



Central Asia
CLIMATE PORTAL



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



Central Asia Climate Information Platform

27 September 2019 – Dushanbe, Tajikistan

Enrico Bonaiuti, Akmal Akramkhanov



Science for resilient livelihoods in dry areas



Agenda

- Team
- CACIP
- CACIP timeframe
- What has been done?
- Highlights from country consultations
(Country wise and Summary)
- What is next?



The Team...



Enrico Bonaiuti - ICARDA
Key Expert: Team Leader



Chandrashekhhar Biradar - ICARDA
Key Expert: Climate Knowledge



Jim Jaspe - IMMAP
Key Expert: IT



Simone Maffei - IMMAP
Technical Documentation Specialist



Akmal Akramkhanov - ICARDA
Knowledge Management - Central Asia



Ram Sharma - ICARDA
Head of ICARDA Program for Central Asia and Caucasus



Bastian Mueller - ICARDA
Technical E Learning - Communication Training Officer



Fabian Loew - ICARDA
Research Officer



Sanobar Khudaybergenova - ICARDA
Communications Specialist

Rustam Pulatovich Ibragimov - ICARDA
Deputy Head of Representative Office

Farhod Khamraev - ICARDA
Administrative Assistant

Valerio Graziano - ICARDA
Learning & Open Access Consultant

Aya Mousa - IMMAP
Junior Documentation Specialist



the CACIP is ...

The **project CACIP** was born with the aim of building a platform to share information, knowledge, data, tools related to the climate in Central Asia.

to be a gateway for
climate relevant
information

CAMP4ASB program
(Climate Adaptation and
Mitigation Program for
Aral Sea Basin)

common for all
Central Asia

Partnership between
CAREC and **World
Bank**, with the funding
of IDA.

to make available
**comprehensive and up-to-
date relevant data and
information** (relevant to the
issues related to climate
change), linked to high-quality
datasets (including time series
and spatial information)

to provide
**analytical tools and
interfaces for the
visualization and
interpretation**
of data and information



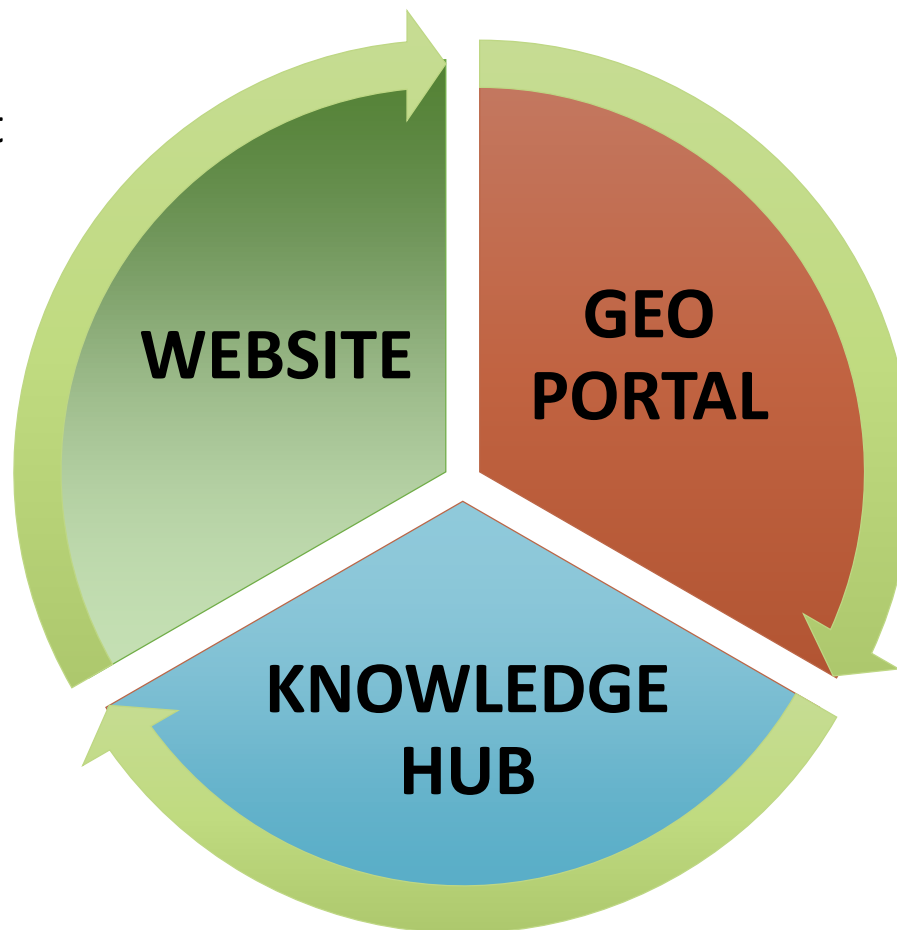
CACIP development timeframe

[illegible]

Logical Architecture

the **WEBSITE** is the entry point of the platform

the **KNOWLEDGE HUB** collects, store and provides docs, ideas, contacts, and all relevant information



the **GEO PORTAL** collects manages and displays geographical data and includes analysis tools



Type of Data

Historical climate variability

Temperature

(<https://modis.gsfc.nasa.gov/data/>)

Precipitation

(<https://pmm.nasa.gov/GPM>)

Evapotranspiration

(<https://modis.gsfc.nasa.gov/data/>)

Glaciers

(<https://nsidc.org/>)

NDVI, EVI

(<https://modis.gsfc.nasa.gov/data/>)

Burned areas

(<https://modis.gsfc.nasa.gov/data/>)

Fire

(<https://earthdata.nasa.gov/earth-observation-data/near-real-time/download-nrt-data/viirs-nrt>,
<https://firms.modaps.eosdis.nasa.gov/>)

Soil moisture

(<https://smap.jpl.nasa.gov/>)

Climate characterization

Monthly temperature (avg, min, max)>

(<http://worldclim.org/>)

Precipitation

(<http://worldclim.org/>)

Bioclimatic variables

(<http://worldclim.org/>)

Current data

Surface temperature

(<https://modis.gsfc.nasa.gov/data/>)

Precipitation

(<https://pmm.nasa.gov/GPM>)

Land cover

Cover type

(<https://www.esa-landcover-cci.org/>, <https://modis.gsfc.nasa.gov/data/>)

Glaciers/snow cover

(<https://nsidc.org/>)

Cropland

(<https://modis.gsfc.nasa.gov/data/>)

Irrigated areas

(<http://www.fao.org/land-water/land/land-governance/land-resources-planning-toolbox/category/details/en/c/1029519/>)

Tree cover change

(<http://earthenginepartners.appspot.com/science-2013-global-forest>)

Physical characteristics

Soil carbon density

(<https://www.isric.org/explore/soilgrids>)

Global aridity index

(<https://cgiarcsi.community/2019/01/24/global-aridity-index-and-potential-evapotranspiration-climate-database-v2/>)

Potential Evapotranspiration

(<https://cgiarcsi.community/2019/01/24/global-aridity-index-and-potential-evapotranspiration-climate-database-v2/>)

Other relevant data

Agricultural productions

(<http://www.earthstat.org/>)

Spatial production allocation mode 2000, 2005, 2010 (SPAM)

(<https://cgiarcsi.community/2019/01/04/global-spatially-disaggregated-crop-production-statistics-data-for-2010/>)

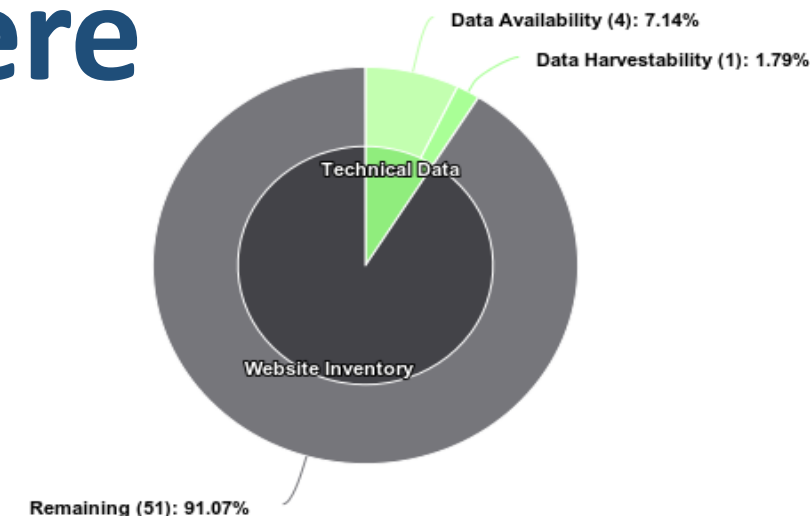
Land degradation and desertification

(<http://geoagro.icarda.org/cldd/>)

Information...out there

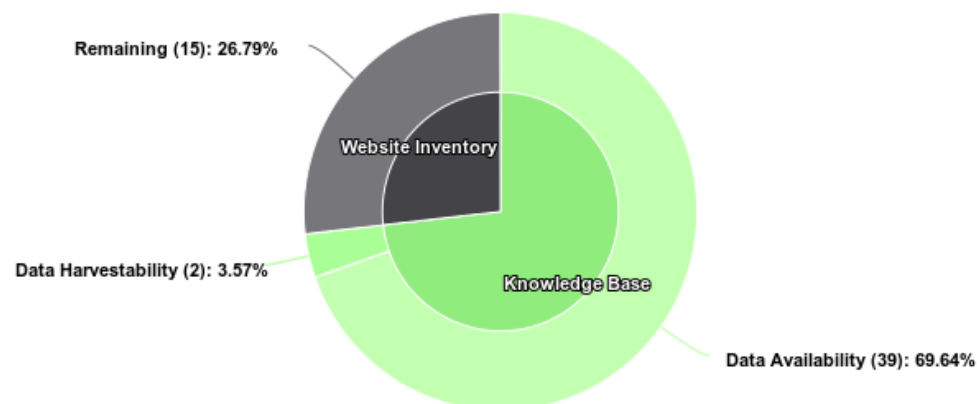
Technical Data to Website Inventory Repository

Website Inventory Repository Size = 56 websites



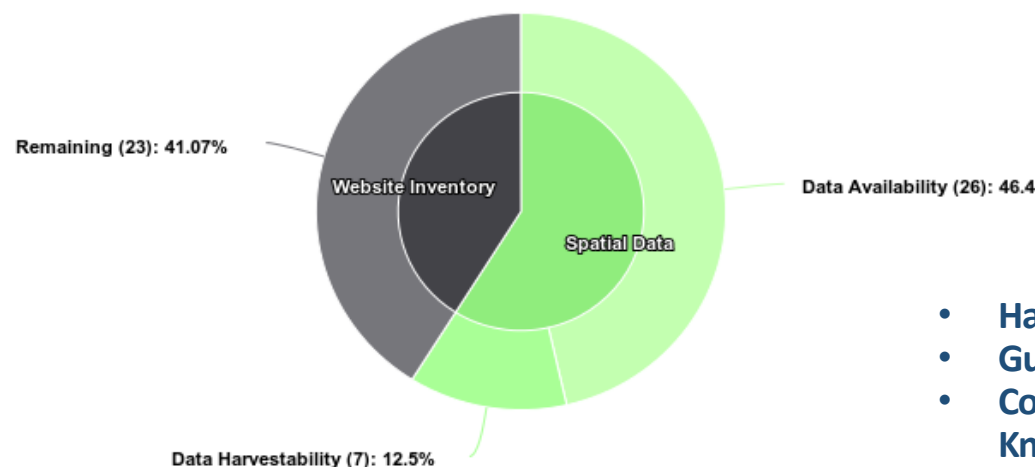
Knowledge Base Data to Website Inventory Repository

Website Inventory Repository Size = 56 websites



Spatial Data to Website Inventory Repository

Website Inventory Repository Size = 56 websites



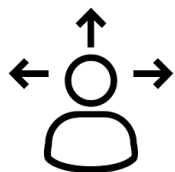
Bonaiuti, Enrico (ICARDA)

E.Bonaiuti@cgiar.org

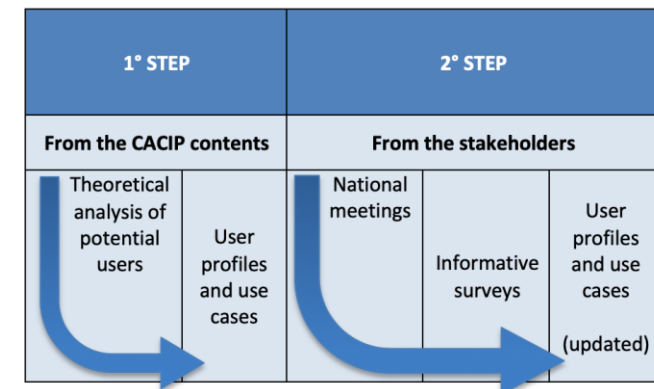
Akramkhanov, Akmal (ICARDA)

A.Akramkhanov@cgiar.org

- Harvesting
- Guidelines
- Community (Expertise & Knowledge)



Concept: Users



INTERFACE TYPE	SAMPLE TARGET USERS	SAMPLE CONTENTS	SAMPLE TOOLS
decision maker	politicians public and private managers insurances investors	<ul style="list-style-type: none"> dashboard with aggregated indicators in graphical style (infographics) maps (ready) reports, bulletins (information already interpreted) 	<ul style="list-style-type: none"> direct access to the geographical filter
advisers	advisers trainers promoters	<ul style="list-style-type: none"> training materials best practices tutorials webinars 	<ul style="list-style-type: none"> easy printable contents
farmer	farmers	<ul style="list-style-type: none"> dashboard with current climate conditions, forecasts training materials best practices tutorials webinars news events and calendars 	<ul style="list-style-type: none"> direct access to a geographical filter access to information with “every” device (including low performant telephone)
citizen	all	<ul style="list-style-type: none"> dashboard with current climate conditions, forecasts social contents news events and calendars 	<ul style="list-style-type: none"> direct access to a geographical filter access to information with “every” device (including low performant telephone)



газета.uz Спецпроекты Политика Экономика Общество Колумнисты Ташкент Мечты

Главная Новости Статьи Медиа 24 августа, суббота Afisha Spot Zira Погода Вакансии



Фото: ИКАРДА

Создание платформы климатической информации обсудили в Ташкенте

Awareness

REGIONAL PROGRAM FOR
SUSTAINABLE AGRICULTURAL
DEVELOPMENT IN CENTRAL
ASIA AND THE CAUCASUS



HOME ABOUT RESEARCH NEWS

News

ICARDA to develop Central Asia Climate Information Platform

Date: 10.04.2019.

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ДЕПАРТАМЕНТ РОСГИДРОМЕТА
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О службе

Госслужба

Новости

Деятельность

Обращения граждан

Документы

Общественный совет

Центральноазиатская климатическая информационная платформа

18 июня 2019

Вопросы разработки Центральноазиатской климатической информационной платформы были обсуждены на семинаре в Ташкенте. Платформа создается Международным центром сельскохозяйственных исследований в засушливых районах (ИКАРДА) совместно с международной организацией ИММАР в рамках «Программы адаптации к изменению климата и смягчения его последствий для бассейна Аральского моря» (CAMP4ASB), поддерживаемой Всемирным банком. Ожидается, что благодаря проекту специалисты, фермеры, политики и все заинтересованные лица получат доступ к разнообразным актуальным и достоверным данным и информации, в том числе из глобальных, региональных и локальных источников. Общедоступная онлайн-система, которая будет разработана к весне 2020 года, будет способствовать принятию решений по адаптации к изменению климата и смягчению его последствий в Центральной Азии.



ОБЩЕСТВЕННАЯ ЭКОЛОГИЧЕСКАЯ ОРГАНИЗАЦИЯ
РЕСПУБЛИКИ ТАДЖИКИСТАН
«ФОНД ПОДДЕРЖКИ ГРАЖДАНСКИХ ИНИЦИАТИВ»
(ФПГИ, ДАСТГИРИ-ЦЕНТР)



Главная О нас Новости Структура Члены ФПГИ Публикации Проекты Химическая безопасность Галерея

Контакты

Главная >>> Новости >>>

URI Clocks content

Консультативный семинар «Центрально-азиатская климатическая информационная платформа» (Душанбе, 15 июля 2019г.)

Семинар был посвящен обсуждению разрабатываемой в настоящее время Центрально-азиатской климатической информационной платформы. Участниками семинара стали сотрудники международных организаций, государственных учреждений, НПО. Представители ФПГИ приняли участие в работе семинара.

Главная

О нас

Новости

Структура

Члены ФПГИ



Dissemination



The regional climate knowledge service component of the Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB) is providing comprehensive and up-to-date data and information, analytical tools and interfaces for improved awareness, assessment and decision support.

Challenge

The countries of Central Asia are among those most vulnerable to climate change. Building resilience to growing climate impacts, like melting glaciers and droughts, is a top priority in reducing poverty and enhancing prosperity in the region, about 60 percent of which consists of deserts.

Impact Pathway

- Interfaces and tools for data visualization, contextualization and interpretation
- High-quality, global public domain datasets on climate variability and change
- Increased coping capacity to cope with shocks
- Increased capacity for innovation in partner research organizations
- Enabled environment for climate resilience



О платформе

Региональная климатическая информационная платформа будет содействовать лицам, ответственным за разработку политики, научным кругам, местному населению и другим заинтересованным сторонам в доступе и анализе полных открытых данных по изменению климата. Это облегчит сбор открытых данных, обмен и сохранение набора данных, подходящих к оценке состояния климата и принятия решений в области изменения климата. Платформа будет создаваться на основе существующих систем для обобщения, анализа, распространения и использования соответствующих данных по изменению климата из местных, региональных и глобальных источников. Она обеспечит интерфейсы и инструменты для визуализации, контекстуализации и интерпретации данных при проведении анализа адаптации и смягчения последствий изменения климата.

Виды информации и данных

- климатические данные (температура, осадки);
- долгосрочные прогнозы изменения климата;
- гидрологические базы данных по речным бассейнам в Центральной Азии;
- данные по стихийным бедствиям, связанным с изменением климата (карты, результаты оценки);

- информация о сельскохозяйственном производстве;
- почвенные карты;
- данные по выбросам парниковых газов.

Основные принципы разработки

- предоставление открытой бесплатной климатической информации и аналитических услуг на долгосрочной основе;
- доступность на всех цифровых платформах, включая компьютеры, планшеты и смартфоны;
- максимальное использование существующей и доступной информации, знаний и опыта, а также имеющейся институциональной инфраструктуры для предоставления информации;
- содействие страновому, региональному и международному сотрудничеству в обмене и предоставлении данных, информации и знаний в области изменения климата;
- предоставление в открытом доступе обработанной информации с основной функцией доступной даже при низкой скорости интернета и автономном режиме;
- доступность информации на двух языках: русском и английском.



Strategic Events & Engagement



United Nations
Convention to Combat
Desertification

CAREC CAMP4ASB
IPCC Findings and Activities
Regional Outreach event for Central Asia
21-22 August 2019
Almaty, Kazakhstan



1. Few Experts from CA in IPCC: How to involve scholar and Scientific Community?

Feedback mechanism & IPCC joining the platform as advisors for the region...

2. Finding from CA missing: Topics/Abstract not translated in English?

Auto-Translation, detection, clustering and targeting for IPCC



E-Learning



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Welcome to the Moodle community and discover the value of an open, collaborative effort by one of the largest open-source teams in the world.

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climate change



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Showing 6 total results for "climate change"

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Learning Product ▾

[Clear All](#)

English ×

Intermediate ×



Climate Change Mitigation in Developing Countries

University of Cape Town

COURSE

★★★★☆ 4.6 (224) | 21K students

Intermediate



Climate Change and Water in Mountains: A Global Concern

University of Geneva

COURSE

★★★★☆ 4.4 (55) | 2.1K students

Intermediate

Country Stakeholder Consultations



June 11, 2019
Tashkent
Uzbekistan

June 14, 2019
Almaty
Kazakhstan

July 11, 2019
Bishkek
Kyrgyzstan

July 15, 2019
Dushanbe
Tajikistan

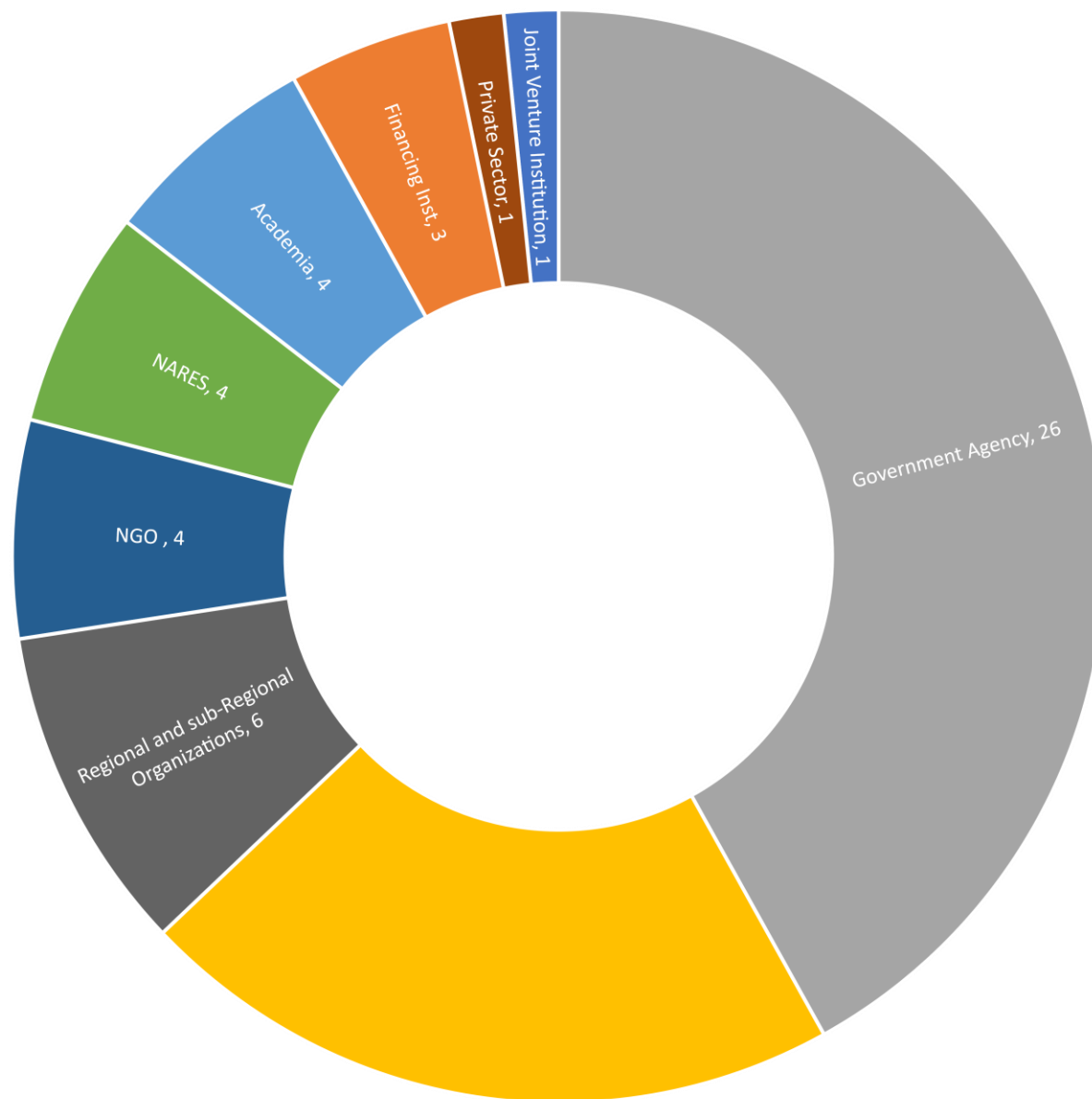
August 26, 2019
Khujand
Tajikistan

Sept 9, 2019
Ashkhabad
Turkmenistan

Types of Organizations: Regional



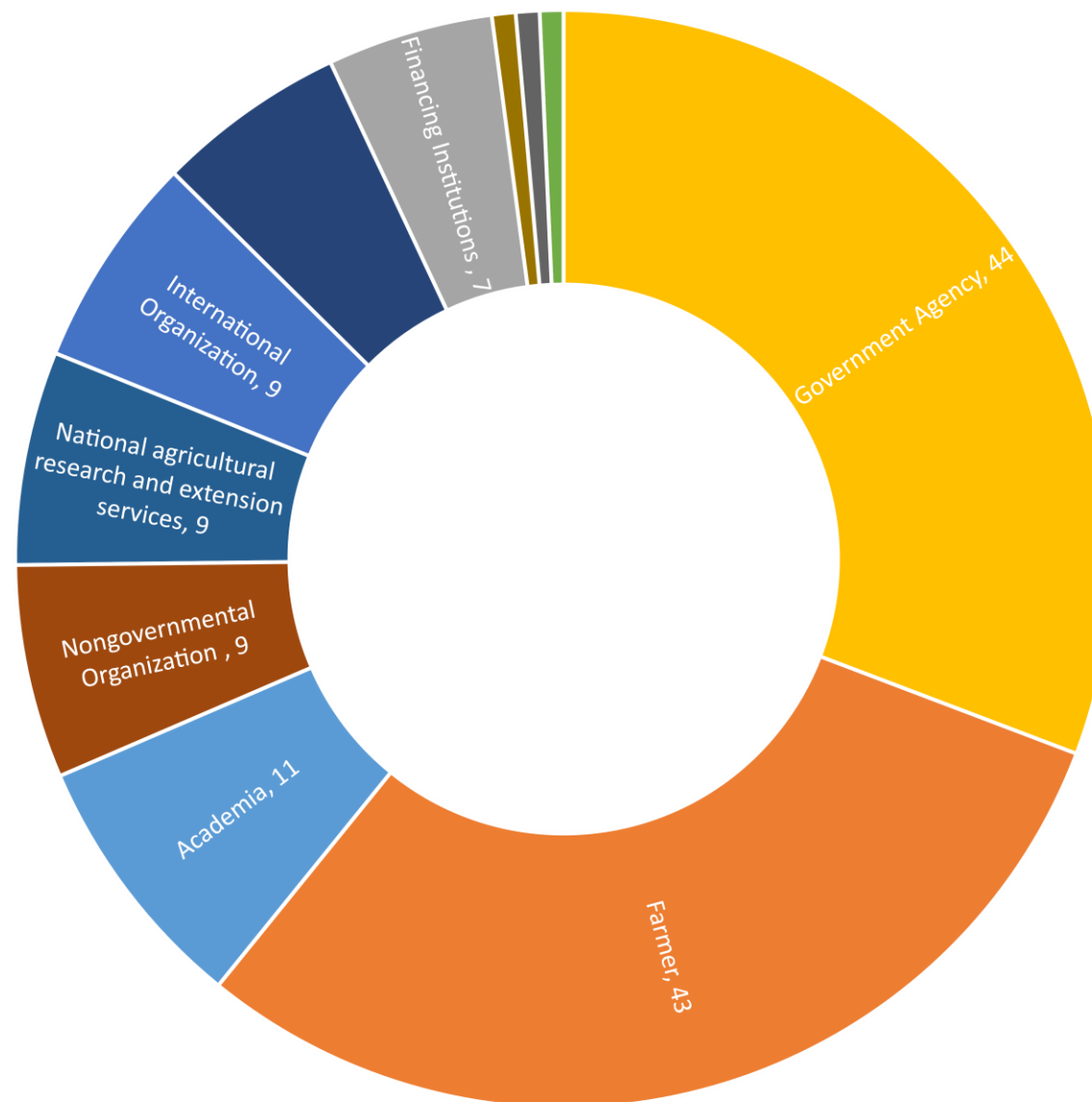
- Academia
- Financing Inst
- Government Agency
- International Organization
- Joint Venture Institution
- NARES
- NGO
- Private Sector
- Regional and sub-Regional Organizations



Types of Organizations: National



- Academia
- Farmer
- Financing Institutions
- Government Agency
- International Organization
- Joint Venture Institution
- National agricultural research and extension services
- Nongovernmental Organization
- Private Sector: Consulting Company
- Private Sector: Insurance Company
- Regional and sub-Regional Organizations



Feedback from the field: UZ

Generally very interested in platform, homogeneous scores for all kinds of information/data (with a little plus for documents and knowledge information)

The best score, compared to other countries on: willingness to **contribute to the platform**, general availability to **provide geographical and knowledge data**

The lowest score is the one smartphone services for end users

Interest as USER of CACIP	73%
Interest for USING specific GEOGRAPHICAL DATA	29%
Interest for USING specific KNOWLEDGE DATA	28%
Interest for NEW PRODUCTS	81%
Interest as CONTRIBUTOR to CACIP	31%
Interest to be PART OF THE TEAM	50%
Interest for PROVIDING specific GEOGRAPHICAL DATA	8%
Interest for PROVIDING specific KNOWLEDGE DATA	6%
Selected FOCUSED AREAS (as BASIC USER)	70%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	13%

Other Interests in:

- **instruments and tools for each separate organization**, to process organization-specific information
- **database of experts** in the region
- **normative base in adaptation to climate change** (i.e. paperwork or legal framework)

Feedback from the field: KZ

Big difference between **the interest to CACIP as users**, and as **general contributor** too, compared with the very low **availability to provide** and **share data**.

An interest to be contributor 31%, to be part of the team of CACIP 50%, and availability to provide data 8% for geographical data and 6% for knowledge data.

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Interest as CONTRIBUTOR to CACIP	31%
Interest to be PART OF THE TEAM	50%
Interest for PROVIDING specific GEOGRAPHICAL DATA	8%
Interest for PROVIDING specific KNOWLEDGE DATA	6%
Selected FOCUSED AREAS (as BASIC USER)	70%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	13%

Other notes:

big interest in **hydrological and water related information, climate induced natural disasters and bioclimatic variables**

strong awareness of the importance of a “regional approach to the problems”
(Kazakhstan is the only country to show a big interest in information homogeneous on the whole Central Asia)

Feedback from the field: TJ

Mainly interested in **training materials and maps, ready to be used** to disseminate such information.

The most interested in **meteorological and agriculture data**

It is interesting to highlight that:

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%

- the lowest score is the one of **reforestation and forest protection**
- There is a good **linking for the CACIP platform**, and also **willingness to contribute** to it, even if the stakeholders available to **provide data are a very small percentage**.

Feedback from the field: KG

Mainly interested in **training materials** and **DATA in general, ready to be used** to disseminate such information.

The most interested in **meteorological data (temperature and precipitation)**.

Users are more interested in **risk assessment/mapping** and **climate change** and **long-term forecasts**

Interest as USER of CACIP	59%
Interest for USING specific GEOGRAPHICAL DATA	20%
Interest for USING specific KNOWLEDGE DATA	23%
Interest for NEW PRODUCTS	61%
Interest as CONTRIBUTOR to CACIP	42%
Interest to be PART OF THE TEAM	52%
Interest for PROVIDING specific GEOGRAPHICAL DATA	13%
Interest for PROVIDING specific KNOWLEDGE DATA	20%
Selected FOCUSED AREAS (as BASIC USER)	52%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	32%

Decision makers are more sensitive to the **problems of mitigation (sustainable agroecosystems)** and **land degradation** and **desertification**

There is a good **linking for the CACIP platform**, and also **willingness to contribute** to it

CAMP4ASB Linkages to be clarified

Feedback from the field: TM

The higher interest is for:

- **training materials** and **best practices**, ready to be used in practical situations, or to disseminate such information.

Main way to participate or to use the CACIP platform is as user

Interest as USER of CACIP	60%
Interest for USING specific GEOGRAPHICAL DATA	6%
Interest for USING specific KNOWLEDGE DATA	9%
Interest for NEW PRODUCTS	49%
Interest as CONTRIBUTOR to CACIP	22%
Interest to be PART OF THE TEAM	46%
Interest for PROVIDING specific GEOGRAPHICAL DATA	1%
Interest for PROVIDING specific KNOWLEDGE DATA	0%
Selected FOCUSED AREAS (as BASIC USER)	35%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	26%

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

the **lowest score** is the one of **socio-economic impacts** and **smartphone applications**

Feedback from the field (Overall)

- Define the Organizational Framework for the hand-over
- Data accurate and reliable (Crosschecking + Like/Dislike)
- Free and Paid Data
- Focus on few data and user type for the 1st year with a scalable approach
- Easier access to data compared to search engines (e.g. Google)
- Forum to stimulate the debate of lack of computerized data
- Data Submission Guidelines and Ownership. Contribution at Wikipedia
- Offline material for broader awareness

	C.A.	UZ	KZ	KG	TJ	TU
Interest as USER of CACIP	64%	72%	73%	59%	64%	60%
Interest for NEW PRODUCTS	57%	64%	81%	61%	56%	49%
Selected FOCUSED AREAS (as BASIC USER)	43%	51%	70%	52%	36%	35%
Selected FOCUSED AREAS (as POLICY / DECISION MAKER)	33%	42%	13%	32%	31%	26%
Interest as CONTRIBUTOR to CACIP	34%	47%	31%	42%	28%	22%
Interest to be PART OF THE TEAM	51%	53%	50%	52%	55%	46%
Interest for USING specific GEOGRAPHICAL DATA	17%	33%	29%	20%	10%	6%
Interest for PROVIDING specific GEOGRAPHICAL DATA	9%	20%	8%	13%	2%	1%
Interest for USING specific KNOWLEDGE DATA	23%	44%	28%	23%	17%	9%
Interest for PROVIDING specific KNOWLEDGE DATA	13%	28%	6%	20%	5%	0%

- Network of Analysts and Experts
- Cloud Based. Business continuity system
- Link with Insurance



Central Asia Climate Information Platform

27 September 2019, Dushanbe, Tajikistan

Governance Session

- 1. Identify Regional Actors for Governance:** Mountain Research and Development Center at University of Central Asia, GIZ, FAO, CAREC, Hydromet, IFAS, Committee of Environmental Protection at the Government of the Republic of Tajikistan, ICARDA, WOCAT, CAIAG.
- 2. Review Memorandum of Understanding:** Regional Consultation side event for discussion and agree on core partners to sign the MoU and decide a regional consortium for climate data (free and paid) with an in-kind Steering Members and Executive Team (2 staff min) contributed by Partners on a rotating basis. Meetings organized each 6 months to review planning execution and manage risks.
- 3. Request formal Commitment (O&M):** Platform require one full time dedicated officer (with IT Experience but not a developer), one full time developer for the first year (April 2020-April 2021 + Induction Jan-Mar 2020), Hosting fee for cloud server @ 700 USD/month.



Central Asia
CLIMATE PORTAL

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27 September 2019, Dushanbe, Tajikistan

Technical session

- Review the system design
- Define the details of each section of the design
 - Contents and tools of knowledge hub
 - Contents and tools of geo-portal
 - Graphical interface
- Analyze the bottle-necks and solve it
- Identify and describe potential missing parts
- ...

Action plan



PHASE 2 - END OF OCTOBER 2019

Delivery 2.1 – Validation process with key stakeholders (feedback)

- technical visits and joint working c/o stakeholders in each country
- definition of the **CACIP system design and architecture documentation** (final)
- collection of the **feedback / recommendations** of key selected stakeholders
- definition of the **sustainability plan** for the CACIP

PHASE 3a - END OF DECEMBER 2019

Delivery 3.1a – CACIP development

- CACIP development
- Quality assurance with key partner

PHASE 3b - END OF MARCH 2020

Delivery 3.1b – CACIP rolled out

- launch workshop of CACIP
- release of the **CACIP technical documents** (including code)
- release of the **capacity development material** and of the **capacity development plan**
- release of the **hand-over plan**
- finalization of the help-desk support to collect feedback and enhancement



Central Asia
CLIMATE PORTAL



Thank You

