, low diversification of farming-systems, weak public-private partnerships, and lack of trained young specialists in research institutions.

Enrico Bonaiuti & Akmal Akramkhanov – CACIP team
They gave an overview of CACIP, timeframe what has been done. Highlights from country consultations, and snapshot statistics of current event.

Logical architecture of the CACIP comprises of 3 components:
o   the WEBSITE is the entry point of the platform;
o   the GEO PORTAL collects manages and displays geographical data and includes analysis tools;
o   the KNOWLEDGE HUB collects, store and provides docs, ideas, contacts, and all relevant information

Interface of the Platform will be customised by target users with sample content and sample tools. E-learning feature was explained.

Seven country and farmer consultations were conducted from June to September 2019.

Further, the representation of participants by organizational type in current regional workshop has been shown. Then snapshots of statistics and feedbacks from country consultations were presented and explained.

Simone Maffei, Chandrashekhar Biradar, Aya Mousa – CACIP team
They provided the presentation "Central Asia Climate Information Platform: An Innovative Approach" to participants.

An overview of technical framework of CACIP was provided to participants:

- o Knowledge portals suitable to be harvested;
- o Knowledge information;
- o Data & Tools contents;
- o Geo Data portals suitable to be harvested;
- o Processing of harvested data to create new and derived products;
- o CACIP Post Processing visualised for temperature, vegetation data;
- o collaborative/inductive regional maps;
- o use cases, interfaces of CACIP;
- o results of country consultation surveys;
- o Sample preview of CACIP demo.

II. Presentations by national, regional and international organizations

Overall during the workshop there were given 12 presentations about CAREC, WOCAT (World Overview of Conservation Approaches and Technologies), ISRIC (International Soil Reference and Information Centre), GIZ (The Deutsche Gesellschaft für Internationale Zusammenarbeit), CAMP4ASB experiences, development of CACIP, Cluster approach of Tajik Agrarian University, economics of land degradation in Tajikistan. The links to the English and Russian versions of the presentations are given in Annex 5.

III. Parallel sessions

o CACIP Governance – Managing the platform
The session aimed to receive feedbacks on governance model of CACIP, data ownership and management, including paid and unpaid data.

o CACIP Technical – System Conceptual Architecture
The session focused on questions related to access of data, data sources and storage in CACIP.

- o Environmental Economics – discuss approach to estimate costs of environmental degradation
The participants analysed the economics of land degradation in Tajikistan.

Figure 3 Parallel session on CACIP Technical - System conceptual architecture

Feedbacks

Plenary session
- o Suggestion to add data to CACIP when available on:
  - Sanitary and technical conditions of sewage treatment facilities;
  - Physical and chemical composition of soil and water (transboundary);
  - Data on infectious diseases considering climate change;
  - Prevention of soil erosion and degradation;
  - Greenhouse emissions.
- o to provide national languages in the platform;
- o to share a Russian version of Memorandum of Understanding (MoU) in order to be able to discuss with state agencies;
- o CACIP to present technologies from Central Asian (CA) countries. Also access the results and achievements of implemented and ongoing projects in the region;
- o to consider the possibilities of obtaining/substituting the closed/limited access data;
- o to send the questionnaire to key stakeholders to get answers to unclear and unanswered questions;
- o to analyse the legislative and regulatory acts in order to align the platform with them;
- o to discuss first demo of CACIP with key stakeholders.

Parallel session CACIP Governance (Annex 4.1)**:**
- o Participants to provide feedbacks to CACIP deliverables;
- o the future CACIP management should consider local peculiarities and issues;
- o to include analytical information to CACIP;
- o to create legal base to work with stakeholders;
- o paid, unpaid, non-sellable data to be considered following best practices;
- o to share the minutes to participants for feedbacks.

Parallel session CACIP Technical (Annex 4.2)**:**
- o Change the users' interface (add site map);
- o payment system
  - o for contents/data harvested from external sources, and not provided for free by the owners, the platform redirects to the source of data;
  - o to clarify what is "paid" services/data;
  - o to add a tool to accept donations, based on simple payment system;
- o to start platform with English and Russian versions, then consider delivery of other language options if feasible;
- o to enable interest-based data filtering, while CACIP users' data access are limited by roles;
- o while it has been observed that farmers community may not have access to internet or knowledge on the usage, the platform should ensure that material suitable for improving farmers livelihoods is available and downloadable by champion farmers or intermediary institutions such as extension departments and NGOs;
- o CACIP first release is on by the beginning of 2020;
- o to send participants the results of another parallel session on Governance.

Follow-up activities

- To send to participants the deliverables for comments and review;
- to send the questionnaire to key stakeholders to get answers to unclear and unanswered questions;
- to send satisfaction survey to the participants of regional workshop;
- to send Newsletters periodically to the attendants of Country, Farmer & Regional consultations.

Deliverables

1. Regional Consultation Report
2. Agenda EN (Annex 1)
3. Press release EN/RU (Annex 5)
4. Presentation files EN/RU (Annex 5)
5. Minutes of the sessions (Annex 4)
6. MoU EN/RU (Annex 5)
7. Country consultation report. Brief summary EN/RU (Annex 5)

Results of ex-post survey

The bi-lingual online survey in Russian and English has been conducted after the Regional consultation to assess the results and satisfaction of participants on CACIP event (Annex 6). The survey run between 17 to 23 October (including) in EU Survey platform by sending system invitations to the participants' emails with additional email reminder on 20 October.

Total of 14 responses (24%) have been received from 59 invitations, which is higher than accepted average of 10-15% response rate for external surveys. Along with the response rate, the quality factor of the survey shows, it has acceptable representation of respondents by country. As well as, 57% of respondents gave additional contributions, i.e. comments, which increases the respondent's input for overall analysis.

All five countries were represented by respondents (Table 2). 57.14% had been participated in CACIP events previously.
All respondents (100%) indicate the **CACIP** is **useful** for their work, 86% respondents find **Cost of Environmental Degradation useful** for your work as well.

Table 2 Representation of survey respondents by country

Country	Sparkline	Contributions	Ratio
Uzbekistan		2	14.29%
Tajikistan		6	42.86%
Kazakhstan		2	14.29%
Turkmenistan		1	7.14%
Kyrgyzstan		2	14.29%
Other		1	7.14%
Total		14	100%

The respondents of the survey find the **Presentations** during the event the most interesting for them (93% i.e. 13 responses from 14), while the most interesting subject for them were **Exchanging experience** during the event (86%). This is also proven true that participants **get acquainted** with each other **through Presentations** (86%) and at the **Reception dinner** (79%) (Figure 6).

Which sessions were the most interesting?
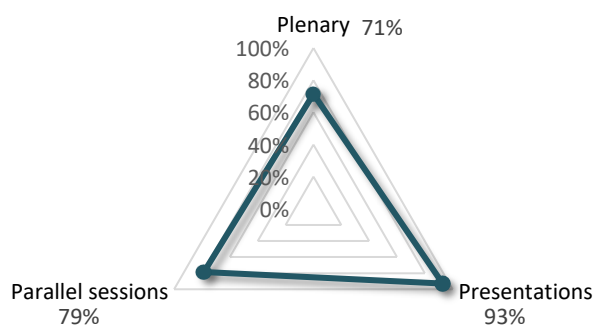
Figure 4 Interest in sessions, discrete % per session from Total responses

Which topics were the most interesting?
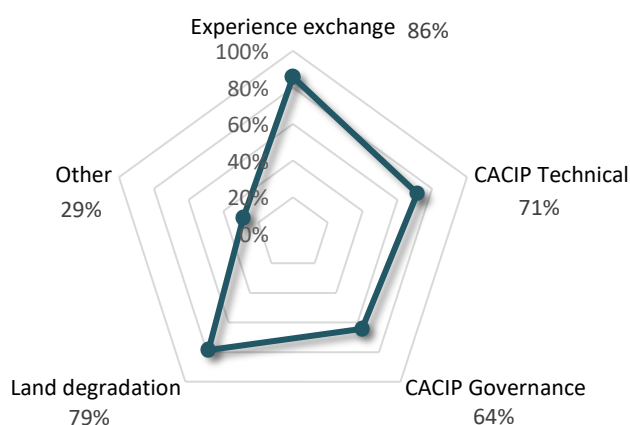
Figure 5 Interest in topics, discrete % per topic from Total responses

The **other topics**, which raised interest in participants were **interactive discussions** and **management of CACIP project** (Figure 5). Other activities helpful for participants to **get acquainted with others** (organizations) were **active discussions** and **informal meetings** after the workshop (Figure 6).

Which activities did help you to get acquainted with participants/organizations?
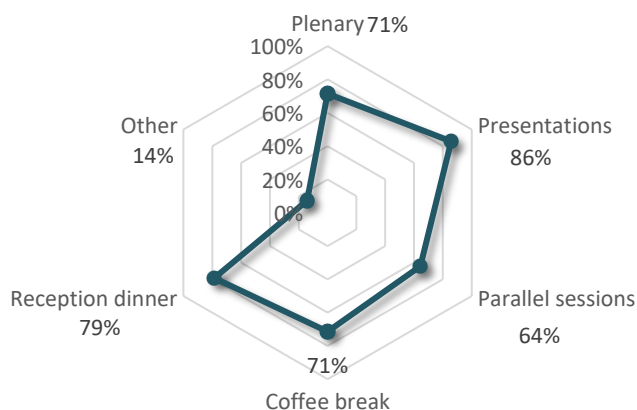
Figure 6 Useful sessions to get acquainted with others, discrete % per session from Total responses

All respondents preferred **Emails**, while asked what would be the preferred mode of communication for them, some of them consider WhatsApp, Telegram, and seminars (Figure 7);

What is the preferred mode of communication with you?
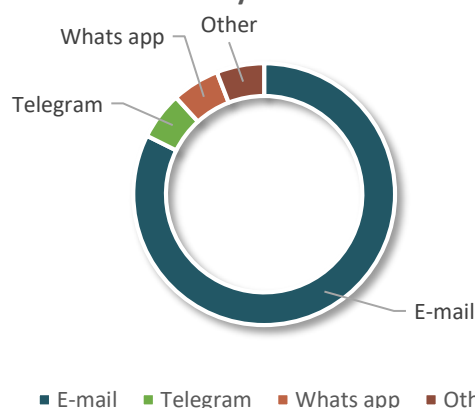
Figure 7 Preferred mode of communication for respondents

Overall, the respondents have shown high rate of satisfaction with the event (86%), which is derived from 36% **Very satisfied,** 50% **Satisfied** participants from four Central Asian countries Kyrgyzstan, Tajikistan, Kazakhstan and Turkmenistan. Respondents from Uzbekistan were **Dissatisfied**. No any **Very Dissatisfied** responses (Figure 8).

The Dissatisfied respondents explained their low satisfaction due to:
- questions on CACIP country and organizational ownership were left open;
- combining the CACIP event with Environmental Economics of land degradation, which limited their time to discuss CACIP;
- quality of interpretation during the event.

The comments are noted by the organizers as lessons learnt. This report available publicly will ensure stakeholders in the region may benefit for their future events.

Overall, how satisfied are you with the meeting?
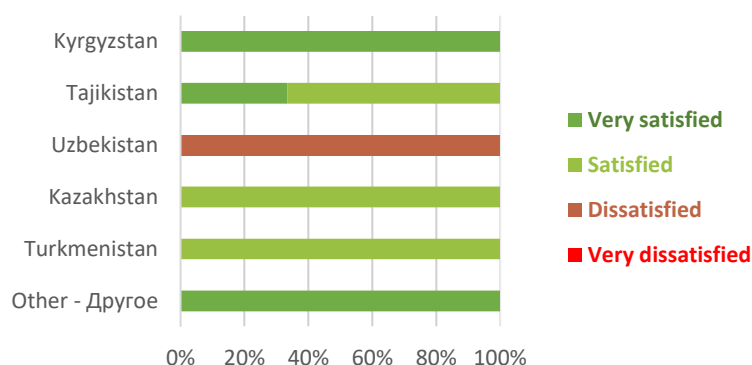
Figure 8 The satisfaction of respondents by country

Based on additional comments given by respondents, the evaluation of outcome of the event on participants and CACIP development has been analysed (Tables below). Areas for improvements were noted and took in action for further discussion.

Table 3 Outcomes of the event on CACIP and participants

Comments from respondents	Assessment
Participants recognized the **helpfulness of CACIP for the region**;	Need for CACIP has been acknowledged by stakeholders;
The **enormous work** has been done so far by **CACIP team** to develop the Platform was mentioned and **expressed gratitude by participants**;	CACIP delivered the intermediate progress to the stakeholders and it was acknowledged;
	The project activities were presented to stakeholders;
The topics from **Plenary, Presentations and Parallel sessions** were **interesting** and **in demand** for participants;	The project activities were presented to stakeholders. Acknowledgement by stakeholders for the intermediate results of CACIP;
The event **helped** participants **to enhance the awareness** of ongoing **projects in** Tajikistan and **Central Asia;**	Regional cooperation among stakeholders was enhanced and CACIP is seen as a useful tool to completement other initiatives promoted;
Participants **exchanged research knowledge** with colleagues **from Central Asia;**	Knowledge shared and partnership strengthened;
Participants **got acquainted** with **new colleagues** from the **region**;	The network of professionals towards new cooperation is enhanced**;**
Some participants received **invitations** to **cooperate** among their organizations from **the region**;	The network of professionals towards new cooperation is enhanced;
Participants expressed **interest in** receiving **periodic newsletters** about CACIP and **participate in meetings**;	The event enhanced the network for engagement for CACIP;
Respondents expressed their **gratitude** for the **organization** of the **event** and **opportunity to cooperate.**	CACIP delivered the intermediate progress to the stakeholders and it was acknowledged.

Table 4 Actions for improvement derived from respondents' feedback

Typology	For improvements
CACIP Governance	• To invite to the events the key government organizations;
	• Too short period for CACIP implementation. To consider extension of project implementation time, ex. for one year;
	• Country ownership • Organizational ownership • National consultant hiring & ToR;
CACIP Technical	• To try the demo version of the Platform by stakeholders;
Event management	• To improve the quality of interpretation, especially for Presentations;
	• To organize online conference;
	• To organize discussions, rather than seminars;
	• To send topic related documents in advance to be prepared for discussions;

	• Short time for discussions and experience exchange. To consider longer engagements, ex, two days;
	• To have less presentations for one day event;
	• To invite to all events of CACIP;
	• To add emails for future newsletters/updates about CACIP.

Photo messages[1]

Central Asia CLIMATE PORTAL

Figure 9 Snapshots from preparations

Figure 10 Discussions

Figure 11 Presentations, Interviews, Group photo

Annex 1 Agenda

Agenda
Joint workshop event of Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB) and Cost of Environmental Degradation (CoED) (RESILAND)

Hotel Tajikistan, Dushanbe, September 27, 2019

TIME	AGENDA ITEM	PRESENTER
9:00 9.30	– Registration	
Chair – Saidumron Abdurahmonzoda, Committee of Environmental Protection **Co-chair – Tanzila Ergasheva, Tajikistan Academy of Agricultural Sciences/Institute of Agricultural Economics**		
9:30 10.00	– Opening and welcoming speech - Committee of Environmental Protection - Tajikistan Academy of Agricultural Sciences - World Bank - CAREC/WB CAMP4ASB project - ICARDA	Anvar Homidov Tanzila Ergasheva Jan-Peter Olters Saltanat Zhakenova Ram Sharma
10.00 11.00	– Overview of World Bank / CAREC / ICARDA in the region - CAMP4ASB - Innovative Cluster in Tajikistan - RESILAND and CoED	Saltanat Zhakenova Vaysidin Saidov Aidai Bayalieva
11.00 11.30	– Central Asia Climate Information Platform (CACIP): Introduction and highlights of country consultations	Enrico Bonaiuti Akmal Akramkhanov
11.30 12.00	*Group Photo* *Coffee break*	
12.00 13.30	**Ecosystem Services Evaluation and Economics of Land Degradation**	
	- Environmental Degradation: Introduction and Approach	Yigezu Yigezu Akmal Akramkhanov
	- Soil Research Institute	Sh. Aminov
	- Technology Based Adaptation to Climate Change in Rural Areas of Tajikistan and Kirgizstan - Economics of Land Degradation	Peter Gross Rahmon Shukurov
	- The introduction of an ecosystem services concept in Central Asia: CAREC experience	Saltanat Zhakenova
	- World Overview of Conservation Approaches and Technologies (WOCAT) Overview	Godert van Lynden
13.30-14.30	*Lunch break*	
14:30 15:00	- Climate Information Platform: demo-visual examples	Simone Maffei Chandrashekhar Biradar Aya Mousa
15.00 16.00	**Parallel Sessions**	

	CACIP Governance – Managing the platform	Enrico Bonaiuti, Kanoatkhon Umurzokova
	CACIP Technical – System Conceptual Architecture	Chandrashekhar Biradar, Simone Maffei
	ELD Environmental Economics – discuss approach to estimate costs of environmental degradation	Yigezu Yigezu, Akmal Akramkhanov
16.00-16.30	*Coffee break*	
16.30 17.00	Continuation of Parallel Sessions	
17:00 18:00	Plenary Restitution Wrap up summary and closing of the workshop	Chair: Saltanat Zhakenova Co-Chair: Ram Sharma
19:00 21:00	Reception Dinner –Restaurant Bukhara **The Shuttle bus departure time: 18:45**	

Annex 2 List of participants

Regional consultation
27 September 2019, Dushanbe Tajikistan

Personal Data have been removed in Accordance with the EU General Data Protection Regulation (EU GDPR).

Annex 3 Minutes Plenary sessions

Minutes Plenary session
Regional Consultation on the Establishment of the Central Asian Climate Information Platform

27 September 2019

Venue: Tajikistan Hotel, Dushanbe

The Regional Consultation Workshop on the Establishment of the Central Asian Climate Information Platform (CACIP) was organized in Dushanbe, Republic of Tajikistan, on 27 September 2019. About 70 participants attended the meeting. The representatives of hydrometeorological services, academies of agricultural sciences, ministries of state of emergency, agriculture, health and social protection, economy and finance, water resource management, energy, agricultural universities, committees of ecology and environmental protection, associations of farmers, research institutes, non-governmental organizations from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as well as the representatives from the international development and donor organizations.

The purpose of the workshop was to summarize the outcomes and results of discussions took place during the national workshops in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan and to identify the priority areas of the platform.

Opening session

Mr. Anvar Khamidov, Representative of the Committee of Environmental Protection of the Republic of Tajikistan opened the meeting and welcomed the participants on behalf of the Committee.

Climate change issues concern a wide range of relevant ministries and agencies of the Central Asian countries, decisions on climate change adaptation and mitigation most often fall under the responsibility of state environmental protection authorities.

Further he informed about the activities on climate change adaptation and measures being taken in Tajikistan. The impact of climate change on the environment is well seen and noticeable in the region, and adaption measures are of top priority, especially for remote and vulnerable areas of the country.

The Committee is working closely with the Green Climate Fund and there are five projects approved and being implemented in Tajikistan as follows:

1. Institutional Development of the State Agency for Hydrometeorology of Tajikistan;
2. Building Climate Resilience of Vulnerable and Food Insecure Communities through Capacity Strengthening and Livelihood Diversification in Mountainous Regions of Tajikistan;
3. Tajikistan: Scaling Up Hydropower Sector Climate Resilience;
4. GCF-EBRD Sustainable Energy Financing Facilities;
5. Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB).

Tajikistan signed the Paris Agreement in 2016 and ratified it in 2017.

At present, the National Development Strategy of the Republic of Tajikistan until 2015 was implemented. At the time of preparation of the Intended National Determined Contribution, the National Development Strategy of the Republic of Tajikistan (2030), National Climate Change Adaptation Strategy and other sectoral strategies were developed.

There is the national action plan formulated to implement the abovementioned strategy and he hopes the establishment of climate change information platform will also contribute to its implementation.

In conclusion, he underlined the importance of timely implementation of climate adaptation and mitigation measures in ensuring food security in the region and wished the participants a successful and constructive meeting.

Dr. Tanzila Ergasheva, Scientific Secretary, the Tajik Academy of Agricultural Sciences (TAAS), welcomed the participants on behalf of the Academy as the hosting country's representative and ICARDA's NARS partner in the country.

She expressed her gratitude to the representatives of CAREC, ICARDA and World Bank attending the event and briefed participants about the Academy's activity.

TAAS is the state-supported scientific and coordination institution of agrarian science in Tajikistan. Established in 1991, TAAS coordinates national agricultural research and extension services in various fields of agriculture, including agricultural policy and food security. TAAS is comprised of six national research institutes in agriculture, horticulture, soil science, animal husbandry, veterinary science, and agricultural economics. TAAS promotes development of new varieties and breeds for crop and livestock production, conservation and sustainable use of genetic resources, and adaptation of technological developments in farming practices, and conducts research in agricultural economics and food security.

There are 488 scientific staff members, 30 doctors of science, 122 PhD holders, 8 academicians, 7 corresponding members in the Academy.

Speaking about the CACIP she said climate change is one of the biggest threats to our lives, our future and our world, and creation of the platform is the demand of the time. With a help of the platform, its users whoever they are, will get updated and relevant information and data on climate change matters, increase their awareness, and be prepared and ready how to act and take necessary adaptation and mitigation measures in the region.

Concluding her speech, she wished participants of the meeting to have a constructive discussion and an enjoyable stay in Dushanbe.

Mr. Jan-Peters Olters, Country Manager for Tajikistan and Turkmenistan welcomed the participants on behalf of the World Bank and thanked the organizers for the invitation to the event.

In his speech he pointed out that economy of Tajikistan depends on climate conditions. There are many challenges and problems in the world but these days climate change is becoming a very serious issue.

The development objective of the Climate Adaptation and Mitigation Program for the Aral Sea Basin Project for Central Asia (CAMP4ASB) is to enhance regionally coordinated access to improved climate change knowledge services for key stakeholders (e.g., policy makers, communities, and civil society) in participating Central Asian countries, as well as to increase investments and capacity building that, combined, will address climate challenges common to these countries.

This project is very successful and he hopes that it will strengthen regional cooperation in terms of coping with climate change.

Ms. Saltanat Zhakenova, Specialist of the CAMP4ASB project, CAREC, welcomed the participants of the workshop and stressed the importance of climate change information and access to it. To make informed decisions about climate change, policymakers will need timely and useful information about the possible consequences of climate change, people's perceptions of those consequences, available adaptation options, and the benefits of slowing the rate of climate change.

She said there are many infrastructure projects in the field of agriculture, water management and ecology across the region and it would better to keep and accumulate the results of those projects in the platform. The platform is being developed by ICARDA. And today ICARDA team will familiarize the participants with results of their six months work that has currently been done.

Dr. Ram Sharma, Regional Coordinator, ICARDA-CAC, welcomed the participants and presented a brief overview of the ICARDA's activity Central Asia and the Caucasus.

ICARDA is one of 15 research centers of the CGIAR. It is an international organization undertaking research-for-development and provides innovative, science-based solutions for communities across the non-tropical dry areas. In partnership with research institutions, NGOs, governments, and the private sector, ICARDA advances scientific knowledge, shapes practices, and informs policy.

He briefed the participants about the major achievements of ICARDA together with the CGIAR centers in the region in the areas of genetic resources and crop improvement, crop diversification, water management, socioeconomics, livestock improvement and rangeland, geo-informatics, knowledge management.

He concluded his speech by summarizing the major challenges ahead, such as ever-degrading natural resources, negative impact of climate change, poor seed production system, low diversification of farming-systems, weak public-private partnerships and lack of trained young specialists in research institutions.

Overview of World Bank, CAREC and ICARDA activity in the region

Ms. Saltanat Zhakenova made a presentation on the Climate Adaptation and Mitigation Program for the Aral Sea Basin Project for Central Asia (CAMP4ASB).

The project comprises three components. The first component, regional climate knowledge services, will provide technical assistance, as well as minor civil works, goods (including software and equipment), and training, at both the regional and national levels, to develop a unified, integrated regional analytical platform for climate-resilient and low emission development, with improved data, information, knowledge, and decision-support tools. The second component, regional climate investment facility, will provide technical assistance and facilitation support to plan, implement, and manage climate investments. The second component consists of following two sub-components: (i) investment financing; and (ii) capacity building and community support. The third component, regional and national coordination consists of the following two sub-components: (i) regional coordination; and (ii) national coordination. Budget is as follows: Component 1 and Sub-Component 3.1: $15 million. Component 2: Tajikistan: $9 million, and Uzbekistan: $14 million.

Mr. Vaysidin Saidov presented information on Creation of the Cluster of Innovations and Scientific Research on IWRM on the basis of the Department of Reclamation of the Tajik Agrarian University named after Sh. Shotemurov. The

Cluster objectives: Improving the quality of knowledge and the potential of faculty, doctoral students, graduate students, PhD doctors, masters and bachelors through the use of innovative technologies; Training of highly qualified specialists in the field of IWRM; Attracting students, masters and researchers from foreign countries for cooperation in the field of education and science.

Ms. Aidai Bayalieva from the World Bank shared information about new initiatives such as 30x30 challenge that was recently launched in New York. This initiative is aiming to bring 30 mln ha of degraded and deforested land into restoration by year 2030, particularly in the Europe, Caucasus and Central Asian countries. New initiative Resilient Landscapes Program (RESILAND) is to disseminate resilient and sustainable restoration practices across the Central Asian region. RESILAND consists of 2 parts: first component is technical assistance to restore landscapes and credits for innovations; second component supports investment projects focusing on forest plantations, agroforestry and alternative livelihoods, as well as engineering solutions to protect from climatic shocks and calamities.

Tajikistan is planned as the first country to receive investments by 2021 for infrastructure projects. Assessment of losses from natural disasters and land degradation was conducted around 10 years ago, it was estimated to equal 8% of GDP. However, environmental degradation previously was not accounted for and assessed. Therefore, this study to assess costs of environmental degradation is launched In Tajikistan.

Plenary Restitution
Feedbacks
- All Central Asian countries took an obligation to fulfill the Paris Agreement. It is difficult to do. It deals with greenhouse emission mitigation, adaptation, and finance, signed in 2016. Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. Will it be with support or without?
- The platform does not cover the following:
  - Sanitary and technical conditions of sewage treatment facilities;
  - Physical and chemical composition of soil and water (transboundary);
  - Data on infectious diseases considering climate change;
- If it is the platform of knowledge, then it should have relevant technologies (database). Greenhouse emission is not covered;
- There are two languages: English and Russian and Central Asian national languages should be taken into consideration. Farmers do not know English or Russian. Therefore, national languages should also be working languages of the platform. Knowing the right terminology is also crucial too;
- We have to discuss the memorandum in detail. Are we legally authorized to sign it? Representatives from participating countries should agree it with their authorities/governments. The Russian version of the memorandum should be distributed among the stakeholder to discuss it with their top officials. Without consent by governments the platform cannot be operational, since there will be open, paid and confidential data/information. Also, we must identify what organization can manage or own the platform in order to keep it operational and sustainable;

- It is necessary to include technologies collected in CA countries in the platform. The platform should provide access to results and achievements of the implemented and ongoing projects in the region;
- Sustainability of the platform is a critical issue. No main users, who will they be? How will the platform look like? Who will this platform be designed for?
- Nobody will provide Information on soils and cadaster. It is difficult to obtain it. Need to think how to solve this issue;
- One day is not enough to discuss this important issue so time for consideration has to be extended to cover all platform related issues. It was recommended to send the questionnaire to key stakeholders to get answers to unclear and unanswered questions;
- The platform concepts should be revised and reviewed. Need to study legislative and regulatory acts to have the platform comply with them;
- Educational and scientific information to be in the platform. Data on prevention of soil erosion and degradation. The Tajik Agrarian University has all reports of implemented projects in the library. Project result summaries may be included in the platform;
- The first draft version of the platform should be discussed with key stakeholders. Please send presentations and list of participants in Russian.

Annex 4 Notes of Parallel sessions

Annex 4.1 Governance

Minutes of parallel session
CACIP Governance – Managing the platform

CACIP Team:
Enrico Bonaiuti – CACIP Team leader, ICARDA
Kanoatkhon Umurzokova – Research Fellow, ICARDA
Saltanat Zhakenova – Climate Change specialist CAREC

Participants:
Alim Pulatov - CASCADE (Central Asia and South Caucasus Consortium of Agricultural Universities for Development)
Nadejda Gavrilenko - Uzhydromet
Botir Kurbanov - IFAS
Malika Mirshamalova - Uzhydromet
Hukumatsho Sharipov - Committee for Environmental Protection under the Government of the Republic of Tajikistan
Fayzali Salimov - Ministry of Health and Social Protection, Tajikistan
Yerkanat Iskakov - Kazhydromet

Approval of Minutes
The minute has been distributed by email. Nadegda Gavrilenko provided descriptive text for her part of speech, which has been replaced for current version of the minute. No further action is required.

Action items
- To launch consultations on Memorandum of Understanding
- Stakeholders to discuss the MoU with management and respond within terms of online public consultation.
- To send CACIP public deliverables to participants.
- The feedbacks, which had been given during the discussion are compiled into the sections in Feedbacks dedicated to the Parallel session.

The meeting has been opened by Enrico Bonaiuti by introducing main points to be discussed in this parallel session, that is expected to get feedbacks from participants on management of CACIP. He explained, there were 5 country consultations by now, the recent was held in Turkmenistan. CACIP team collected feedbacks from local stakeholders on governance of CACIP. Today parallel session is for further feedbacks from participants.
Saltanat Zhakenova proposed to give 2 weeks for protocol feedbacks. It was agreed to send minutes to participants and give 1-week time for feedbacks. Botir Kurbanov from IFAS proposed that participants discuss the minutes of the meeting with their management and give feedbacks.

The discussion began on paid and unpaid data, the ownership and management of servers. Enrico Bonaiuti talk about differentiation of management and ownership. Technically explained, the data is in another place, harvested. Duplication should be avoided when possible. Both metadata and data, when harvestable, can be

taken. Ownership remains where the source is. Platform do not create new knowledge. If there is open source data, there is no problem to harvest it. If the data is not open source, but has metadata, it is also possible to harvest. Hydromet has open metadata. CACIP will harvest metadata. No conflict on ownership. Several cloud infrastructures will be used. Platform will help to store data, if their server fails. Maybe they do not have capacity. It will be beneficial to have the platform.

Alim Pulatov proposed to discuss the data, which is not available for public, and cannot be bought. Enrico Bonaiuti mentioned that CACIP will work with open harvestable data. Alim Pulatov highlighted the importance of discussing the paid and not paid, unbuyable data. Local stakeholders need data: scientists, teachers. As 1st step, CACIP can begin with open data, modis etc, international open access data. CACIP should focus not only climate data. Step by step local stakeholders should solve problems. Alim Pulatov invited in mid-October to the opening of the Center, TIAME and Ministry financed it. Hydromet is doing it in parallel. He proposed to cooperate.

The next topic for discussion was on institutional management of CACIP. Enrico Bonaiuti explained that there are 3 levels: national, regional, international organizations. There was a proposal that one organization could manage in all levels. However, that may not be good for long term. It creates less commitment from other institutions. Consortium of organizations, which have capacity and technical knowledge to manage such platforms. Enrico Bonaiuti further gave an example from Godert van Lynden's presentation held in the morning. The WOCAT approach. WOCAT has management clusters by database management, capacity development, networking, which rotate periodically. WOCAT is consortium, where responsibilities are rotated. Organizations with different capacity work together. It was created by Swiss, and their experience can be learned.
Another example was given from CGIAR experience. It is managed by 4 legal institutions, located in Malaysia, Jordan etc. Federate into CGIAR. 2 organizations have technical team and developers. Every two years they rotate and review each other. Not all organizations have technical capacity in Central Asia, maybe not feasible to rotate. But responsibilities can be shared.

Nadezhda Gavrilenko from Uzhydromet noted the seriousness of the issue, data openness lies in the fact that the main holders of climate information, both climate data and data from related sectors of the economy (greenhouse gas emissions, water and agricultural resources, health, etc.) are state organizations. Therefore, it is necessary to solve administrative issues on the management of CACIP, to take into account the regulatory and legal capabilities of the Central Asian region. At the previous seminar we talked about this. In an example of Uzbekistan, CACIP can show what is the benefit there for the state to cooperate with the platform. The instrumental capabilities of CACIP could contribute to the development of the technical and personnel potential of the organization. this can be motivation to work with platform. Nadezhda Gavrilenko expressed her opinion she would want both parallel meetings to be joint.
She gave an example, as part of a World Bank project, Uzhydromet purchased supercomputer to install the Cosmo module, designed to timely forecast severe weather conditions in Central Asia. Not every country in Central Asia has permission to use cloud masses for free data exchange. As mentioned before, it is important that the regional organization consider the national capabilities of each Central Asian country. She gave insights from her experience, when she

participated in the climate knowledge and services needs assessment activities of the CAMP4ASB project. She believes the platform should be not be only for specialists., as they already know where to get the data. The platform is also intended for ordinary users. Not only the weather data must be in the platform, but also good adaptation practices and explain about climate change. She proposed to include in CACIP not only data, but also analytical information. For example, this summer was extreme in temperature in the region. It would be useful to know what mitigation measures had been taken by states.

Botir Kurbanov form IFAS had mentioned an importance of having memorandum, registered document. There must be legal agreement with state organization in order to receive their data. He also raised a question on sustainability and financing.
The discussion has been continued by Saltanat Zhakenova proposing that operational framework would need time to develop. Ms. Zhakenova explained that during inception of CACIP they came with 4 themes: primary data, maybe you don't need, but for scientists, business it is relevant. 2nd is knowledge, modules, trainings. 3rd is expertise. 4th is related to knowledge.
It was agreed that participants to give feedbacks to CACIP deliverables.

The next discussion was on MoU of CACIP. Nadejda Gavrilenko asked to send the document after the event and they should discuss with lawyers.

Enrico Bonaiuti explained the timeline. September - October we have for feedbacks. 1st task was to share CACIP activities through this event, another 2 months CACIP team will get feedbacks. There are 13 different documents. Participants not attended previous country consultations asked to send them CACIP deliverables for review and discussion with their management.
The meeting has been finished by Enrico Bonaiuti expressing his thankfulness for feedbacks.

Annex 4.2 Technical

Minutes of parallel session
CACIP Technical – System Conceptual Architecture

CACIP Team:
Chandrashekhar Biradar– Head, Geoinformatics Unit, ICARDA
Rustam Ibragimov – Deputy Head, ICARDA Representative Office, ICARDA
Simone Maffei – Technical Documentation Specialist, iMMAP
Aya Mousa – Junior Documentation Specialist, iMMAP

Participants:
Bekjan Mamytov – Director, iMoMo Center Kyrgyzstan
Temur Aliev – Deputy Director, Tebigu Kuvvat Civil Society Turkmenistan
Ivan Belikov – Deputy Head, Information Department, SIC ICWC Uzbekistan
Eldar Temirkhanov – Expert, CAREC Kazakhstan
Elaman Mambetaliev - Central-Asian institute for Applied Geosciences

Approval of Minutes
The minute has been distributed by email. Bekjan Mamytov provided descriptive text for his part of speech, which has been replaced for current version of the minute. There was received a suggestion from non-attendant Solijon Mirzoev, to consider issues of people, who *"…do not have access to the Internet and do not have the ability … to download information from internet".* While it has been observed that farmers community may not have access to internet or knowledge on the usage, the platform should ensure that material suitable for improving farmers livelihoods is available and downloadable by champion farmers or intermediary institutions such as extension departments and NGOs.

Action items
- To send the minutes of Governance session
- The feedbacks, which had been given during the discussion are compiled into the sections in Feedbacks dedicated to the Parallel session.

Simone Maffei opened the technical session by welcoming participants, asking participants to introduce themselves. He then explained the objectives of this session and went on to listen to suggestions and recommendations by the participants.

Eldar Temirkhanov (expert of CAREC) said that CAREC suggests including a payment system in the platform. Whether would it be the donation or other ways of the payment (Mastercard, Visa card, Yandex)? However, in any case this system should be introduced: there should be the simple payment methods. Ivan Belikov (SIC ICWC representative) asked more clarifications regarding payment: We have to identify what is free and what should be paid for. Reply from Simone Maffei was that CACIP is a donor-funded project and the content harvested and provided by the platform should be free of charge. In any case, it is technically doable to introduce payment method, but first of all, the administrative and institutional issues ought to be solved. The results of the session dedicated to the CACIP Governance may give some light to this question. This issue is very important and

has to be worked out, depending on who will manage and own the platform. Ivan Belikov stated: it is easier to purchase data from a data source owner (e.g. Hydromet). Not knowing the institutional framework, it is difficult to say something about the technical side of the platform. Types of users should be known, some of them is able to pay for data and others cannot do it. The platform is designed also for farmers and they may not have credit cards to pay for it. Farmers need maps, weather forecast and other data related to water and soil issues.

Another topic of discussion was about the validation of data and contents. Aya Mousa explained that the system is not being developed to store all data/information and it is mainly based on managing metadata: then it is not storage oriented. The portal keeps the reference to the original source, acts as "viewer" of external data and, in some cases, redirects the users to the source of information. Who will update data/information? The most part of data/contents are added (i.e. harvested) automatically. There will be a small processing engine. In this case, how to assess the quality of data/information, validation of them? Simone Maffei also explained: the platform will include a 'like' and 'dislike' tool, to involve users in a "social" validation process. Hence, the system will not be able to check data validity but will rely on the data source.

Another question raised was whether there will be blocking systems on data/contents? Will information be filtered for different types of users?
The reply from Simone Maffei was: all users have the same opportunities to access the data, and all data/contents are available for everyone. Some special pages will be introduced in the platform to make easier to access to a "subset" of information and tools to specific users (for example decision makers, farmers), but this does not mean that the "others" information will be not available/accessible. These special pages are only a shortcuts to some information, in which the system will enable data filter based on user interest.

M. Ivan Belikov asked how the platform will handle statistical data, articles, and publications. There is a huge dataset and how visualization of data will be done? Chandrashekhar Biradar explained how is possible to do in the platform, a map viewer to display and use big sets of geographical data coming from different sources on the fly, without the need to permanently store in the CACIP server. Aya Mousa also explained that the platform will handle data parking for visualization purposes, and once finished, data will be freed from CACIP servers. Statistical data will be displayed in tabular format, which is one of data visualization charts the platform will support.

The final question touched the issue of the platform's language. Bekjan Mamytov proposed a 2 + 1 format, which means the main languages are English and Russian + (Kyrgyz, Tajik, Kazakh, etc.). He thinks that information will be very useful and relevant if it is in the native language, for example in Kyrgyzstan it is Kyrgyz.

CACIP will start with these two languages, and the possibility to have some specific pages in more languages will be evaluated.

The first draft of CACIP platform will be ready by the end of this year.

At the end of the session, Ivan Belikov underlined that the discussion would completely cover the technical issues of the platform, once the results of the discussion of another group are finalized. Consequently, the work on the technical side of the platform can be continued.

Annex 5 Deliverables - links

- Press release EN RU

- Brochure EN RU

- Roll up Banner EN RU

- MOU EN/RU

- Stakeholder consultations. Brief summary EN RU

- Presentations

№	Presenter(s)	Presentation title	Links	
1.	Ram Sharma	ICARDA in Central Asia and the Caucasus	EN	RU
2.	Simone Maffei, Chandrashekhar Biradar, Aya Mousa	Central Asia Climate Information Platform: An Innovative Approach	EN	RU
3.	Godert van Lynden	Soils and Climate Change. ISRICs Contribution to Climate Change Adaptation and Mitigation	EN	RU
4.	Godert van Lynden	Evidence-Based Decision Support. What can WOCAT offer?	EN	RU
5.	Saltanat Zhakenova	The introduction of an ecosystem services concept in Central Asia: CAREC experience	EN	RU
6.	Saltanat Zhakenova	Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB)	EN	RU
		Climate change in Central Asia Video		RU
7.	Vaysiddin Saidov	Creation of the Cluster of Innovations and Scientific Research on IWRM on the basis of the Department of Reclamation of the Tajik Agrarian University named after Sh. Shotemurov	EN	RU
8.	Rahmon Shukurov	Economy of land degradation in the Republic of Tajikistan (Fayzabad district)	EN	RU
9.	Enrico Bonaiuti, Akmal Akramkhanov	Central Asia Climate Information Platform	EN	RU
10.	Peter Gross	Technology based Climate Change Adaptation in rural Areas of Tajikistan and Kyrgyzstan (TCCA-RA)	EN	RU
11.	Sharif Aminov	Cost-effectiveness of erosion control measures on sloping lands	EN	RU
12.	Yigezu A. Yigezu, Akmal Akramkhanov, Tanzila Ergasheva and Ram Sharma	Measurement of the Costs of Land Degradation in the Mountains of the Republic of Tajikistan	EN	RU

Annex 6 Questionnaire of Satisfaction survey

Вопросник участника Регионального Семинара Душанбе

Survey on Regional joint workshop in Dushanbe 27.09.19

Fields marked with * are mandatory.

Уважаемый участник,
Регионального семинара Центрально-Азиатской климатической информационной платформы, состоявшегося в городе Душанбе (Таджикистан) **27 сентября 2019 года**. Мы будем признательны, если Вы ответите на несколько вопросов указанных ниже. Это поможет нам в развитии наших встреч в дальнейшем.
Спасибо за Ваше участие!

Dear respondent,
thank for attending the **Regional joint workshop of Central Asian Climate Information Platform (CACIP)** held on **27 September 2019** in Dushanbe, Tajikistan.
We would be grateful if you could invest a few minutes to answer the questions below and leave any feedback that will help developing our meetings further.
Thank you for your contribution!

* Имя

First name

* Фамилия

Last name

* Эл. почта

E-mail
Пожалуйста напишите дважды

* Выберите свою страну

Select your country
- ○ Uzbekistan
- ○ Tajikistan
- ○ Kazakhstan
- ○ Turkmenistan
- ○ Kyrgyzstan
- ○ Other - Другое

* Если другое
If Other

33

* Категория

Category
- ○ Академия - Academia
- ○ Финансовые институты (включая фонды) - Financing Institutions (including Foundations)
- ○ Государственное агентство - Government Agency
- ○ Международная организация - International Organization
- ○ Совместное предприятие - Joint Venture Institution
- ○ Национальные службы сельскохозяйственных исследований и распространения знаний - National agricultural research and extension services
- ○ Неправительственная организация - Nongovernmental Organization
- ○ Частный сектор - Private Sector
- ○ Региональные и субрегиональные организации - Regional and sub-Regional Organizations
- ○ Фермер - Farmer
- ○ Другое - Other

* Организация

Name of employer

[   ]

* Участвовали ли Вы в предыдущих мероприятиях CACIP?

Have you attended previous meetings of CACIP?
- ○ Да   ○ Нет
    Yes   No

Если "Да", пожалуйста, укажите в каком

If "Yes", please specify

[   ]

Какие **сессии** были наиболее интересны?

Which **sessions** were the most interesting?

Возможны несколько ответов
Multiple answers possible

	Да Yes	Нет No
* Пленарное Plenary	○	○
* Презентации Presentations	○	○
* Паралельные сессии Parallel sessions	○	○

Какие **темы** были наиболее интересны?

Which **topics** were the most interesting?

Возможны несколько ответов
Multiple answers possible

	Да Yes	Нет No
* Обмен опытом Experience exchange	◎	◎
* CACIP Технические аспекты CACIP Technical	◎	◎
* CACIP Управление CACIP Governance	◎	◎
* Деградация земель Land degradation	◎	◎
* Другое Other	◎	◎

Если "Другое", пожалуйста, уточните

If "Other", please specify

Какие мероприятия семинара послужили знакомству с участниками\организациями?

Which activities did help you to get acquainted with participants/organizations?

Возможны несколько ответов
Multiple answers possible

	Да Yes	Нет No
* Пленарное Plenary	◎	◎
* Презентации Presentations	◎	◎
* Паралельные сессии Parallel sessions	◎	◎
* Перерывы на кофе Coffee break	◎	◎

• Гала-ужин Reception dinner	○	○
• Другое Other	○	○

• Если "Другое", пожалуйста, уточните

If "Other", please specify

	Да Yes	Нет No
• Были ли **сессии о CACIP** полезными для Вашей работы? Were **CACIP sessions** useful for your work?	○	○
• Были ли полезными сессии по **"Оценка потерь, связанных с** **деградацией окружающей среды"** для Вашей работы? Were sessions on **Cost of Environmental Degradation** useful for your work?	○	○

• В целом, насколько Вы удовлетворены встречей?

Overall, how satisfied are you with the meeting?

○ Очень   ○ Удовлетвор   ○ Неудовлетвор   ○ Очень
удовлетворены   ены   ены   неудовлетворены
Very satisfied   **Satisfied**   **Dissatisfied**   **Very dissatisfied**

Ваши предложения
Your suggestions
5000 character(s) maximum

* Какой предпочитаемый способ общения с вами?

What is the preferred mode of communication with you?

☐ E-mail   ☐ Linkedin   ☐ Facebook   ☐ Не применимо
                                              Not applicable

☐ Telegram   ☐ Whats app   ☐ Skype   ☐ Другое
                                            Other

* Если "Другое", пожалуйста, уточните

If "Other", please specify

* Укажите контакты по выше выбранному

Give us your contacts according to above selected

Не забудьте добавить Код страны
Please give country code

* Укажите контакты по выше выбранному

Give us your contacts according to above selected