



Central Asia
CLIMATE PORTAL

CACIP platform

Stakeholders Consultation Report, Tajikistan



Dushanbe, Tajikistan
July 15, 2019





Project: Central Asia Regional Climate Information Platform.

The main objective is the development a Central Asia Regional Information Platform which will help stakeholders to access, analyze, 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 (including time series and spatial information) from global, regional, and local sources, provide analytical tools and interfaces for the visualization and interpretation of data and information (e.g. mapping tools to layer data and map hotspots and areas at risk, screening tools, etc.).

For more information, please visit:

<https://mel.cgiar.org/projects/cacip>
www.CentralAsiaClimatePortal.org

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Introduction

Central Asia Climate Information Platform (CACIP) will help stakeholders to 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 (including time series and spatial information) from global, regional, and local sources, provide analytical tools and interfaces for the visualization and interpretation of data and information (e.g. mapping tools to overlay data and delineate hotspots and areas at risk, screening tools, etc.).

Consultation process with stakeholders in conceptualising CACIP is important and were planned as part of approach to develop the platform. The following national workshops (Annex 1) were planned and conducted in Central Asian countries:

- June 11, 2019 – Tashkent, Uzbekistan
- June 14, 2019 – Almaty, Kazakhstan
- July 11, 2019 – Bishkek, Kyrgyzstan
- July 15, 2019 – Dushanbe, Tajikistan
- September 9, 2019 – Ashkhabad, Turkmenistan

On 15 July, 2019 the initiative was also promoted on the Civil Initiatives Support Fund (Tajikistan) both in [Russian](#) and [English](#).

On 17 July, 2019 the Eco Movement of Uzbekistan promoted the consultation conducted in Tajikistan with reference available here: <http://eco.uz/ru/novosti/10007-sozdaetsya-tsentralno-aziatskaya-klimaticheskaya-informatsionnaya-platforma>.

ICARDA has also promoted the event both in English and Russian language on its regional site with references available here: <http://cac-program.org/news/detail/544> and <http://cac-program.org/ru/news/detail/545>. The workshop material has been published on ICARDA interoperable repository with reference available here: <https://dx.doi.org/20.500.11766/10164>.

Objectives of the workshop

The overarching objectives of the CACIP were to set the scene and discuss about the platform with stakeholders (list of invited organizations and participants in Annex 2) with following objectives:

- Brief introduction of the project and platform;
- Discuss platform concept, design framework and main building blocks;
- Assess the needs of the platform and its application from the end user's segments;
- Assessment of data and information available and possibility to have a sample for different datasets/information available to start piloting;

- Learn about needs and services expected from the platform; (what products/info/services stakeholders would like to obtain or access on the platform?)
- Participation process and sustainability plan;
- To build partnerships for collaboration and exchange of the data (list of stakeholders to develop their profile to include in CACIP in Annex 3);

Selection of the participants for consultation workshop

The stakeholders for the consultation workshop were selected with the objective of meeting the goal of the CACIP. The consultation workshop was organized with an aim at engaging those stakeholders who were directly or indirectly involved in or had interest in dealing with the effect of climate change in different ways such as environment, agriculture, health, investment, insurance, policy, research, extension and education sectors. Participants were invited from both public and private sectors as well as from donor agencies. The participants were invited to seek their inputs on the proposed CACIP and who would use and take ownership of the platform after its completion.

Multiple sources were used to identify the participants for the consultation workshop. ICARDA database of partners for Central Asia who had previously collaborated on the projects on environment and climate issues implemented in the region were included. We also approached ICARDA's focal point in the Ministry of Agriculture to identify relevant partners. In addition, CAREC coordinators made valuable suggestions in populating the list of the participants. Donor organizations in the country with interest in climate change programs were also included in the list of participants.

Results of the questionnaire



Figure 1: Stakeholders providing feedback to Project Team using questionnaire form.

As part of workshop a short questionnaire was distributed among participants to learn about their interests and expectations in different areas of climate information platform. Questionnaire is presented in Annex 4 and the major focus was on:

- information to collect from participants;
- data available, accessible or required;
- services that platform can provide;
- knowledge and analytical tools and materials that one expects to receive or to provide.

Analysis of the questionnaire

The results of the survey have been summarized and presented in tabular format. To make easier the comparison of the results between different sections, a summarized score for each question has been calculated. To calculate the “score” for each item different weights have been assigned to the answers (“0” to “no interest”, “0.5” to “some interest”, “1” to “very interested”).

The following tables present the results for each question.

How to read the table (hints useful for all sections)

Bold black values are the highest scores. **Bold red values** show the answers considered less interesting. The percentages in the first row show an aggregated “average interest” for the whole section.

Sections related to the CACIP from the USER point of view

Interest as USER of CACIP				64%
Do you think that it could be interesting if the Platform could provide a centralized access to the following information/data/services ?				
Question	Answer			Score
	No interest	Some interest	Very interested	
Documents case studies papers		9	6	70%
Training materials, best practices	1	5	9	77%
Models, tools, software	1	7	7	70%
General reports		8	4	53%
Specific bulletins	1	9	3	50%
Expert consultant services		10	3	53%
Maps (ready format)		5	9	77%
Access to spatial database (WMS, WFS, ...)	1	6	6	60%
Raw spatial data (basic spatial files)		8	5	60%
Structured databases		8	4	53%
In general, are you interested in DATA			11	73%
In general, are you interested in SERVICES			11	73%

The most interested topics are **training materials, best practices and maps**. The general interest for CACIP is high (64%).

Interest for USING specific GEOGRAPHICAL DATA				10%
Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?				
Question			Answer	
			to USE	Score
HISTORICAL DATA (TIME SERIES)				
Hydrological databases on river basins			2	13%
Climate induced natural disaster			2	13%
Historical climate variability				
• Temperature			3	20%
• Precipitation			3	20%
• Lake/reservoir levels			1	7%
• Flows			2	13%
• Evapotranspiration				0%
• Glaciers			2	13%
• NDVI, EVI				0%
• Burned areas				0%
• Fire				0%
• Soil moisture			2	13%
Climate characterization				
• Monthly temperature (avg, min, max)			3	20%
• Precipitation			4	27%
• Bioclimatic variables			2	13%
CURRENT DATA				
Temperature			4	27%
Surface temperature			1	7%
Precipitation			3	20%
FORECASTS				
Short term forecasts				
• Temperature			2	13%
• Precipitation			3	20%
• Snow water equivalent				0%
• Snow melt			1	7%
• Stream flows				0%
Seasonal weather forecasts			3	20%
Long term climate projections			1	7%

PHYSICAL CHARACTERISTICS				
Land cover				
• Cover type			1	7%
• Glaciers/snow cover			2	13%
• Cropland			3	20%
• Irrigated areas			3	20%
• Crops and crop types			1	7%
• Tree cover change				0%
Field data (such as crops, rotation)			2	13%
Soil map			3	20%
Soil carbon density			2	13%
Global aridity index				0%
Potential Evapotranspiration				0%
OTHER RELEVANT DATASETS				
Agricultural productions			3	20%
Spatial production allocation mode 2000, 2005, 2010 (SPAM)			1	7%
Land degradation and desertification			2	13%
Monitoring locations				
• Snow			1	7%
• Climate			1	7%
• Water levels			1	7%
• Flows			1	7%
• Water quality			2	13%
• Water divisions			1	7%
GENERAL DATA				
Topography			1	7%
Drainage			2	13%
Basins, watersheds, major aquifers				0%
DEM				0%
Administrative boundaries			2	13%
Basic infrastructures			1	7%
Protected areas			1	7%

The interest for geographical data seems to be quite low, but this section of the survey was at the end of the form, and also it is quite long, then it may have been penalized. In any case **the main interest concerns on meteorological data and agriculture related information** (cropland, irrigated areas, agricultural productions).

Interest for USING specific KNOWLEDGE DATA			17%
Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?			
Question	Answer		
	to USE	Score	
Publications (reports, webinars, atlases, posters, infographics, proceedings, studies)	2	13%	
SLM practices and methodologies	3	20%	
Projects on CC Adaptation Mitigation	3	20%	
News	2	13%	

The interest in knowledge base is homogeneous.

Interest for NEW PRODUCTS				56%
Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?				
Question	Answer			
	No needed	Some interest	Very interested	Score
In general	1	5	6	57%
Information summarized at regional and country level		7	5	57%
Information updated systematically		6	5	53%
Information homogeneous on the whole region		7	4	50%
Information with an advanced visualization		5	7	63%

In this section is interesting that the topic with the lowest score relates with **information at regional level** (even if the scores are quite similar). This result suggests the need to work to increase the awareness of stakeholders from Tajikistan towards cross boundaries domains.

Sections related to the CACIP from the CONTRIBUTOR point of view

In the following tables, the survey focuses on the interest of stakeholders to contribute to the CACIP platform, and the availability to become data provider of the platform.



Interest as CONTRIBUTOR to CACIP				28%
Are you available to contribute to CIP in the following ways?				
Question	Answer			Score
	Not available	Available	I don't know	
Basic user: user of the platform		7	4	47%
Basic user: join the forums		6	2	40%
Basic user: use documents and training materials		10	1	67%
Basic user: use models, tools, software		7	3	47%
Data provider: allowing the permanent upload on CIP	1	4	7	27%
Data provider: allowing live link to your published data	1	3	7	20%
Data provider: API for documents		2		13%
Data provider: WMS server		1		7%
Data provider: WFS server				0%
Data provider: API for geographical data		1		7%
Promoters: promoting the use of the CACIP among colleagues, clients, partners		8	3	53%
Promoters: do you want to promote for forum?		2		13%
Promoters: do you want to promote for documents?		5		33%
Promoters: do you want to promote for maps?		3		20%
Promoters: do you want to promote for data?		3		20%

A high interest is confirmed for the position of “promoter” of the CACIP, both using training materials distributed through the platform, and also promoting the platform among colleagues, clients, partners.

The lowest scores relate with “more technological topics” (like interoperability interfaces: WMS, ...).

Interest to be PART OF THE TEAM				55%
Do you want to contribute as an expert member or active contributor (your name/institution listed/acknowledge in the portal) ?				
Question	Answer			Score
	No	Maybe	Yes	
At individual level	1	2	8	60%
At institutional level		3	6	50%

In any case the interest to be part of the CACIP is in general high (average 55%).

Interest for PROVIDING specific GEOGRAPHICAL DATA				2%	
Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?					
Question				Answer	
				to PROVIDE	Score
HISTORICAL DATA (TIME SERIES)					
Hydrological databases on river basins				1	7%
Climate induced natural disaster				3	20%
Historical climate variability					
• Temperature			1	7%	
• Precipitation				0%	
• Lake/reservoir levels			1	7%	
• Flows				0%	
• Evapotranspiration				0%	
• Glaciers				0%	
• NDVI, EVI				0%	
• Burned areas				0%	
• Fire				0%	
• Soil moisture				0%	
Climate characterization					
• Monthly temperature (avg, min, max)				0%	
• Precipitation				0%	
• Bioclimatic variables				0%	
CURRENT DATA					
Temperature				0%	
Surface temperature				0%	
Precipitation				0%	
FORECASTS					
Short term forecasts					
• Temperature			1	7%	
• Precipitation				0%	
• Snow water equivalent				0%	
• Snow melt				0%	
• Stream flows				0%	
Seasonal weather forecasts			1	7%	
Long term climate projections			1	7%	

PHYSICAL CHARACTERISTICS				
Land cover				
• Cover type				0%
• Glaciers/snow cover				0%
• Cropland		1		7%
• Irrigated areas		1		7%
• Crops and crop types		1		7%
• Tree cover change				0%
Field data (such as crops, rotation)		1		7%
Soil map				0%
Soil carbon density				0%
Global aridity index				0%
Potential Evapotranspiration				0%
OTHER RELEVANT DATASETS				
Agricultural productions		2		13%
Spatial production allocation mode 2000, 2005, 2010 (SPAM)				0%
Land degradation and desertification				0%
Monitoring locations				
• Snow				0%
• Climate				0%
• Water levels				0%
• Flows				0%
• Water quality				0%
• Water divisions				0%
GENERAL DATA				
Topography				0%
Drainage				0%
Basins, watersheds, major aquifers				0%
DEM				0%
Administrative boundaries				0%
Basic infrastructures				0%
Protected areas				0%

A very low scores is shown for the availability (or the possibility) to provide to CACIP geographical and knowledge data (see the table below).

Interest for PROVIDING specific KNOWLEDGE DATA			5%
Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?			
Question	Answer		Score
	to PROVIDE		
Publications (reports, webinars, atlases, posters, infographics, proceedings, studies)	1		7%
SLM practices and methodologies	1		7%
Projects on CC Adaptation Mitigation			0%
News	1		7%

Sections related to general preferences and interests

The two tables below describe the interest of the participants to the surveys for some topics related to the climate change.

The scores are homogeneous. It is interesting that **the lowest score is the one of reforestation and forest protection**.

Selected FOCUSED AREAS (as BASIC USER)			36%
As a basic user (please select only one as "very interested" (main interest)			
Question	MEN		
	No needed	Some interest	Very interested
food and nutritional security		3	6
sustainable agroecosystems/mitigation		2	5
risk assessment and mapping		3	3
land degradation/desertification		3	4
reforestation/forest protection	1	1	3
climate changes/long term forecast		2	5
socio-economic impact (*)	1	3	4
smartphone services to end users	1	3	3
other...	agricultural crops sustainability		



Selected FOCUSED AREAS (as POLICY / DECISION MAKER)				31%
As a basic user (please select only one as "very interested" (main interest), and if your main interest is not mentioned, you can write your choice in "other...")				
Question	Answer			Score
	No needed	Some interest	Very interested	
food and nutritional security		1	5	37%
sustainable agroecosystems/mitigation		1	5	37%
risk assessment and mapping		2	4	33%
land degradation/desertification	1		4	27%
reforestation/forest protection		4	1	20%
climate changes/long term forecast		1	4	30%
socio-economic impact (*)		2	5	40%
smartphone services to end users		2	3	27%
other...				

Major highlights from questionnaire

In the following table, the summarized scores for each section are listed.

Interest as USER of CACIP	64%
Interest for USING specific GEOGRAPHICAL DATA	10%
Interest for USING specific KNOWLEDGE DATA	17%
Interest for NEW PRODUCTS	56%
Interest as CONTRIBUTOR to CACIP	28%
Interest to be PART OF THE TEAM	55%
Interest for PROVIDING specific GEOGRAPHICAL DATA	2%
Interest for PROVIDING specific KNOWLEDGE DATA	5%
Selected FOCUSED AREAS (as BASIC USER)	36%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	31%

Based on the stakeholder interest survey, we found that country partners are mainly interested in:

- **training materials** and **maps**, ready to be used to disseminate such information

And the most interesting information relate with:

- **meteorological data**
- **agriculture**

From the analysis of the general interest for focused areas, it is interesting to highlight that:

- **the lowest score is the one of reforestation and forest protection**

There is a good liking for the CACIP platform, and also willingness to contribute to it, even if the stakeholders available to provide data are a very small percentage.

Summary of stakeholders' feedbacks based on discussions

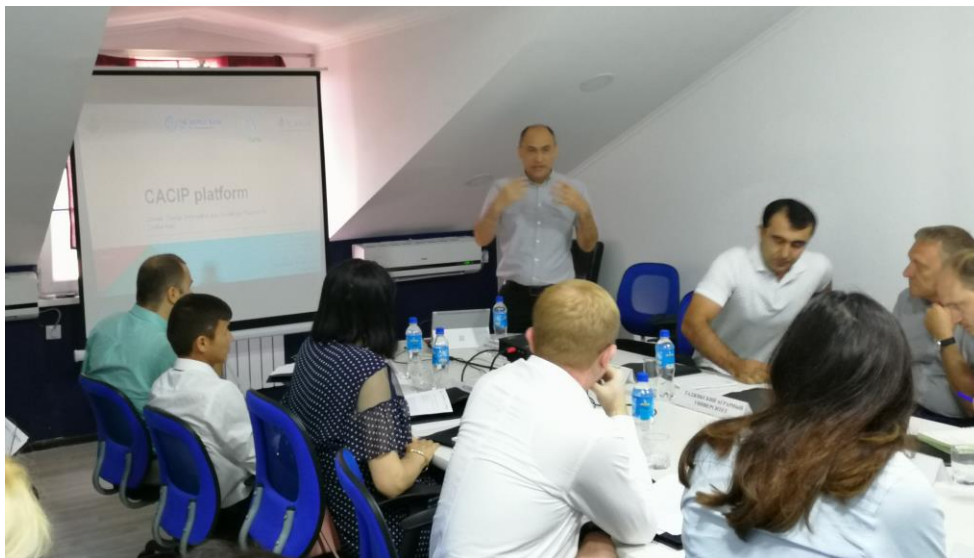


Figure 2: Stakeholders interaction with Project Team for qualitative feedback.

There were extensive discussions during the event concerning different aspects of the platform. Points raised by participants concerned organizational as well as information and data issues, provision of expertise and sustainability points. Most of the points were in line with results from questionnaire presented above. To demonstrate the full picture of mentioned issues as well as to provide extent of questions and comments the following bullets are presented below. These were helpful to capture various views together with comprehension of presented material by stakeholders.

Key areas mentioned by stakeholders are:

Content and Data Sources

1. Data provided should be accurate and reliable. Source of data should be mentioned in addition to the methodology and indicators/indices used. User should be able to rate ("like/dislike" as in social networks) the data provided.
2. The platform should define the resolution of data and include topographic data (landslide, erosion mud streams etc.). Vector files should be considered.
3. CACIP is mostly consist of climate data and information and it should cover different information (demographic, economic, social, agricultural, etc.) and have an easy access to it. For example, data on sustainable land management, greenhouse emission, carbon fund matters (comprehensive and detailed).
4. The platform is crucial and should provide information/data on climate change impact and demonstrate what is going on with Nature. We feel its impact. Glaciers are melting; water scarcity is coming so fast, rivers become shallow. Adaptation measures to be given and recommended, what to do, how to cope with this impact etc. All stakeholders and parties concerned must



have serious approach to the establishment of the platform and support it as much as they can.

5. Key areas of knowledge are related to Food Security (Agriculture) allowing incremental loading of the huge volume of information available that is now fragmented. As example it would be useful to have Governmental decisions (decrees, resolutions, and executive orders), legal documents and programs related to climate change adaptation. Many organizations are dealing with climate change adaptation such as ministries (agencies, departments) of agriculture, water management, environmental protection, meteorology, economy, finance, health as well as international and donor organizations: GIZ, FAO, ABD, WB, SDC etc. They work in different formats and shapes.

Users and Usage

1. Users in the platform should be differentiated based on their needs and their access facilitated by targeted metadata.
2. At national level it would be important to cover districts/regions.
3. Knowledge could be organized as Wikipedia (or TripAdvisor) along with the end user needs and following what is available from data producers (Ministry of Agriculture, Hydromet, and Environmental Protection Agency etc).
4. The platform should consider a scalable option to include different stakeholders' groups such as Farmers.
5. Climatic projections for the specific region could be considered in the first phase or expansion of the platform.
6. It is advisable to publish brochures, leaflets and use other means of communication to spread it among the population through the platform. Scientists will process data and information and give it to agricultural producers, WUAs and other interested users. Information and recommendation about water requirement, crop rotation, efficient water use.
7. Version for dummies to be prepared. Simplified schemes are needed.
8. No need to provide the previous analysis for the platform. It is created for agricultural producers, farmers and growers and it has to present information on what to plant, which crops under such climate conditions at the regional level. It is important to provide short-term forecast but not the analysis and inform what risks may be there. Peculiarity and specificity of ministries and agencies to be considered.
9. There should be simple interface, not only tables and charts are given, but also visualized. Forecast will not be accurate, and we cannot rely on it if given for one year.

Maintenance

1. The platform should be cloud based (AWS) and maintained in the future.
2. There is Mountain Research and Development Center at University of Central Asia in Bishkek. This organization can manage the platform. We propose FAO or GIZ to handle it. In addition, there are CAREC, Hydromet, IFAS or Committee of Environmental Protection at the Government of the Republic of Tajikistan.

3. The platform is ambitious and should have a scalable structure since it is not realistic to develop fully in one year.
4. One element is to define a Knowledge management network to be established using various websites from each organization (for example, Environmental Protection Agency etc.).
5. It is important to have an organization (ministry, committee, agency etc.) responsible for storing information/data and it has to be linked with source of information.
6. Local users have no access to internet, so the platform is to be connected with mobile companies. Android is to be considered because majority have smartphones.
7. Data should be open and free to use.

Next steps

Overall, there was great interest from participants. Most of participants expressed soonest demonstration of platform and look forward experiencing the platform to provide more feedback. Partners provided several comments; team will perform a collective synthesis with other country partners to incorporate feasible ones during development of the platform.

Project team will also set one-to-one meeting with key stakeholders not able to join the meeting focusing on Farmers and Insurance Companies.



Figure 3: Closing remarks and way forward

Annex 1 Workshop agenda

TIME	AGENDA ITEM	PRESENTER
8.00-8.30	– Registration	A. Akramkhanov
8.30-9.00	<ul style="list-style-type: none"> – Welcome and Opening Remarks – Dr. Ram Sharma, Regional Coordinator, ICARDA-CAC – Mr. Vaysidin Saidov, Director, CAREC Country Office, Tajikistan – Prof. Saidjamol Saidzoda, Vice President, Tajik Academy of Agricultural Sciences – Introduction to Central Asia Climate Information Platform and Regional Framework 	R. Ibragimov A. Akramkhanov / S. Maffei
9.00-10.00	<ul style="list-style-type: none"> – Platform Concept, Design Framework and main building blocks – Action plan, Participation and Sustainability – Q&A 	S. Maffei / A. Akramkhanov
10.00-10.30	– Informative Survey on current situation on Data and Information.	Facilitated by A. Akramkhanov
10.30-11.00	<i>Coffee break</i>	
11.00-12.00	<ul style="list-style-type: none"> – Workgroup “Partners’ Requirements and Data contribution” <p>Partners are organized by the focus areas resulting from the previous sessions.</p> <p>Time is dedicated to group discussion about:</p> <ol style="list-style-type: none"> 1) “What do we know, and what scientific information have to be available via information Platform for usage in policy making processes at national level and/or in decision making at local level” 2) Main formats/channels to share knowledge (e.g. SMS, MobApp, Telegram, mobile version of web-site) 3) should knowledge be free or paid? Do you have existing examples? <p>Summary of discussion will be consolidated by the team rapporteur.</p>	Facilitated by A. Akramkhanov
12.00-13.00	<ul style="list-style-type: none"> – Plenary Restitution – Q&A 	Facilitated by A. Akramkhanov
13.00-14.00	<i>Lunch break</i>	
14.00-14.45	– Stakeholder profiling	
14.45-16.30	– One-to-One meeting (based on participants interest indicated inside the previous “Informative Survey”)	S. Maffei

Annex 2 List of invited organizations and participants

A total of 23 participants (30% female) out of 30 attended the consultation. Typology of stakeholders encompassed NARS, Ministries/Government Agencies, Financial Institutions/Aid Agencies, Nongovernmental Organization and International Organizations.

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



Annex 3 Stakeholder profiles

The following stakeholder profiles were partly filled with some information. These and other stakeholder profile information will be further collected and filled as per template agreed with CAREC.

Youth Ecological Centre

Main activities of the Centre is to promote good practice and technology of sustainable of land and water resources management, climate change adaptation practices to increase sustainability to climate change of local communities and farmers.

Tajik Academy of Agricultural Sciences

Tajik Academy of Agricultural Sciences is a self-governed state scientific organization of the Republic of Tajikistan, dealing with issues of planning, coordination, scientific and methodical management of development of important fundamental and applied research in agriculture, increasing the efficiency use of scientific achievements and training of scientific staff. It has 7 research institutes, 5 centers and 26 stations, field units, branch offices and farms. There are more than 1200 staff, including 540 scientists, 30 doctors of science, 120 PhDs, 3 academicians and 6 corresponding members.

GIZ Tajikistan

GIZ's work in Tajikistan on behalf of the German Government and the European Union focuses on the following priority areas:

- Economic development and employment: GIZ is helping develop the private sector and a business-friendly environment on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). This includes supporting producers and value chains for selected products such as organic cotton or fruit and vegetables. GIZ is also helping train food experts to combat the shortage of skilled labor.
- Environment and climate: BMZ has commissioned GIZ to devise solutions for adapting to climate change and encouraging biodiversity, e.g. via sustainable forestry. Working on behalf of the German Federal Foreign Office (AA), the federal enterprise is also implementing a project on transboundary water management in Central Asia.
- Governance and democracy: GIZ is promoting legal and judicial advice on behalf of the BMZ to ensure that the authorities and courts of justice implement the overhauled act on administrative procedure more effectively. This is designed to make debt enforcement proceedings more efficient in civil disputes.
- Social development: For GIZ and its partners, nutrition and mother and child health are priority areas of work in strengthening the health care system.

Eurasia Foundation of Central Asia – Tajikistan

The Eurasia Foundation of Central Asia (EFCA) – Tajikistan is committed to activating the potential of civil society and its institutions to contribute to national and regional development in the areas of climate change and rural resilience, gender equality and women's empowerment, anti-radicalization and conflict

prevention, civil society development and good governance, youth empowerment and education, rule of law and anti-corruption.

Foundation to Support Civil Initiatives» (FSCI, Dastgirie-Center)

FSCI' main activities and services include the following: FSCI' main activities and services include the following:

- Informational and consulting support for the development of public organizations and initiative groups;
- Local environmental management;
- Desertification and land degradation;
- Waste management and chemical safety;
- Integrated management of water resources;
- Earth Charter, international educational document on sustainable development;
- Environmental policy and education.

Ministry of Agriculture

The Ministry of Agriculture of the Republic of Uzbekistan is a central executive body, which formulates and implements the common State agricultural policy.

The main tasks of the Ministry are as follows:

- Formulation and implementation of the common State agricultural policy including crop and livestock production and other sectors of agricultural production;
- Development of programs and forecasts of production ensuring the efficient use of agricultural potential of the country;
- Monitoring of the level of agricultural profitability and defining trends of development;
- Drafting laws, legal acts and regulations, standards, directives, and other regulatory documents related to agriculture;
- Monitoring of observance of established standards, rules and regulations, and analysis of main statistic indicators of agricultural production;
- Exercise control over export and import operations, production and consumption of agricultural products;
- Elaboration of proposals for development of breeding work, seed production in crop and livestock production, fishery, beekeeping, plant protection, application of pesticide and other harmful chemicals to control agricultural pest, mechanization and ensuring the agricultural production growth including cotton, as well as development of agricultural infrastructure;
- Support for agricultural producers, development of recommendations to increase the efficiency of production of different types of agricultural crops and agricultural performance;
- Comprehensive assessment and forecasting of agricultural situation in the country, provision of State and local authorities, enterprises, institutions and population with relevant information;



- Coordination and fulfilment, within its competence, of commitments made by the Republic of Tajikistan under the international conventions, treaties and agreements;
- Contributions to attraction of investment to agriculture.

Project Implementation Unit for the Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB) under the Ministry of Finance

Project Implementation Unit is a technical project management unit that serves as the technical secretariat for the Ministry. PIU reports directly to Minister and is tasked to implement daily tasks and manage and oversee the project development.

Annex 4 Questionnaire for informative survey

CENTRAL ASIA CLIMATE INFORMATION PLATFORM

INFORMATIVE SURVEY

INSTITUTION, ORGANIZATION

Name _____ Email _____

Organization _____

Address _____

YOUR INTEREST ON CONTENTS (EXPECTATIONS FROM CACIP)

Do you think that it could be interesting if the platform could provide a centralized access to the following information/data/services ?

Documents, case studies, papers	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Training materials, best practices	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Models, tools, software	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
General reports	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Specific bulletins	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
if interesting, with which interval update	Yearly <input type="checkbox"/>	Monthly <input type="checkbox"/>	Other _____
Expert consultant services	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Maps (ready format)	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Access to spatial DB (WMS, WFS, ...)	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Raw spatial data (basic spatial files)	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Structured databases	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
In general, are you interested in.....	DATA <input type="checkbox"/>	SERVICES <input type="checkbox"/>	BOTH <input type="checkbox"/>

YOUR INTEREST FOR "NEW" PRODUCTS

Are you interested on new products, not available now, with a set of information and numerical data related to the climate change in Central Asia?

In general No needed ☐ Some interest ☐ Very interested ☐

Do you thing the following characteristics could be valuable for you?

Summarized at regional and country level	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Updated systematically	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
Homogeneous on the whole region	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>
With an advanced visualization...	No interest <input type="checkbox"/>	Some interest <input type="checkbox"/>	Very interested <input type="checkbox"/>



**Central Asia
CLIMATE PORTAL**

YOUR FOCUSED AREA IN THE CACIP

Which of the following areas (groups) are of your interest?

As a **basic user** (please select only one as "very interested" (main interest), and if your main interest is not mentioned, you can write your choice in "other area of interest")

focus area 1: food and nutritional security	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 2: sustain. agroecosystems/mitigation	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 3: risk assessment and mapping	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 4: land degradation/desertification	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 6: reforestation/forest protection	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 7: climate changes/long term forecast	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 8: socio-economic impact (*)	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 9: smartphone services to end users	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>

Other area of interest: _____

As a **policy / decision maker** (please select only one as "very interested" (main interest), and if your main interest is not mentioned, you can write your choice in "other area of interest")

focus area 1: food and nutritional security	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 2: sustain. agroecosystems/mitigation	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 3: risk assessment and mapping	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 4: land degradation/desertification	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 6: reforestation/forest protection	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 7: climate changes/long term forecast	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 8: socio-economic impact (*)	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>
focus area 9: smartphone services to end users	No interest	<input type="checkbox"/>	Interested	<input type="checkbox"/>	Very interested	<input type="checkbox"/>

other area of interest: _____

(*) it includes migration, health, economic performance, livelihoods, etc.

YOUR AVAILABILITY/INTEREST TO CONTRIBUTE TO CACIP

Are you available to contribute to CACIP in the following ways?

As a **basic user**

user of the platform	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>
join the forums	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>
use documents and training materials	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>
use models, tools, software	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>

your notes _____

As a **data and knowledge provider**

allowing the <u>permanent upload</u> on CACIP	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>
allowing the <u>live link to your published data</u>	Not available	<input type="checkbox"/>	Available	<input type="checkbox"/>	I don't know	<input type="checkbox"/>



in case data available, what type of interface is available to access data and documents:

API ☐ if possible, please detail _____
(example: DataVerse API)

your notes _____

in case, what type of interface is available to access your geographical data:

WMS server ☐ if possible, please detail _____
(example of sat image: https://www.gebco.net/data_and_products/gebco_web_services/web_map_service/mapserv?)

WFS server ☐ if possible, please detail _____
(example of dams in CA: <http://hp-wins.unesco.org/geoserver/wfs>)

API ☐ if possible, please detail _____
(examples: GeoServer API, ArcGIS API, CartoDB API, MapQuest API, ...)

your notes _____

As **promoters and facilitators**

promoting the use of the CACIP among

your colleagues, clients, partners Not interested ☐ Interested ☐ I don't know ☐

If interested, what would you like to find in the CACIP to make useful promoting the use of it

Forum ☐ Documents ☐ what kind: _____

Maps ☐ Data ☐ what kind: _____

your notes _____

DO YOU WANT TO BE PART OF THE TEAM OF CACIP

As an **expert member or active contributor** (your name/institution listed/acknowledge in the portal)

At individual level Yes ☐ No ☐ May be ☐

At institutional level Yes ☐ No ☐ May be ☐

Do you have some ideas on how to actively contribute ?

(example: providing monthly data, creating bulletins and disseminating through the CACIP, linking your models to the CACIP and disseminating the outputs, linking many relevant documents to the CACIP from other portals, etc.)



5 KEYWORDS FOR THE CACIP

What 5 keywords should the CACIP brand and logo represent (e.g. sustainable livelihoods, climate change, GHG emissions, etc.)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

WHAT GEOGRAPHICAL ELEMENTS AND COLOURS REPRESENT CENTRAL ASIA

If you were to visualize Central Asia, what geographical elements come to mind? (e.g. rivers, mountains, valleys, etc.)

What two colours would you associate with a brand that represents Central Asia?

Color 1) _____ Color 2) _____

ONE-TO-ONE MEETING REQUEST

The day of the consultation workshop, would you be interested to have a one-to-one meeting with our team after the lunch time? Yes ☐ No

USE OPEN SOURCE DATA OR PROJECT DERIVED WITHIN THE CACIP

The database of CACIP will include the most part of following open source data (the ones included are labeled, and the source is listed – **the list of included data is currently incomplete, a further investigation is in progress**). Are you interested in using them ? Or are you available to distribute your own via CACIP ? If you have any suggestion about source for not included data, or for additional sources, please put a hint.

GEOGRAPHICAL DATA

HISTORICAL DATA

Content	Included (temporarily)	Use	Provide	Hint
<u>Hydrological databases on river basins</u>		<input type="checkbox"/>	<input type="checkbox"/>	
<u>Climate induced natural disaster</u>		<input type="checkbox"/>	<input type="checkbox"/>	
<u>Historical climate variability</u>				
<ul style="list-style-type: none"> Temperature (source https://modis.gsfc.nasa.gov/data/) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Precipitation (source https://pmm.nasa.gov/GPM) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Lake/reservoir levels 		<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Flows 		<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Evapotranspiration (source https://modis.gsfc.nasa.gov/data/) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Glaciers (source https://nsidc.org/) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> NDVI, EVI (source https://modis.gsfc.nasa.gov/data/) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Burned areas (source https://modis.gsfc.nasa.gov/data/) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Fire (sources) 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Your hint: _____

Current data

Content	Included (temporarily)	Use	Provide	Hint
Temperature		<input type="checkbox"/>	<input type="checkbox"/>	
Surface temperature (source https://modis.gsfc.nasa.gov/data/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Precipitation (source https://pmm.nasa.gov/GPM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Your hint: _____

Forecasts

Content	Included (temporarily)	Use	Provide	Hint
Short term forecasts				
<ul style="list-style-type: none"> Temperature 		<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Precipitation 		<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Snow water equivalent 		<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> Snow melt 		<input type="checkbox"/>	<input type="checkbox"/>	



Central Asia
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- Stream flows
- Seasonal weather forecasts
- Long term climate projections

<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Your hint:

Physical characteristics

Content	Included (temporarily)	Use	Provide	Hint
Land cover				
• Cover type (sources https://www.esa-landcover-cci.org/ , https://modis.gsfc.nasa.gov/data/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Glaciers/snow cover (source https://nsidc.org/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Cropland (source https://modis.gsfc.nasa.gov/data/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Irrigated areas (source http://www.fao.org/land-water/land/land-governance/land-resources-planning-toolbox/category/details/en/c/1029519/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Crops and crop types		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Tree cover change (source http://earthenginepartners.appspot.com/science-2013-global-forest)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Field data (such as crops, rotation)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Soil map		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Soil carbon density (source https://www.isric.org/explore/soilgrids)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Global aridity index (source https://cglarcsi.community/2019/01/24/global-aridity-index-and-potential-evapotranspiration-climate-database-v2/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Potential Evapotranspiration (source https://cglarcsi.community/2019/01/24/global-aridity-index-and-potential-evapotranspiration-climate-database-v2/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Your hint:

Other relevant datasets

Content	Included (temporarily)	Use	Provide	Hint
Agricultural productions (source http://www.earthstat.org/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Spatial production allocation mode 2000, 2005, 2010 (SPAM) (source https://cglarcsi.community/2019/01/04/global-spatially-disaggregated-crop-production-statistics-data-for-2010/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Land degradation and desertification (source http://geoagro.icarda.org/cldd/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Monitoring locations				
• Snow		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Climate		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Water levels		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Flows		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Water quality		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
• Water divisions		<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Your hint:

GENERAL DATA				
Content	Included	Use	Provide	Hint
<u>Topography</u> (source https://www.diva-gis.org/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Drainage</u> (source http://www.fao.org/geonetwork)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Basins, watersheds, major aquifers</u> (source http://www.fao.org/geonetwork)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>DEM</u> (source https://cgiaarsi.community/data/srtm-90m-digital-elevation-database-v4-1/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Administrative boundaries</u> (source https://gadm.org)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Basic infrastructures</u> (source https://www.diva-gis.org/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Protected areas</u> (source https://protectedplanet.net/)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Your hint: _____				

KNOWLEDGE BASE

Content	Included	Use	Provide	Hint
<u>Publications (reports, webinars, atlases, posters, infographics, proceedings, studies)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>SLM practices and methodologies</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Projects on CC Adaptation Mitigation</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>News</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Your hint: _____				