

# "Combining efforts for Change: Central Asian countries join forces in the fight against climate change"

## What is climate change and what is its threat?

Climate change and global warming are the well-worn terms in the language of professionals in the climate change field, environmentalists, yet, unfortunately, not rooted in the consciousness of the population. Let's first determine what climate change is.

### Definition of the Intergovernmental Panel on Climate Change (IPCC):

**Climate change** is a change caused directly or indirectly by a human being's activity, changing the global atmosphere composition, and which is complementary to the natural climate variability observed at comparable times.

Climate change's main consequences are: changes in the global temperature and precipitation, increased risks of natural disasters, reduced water flow, melting glaciers, declining agricultural productivity, changing conditions in many sectors of economy and people's living conditions. Water resources, biodiversity, forestry, land resources, agriculture, energy, tourism, and public health are the most vulnerable to climate change.

One of the main indicators used to assess the human influence on the climate change process is the carbon dioxide (CO<sub>2</sub>) level in the atmosphere. According to the **UN Secretary-General Antonio Guterres**: *"To date, the level of carbon dioxide is higher than it has been in the past 800,000 years."*

### Why is carbon dioxide so dangerous?

Increase in the carbon dioxide (CO<sub>2</sub>) concentration in the atmosphere is mainly linked to the active burning of fossil fuels by human beings. CO<sub>2</sub>, along with other greenhouse gases, is the cause of heat retention; they do not allow it to escape into the atmosphere. As a result, a greenhouse effect is created<sup>1</sup>. Climate change poses a serious threat to the entire planet. The countries of Central Asia are certainly not an exception, especially with respect to changes in water and agricultural sectors.

The need to climate change adaptation was acknowledged at the Climate Change Conference in Cancún, Mexico in 2010 and there were a number of key decisions for consolidating the international community efforts in this direction.

**Adaptation to climate change** is adjustments in the natural and anthropogenic systems in response to the actual or expected climate effects or its outcomes, which allows reducing harm or exploiting favourable opportunities. (Source: IPCC)

Adaptation measures implementation was further enhanced by the Paris Agreement ratification.

**The Paris Agreement** is an agreement under the United Nations Framework Convention on Climate Change which includes climate change adaptation and climate agreement

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<sup>1</sup> <http://www.un.org/ru/youthink/climate.shtml>

measures. The Agreement was adopted during the Climate Conference in Paris, December 12, 2015, and signed on April 22, 2016.

The Paris Agreement member countries have the following tasks:

- Not to let the global average temperature to rise more than 2 degrees. Many scientists believe that a higher temperature increase has the risk of leading to irreversible consequences and serious threats to the safety of all mankind.
- To achieve zero anthropogenic greenhouse gases emissions in the second half of the 21<sup>st</sup> century.
- To increase adaptation capacity to the already occurred climate change.
- To redirect financial resources to the sectors with low emissions and high resistance to climate change.

## How CAREC contributes to combating climate change in Central Asia

It should be noted that the Paris Agreement was signed by all five Central Asian countries in 2017. Thus, one of the most important tasks facing the Central Asian countries is the implementation of its obligations within the framework of the Paris Agreement. However, implementation of adaptation measures has begun only recently.

To support the Central Asian countries in implementation of their commitments on



adaptation, the Central Asian Conference on Climate Change was held on 24-25 January 2018 in Almaty. At the conference, Iskandar Abdullaev, Executive Director of the Regional Environmental Center for Central Asia (CAREC), noted: "Although climate change is risk and challenge, at the same time it creates great opportunities for the regional cooperation". The main role of CAREC is provision of opportunities for regional cooperation.

The Regional Environmental Centre for Central Asia (CAREC) is an international organization that provides support in addressing environmental issues at the regional level. CAREC actively promotes the dialogue in Central Asia with the aim of uniting all possible forces in the process.



Over 200 people attended the Central Asian Climate Change Conference this year. Participants included representatives of governmental and non-governmental bodies, international organizations and financial institutions, as well as scientists and specialists working in the field of climate change. The Conference was held within the framework of the [Climate Change and Mitigation Program for Aral Sea Basin](#) (CAMP4ASB), with the support of the Executive Committee of the International

Fund for Saving the Aral Sea (EC IFAS) and the World Bank.



In order to understand the importance of consolidating effort in the Central Asian region, let's take the water sector as an example. The fact is that most of the region's water resources are of a transboundary nature. Therefore, protection of certain water basins often affects the interests of several countries at once. So, for example, according to the data presented at the Conference, Ms. Galina Stulina, the representative of the Interstate Water Coordination Commission in Central Asia, the Amu Darya basin area is 4.5 million hectares of irrigated land and at the same time the river is the water source for 4 Central Asian countries: Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan. As this example shows, it is not enough to deal with climate change locally; it requires the mobilization of forces of the entire region indeed. CAREC promotes development of such a cohesive approach.

Accordingly, the Central Asian Conference on Climate Change organizers primarily pursued the following objectives:

- Provide information on the latest global discussions and trends in climate change in the context of achieving sustainable development goals and the decisions of the 23<sup>rd</sup> Conference of the Parties with their implications for Central Asia.
- Present best practices, lessons learned, research findings, innovative technologies, and financing opportunities for climate change that are sustainable and effective on a regional and global scale.
- Explore opportunities for enhanced cooperation in the implementation of the Paris Agreement and the 2030 Agenda for Sustainable Development through multilateral regional partnerships for fostering a Global Program of Action on climate change.

The Conference raised important issues such as international climate regime; results of recent climate studies and vulnerability assessments at the global, regional and national

levels; best practices and technologies; global and local funding sources of initiatives for adaptation to climate change, as well as opportunities for information reporting on climate change. In addition, on the second day of the Conference, 3 parallel sessions were held on issues such as sustainable economic development in conditions of climate change, gender aspects in adaptation to climate change, and innovative approaches to adaptation and mitigation of climate change.

Within the first session framework devoted to policies for adaptation to the climate change impact, representatives of all five Central Asian countries demonstrated their countries' performance in adapting to climate change impacts and fulfilling their obligations under the Paris Agreement.



*"We must adapt the economy and the habitat to the possible climate changes, so that the upcoming changes have the least negative impact on various sectors"* said **Olzhas Agabekov**, Director of the Climate Change Department of the Ministry of Energy of the Republic of Kazakhstan



### **What will happen if the glaciers really melt?**

"This means that there will be no water. Accordingly, all plans for development of agriculture, tourism, and development of settlements will simply collapse. Therefore, it is necessary to develop the economy taking into account these trends. And this is an irreversible fact: the temperature is growing; the water volume will decrease. That is why a reduction of water resources between

10 to 40% is expected. It depends on how much the temperature rises. And with this in mind, we need to build our entire policy".

**Ismail Dairov**, Director of the Regional Mountain Center of Central Asia

The water sector in Central Asia is the sector that is at a higher risk due to ongoing climate change. As it is known, one of the main consequences of climate change is the glaciers' melting. It should be emphasized that glaciers are the main source of fresh water in Central

Asia, accounting for about 90% of all water resources. Therefore, according to Dr. Abdullayev, Executive Director of CAREC, to ensure Central Asian region's prosperity, it is necessary to resort to "the urgent targeted measures with regards to climate change adaptation".

Guich Abaev, the Head of the Information and Analytical Department of the Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS) emphasized during the conference that "the priority tasks facing IFAS are development of a new Program of Action to Assist the Countries of the Aral Sea basin (ASBP-4), providing support for improving the legal framework for IFAS activities and the regulatory and legal framework in the field of water resources management and environmental protection in Central Asia."

The conference became the logical continuation of the two other regional events - the First and Second Central Asian Knowledge Forum on Climate Change which took place in June 2013 and May 2014. It was the First Central Asian Forum that laid the groundwork for these events to discuss the issues related to climate change at the regional level. It was suggested to hold these conferences annually in order to be able to discuss the existing trends and consolidate the existing potential at the level of the entire region. Further, at the Second Central-Asian Forum, a proposal was made to implement a joint initiative to combat climate change in the Central Asian region.

According to Mr. Abdullayev "our region is one of the most vulnerable regions in the world. Our economy is developing very intensively, at the same time, the existing challenges (the author's note: challenges in the field of climate change) can threaten all this development". The Head of CAREC noted that the main goal of the conference was "to outline the next steps, ways to cooperate, exchange knowledge and information. All our countries are working on these directions. The conference will be annual and permanent. The plan is to create a platform for interaction for the future".

"The impact of climate change on water availability is already reflected in eco-systems in agriculture and energy. With a 4°C increase in global temperature water scarcity will increase the demand for irrigation water by about 30%. The surface area of the region's glaciers has already declined by one-third of its volume since the beginning of the 20<sup>th</sup> century and is projected to lose up to 50% of its volume with a global temperature increase of 2°C, and possibly up to 78% with world warming by 4°C".

**Iskandar Abdullayev**, CAREC Executive Director

## **Information Capital Growth: Role of CAMP4ASB**

However, it should be noted that combating the consequences of climate change implies first of all raising the level of understanding of these issues among decision-makers and specialists, as well as addressing the lack of adequate knowledge on this issue. Proceeding from this, the dialogue maintenance between all the Central Asian countries is very important since consolidation of efforts will allow the most effective eradication of the population's illiteracy as it relates to the understanding climate change issues.



*«One of the main issues is that we must present the results of scientific research on climate change in such a way that the information is understandable for the policy-makers, as well as to create a platform holding relevant data. In 2009 we conducted a study to explore the existing platforms with climate data in Central Asia and found out that there existed about 40 databases at that time already...»*

**Henry Wyes**, Senior Advisor to CAREC

For example, an interactive map of the best practices on the use of water and energy resources for the river basin management is available on the Eurasian portal "riverbp.net". The Portal's purpose is also to support arrangement of participation of decision-makers in activities related to the water and energy resources. In addition, there is also a mobile application "Spatial Agent", developed by the World Bank, which contains historical observations, precipitations level, climate change scenarios, and satellite data. However, the availability of such a large number of resources will only lead to data disparity and does not ensure information availability to different target groups.

In other words, in order to unite the efforts of various organizations and countries in the fight against climate change, [CAMP4ASB](#) (Climate Change and Mitigation Programme for the Aral Sea Basin) was initiated. It was launched in August 2016 for a period of 5 years. The Regional Environmental Centre of Central Asia is one of the project implementers in the region. It suggests that CAREC will play the role of mediator in Central Asia providing a platform for regular dialogue in the region. Under this project, in 2017, the organization conducted needs assessment for the new climate knowledge.



CAMP4ASB international consultants Jiri Zeman and Susan Legro, noted the following components necessary for creating the platform: information on climate change, services for communicating knowledge to the target audience, working for the long term and, financial resources.

The Conference noted the following main tasks and directions for the project:

- Combine the various scientific centres efforts, develop and adapt the new methods, approaches and tools.
- Increase the technical capacity of existing institutions and experts.
- Provide comprehensive information on the impacts of climate change on different sectors and areas.
- Increase investments in the climate sector.

The data obtained will allow undertaking a risk assessment and identify adequate adaptation measures. Research will provide comprehensive information, including:

- quantitative assessment of expected climate risks;
- economic losses and benefits analysis;
- key sectors vulnerability;
- ranged adaptation measures.

Going forward the project frameworks is also planned to support students in the climate change study at the regional level. Starting from this year the list of topics for participation in a research competition for undergraduate students (conducted by CAREC annually) has expanded significantly.

This way we see that CAREC, within the framework of initiatives such as CAMP4ASB, is trying to actively promote the scientific capital and technical capacity building in the field of climate change. The CAMP4ASB platform should become the main long-term information source on climate change for the Central Asian region.

## Investments inflow into the green economy development

One of the main issues with respect to financing of climate projects in Central Asia is the lack of coherence between national projects and projects developed with the support and under the patronage of international financial institutions and donor organizations.



Furthermore, separate expenditure items for maintenance and adaptation to climate change have not been allocated in the national budgets of Central Asian countries so far. Therefore, specific attention was paid to the financing issue at the Central Asian Conference on Climate Change.

The provision of data on existing funding opportunities for the region needs is of particular importance when it comes to dealing with climate change outcomes.

According to the Global Landscape of Climate Finance 2017 report published by the Climate Policy Initiative in October 2017, the volume of climate financing around the world in 2016 was about \$383 billion<sup>2</sup>.



Among the institutions specializing solely on green and climate financing, the Green Climate Fund, the Global Environment Facility, and the European Investment Bank should be specifically highlighted. According to projections by 2020 it is planned to allocate 100 billion US dollars for climate financing in

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<sup>2</sup> [http://livingasia.online/2017/12/20/klimaticheskoe\\_finansirovanie/](http://livingasia.online/2017/12/20/klimaticheskoe_finansirovanie/)

developing countries which includes most of the countries in Central Asia<sup>3</sup>.

Mr. Ato Brown, the World Bank Country Representative in Kazakhstan, said that by 2020 28% of the bank's lending will be channeled to climate change mitigation. As a result we are seeing a trend towards carbon divestments - to withdrawing investments from the oil and gas sector and depriving companies engaged in the extraction and processing of hydrocarbons from investment finance.

On this note Michail Yulkin, Director of the Centre for Environmental Investments mentioned the example of the American bank Goldman Sachs, which over the past 10 years has invested more than \$ 65 billion in green energy and which as of 2015 completely stopped making any investment in coal mining.

According to Michail Yulkin "to limit the increase in the average temperature within 2°C as compared to the pre-industrial level, most of the hydrocarbons that have been explored since then should have never been extracted and claimed as fuel." At the conference Mr. Yulkin presented extensive factual and statistical data on climate finance. As it was mentioned France was the first country to declare the refusal to explore hydrocarbon raw materials. He also added that 7 countries are already banning the sale of new cars operating on internal combustion engines (ICE).



As M. Yulkin mentioned, within the framework of the RE100 international initiative more than one hundred largest companies including BMW, Facebook, Google, Microsoft, Nike and Nestle have committed themselves to providing their energy needs solely through renewable energy sources (RES). The RE100 initiative was based on the Climate Week in New York in 2014, in conjunction with the CDP (Carbon Disclosure Project) and The Climate

Group<sup>4</sup>. The timing of the transition to 100% use of renewable energy goal achievement varies depending on the goals set by the organizations themselves. So, for example, the fashion brand Burberry has committed itself to a full transition to RES by 2020<sup>5</sup>.

«To date the Green Climate Fund has already approved 54 projects for a total amount of 2.65 billion US dollars, including a project for Tajikistan, aimed at increasing resilience to climate change in the hydropower sector. In October 2017, the Fund also approved a project for Kazakhstan for the total amount of 110 million US dollars, intended for the renewable energy sources development»<sup>6</sup>.

As far as climate investment funds are concerned, at present "Kazakhstan is represented by projects for 108.8 million US dollars (loans) in the Clean Technology Fund, and Tajikistan by projects worth 70.8 million US dollars in the Pilot Project on Climate

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<sup>3</sup> *Ibid.*

<sup>4</sup> <http://renewnews.ru/re100/>

<sup>5</sup> <http://greenevolution.ru/2017/07/13/k-ekologicheskoy-iniciative-re100-prisoedinilis-100-krupnejshix-transnacionalnyx-kompanij/>

<sup>6</sup> [http://livingasia.online/2017/12/20/klimaticheskoe\\_finansirovanie/](http://livingasia.online/2017/12/20/klimaticheskoe_finansirovanie/)



Resilience". According to Nil Bird, the Institute for International Development representative, Kazakhstan has received the largest amount of financial resources in the region: 55%, followed by Tajikistan: 29%.

As for financing the Central Asian initiative CAMP4ASB, the World Bank has allocated 15 million US dollars for development of its regional component. In turn, for the development of their national components, Tajikistan received 9 million US dollars and Uzbekistan 14 million US dollars. The total budget for the project reached 38 million US dollars.



As the CAREC Executive Director noted "for the time being the Centre is implementing projects worth over 30 million US dollars and a significant part of these funds will be spent on creating the ecosystems and communities' flexibility and sustainability to climate change." In addition, the regional action plan for environmental protection development which is being considered as a tool for attracting investments in environmental protection and climate change mitigation was also discussed at one of the sessions.

## Climate change effects on agriculture



Climate change affects various aspects of our life and not only in the region, but throughout the world as a whole. For this reason speakers from different parts of the world delivered their reports at the Central Asian Conference on Climate Change, presenting the best practices to combat changes.

For instance, Dai Yamawaki - the representative of the Regional Bureau of the Food and Agriculture Organization of the United Nations (FAO) for Europe and Central

Asia, noted that climate change poses a serious threat to food security. To this end, FAO has developed the climate-smart agriculture (CSA) initiative. Its meaning is to adapt agriculture to the ongoing climate change.

The plans for climate-smart agriculture were included in the State Funds of Kyrgyzstan and Tajikistan. Dai Yamawaki stressed that the natural resources integrated management "should help stabilize and even reverse the trends of soil salinization, reduce erosion, improve water catchment and retention, increase carbon sequestration and reduce the agro-biodiversity loss, thereby reducing the land degradation trends." However, regrettably, there is still such a problem that, despite the influx of investments in the climate sector, the agricultural sector still lacks the financial means to adapt to the changes that are taking place.



Lyudmila Kiktenko, the CAREC intersectoral cooperation Program Manager, presented an example of solving problems in the field of agriculture, such as introduction of "urban" agriculture. The principle is to produce livestock products on sites within the city area, for example in courtyards and even on balconies.

## Gender in Climate Change



A special attention at the conference was paid to gender in the context of combating the consequences of climate change. In this respect women represent a particularly vulnerable group for various reasons. Firstly, they often have limited access to climate change information. Secondly, climate change significantly worsens the domestic work conditions, often forcing women to travel long distances, for example, to collect drinking water. But most importantly climate change has a serious

impact on women's health, including their reproductive function.

Zhanna Babagalieva, the CAREC Climate Change and Sustainable Energy Program Specialist, presented the results of a research on how gender influences sustainable development in Tajikistan. 93 people took part in it and it was found that women in Tajikistan are very poorly aware of adaptation to climate change. It was also revealed that women are highly vulnerability to climate change. In Tajikistan - a country with a high level of male labor migration, women's control of the household budget is not seen as an indicator of increasing their role in society, but rather as an additional responsibility.

Ms. Babagalieva offered recommendations on the initiation of programs that contribute to more active involvement of women in combating climate change. Women can and should

become the main driving force in initiating adaptation measures, especially in the rural areas, characterized by a high level of male labour migration.

Issues related to gender within the framework of the UN Framework Convention were also discussed during the session.

*“Climate change mitigation programmes should change the women’s dependent status”*

**Diana Ismailova**, Gender Coordinator, Oxfam GB, Tajikistan

## Conclusions

The climate change issue affects a large number of different aspects of life. In addition, climate change is a global challenge. In other words, in order to be able to withstand the ongoing changes, all sectors, all countries and regions should act as one cohesive organism.



Summing up the Central Asian Conference on Climate Change, it should be noted that the Conference has created a unique opportunity for the exchange of experience between representatives of various organizations and experts dealing with climate change at both the regional and international levels.



As Gayane Minasyan, the World Bank representative noted, the Central Asian Conference on Climate Change "collected and will collect representatives of all countries to exchange knowledge and experience".

At the same time, the process of regional cooperation in the field of climate change will also be supported at other platforms in the region, including upcoming Central Asian International Environmental Forum to be held from 5 to 7 June 2018 in Tashkent, Uzbekistan.