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The Project is funded by the European Union, implemented by CAREC in cooperation with IUCN, supported by EC IFAS

Regional institutional arrangements advancing water, energy and food security in Central Asia

Institutional gap analysis

Kristin Meyer, Rustam Issakhojayev, Ludmila Kiktenko and Aksulu Kushanova





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Executive summary

Sustainable development depends on healthy environments and ecosystems. But in light of climate change, population growth and urbanisation the competition for natural resources intensifies while complex and dynamic geopolitical developments hamper multilateral cooperation towards global sustainable development priorities.

Central Asia is highly vulnerable to climate change impacts. The region is experiencing rapid demographic changes and suffers from water, energy and food insecurities. Environmental degradation and scarcity as well as the uneven distribution of natural resources have emerged as an important trigger and accelerating factor of tensions within the region and among nations. Insufficient actions taken at the national and regional level to plan for and mobilise investments to address these multi-sectoral challenges can have dire consequences on people's livelihoods. The formation of strong frameworks and institutions with the financial and technical capacity to ensure integrated and coherent planning and decision-making that pave the way for dialogue among Central Asian states is crucial. The Water, Energy and Food (WEF) Nexus perspective allows to identify synergies and minimise trade-offs in achieving water, energy and food security in the region.

In the frame of the EU-funded Regional Nexus Dialogue Programme, the Regional Environmental Centre for Central Asia (CAREC) and IUCN (International Union for Conservation of Nature) are currently implementing the Central Asia Nexus Dialogue Project: Fostering Water, Energy and Food Security Nexus Dialogue and Multi-sector Investment. The overall aim is to strengthen regional capacities for multi-sectoral planning as well as mainstream the nexus approach to prepare the ground for investments in integrated approaches promoting water, energy and food security in Central Asia.

To this end, IUCN conducted an institutional analysis of existing institutional arrangements for multi-sectoral dialogue and cooperation among Central Asian states to better understand how the new Action Programme to assist the countries of the Aral Sea Basin (ASBP-4) can develop and implement regional investment projects that consider the WEF Security Nexus approach.

To date, the International Fund for Saving the Aral Sea (IFAS) is the only intergovernmental structure dealing with water and environment at a regional level by advancing transboundary cooperation in Central Asia. The need for an integrated approach towards water, energy and food security is recognised at the highest political level and the relevance of WEF security, which lies at the heart of socio-economic and human development, very well acknowledged. However, the existing institutional arrangements and frameworks do not allow for effective multi-sectoral cooperation and planning that would balance the interests of various sectors in a sustainable manner. Reasons were found to be manifold:

- At the national level, Central Asian countries claim independence and sovereignty over internal resource endowments, especially water, as a key driver of their national socio-economic development. Policies to govern the use of those resources follow mostly sectoral approaches and focus on resource allocation rather than benefit sharing. Besides these policy challenges, Central Asian states are also faced with poor governance frameworks and weak institutional capacity.
- At the regional level, IFAS has a limited institutional capacity and other institutional arrangements that exist in the region are not conducive to nexus perspectives in planning, negotiation, decision-making and implementation processes. Furthermore, prevailing structural challenges include the lack of an adequate core budget due to the member states' failure to fulfil their financial obligations and a resulting dependence on international donors

for technical assistance funds and access to grants to implement activities, especially for ASBP. However, the IFAS Member States have shown willingness to maintain and reform IFAS as an important regional forum to develop mutually acceptable mechanisms on the integrated use of water resources and environmental protection.

As a result, single-sector interests (primarily water) still dominate regional dialogues. Despite these challenges, the Central Asia Nexus Dialogue Project has been successful in its impact on the draft ASBP-4 concept, which now includes specific reference to the WEF Security Nexus and the nexus approach more broadly, and also promotes the development of investment plans that do not rely on grants alone, but explore new types of investments. However, the institutional analysis pinpoints to a number of challenges that need to be overcome in order to secure nexus thinking in regional planning processes, especially in the context of ASBP-4:

- There is an obvious lack of information and data sharing between Central Asian states. This is attributed to a prevailing lack of trust among the states as well as differences in the availability of reliable data in the first place. It is vital to identify opportunities and information needs and to develop the necessary information and data sharing protocols to enable informed WEF Nexus decision-making.
- The concept of nexus is still new and key decision makers lack experience with it. Full buy-in by all states would require improved understanding of the WEF Nexus approach and demonstration of its relevance and applicability through concrete actions and best practices in the context of Central Asia.
- There is a recognition that established multi-sectoral platforms are necessary to put the nexus approach into action in the future, especially at regional level. However, reforms are needed to ensure that the political and institutional environment enables nexus thinking, planning and investing, both nationally and regionally.
- Sources of financing for regional investment projects are a major concern for key stakeholders. The absence of a unified and robust ASBP fund causes the region to rely on other funding sources, including international technical assistance and private sector investments. However, the analysis shows that the initiatives that are taken at the regional level are often based on political rather than economic or environmental considerations and priorities. Putting a greater focus on making ASBP investment projects bankable may catalyse blended investments, including from the private sector.

Acronyms and abbreviations

ASBP	Aral Sea Basin Programme
BMZ	German Federal Ministry of Economic Cooperation and Development
BWO	Basin Water Organisation
CAREC	Regional Environmental Centre for Central Asia
EC IFAS	Executive Committee of the International Fund for Saving the Aral Sea
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
ICSD	Interstate Commission for Sustainable Development
ICWC	Interstate Commission for Water Coordination
IFAS	International Fund for Saving the Aral Sea
IsWG	Inter-sectoral Working Group
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
REAP	Regional Environmental Action Plan
RSC	Regional Steering Committee
RWG	Regional Working Group
SDGs	Sustainable Development Goals
SIC	Scientific Information Center
WEF	Water-Energy-Food

1 Background

This institutional analysis was carried out as part of the EU-funded Central Asia Nexus Dialogue Project: Fostering Water, Energy and Food (WEF) Security Nexus Dialogue and Multi-Sector Investment in Central Asia implemented in the period of 2016-2019 by the Regional Environmental Centre for Central Asia (CAREC) in close collaboration with IUCN (International Union for Conservation of Nature) as well as regional experts and national authorities with mandates in the water, energy and food sectors.

The Central Asia Nexus Dialogue Project addresses the challenges faced by water, energy and food sectors in Central Asia and identifies investment opportunities that account for the inherent synergies and trade-offs that allow for achieving shared benefits. The overall project aim is to create an enabling environment to facilitate sustainable and climate-resilient multi-sectoral investments for increased water, energy and food security in Central Asia, namely through:

1. Dialogue and cooperation;
2. Capacity building;
3. Support for the selection of multi-sectoral investment projects.

Integral to achieving the set goals, is the strengthening of regional institutions for multi-sectoral planning and decision-making. To this end, it is crucial to better understand existing institutional arrangements that facilitate or impede dialogue and cooperation among the key sectors and stakeholders¹. National and regional processes for multi-sectoral investment planning as well as related methods provide the basis for defining and carrying out priority activities of the Central Asia Nexus Dialogue Project.

In order to maximise benefits in all three WEF Nexus sectors and to achieve water, energy and food security in the region, it is paramount to take a multi-sectoral approach to planning, decision-making and cooperation. Strengthening the regional nexus dialogue and supporting multi-sectoral planning allows to augment the reach of a single-sector investment. Regular dialogues increase the understanding of inherent interdependencies between the water, energy and food sectors, paving the way for negotiating trade-offs and to profit from synergies. The ultimate goal of thinking of water, energy and food sectors as a nexus is to amplify the impact of and returns on investments and to advance socio-economic development, while preserving vital ecosystem functions. For Central Asia, where the demand for water, energy and food is increasing, the nexus approach has great potential to contribute to economic growth, improve livelihoods and human well-being and to lead to the sustainable management of natural resources, thereby, fostering sustainable development.

¹ See also stakeholder analysis: <https://carececo.org/en/main/ckh/publications/stakeholder-analysis-report/>

2 Purpose and expected outcomes

This institutional analysis looks at existing institutional arrangements, provides insights into barriers and opportunities of the practical application of the WEF Security Nexus in Central Asia and considers options for improved multi-sectoral dialogue and cooperation. To understand the existing regional institutional arrangements in Central Asia, the focus is put on institutional frameworks that contribute to the development and implementation of regional investment projects under the new Action Program to assist the countries of the Aral Sea Basin (ASBP-4), a key mechanism to solve water, socio-economic and environmental issues in the Aral Sea Basin.

More specifically, the purpose of the analysis is to:

- define parameters for effective multi-sectoral investment planning and implementation;
- describe existing institutional arrangements;
- identify opportunities, challenges and areas that require strengthening within the scope of the WEF Security Nexus; and
- provide recommendations for effective multi-sectoral investment planning, implementation and mainstreaming.

The findings of this analysis support the mainstreaming of the WEF Security Nexus in Central Asia into regional planning processes, while taking into account the regional institutional context, especially when it comes to ASBP-4. Furthermore, with its focus on institutional arrangements, the analysis serves as the basis for a capacity needs assessment² carried out within the Central Asia Nexus Dialogue Project. Both studies support the Project in reaching its overall goal to strengthen multi-sectoral dialogue, investment planning and implementation.

3 Methodology

The information presented in this analytical report was gathered through primary and secondary data collection, including desk research, semi-structured interviews and face-to-face consultations with officials of relevant international organisations, representatives of regional and national bodies, as well as selected national and regional experts, members of regional and national ASBP-4 working groups, representatives of the Amu Darya and Syr Darya Basin Water Organisations (BWO) and other relevant stakeholders and experts.

Where possible face-to-face interviews and focus group discussions were conducted, especially during the Central Asian International Environmental Forum (CAIEF), meetings of the ASBP-4 working groups, Intersectoral Working Group (ISWG) meetings and Nexus Project Regional Steering Committee (RSC) meetings. Additionally, a questionnaire was sent via email to selected stakeholders and experts to ensure wider coverage.

As part of the desk research, relevant regional and bilateral agreements were assessed and the structure and mandate of the International Fund for Saving the Aral Sea (IFAS), a key partner of the Central Asia Nexus Dialogue Project, reviewed. Previous and ongoing iterations of ASBP were examined to gain insights into regional planning approaches.

² See Meyer, K. (2019). *Building an enabling environment for water, energy and food security dialogue in Central Asia*. Belgrade, Serbia: IUCN.

4 Regional context

This section provides an overview of the regional context and sets the scene for the subsequent analysis of institutional modalities for the application of nexus approaches in Central Asia.

4.1 Geography and climate

Central Asia comprises a vast geographical area with diverse political, socio-economic and environmental conditions. Spanning from the Caspian Sea in the west to China in the east and from Russia and the Siberian forests in the north to Iran and Afghanistan in the south, it encompasses five countries – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (Figure 1). Kazakhstan, Turkmenistan and Uzbekistan are covered by large deserts, while Kyrgyzstan and Tajikistan are characterised by mountains and high passes. Treeless, grassy steppes stretch across vast areas of Central Asia and form part of the Eurasian Steppe, extending all the way to Eastern Europe. Most of the desert areas are unsuitable for agricultural use, except along the margins of the Amu Darya and Syr Darya river systems. All five countries are landlocked with no direct access to the sea, with Uzbekistan being a double-landlocked country.



Figure 1: Map of Central Asia; Source: GRID-Arendal

Central Asia has a continental climate characterised by low and irregular precipitation, contributing to the region's aridity. Intensification of agricultural activities, population growth and water scarcity have increased the populations' dependence on the two major rivers, Amu Darya and Syr Darya, over the years. Central Asia has a total surface area of approx. 4 million km². Approx. 75% of the land area is classified as agricultural land (Table 1), illustrating the socio-economic significance of and dependence on the agricultural sector in the region. Temperatures vary greatly, with hot summers and cold winters. In recent years dust storms, caused by strong winds and increased desertification and salinisation of soils in the Aral Sea bed, have become more frequent. In 2017, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan were added to the list of countries with high exposure to climate extremes (FAO, 2018), mainly droughts and heat spells. Projected changes in the climate are expected to have devastating effects on resource availability, precipitation patterns,

river flow regimes, water volumes and soil quality – threatening water, energy and food security of the region.

Table 1: Overview of Central Asian states' surface area, land area and agricultural land area in km²; Source: <https://data.worldbank.org/indicator>

country km²	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan	Total
Surface Area	2,724,902	199,950	142,550	488,100	447,400	4,002,902
Land Area*	2,699,700	191,800	138,790	469,930	425,400	3,925,620
Agricultural Land**	2,169,920	105,410	47,380	338,380	267,700	2,928,790 75% of land area

* Data from 2018 / ** Data from 2016

4.2 Historic and political significance of water

During Soviet times, water allocation and natural resources use was centrally controlled, following an ambitious plan to expand the irrigation capacity of the downstream countries of the Syr Darya and Amu Darya” and increase their agricultural outputs.”³ Kyrgyzstan and Tajikistan made water available to downstream countries during the irrigation season. In exchange, Kazakhstan, Turkmenistan and Uzbekistan provided coal, gas and electricity during the winter season. These policies intensified freshwater extraction for agriculture in the region, making it the largest water consumer (90%). While export of agricultural products contributed to the economic growth of some countries in the region, agricultural intensification had a devastating effect on ecosystem health and the availability of water resources, desiccating the Aral Sea (once the world’s fourth largest inland water body). Since the collapse of the Soviet Union, the resource sharing arrangements between all five Central Asian states have become obsolete. Central Asian states strived for political and economic sovereignty, which meant that states largely managed these shared resources independently. In doing so, particularly the use of water resources and the management of the Aral Sea Basin with its two major rivers has become highly contested in the region, especially due to its relevance for agriculture and hydropower generation. These developments greatly influenced the geopolitical situation of the region and impeded transboundary cooperation.

Water remains a key resource for the socio-economic development of the region. This is evidenced by 75% of Central Asia’s land area (Table 1) being used for agricultural purposes and the recent construction of big hydropower dams in upstream countries for the production of energy. These trends are exacerbated by population growth and urbanisation, increasing the demand for natural resources for electricity and food production. Moreover, transboundary effects and interdependencies between water, energy and food are becoming more and more pronounced.

4.3 Socio-economic context

After the collapse of the Soviet Union in 1991, people in Central Asia have experienced radical and rapid changes in socio-political structures, planning and economic models. The transition from the socialist system into a market-based economy was met with various degrees of resistance and took different paths in each country of the region, largely attributed to the availability of natural resources, socio-cultural differences and adaptability of governments. The resulting political, social, cultural and

³ <https://www.adelphi.de/en/publication/rethinking-water-central-asia>

economic variations influence the geopolitical environment of the region today and pose challenges to regional socio-economic development.⁴

In the last 60 years (Figure 2), the population of Central Asia almost tripled from approx. 24 million people to approx. 71 million people, with 34.3 million (approx. 48%) living in urban areas.⁵ Rapid population growth and urbanisation contribute to competition over shared natural resources and their uses, ultimately affecting people’s livelihoods and well-being.

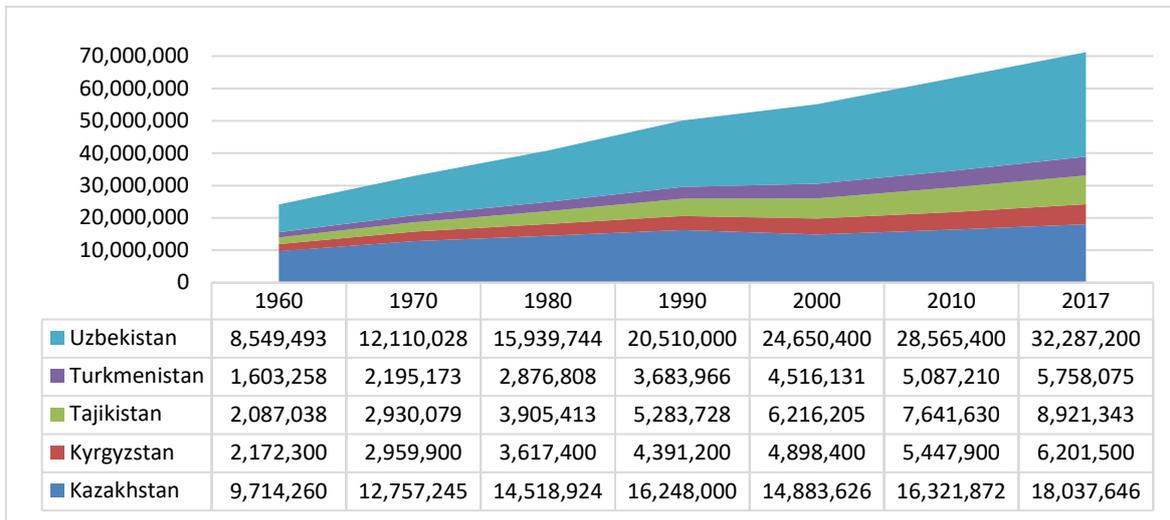


Figure 2: Total population trends of Central Asian countries; Source: <https://data.worldbank.org/indicator/>

Considering each countries’ GDP per capita (Table 2) illustrates the economic disparity of the region. According to the World Bank classification, Kazakhstan and Turkmenistan are considered upper-middle-income economies, Kyrgyzstan and Uzbekistan are categorised as lower-middle-income economies, while Tajikistan dropped to low-income economy in 2018.⁶ The socio-economic situation of each country, coupled with specific resource endowments, largely determines national interests, priorities and policies on resource use and management.

Table 2: GDP per capita in thousands current USD; Source: <https://data.worldbank.org/indicator/>

	1990	2000	2010	2017
Kazakhstan	1,647	1,229	9,070	9,030
Kyrgyzstan	609	280	880	1,220
Tajikistan	498	138	738	801
Turkmenistan	866	643	4,439	6,587
Uzbekistan	651	558	1,377	1,534

4.4 Central Asian resource endowments

Resource endowments are unevenly distributed across the region. Particularly water resources are critical to the socio-economic development of the entire region. To avoid negative economic, social and environmental impacts due to competing water uses, to prevent the depletion of internal

⁴

http://siteresources.worldbank.org/EXTECAREGTOPNGOCIVSER/Resources/Social_Development_Strategy.pdf

⁵ <https://data.worldbank.org/indicator/>

⁶ <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>

freshwater resources and to reduce negative implications on water flows from hydropower generation, demands for water, energy and food should be managed jointly by and between all countries of the Aral Sea Basin, thereby, producing benefits for all riparian countries and sectors of the economy. In this respect, nexus approaches offer equitable, needs based and sustainable solutions that promote the sharing of resources.

4.4.1 Water resources



Figure 3: The Aral Sea River Basin with its two major rivers Amu Darya and Syr Darya; Source: <http://www.cawater-info.net>

The five main river basins in Central Asia are formed by the Amu Darya, Syr Darya, Balkhash-Alakol, Ob-Irtysh and Ural rivers. The Amu Darya and the Syr Darya are the two major rivers⁷ of Central Asia (Figure 3), supplying about 90% of river water to the region.⁸ The Amu Darya has an annual flow of about 70–80 km³ and originates from the Pamir Mountains and glaciers at the border of Tajikistan and Afghanistan. It is 2,540 km long, with a catchment area of over 300,000 km² that extends through the territories of Tajikistan (74%), Afghanistan (13.9%) and Uzbekistan (8.5%). The Syr Darya has an annual flow of 35-40 km³ and originates in the Tien Shan Mountains in Kyrgyzstan. With a length of 2,790 km it is the longest river in Central Asia. Just like the Amu Darya, the Syr Darya has a catchment area of over 300,000 km² that extends through Kyrgyzstan (75.2%), Uzbekistan (15.2%), Kazakhstan (6.9%) and Tajikistan (2.7%). Both rivers flow into the Aral Sea, the Amu Darya from the northwest of Uzbekistan and the Syr Darya from the west of Kazakhstan. A large canal system diverts water from both rivers for irrigation. Due to the arid and semi-arid climate of the region, the effective and rational use of this water source is a major priority.⁹ Large-scale

⁷ Data source: http://ec-ifas.waterunites-ca.org/aral_basin/index.html

⁸ [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625181/EPRS_BRI\(2018\)625181_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625181/EPRS_BRI(2018)625181_EN.pdf)

⁹ See also *Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on Cooperation in the Field of Joint Management on Utilization and Protection of Water Resources from Interstate Sources (Almaty, February 1992)* available at: <http://www.cawater-info.net/library/eng/agreement.pdf>

environmental damage that was caused by the intensification of irrigation practices during the Soviet era have increased water stress in the region.

Water endowments and annual freshwater withdrawal vary significantly from country to country (Figure 4). Turkmenistan is endowed with less than 1% of the total renewable internal freshwater resources of the region, which amounts to approx. 194.5 billion m³. Uzbekistan has the second smallest endowment, with 8.5% of the total available freshwater in the region. The estimated freshwater withdrawal of the region is 121 billion m³. Freshwater endowments and withdrawals are uneven, causing some countries to withdraw more freshwater than their internal supply and leading to high levels of water insecurity. Water stress¹⁰ is highest in Turkmenistan, which uses 163% of water as compared to its available internal freshwater resources, closely followed by Uzbekistan with 139%. Kazakhstan with 28%, Kyrgyzstan with 44% and Tajikistan with 71% are currently water secure, though variabilities between dry and wet years influence the availability of freshwater resources. Nevertheless, the data presented provides a case for regional resource-sharing arrangements to balance freshwater availability against user demands to meet irrigation needs, protect freshwater resources and generate benefits for all five states, i.e. contributing to WEF security. To date, the imbalance of freshwater endowments remains a source of tension between states, with priorities of upstream countries clashing with those of downstream countries of the Aral Sea Basin.

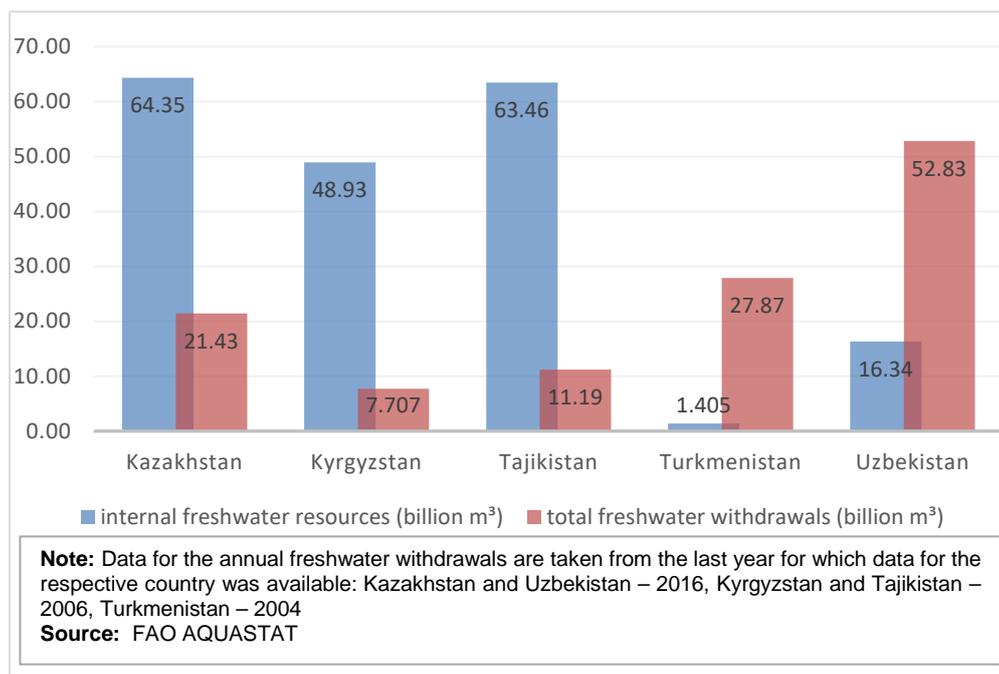


Figure 4: Total internal renewable freshwater resources (internal river flows and groundwater from rainfall) and annual freshwater withdrawals in billion m³ for each Central Asian country

These imbalances are also visible, when comparing available freshwater resources per capita. With an increasing population and pressures of urbanisation, there has been a decline of freshwater resources per capita in all five countries. Turkmenistan and Uzbekistan (Table 3), which already face the lowest endowment of internal freshwater resources, are particularly affected. Withdrawals exceeding ecosystem limits can pose significant threats to human livelihoods and well-being and

¹⁰ Water stress is measured here as water withdrawal as a percentage of available freshwater resources; data from 2014; Source: <https://data.worldbank.org/indicator>

have devastating effects on ecosystem health, biodiversity and habitats. This, in turn, greatly undermines socio-economic activities.

Table 3: Renewable internal freshwater resources per capita per year in m³; Source: FAO AQUASTAT

	1992	1997	2002	2007	2012	2017
Kazakhstan	3,904	4,130	4,260	4,062	3,803	3,535
Kyrgyzstan	10,986	10,397	9,804	9,428	8,747	8,094
Tajikistan	11,532	10,694	9,842	8,873	7,937	7,114
Turkmenistan	360.3	322.6	304.8	288.5	266.7	244
Uzbekistan	762	689	646*	598.7	553.1	512
World*	7,985	7,341	6,970	6,543	6,074	5,932

* Source: <https://data.worldbank.org/indicator/>

Although industrial uses of water are becoming more important for Kazakhstan, the biggest water user regionally remains agriculture (Figure 5). The biggest share of freshwater withdrawals in Central Asia is for agriculture, set at around 87%. All states, apart from Kazakhstan, use over 90% of their total freshwater withdrawals for agricultural activities. It is expected that municipal water use will increase in the coming decades.

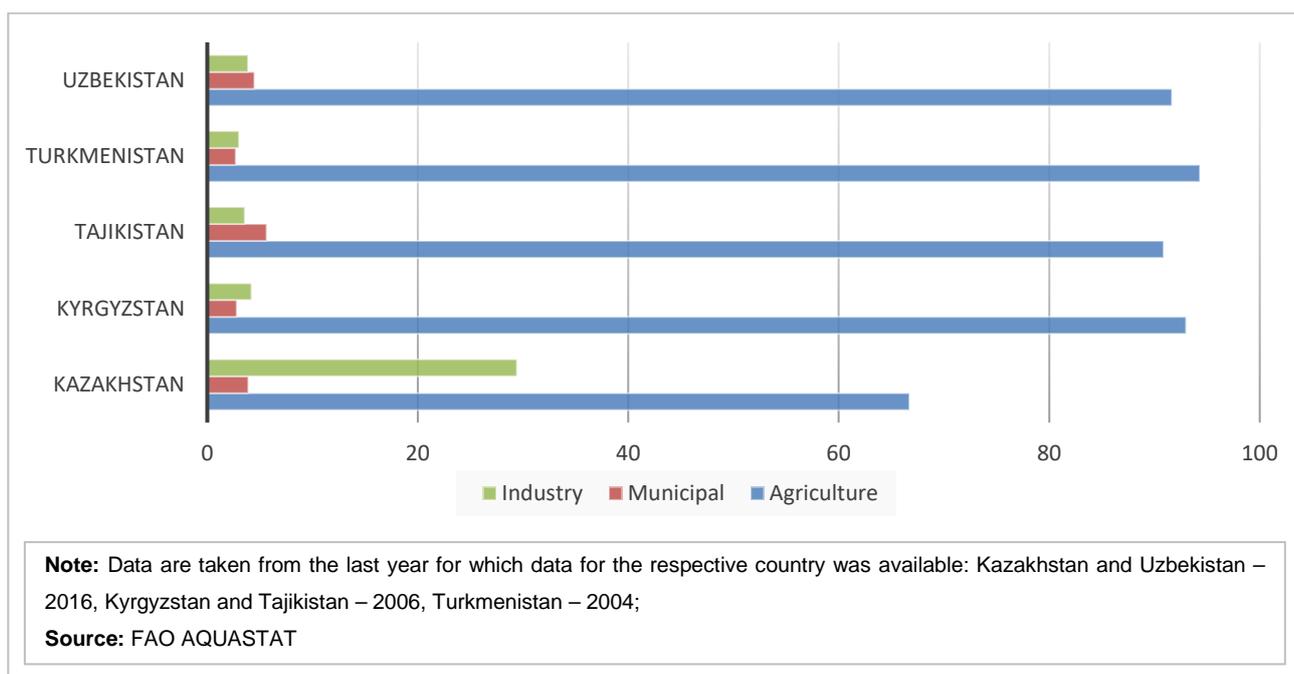


Figure 5: Annual freshwater withdrawal by sectors in percent of total freshwater withdrawal

4.4.2 Energy resources

Coal, gas and hydropower are the most important energy resources for the region. Among the five states, energy resources are unevenly distributed. While some have access to coal and gas (Kazakhstan, Turkmenistan and Uzbekistan), others rely mostly on hydropower (Kyrgyzstan and Tajikistan) to meet their energy needs (Figure 6). Regionally, 42.6% of electricity is generated from hydropower, 38.9% from gas, 18.2% from coal and 0.3% from oil. A direct correlation between the endowment of fossil fuels and use of renewable energy resources can be observed in the region.

Tajikistan, where fossil fuels are scarce, has the highest number of renewable energy resources and Turkmenistan, which is rich in gas, the lowest.

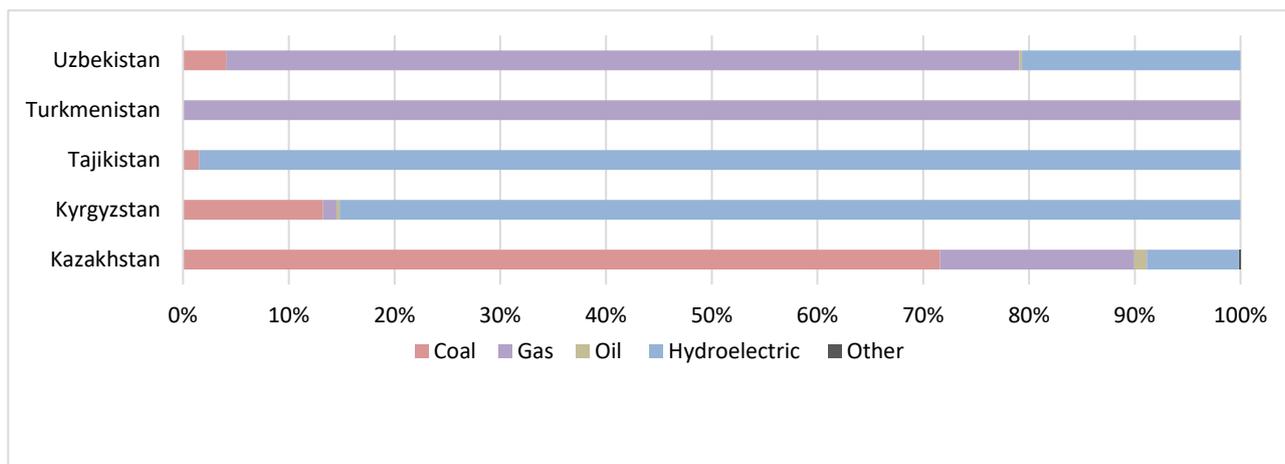


Figure 6: Energy sources in Central Asia in percent, data from 2015; Source: <https://data.worldbank.org/indicator>

Ongoing regional discussions on water-energy linkages¹¹ provide opportunities for a renewed regional energy sharing agreement, building on experiences from the Soviet era. Currently, the renewable energy potential remains underexplored and hydropower appears to be the favoured solution for upstream countries, while downstream countries continue to profit from their rich deposits of fossil fuels. It remains to be seen how international commitments, such as the 2030 Agenda for Sustainable Development, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction and global pressures on markets to move away from fossil fuels, will influence trade and the choice of energy sources for the states in the region.

4.4.3 Agriculture and food production

As shown in Table 1, approx. 75% of Central Asia’s land area is agricultural land, but only 7.46% of the total land area in Central Asia is arable and 4.76% is covered by forests.¹² Around 90% of freshwater withdrawals go towards agricultural activities, which points to its importance for social and economic development. Almost a quarter (24.8%) of the total employed population works in the agricultural sector, making it an important source of income. Agricultural activities are particularly significant for Tajikistan, as they provide 51% of all employment in the country (Table 4).

According to a recent FAO report on the state of food security, the percentage of people in Central Asia suffering from severe food insecurity increased from 1.3 million to 2.5 million people between 2014 and 2017 (FAO, 2018). However, the overall percentage of people who suffer from food insecurity (or moderate food insecurity) is much higher. Additionally, intensive irrigation practices and climate change increase vulnerabilities and hamper socio-economic development with considerable impacts on all three nexus sectors – water, energy and food – with women and youth affected most.

¹¹ The United Nations Special Programme for the Economies of Central Asia (SPECA); the Central Asia Water & Energy Programme supported by the World Bank, the European Union, Switzerland and the United Kingdom

¹² Source: <https://data.worldbank.org/indicator>

Table 4: Employment in agriculture disaggregated by gender

	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Male (agriculture)	19%	25%	40%	6%	18%
Female (agriculture)	17%	27%	69%	11%	26%
Employment total (agriculture)	18%	26%	51%	8%	21%
Unemployment total	5%	7%	10%	3%	7%

Note: Gender (% of male and female employment, rounded to the nearest percent), employment in agriculture (% of total employment, rounded to the nearest percent) and total unemployment (% of total labour force, rounded to the nearest percent), data from 2018;

Source: <https://data.worldbank.org/indicator/> (modelled ILO estimates)

4.5 Gender considerations

In Central Asia, women play an important role in the agriculture sector and for food production.¹³ They contribute equally, or in the case of Tajikistan, Turkmenistan and Uzbekistan substantially more than men to the labour force in the agricultural sector, often through low-skilled and low-paid labour (Table 4). Additionally, women in Central Asia are frequently responsible for feeding their families and for child rearing. However, issues of women’s health, education and employment are rarely discussed and addressed. Therefore, gender perspectives should form an important part of nexus analysis to ensure a more complete and accurate assessment of the socio-economic environment in the region as well as to understand the impacts of resource insecurities on local communities.

5 The Water-Energy-Food Security Nexus

To overcome any inconsistencies and achieve security in all three WEF sectors without compromising security in other sectors, political negotiation is required (Weitz, et al. 2017). Nexus provides a structured approach to the analysis of interrelations, helps identify critical bottlenecks and opportunities for benefit sharing and facilitates institutional processes conducive to multi-sectoral decision-making. The fact that Central Asian states view resource security as a matter of national and economic security can catalyse such multi-sectoral cooperation at national and regional levels.

Box 1: Benefits of Water-Energy-Food Nexus dialogues and planning

- Increased understanding of nexus linkages, including interdependencies between resources, sectors and policy processes
- Building of trust between stakeholders and sectors
- Sharing of data and best practices
- Forum for dialogue between diverse stakeholders
- Mutual learning and cooperative problem-solving
- Development of comparable standards and indicators
- Benefit sharing and protection of ecosystems

The WEF Security Nexus can offer a number of entry-points to minimise social, economic and environmental risks, meet the demand for water, energy and food, increase social and environmental resilience and prevent negative impacts of isolated, single-sector decisions on other sectors. The

¹³ http://www.gender.cawater-info.net/publications/pdf/stulina_senecal_e.pdf

nexus approach is a powerful communication tool, serving as a catalyst to explore synergies for mutually beneficial and efficient use of human, financial, technological and other resources and provides opportunities for integration and negotiation of trade-offs. It enables the analysis of institutional arrangements and governance frameworks in terms of their capacity and readiness for multi-sectoral dialogue, planning, negotiation, decision-making and subsequent implementation of nexus strategies, programmes and projects.

With climate change, population growth, urbanisation and other global trends negatively affecting livelihoods and ecosystems in Central Asia, it has become ever more critical to manage scarce natural resources with a view to the impacts on other sectors and neighbouring countries. Regional imbalances could be reduced if nexus thinking was applied during negotiations of critical trade-offs between water, energy and food, including agriculture, that affect the entire region. The nexus approach, through multi-sectoral dialogues, planning and decision-making processes, opens new opportunities for managing limited resources more effectively and efficiently to achieve water, energy and food security. Additionally, it provides a framework for negotiation and identification of suitable solutions to generate mutual benefits, increase returns on investments and subsequently support the socio-economic development of Central Asia as a whole, with gains for each individual sector and country.

There are numerous opportunities that allow Central Asia to benefit from nexus thinking, multi-sectoral dialogue and negotiation as well as the use of nexus methods and tools to facilitate socio-economic development goals. Employing nexus thinking and viewing issues from the perspectives of the three WEF sectors will catalyse innovation, new investments and help overcome a number of the challenges in increasing water, energy and food security in Central Asia.

5.1 Defining security

Nexus thinking is key to addressing current and future insecurities of the interdependent WEF sectors. 'Security' is more than the mere availability of a resource. Instead, questions of resource access, the capacity to use resources rationally and sustainably, institutional arrangements, including how sectoral policies affect other sectors, and the social fabric in terms of power dynamics need to be considered as well (Biggs, et al., 2015). In this context security in each sector is defined as follows:

- Water security means "ensuring the availability of adequate and reliable water resources of acceptable quality, to underpin water service provision for all social and economic activities in a manner that is environmentally sustainable; mitigating water-related risks, such as floods, droughts and pollution; addressing the conflicts that may arise from disputes over shared waters, especially in situations of growing stress, and turning them into win-win solutions." (Global Water Partnership (GWP), 2012).
- Energy security, as defined by Leese and Meisch (2015) means "access to clean, reliable and affordable energy services for cooking and heating, lighting, communications and productive uses." Lele et al. (2013) add that energy security means that energy availability is mostly uninterrupted and affordable.
- Food security is achieved "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (World Food Summit, 1996). Apart from food products having to be available and accessible as well as affordable, it is also necessary to

simultaneously ensure stable production chains and consumption of food (i.e. the capacity to use the food that has been produced), while avoiding food losses (Smil, 2000).

Regional historical, geopolitical and socio-economic realities in Central Asia are highly relevant in achieving security, especially in the water and energy sector. To generate the necessary political backing and ownership, all factors influencing water, energy and food security need to be examined in the choice of strategic nexus activities. Since Central Asia is projected to experience growing water stress, water security can only be achieved where win-win solutions are adopted and benefits are shared between all riparian countries of the Central Asian region. Multi-sectoral approaches and nexus thinking that move beyond water-centric Integrated Water Resource Management (IWRM) approaches provide a framework and instigate processes that allow for the negotiation of such win-win scenarios. Giving due consideration to various water users and diverse interests, while also operating within the limits of ecosystem sustainability will be key. Competing water uses should be examined thoroughly, so that resources crucial to the socio-economic prosperity of the region can be managed sustainably and provide benefits to future generations.

The provision of reliable and clean energy often requires large investments and careful deliberation of various available options. As was highlighted above, hydropower, coal and gas are the largest sources for energy production in Central Asia. In order to achieve energy security in the future, diversification will be required, especially where no renewable energy resources are used. However, hydropower has been a frequent source of tension in the region because it interrupts river flows and water volumes, affecting ecosystems downstream as well as irrigation practices. Additionally, climate change impacts and, in some instances, inadequate dam safety may cause interruptions to energy production. Alternatives, such as biomass or other renewable energy sources could form a part of a nexus discourse in Central Asia as they build stronger links between the three resources, but also cater to the specific needs of each individual sector in light of climate change and vulnerability predictions.

In Central Asia, food production depends largely on the availability of water resources, especially due to the region's aridity, high frequency of heat spells and climate change induced glacier melt across the region, making food security a major concern. Some countries may be able to increase their food imports, while others continue to struggle feeding their growing population. The increase of severe food insecurity and undernourishment of the Central Asian population should not be underestimated. In addition, it is worth remembering that a large part of the population relies on the agricultural sector as a source of employment and income, which may affect the economic access to sufficient and nutritious food and demonstrates the strong links to the socio-economic development of the region. Since the attainment of security objectives in one sector may cause potential threats for the other two sectors, the environment and the socio-economic development of Central Asia, nexus thinking is required.

5.2 WEF Nexus in Central Asia for increased security and reduced risks

Globally¹⁴ it has been recognised that greater regional integration across water, energy and food sectors yields positive results for livelihoods and socio-economic development more broadly (Granit, et al., 2012). In Central Asia, however, the WEF Nexus concept is still in its infancy despite the fact that geographical specificities and imbalanced resource endowments make regional cooperation ever more expedient and critical.

Box 2: Why is there a need for nexus in Central Asia?

- Global changes increase socio-economic and environmental risks/vulnerabilities
- Sectors and states compete over limited natural resources
- Competition over limited financial resources and difficulties to attract investments
- Water-centric policy and decision-making hampers problem definition beyond the watershed
- Need for alternative pathways to arrive at solutions that achieve multiple objectives
- Bottlenecks in political economy and siloed budgetary arrangements
- Lack of benefit-sharing analysis across sectors and states
- Transboundary impacts of sector policies, decisions and investments

The concept of IWRM has already been integrated and found broad recognition in Central Asia, forming an important part of transboundary river management. Although IWRM can offer some useful tools, it will be insufficient to rely on a water-centric paradigm to solve issues of water, energy and food security in Central Asia. The limited scope and scale of the IWRM approach may lead to solutions for the water domain that do not adequately involve energy and food sector perspectives. The WEF Nexus brings all three sectors to the negotiation and decision-making table. It considers broader security issues, takes a multi-sectoral rather than water-centric approach, opens a multitude of pathways to arrive at solutions, drawing on the collective experiences and perspectives of the three WEF Nexus sectors and relevant actors and addresses the specific problem area rather than limit itself to a watershed. Nexus can be applied at any scale, as it involves a wider range of stakeholder perspectives, strengthens synergies, manages trade-offs and supports the negotiation of solutions that promote benefits for all involved sectors and states. Nexus approaches, thus, help overcome challenges and potential institutional barriers that prevent holistic and integrated planning, decision-making and implementation of interventions.

For Central Asia, the nexus approach is particularly relevant in balancing competing interests of countries that want to utilise water for their hydropower potential to achieve energy security with those of the other countries that rely on water for irrigation and other uses. Cooperation between sectors and between riparian countries of the Aral Sea Basin is indispensable in these scenarios.

In addition to limited natural resources, Central Asian countries struggle to attract crucial investments for regional priority projects. Countries have unequal access to available sources of finance, such as loans/credits, or capacity to tap into blended finance.¹⁵ Nexus is an approach that creates opportunities and maximises returns on investments in multipurpose solutions, thereby, producing

¹⁴ For example: Southern Africa under the Southern African Development Community (SADC) has embraced the WEF nexus since its 6th Multi-Stakeholder Water Dialogue on Water, Energy and Food Nexus that was held in 2013. Since then, the nexus has grown as a viable planning and decision-making approach in the region. Dialogues currently focus on institutionalising nexus within SADC governance frameworks. They are also supported by the EU/BMZ Regional Nexus Dialogues Programme.

¹⁵ Blended finance is defined as ‘the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets’ (OECD, 2015)

increased benefits for all sectors and countries at lower costs. Difficulties in attracting new types of investments may be attributed to the narrow definition of regional challenges – often based on one sectoral perspective. This is particularly the case for transboundary water issues, as these are a major area of regional cooperation for Central Asian countries. To solve WEF security challenges, problem definition needs to move beyond the limitation of the watershed to the problemshed.¹⁶ Going beyond water sector solutions will enable Central Asian countries to tap into an entirely new array of options, scenarios and opportunities, such as hybrid approaches that stem from the experiences and expertise of the different sectors and stakeholder groups involved. Underexplored partnerships, such as those involving the private sector, may become lucrative and facilitate building necessary synergies to achieve multiple objectives, while strengthening cooperation.

The definition of a problemshed enables decision makers to break out of silos and to explore unconventional opportunities to overcome any constraints, such as rigid, sectoral planning approaches, including stringent budgetary arrangements. In addition to mitigate the impacts policies, decisions and investments in one sector have on other sectors, the WEF Nexus also helps to identify opportunities for benefit sharing in transboundary contexts. Regional cooperation in Central Asia focusses mostly on water allocation issues. In order to analyse the effects of national and regional sector policies on other sectors and the region in a systematic manner, the scope of regional cooperation needs to be broadened to include all relevant aspects of the WEF sectors. This requires political will, negotiation and compromise. It needs to be further clarified whether Central Asian states have the capacity and are ready to collaborate on such broader nexus issues.

Concrete nexus challenges in Central Asia have been identified (Table 5) on previous occasions and the results of the stakeholder questionnaire below demonstrate that these issues are still pertinent. Though the Central Asia Nexus Dialogue Project has started to take steps to overcome some of these challenges, more needs to be done to embed nexus thinking in Central Asia. Achieving WEF security also implies managing mutual and increasing risks stemming from a growing population, poverty and lack of employment, climate change, the growing dependence on global markets, the deterioration of vital ecosystems and the changing international governance landscape.

Table 5: Nexus issues in Central Asia; Source: project document, table developed in a consultation meeting held on 7 July 2016 in Gland, Switzerland

Real life issues	Policy and governance related issues
<ul style="list-style-type: none"> • Lack of <i>food security</i>: inability of households from the 2-3 lowest quintiles to afford a balanced food basket • Lack of <i>energy security</i>: significant imbalance between peak demand for electricity in winter times upstream and existing generation capacity • Lack of <i>water security</i>: <ol style="list-style-type: none"> i. lack of irrigation water in some areas during vegetation period, ii. low coverage of rural population by centralised (piped) and reliable potable water supply, and iii. lack of protection of human life and economic assets from water-related disasters (e.g. floods, mudflows and landslides) 	<ul style="list-style-type: none"> • Lack of incentives for improving resource use efficiency (water, land, energy) • Limited policy coherence • Lack of preparedness to make political decisions • Lack of cooperation, coordination and consultation for planning between ministries • Lack of cooperation at operational level • Lack of financing for investment projects on multi-purpose water use • Implementation of investment projects

¹⁶ A problemshed is defined as an “issue network” that is not tied to hydrologically defined boundaries, but rather considers the specific challenges at hand (Mollinga, Meinen-Dick, & Merrey, 2007)

- | | |
|--|--|
| <ul style="list-style-type: none"> • Issues are exacerbated by factors, such as: <ol style="list-style-type: none"> i. Fast demographic growth in Central Asia ii. Increased climate variability and change iii. Increased risks of external shocks (e.g. volatility of prices for food and energy commodities on the world markets) and macro-economic risks (e.g. public budget deficit, reduced remittance etc.) | <ul style="list-style-type: none"> • Lack of recognition of ecosystem services • Lack of institutional mechanism for the implementation of the nexus approach at national, regional and basin levels • Lack of coordination of donors |
|--|--|

Heightened risks or crisis often prompt political action, expedite investments, revitalise transboundary cooperation and catalyse innovative solutions. A prime example from the region is the deterioration of the Aral Sea, which triggered broad action and resulted in the establishment of a regional fund. The issue has received considerable attention from the international community since the 1990s. Referred to as one of the greatest human induced ecological crises of our time that has affected the livelihoods of countless people living in the Aral Sea Basin, urgent action to restore ecosystems, protect the environment and sustainably manage available water resources while enabling the socio-economic development in the region was enacted.

6 Institutional arrangements in the region

Institutions are the rules that regulate the modalities of decision-making. Well-structured and functional institutions determine priority issues, provide the necessary context, govern the involvement of stakeholders, influence cooperation modalities and decision-making processes and ultimately affect expected outcomes. Institutional arrangements that favour sectoral planning and policymaking may contribute to resource use conflicts and create contradictions of policy objectives. If institutions are conducive to multi-sectoral approaches that build on mutually agreed principles, rules and processes, incentives will emerge that bring stakeholders together to agree on common goals and objectives related to interdependent sectors and resources (Granit, et al., 2012). In the context of Central Asia, this can be seen with the emergence of a regional multi-sectoral investment programme, the ASBP governed by IFAS.

At the national level, some policies, laws and strategies in the water, energy and food sectors do refer to the other two sectors, but fragmentation remains an obstacle. Where the interdependencies between these sector policies are not considered and aligned, overall security may be threatened, including adverse impacts on socio-economic development and environmental sustainability. Additionally, top-down political approaches influence decision-making, both at national and regional levels, and may impede multi-sectoral, transboundary cooperation. Therefore, national and regional institutional frameworks governing water, energy and food sectors need to be assessed in relation to overlaps and inconsistencies between each of the WEF sectors in order to reveal where one sector objective may undermine that of the others (Cai, Wallington, et al. 2018). A cursory policy diagnostic reveals that Central Asian countries claim independence and sovereignty over their internal resource endowments, especially water, which is also the basis for national socio-economic development. The *Law of the Republic of Kyrgyzstan on Water*, the *Water Code of Turkmenistan* and the *Law of the Republic of Uzbekistan on Water and Water Use* specifically refer to international cooperation in relation to water uses, while the *Water Code of Tajikistan* defines water as the exclusive property of the state. All states promote the rational use of water.

Broadly speaking, national policies of Central Asian states are largely based on political considerations related to security and self-sufficiency (Rakhmatullaev, et al. 2018). Food security is

a matter of national security and a major contributor to increasing socio-economic development. This includes a transition to sustainable agriculture, access to food by the local population and as a means for poverty reduction. Tajikistan and Turkmenistan specifically underline the objective of securing domestic food production to safeguard their national sovereignty and Kazakhstan emphasises its objective to achieve independence from food imports. The *Law on National Security of Kazakhstan* mentions food security, while Kyrgyzstan, Tajikistan and Turkmenistan have specific laws on the issue.¹⁷

Central Asian states are most concerned with socio-economic development, including improved living standards, and with retaining sovereignty in the quest for national security. However, the mostly sectoral approaches and focus on resource allocation rather than benefit sharing remain a major barrier to addressing modern challenges, especially at regional level. Instead, nexus perspectives may be more expedient when framed around common risks, such as droughts, water scarcity, a starving population or climate change. Alternatively, showing how benefits from achieving a common goal may increase can also increase the likelihood that regional institutions promote multi-sectoral approaches and cooperation.

In Central Asia, national multi-sectoral cooperation is not enough in many instances because water, energy and food, including agriculture, are inextricably linked beyond national borders. Cooperation with the aim of achieving WEF Security Nexus at regional level can produce new opportunities. However, for these opportunities to emerge, common challenges need to be clearly defined and trust built. This needs to be supported by an enabling institutional environment. It is clear that bilateral and multilateral agreements enacted after the dissolution of the Soviet Union could not replace the benefit sharing arrangements that existed prior to 1991. Additionally, they are frequently not implemented and, thus, fail to deliver on their ambition.

Water allocation principles present one legacy of the Soviet era, which remained largely unchanged (Rakhmatullaev, et al. 2018). This focus on allocation rather than benefit sharing between interconnected sectors makes it difficult to achieve water security in the region, however, as it does not address broader issues of different water uses. Besides these policy challenges, Central Asia is also faced with poor governance frameworks and weak institutional capacity. (Rakhmatullaev, et al. 2018, p. 110). A key multilateral agreement, which subsequently led to the establishment of the International Fund for Saving the Aral Sea (IFAS), is the *Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on Cooperation in the Field of Joint Management of Utilization and Protection of Water Resources from Interstate Sources* (1992). Though the agreement establishes an institutional framework for coordinated solutions and policy in the interests of economic growth, raising living standards and regulating the use of water jointly and equitably, it does not address the linkages between water, energy and food, including agriculture. Instead, it is primarily concerned with ensuring the rational use and protection of water – more specifically the allocation of shared water resources between the five Central Asian states. In the agreement, states recognise that only integration and joint coordination of actions will enable favourable conditions to deal with socio-economic problems, mitigate and stabilise ecological stress. Yet, the narrow scope of such actions remains a key obstacle. Here, nexus thinking provides an opportunity to broaden the discussion and apply a comprehensive systems perspective.

¹⁷ Kazakhstan: Law No. 527-IV ZRK “on national security”; Kyrgyzstan: Law No. 183 “on food security”; Tajikistan: Law No. 671 “on food security”; Turkmenistan: Law No. 29-II “on food security”

Establishing cooperation, institutional and governance frameworks that do not only mobilise joint decision-making and action between the WEF sectors, but also foster agreement between the five Central Asian states is of utmost importance for the region's future. But it remains a great challenge – especially politically. Albeit a recognition of the interdependence of water, energy and food security objectives, regional agreements and cooperation frameworks largely focus on strategies and interventions in the water domain. Instead, the ultimate aim of cooperation and multi-sectoral planning approaches should be to increase water security, energy security and food security, foster cohesive economic development and improve social welfare and environmental protection.

6.1 International Fund for Saving the Aral Sea (IFAS)

Although the region still grapples with its Soviet past, Central Asian states acknowledged the need for collaboration on pressing regional issues. One major achievement was the establishment of the International Fund for Saving the Aral Sea (IFAS) in 1993 by the heads of the five Central Asian states. Originally formed to address the Aral Sea crisis, IFAS has developed into a much broader organisation dealing with issues that affect the socio-economic development of the region and the people who depend on ecosystems and natural resources for their livelihoods. IFAS offers cooperation platforms not only related to water resources (Interstate Commission for Water Coordination (ICWC)), but also on sustainable development issues (Interstate Commission for Sustainable Development (ICSD)). The geographic scope of IFAS includes all five Central Asian countries. However, it should be noted that in 2016 Kyrgyzstan froze its membership, making it more difficult for IFAS to operate.

A number of structural challenges faced by IFAS include (i) the rotation system and the need of EC-IFAS members to move to the host country; (ii) lack of adequate core budget and members not fulfilling their obligations regarding the allocation of agreed funds to IFAS¹⁸; (iii) the reliance on political will and dependence on favourable geopolitical conditions to carry out its functions and operate effectively (e.g. lack of response to meeting invitations)¹⁹; (iv) competition between bodies of IFAS (e.g. ICWC claiming independence from IFAS); and (v) dependence on donor interests due to reliance on grants to implement its activities, especially for ASBP.

Despite its limitations, there are opportunities to reform IFAS, modernise approaches and adapt institutional arrangements to meet present-day challenges of the region, including advancing water, energy and food security through nexus thinking. IFAS continues to serve an important function, as the main platform for dialogue and coordination on water, energy, food, including agriculture, and environmental issues among all five Central Asian countries. Additionally, IFAS provides a forum for high-level decision-making and facilitates meetings of Heads of State of the five Central Asian countries to discuss cooperation frameworks. Central Asian states have repeatedly confirmed the role of IFAS as a forum to develop mutually acceptable mechanisms on the integrated use of water resources and environmental protection, while taking account of the interests of all states in the region (IFAS, 2012). The array of agreements, decisions and statements adopted in the framework of IFAS confirms the readiness of Central Asian states to cooperate. Nonetheless, from an operational point of view, bilateral or multilateral agreements provide important institutional frameworks independent of IFAS that may allow to overcome some of the bottlenecks of decision-making processes within IFAS structures. Moreover, the questionnaire results below (section 7) show that the institutional capacity of IFAS is limited and that institutional arrangements are not

¹⁸ Financing of activities is organised on parity and done on a shared basis

¹⁹ See (EC IFAS, 2008)

conducive to nexus perspectives in planning, negotiation, decision-making and implementation processes.

6.1.1 Executive Committee of the International Fund for Saving the Aral Sea – EC IFAS

The Executive Committee is a standing executive body of IFAS. The most important decisions concerning the strategic directions for activities of the Fund are adopted by the Council of Heads of State of Central Asia. The main objective of the fund is to finance joint practical measures, programmes and projects for saving the Aral Sea, ecological rehabilitation of the Aral Sea surrounding areas and the Aral Sea Basin as a whole, taking into account the interests of all riparian states in the region. The main goal of IFAS and its organisations is to work towards integration and cooperation in order to use existing water resources more effectively and efficiently, to ensure sustainable development and adapt to climate change in the region.²⁰

The structure of IFAS and its governance approaches have not been updated since its establishment, albeit attempts and support from international development agencies. The recent UN resolution on “Strengthening regional and international cooperation to ensure peace, stability and sustainable development in the Central Asian Region”²¹ adopted in June 2018 demonstrates that efforts are being made to overcome the shortcomings of IFAS and reinvigorate attention from the international community to the situation of the region as well as attract the needed investments. The structure of IFAS shows that water and sustainable development issues in the region are highly politicised, because all activities and actions of IFAS organs need to be approved by Heads of State of the five Central Asian countries. With Kyrgyzstan’s membership still frozen, IFAS struggles to facilitate cooperation and deliver on its mandate.

IFAS itself strives to be an active regional organisation that promotes conflict-free resolutions to complex water problems, while taking into account the social and economic situation of the region. One key element of achieving this goal is to strengthen regional cooperation. A main task is the “financing and crediting of joint practical actions and perspective programs and projects for the Aral Sea saving, ecological rehabilitation of Pryaralye²² and of the Aral Sea Basin as a whole with account of the interests of all the states of the region.” (EC IFAS, 1999a, p. para. 1.1) IFAS aims to enable the implementation of projects that improve the management of shared water resources. However, the Fund has not been able to successfully attract funding for many of the programmes and projects critical to the sustainable development of the region. Instead, project proponents largely depend on their own capacity to convince donors, international financial institutions (IFIs) and other investors to provide the necessary funds for project implementation.

6.1.2 ICWC – Interstate Commission on Water Coordination²³

On 18 February 1992, the Ministers of Water Resources of five Central Asian states signed the “Agreement on cooperation in joint management, use and protection of interstate sources of water resources”. ICWC is mandated to determine water policies in the region, with a particular focus on the rational use of water resources, the development and approval of annual water consumption

²⁰ Regional Dialogue among Central Asian Environmental Institutions (analytical paper).

²¹ UNGA Resolution A/RES/72/283 (<https://undocs.org/en/A/RES/72/283>)

²² The area surrounding the Aral Sea

²³ Regional Dialogue among Central Asian Environmental Institutions (analytical paper).

limits and the appropriate scheduling of water reservoirs operations, providing corrections in accordance with forecasts of actual water quantity and in line with the water-economic situation.

ICWC is a collective body of Central Asian States acting based on equality, equity and consensus. According to the Decision by the Heads of State dated 23 March 1993, ICWC was included as an organ of IFAS making it an international organisation. The Ministers of Water Resources of the five Central Asian states are members of ICWC. Quarterly meetings are held to determine regional water resources management and development and ensure the stability of natural and hydro-ecological processes. ICWC also considers environmental programmes related to the rehabilitation of the Aral Sea, measures to overcome water sources exhaustion and interruptions to annual water flow volumes as well as sanitation releases into rivers and canals.

ICWC consists of a Secretariat and four executing bodies, including the Scientific Information Centre (SIC ICWC), two Basin Water Organisations (BWO) for the Amu Darya and the Sir Darya rivers and the Coordination Meteorological Centre (CMC). SIC ICWC, with branch offices in each of the five countries, brings together more than 16 scientific and project organisations and provides technical support for ICWC activities by generating information, conducting trainings, carrying out research and facilitating networking opportunities. BWOs engage in water resources allocation in accordance with established limits, operate structures related to water supply, such as interstate canals, reservoirs of common use, etc. and implement measures to improve the ecological situation of the river basins. CMC provides expertise on the use, protection and accounting of water resources.

6.1.3 ICSD – Interstate Commission on Sustainable Development²⁴

The Interstate Commission on Sustainable Development (ICSD) was established in 1994 by a Decision of the Interstate Council for the Aral Sea. According to its Statutes, the main purpose and mandate of the Commission is to coordinate and manage regional cooperation on environment and sustainable development in the countries of Central Asia. For this purpose, ICSD is tasked to develop the Regional Environmental Action Plan (REAP), a programme on regional nature conservation aimed at:

- developing a regional strategy for sustainable development and support implementation programmes and plans for sustainable development associated with it; and
- coordinating activities to implement obligations of Central Asian states under environmental conventions of transboundary dimension.

ICSD consists of 15 members – three representatives from each country, including the heads of agencies dealing with environmental conservation, the deputy ministers of economy and representatives of the scientific community. The Chair of the Commission is elected on a rotational basis from the Ministers of Environment for a term of two years. Its executive bodies include the Scientific Information Center (SIC ICSD) and the Secretariat. SIC ICSD has branch offices in all countries of Central Asia, represented by units of national environmental agencies. In addition, ICSD has initiated within its structure the establishment of the regional mountain center and the regional center for renewable energy. A Public Board operates under ICSD.

For many years, the United Nations Environmental Programme (UNEP) for Asia and the Pacific, based in Bangkok, supported ICSD activities. UNEP provides assistance for the development of the ICSD work programme and significant financial support to projects and activities carried out under its auspices. The Central Asia Nexus Dialogue Project also supported meetings of ICSD during the

²⁴ Regional Dialogue among Central Asian Environmental Institutions (analytical paper).

most recent iteration of REAP. Although ICSD covers the entire Central Asia region, its scope of activities is limited to the Aral Sea Basin.

ICSD also facilitates the harmonisation of the legislative and methodological basis for the protection of the environment and the establishment of a regional data bank on protection of the environment. Whereas the mandates of ICSD and ICWC overlap in part, the mandate of ICSD extends far beyond the water domain. Indeed, the first integrated “state of environment” assessment for Central Asia, REAP, and the Framework Convention for the Protection of the Environment for Sustainable Development in Central Asia, signed by three countries in the region, were developed under the auspices of the ICSD with support of UNEP.

6.2 Aral Sea Basin Programme (ASBP)

The Aral Sea Basin Programme (ASBP)²⁵ is a mechanism to solve water, socio-economic and environmental issues in the Aral Sea Basin, thereby, fulfilling a core objective of EC IFAS. ASBP is a key long-term action programme for the region that includes a list of both national and regional projects in the field of sustainable development with a particular focus on managing water resources and protection of the environment. Reflecting on the goals of the WEF security nexus, this is very much in line with nexus thinking. However, ASBP has traditionally been a water-centric, unstructured and underfunded programme that mostly relied on the international donor community to provide grants. The Central Asia Nexus Dialogue Project has supported IFAS to turn ASBP-4 into a broader investment programme to catalyse innovative, blended solutions.

ASBP was created to strengthen regional collaboration and address challenges of mutual interest. Because IFAS mainly relies on donor or grant funding, many projects that were included in the last three programmes could not be implemented. This points to some of the shortcomings of ASBP, including a focus on national projects, the lack of standardised criteria to ensure quality of proposals, limited regional cooperation to implement projects, a reliance on grants and the international donor community to provide the necessary funds, the absence of effective project monitoring frameworks and a general lack of capacity within IFAS.

Three programmes were implemented in the past: ASBP-1 (1994-2002), ASBP-2 (2003-2010) and ASBP-3 (2011-2015). In January 2018, the Heads of the Central Asian States decided to start the preparation of the Fourth Aral Sea Basin Programme (ASBP-4). Like previous iterations of the ASBPs, ASBP-4 will specify a list of priority projects submitted and jointly approved by the five Central Asian countries. After the first two iterations of ASBPs, a number of lessons learnt were collected. These included the realisation that the donor community should be more involved in the preparation of ASBP as well as supporting the programme financially. Furthermore, while ASBP-1 and 2 mainly addressed technical issues, greater attention was given to social, political and institutional concerns in ASBP-3. The review also revealed that cooperation at various levels of decision-making and between ministries of the Central Asian countries remained weak and, therefore, undermined effective implementation. Additionally, “donors recommend[ed] the establishment of a regular joint process for taking stock and reviewing the progress on the implementation of the approved ASBP-3” (IFAS, 2012).

ASBP-4 focusses on four main directions: (i) integrated use of water resources; (ii) environmental protection; (iii) socio-economic development; and (iv) improvement of institutional and legal instruments. The list of projects that is eventually included into ASBP-4 is negotiated first among

²⁵ http://www.ifas.kz/en/page/asbp_149

national, followed by discussions with regional ASBP working groups. Project proposals are screened at national level with the help of experts supported by the Central Asia Nexus Dialogue Project and other donors. Successful proposals that fulfil the agreed selection criteria are then submitted to the regional ASBP working group. National ASBP working groups are made up of representatives of key ministries from all relevant sectors enabling multi-sectoral dialogue on priorities. At regional level, regional ASBP working groups bring together EC IFAS representatives, ICSD, ICWC, working group experts and a small number of representatives from international organisations, including CAREC. Donor meetings are also organised in parallel, in order to attract investments for projects selected under ASBP.

In the iteration of ASBP-4, particular attention is paid to providing a clearer set of criteria for the selection of projects and on matters of practical implementation, monitoring and evaluation of the results generated by the programme. The Central Asia Nexus Dialogue Project was successful in its impact on the draft ASBP-4 concept, which now includes specific reference to the WEF security nexus and the nexus approach more broadly. In the proposed selection criteria, countries are asked to propose projects that are cross-sectoral and consider benefits for other sectors of the economy. Additionally, the current iteration of the programme will no longer rely on grants only, as it has started to explore new types of investments – hence, making ASBP-4 an investment programme.

With negotiations of ASBP-4 ongoing, it is anticipated that the WEF security nexus will feature more prominently and that multi-sectoral projects will be proposed. It is encouraging that the Heads of State in their *Joint Communiqué of the Heads of the Central Asian States noting the importance to elaborate the Aral Sea Basin Programme (ASBP-4)* made particular reference to water-energy linkages, emphasising the integrated and rational use of water and energy resources in Central Asia. They further noted the importance of hydropower facilities, particularly with respect to transboundary watercourses, and reiterated that any interventions in this regard should comply with international principles and standards.

7 Questionnaire results

A questionnaire was used to conduct semi-structured interviews (Annex 1 – Questionnaire) with key stakeholders to gain a better understanding of existing regional institutional arrangements in Central Asia. Aimed at identifying regional institutional opportunities and challenges, the following topics were covered:

- 1) WEF Security Nexus awareness and understanding;
- 2) ASBP planning process;
- 3) Selection and implementation of regional ASBP investment projects;
- 4) Building an enabling environment in Central Asia.

Sixteen individuals were interviewed for the purpose of this analysis. They included representatives from national ministries, regional organisations, especially the two BWOs and other national and regional experts working in sectors closely related to water and natural resources management. Some of the respondents were part of the national expert community engaged by the Central Asia Nexus Dialogue Project. The findings from the interviews were supplemented by desk research and information obtained during national and regional dialogues, to ensure a more complete, comprehensive and accurate picture of the situation in the region.

7.1 WEF security nexus awareness and understanding

Acceptance of its importance and a deep understanding of the nexus concept are crucial for effective dialogue and meaningful negotiation to take place. According to the data collected (Figure 7), respondents believe they have sufficient understanding of the WEF Security Nexus and recognise its value for the region. While some countries (esp. those where IsWGs have been established) confirm that steps towards agreeing on a common definition should be taken at national and regional levels, this has yet to be accomplished. Stakeholders indicate that they are familiar and comfortable with using some concepts, such as integrated use of natural resources, IWRM or green economy. The nexus concept, however, is still new and experience with using it is virtually non-existent in Central Asia. For the nexus to be institutionalised, political will and a favourable institutional environment are necessary, especially at regional level.

While respondents recognise the lack of information and data sharing, they also highlight that this varies between countries. It is vital to identify opportunities and information needs and to develop the necessary information and data sharing protocols that would enable informed WEF Nexus decision-making. While there are some attempts at national level of different ministries to work together, there are no clear rules and procedures as to how mutual exchange should occur and how this may influence sectoral policy and decision-making. Additionally, many countries prioritise single-sector economic growth without much coordination, which would have the potential to increase benefits and prevent negative impacts on other sectors.

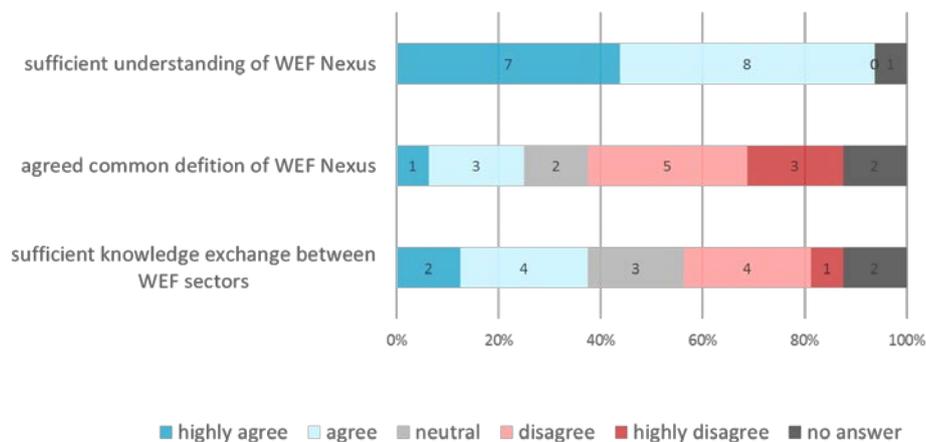


Figure 7: WEF security nexus awareness and understanding

In the comment section, respondents made reference to the efforts of the Central Asia Nexus Project to establish national and regional dialogues to gradually increase WEF Nexus understanding. There is a recognition that these multi-sectoral platforms that have been established are necessary to put the nexus approach into action in the future, especially at regional level. However, from these dialogues it became apparent that full buy-in will become only possible, where the success of the application of the WEF Nexus approach can be demonstrated through concrete actions and best practices in Central Asia. Therefore, while the principles and theoretical underpinnings of the nexus approach are sufficiently understood and best practice cases from other regions serve as important background and conversation starter,²⁶ there is some uncertainty as to how Central Asian countries

²⁶ See IUCN (2019). *Increasing returns on investment opportunities by applying a nexus approach: Best practice nexus case studies*. Belgrade, Serbia: IUCN.

can benefit in practical terms. This, in turn, influences the willingness of stakeholders to embrace and commit fully to the nexus approach.

7.2 ASBP planning process (national/regional)

When looking at the ASBP planning processes at the national and regional level, respondents indicate that multi-sectoral dialogue does not form a priority of ASBP planning and that single-sector interests (primarily water) take priority (Figure 8). Additionally, socio-economic development is awarded greater importance than environmental sustainability, which may affect the types of projects selected for inclusion in ASBP.

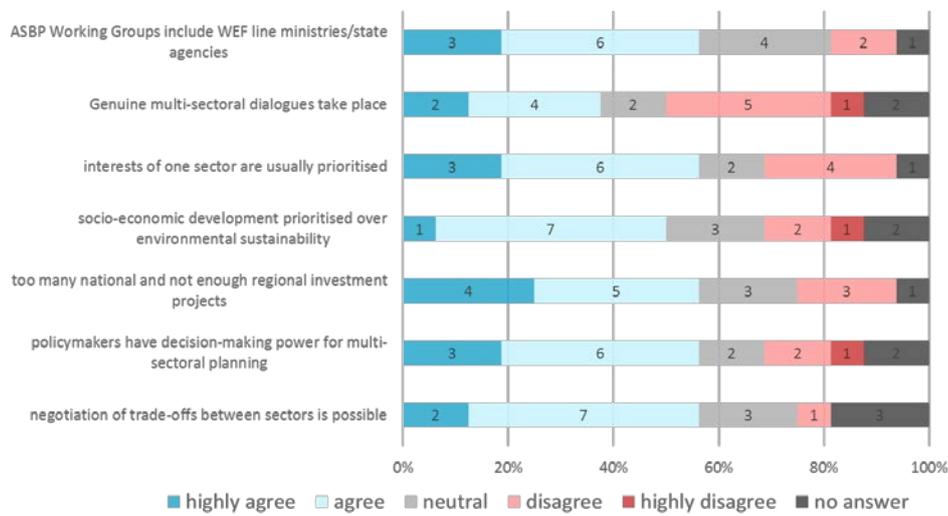


Figure 8: ASBP planning process (national/regional)

While most national ASBP working groups include representatives from all sectors, at regional level there is a lack of multi-sectoral dialogue in general. It is not always clear whether negotiation on concrete trade-offs is possible in practical terms, even when all sectors are represented. It was noted that private sector involvement has the potential to enhance the overall positive impact of ASBP. Private sector investments seek to optimise outcomes and may, therefore, maximise financial returns. However, the lack of an effective platform and sufficient institutional capacity required for the development of a common vision for multi-sectoral planning constitutes a major barrier to achieving benefits for all WEF sectors in the region. Horizontal and vertical coordination and collaboration is required, in which mutual understanding becomes possible.

Furthermore, respondents highlighted that not all WEF ministries are included in all ASBP processes and that the energy sector in particular remains underrepresented. This can be attributed to the four priority areas of ASBP and the general purpose of IFAS, which was not established to act as a regional integrating organisation, but rather as a facilitator to address matters of regional water management.

7.3 Selection and implementation of regional ASBP investment projects

The study at hand suggests that there is a lack of strategic vision of the ASBP process, which hampers the effectiveness and implementation of selected projects. Additionally, expectations of donors and IFIs do not always align with regional priorities or are generally not clear to stakeholders (Figure 9). Some respondents called for more regional focus of ASBP and to take a more strategic approach regarding project selection, especially considering that many projects in the last programme (ASBP-3) were never implemented. Other respondents called for sound criteria that would encourage regional challenges to be addressed more coherently, rather than building ASBP solely on national interests.

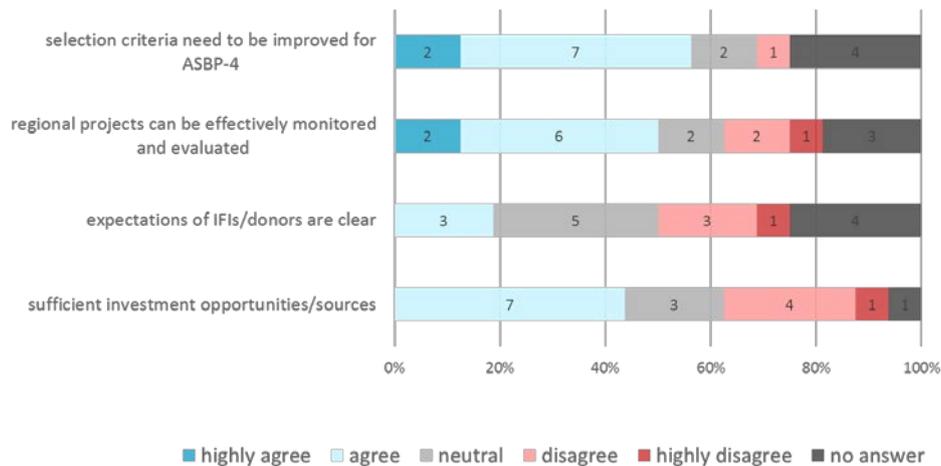


Figure 9: Selection and implementation of regional ASBP investment projects

Shortcomings of past ASBP iterations highlighted by respondents include: weak project design; lack of or insufficient interaction between donors and IFAS; fragmentation of the programme and lack of focus; difficulties to monitor the programme and its overall contribution. There is also a need to build capacities for the development of project proposals, the implementation of projects and more generally for the management of the entire project cycle. It was suggested to create a permanent, regional body, within the structures of IFAS, with responsibility for the development, implementation, management and monitoring of ASBP-4. This body would work for the duration of ASBP-4. Alternatively, this role could be carried out by established structures of EC IFAS, who could encourage each country to develop ASBP implementation plans.

Sources of financing and opportunities for regional investment projects are a major concern for Central Asian countries (Figure 9). Respondents noted that private sector financing and investment could be utilised more strategically. Since there is no unified ASBP fund, the region relies on a combination of funding sources. Placing a greater focus on making ASBP more attractive from an economic point of view, may catalyse blended investments, including from the private sector. It was highlighted that initiatives at the regional level are often based on political rather than economic decisions and considerations. Additionally, there is a gap between the types of projects that are of interest to donors and IFIs and those projects that are deemed by the countries of Central Asia as having national or regional priority.

7.4 Building an enabling environment in Central Asia

Respondents confirmed that political readiness, trust and commitment of countries is a key prerequisite to achieve greater policy coherence and facilitate constructive negotiation at the regional level. An effective dialogue platform and a clear institutional framework would allow Central Asian countries to meet on a regular basis, exchange information and develop joint strategies and plans. There is a need to update the institutional, regulatory and legal frameworks in Central Asia, which also includes improving the organisational structure of IFAS.

A clearer, more strategic and transparent approach could mean more projects that are economically attractive, socially significant and politically acceptable and unbiased. Multi-sectoral dialogue could contribute to more effective balancing of interests between WEF sectors based on consensus between all Central Asian countries, thereby, promoting more efficient use of natural, financial and technological resources. However, practical steps and activities that transform WEF discussions into concrete actions in the regional context (i.e. through pilot projects) are indispensable. Positive results of practical applications will strengthen regional cooperation and catalyse expansion of project proposals.

The following factors have been identified as those most prohibitive to multi-sectoral dialogue for the planning of WEF investment projects at the regional level in Central Asia:

- unfavourable political and institutional factors;
- low levels of mutual understanding and trust;
- lack of knowledge, institutional and technical capacities; and
- need for more open data and information exchange.

It was also mentioned that the concept of an open dialogue without conditions is new to the region. According to some respondents, “dependence on the past” persists, in addition to “the game of showing off”. Multi-sectoral dialogues generally lack a clear structure, criteria or strategic vision. Additionally, negotiations are often driven by self-interest rather than broader regional goals.

7.5 Additional observations

Environmental protection and the achievement of water, energy and food security through multi-sector approaches at regional level appears to be a challenge that has not been sufficiently considered. This can be attributed, at least in part, to a lack of clarity of what the purpose of ASBP is. Representatives of national working groups do not have a clear view on how to increase impact and effectiveness of the programme and attract investments toward implementation of those projects. In this regard, respondents noted challenges regarding priority setting at regional level, starting with problem-definition. ASBP should serve as a means to develop and coordinate priority tasks in each sector and for each regional priority area. In this way, following up on concrete project development could be better aligned with priorities of donors and IFIs. Agreeing on which problems to address at the regional level could, thus, significantly enhance the effectiveness of ASBP, increase its impact as well as the likelihood of project financing and implementation.

A prevailing lack of trust among states may be a factor hampering cooperation and information exchange between countries. Furthermore, multi-sectoral dialogue is affected also by vast differences in the economic situation of the five Central Asian countries, which greatly influences investment opportunities and financial capacities. Respondents highlighted that economic growth and environmental sustainability are interconnected and acknowledge that regional cooperation will

become increasingly important for the advancement of the region's socio-economic development and the protection of vital ecosystems. Yet, genuine multi-sectoral dialogue that applies nexus perspectives remains sporadic.

The international donor community and other interested parties engage in the ASBP process on an ad-hoc basis and their support is usually fragmented. The regional dialogues organised as part of the Central Asia Nexus Dialogue Project, however, are seen as the first step towards increasing knowledge and information exchange, building the necessary trust between the WEF sectors and between countries and to explore innovative investment options. Respondents recognise these efforts and generally perceive them as useful and positive. However, participants of these dialogues and within the ASBP process mostly represent the water sector, or are experts from the water domain. This impedes the inclusion of energy and food sector perspectives. Instead, discussions often continue to revolve around pure water management or IWRM challenges. This may be attributed to the fact that water issues constitute a major link to other sectors of the economy as well as the environment. Additionally, diverging national interests continue to obstruct the formation of a common understanding at regional level on how to balance various interests and priorities. Underlying reasons for underrepresentation of some sectors are attributed to a lack of interest, incentives and prohibitive institutional arrangements.

8 Conclusion

Participants of the Project's national and regional meetings, as well as those who responded to the questionnaire indicated that the activities of the Central Asia Nexus Dialogue Project have increased awareness on the WEF Security Nexus, the necessity of collaboration between WEF sectors and between countries and possible applications of nexus thinking in the region. Nexus approaches offer equitable, needs-based and sustainable solutions that promote the sharing of resources. It provides a structured approach to analyse interrelations, helps identify critical bottlenecks and opportunities for benefit sharing and facilitates institutional processes conducive to multi-sectoral decision-making.

The imbalance of freshwater endowments remains a source of competition between Central Asian states, especially where priorities of upstream compared to downstream countries of the Aral Sea Basin diverge. Interdependencies and competition can be addressed through well-designed, structured and multi-dimensional regional investment programmes that take into account lessons learned from ASBP, but is wider in both geographical and thematic scope. Regional organisations working in the area of environmental protection and have political leverage can act as key facilitators. The nexus approach, as a powerful communication tool, can then be utilised to bring all relevant sectors and actors onto the negotiation table to design institutional frameworks that enable all perspectives to be considered in the planning and decision-making process.

The Central Asia Nexus Dialogue Project was able to influence the development of the draft ASBP-4 concept, which includes specific references to the WEF Security Nexus and the nexus approach more broadly. Countries are now asked to propose projects that are cross-sectoral and consider benefits for other sectors of the economy. Additionally, the current iteration of the programme will no longer rely on grants alone, but started to explore new types of investments.

There is still a need to take a step-by-step approach to introducing nexus thinking and application in Central Asia. Efforts should be made to demonstrate the benefits of the nexus approach in concrete terms, especially through application in small scale pilots. Then steps can be taken towards creating an enabling environment to move towards larger multi-sectoral investments. The institutional environment and governance structures are particularly important if the WEF Nexus is to be fully

rooted in Central Asia. However, this will depend largely on the willingness of key actors of the three WEF sectors and individual states to cooperate towards a common goal of achieving sustainable development that ensures water, energy and food security. The required commitment will only develop over time, as capacities and institutions are strengthened. Especially, IFAS has to position itself more clearly as an organisation that has the mandate and capacity to bring together the diverse interests of its members.

9 Recommendations

The following recommendations represent immediate steps that should be taken to ground nexus thinking in Central Asia and enable institutional changes conducive to multi-sectoral planning and decision-making. They have the potential to strengthen the WEF Security Nexus in Central Asia and create the necessary institutional enabling environment.

- **Understanding the WEF Nexus approach:**
 - Agreement on a common regional definition of WEF Security Nexus;
 - Regular and open dialogues involving all three WEF sectors at both national and regional levels, utilising existing platforms and tools;
 - Frame WEF Security Nexus around national economic security objectives;
 - Carry out a detailed national nexus assessment and policy diagnostic;
 - Collect best practice examples from the Central Asian region;
 - Assess interdependencies between national and regional policies.

- **Demonstrating WEF nexus application in Central Asia:**
 - Develop a strategic vision and clear action plan to move nexus from dialogue to action;
 - Establish a technical nexus working group to develop and implement pilot nexus investment projects;
 - Design, plan and implement small-scale nexus projects to demonstrate the benefits of the nexus approach in Central Asia.

- **Overcoming water-centric planning and decision-making:**
 - Increase the involvement and representation of all WEF sectors;
 - Jointly define problems, negotiate trade-offs and identify solutions at regional level;
 - Inclusion of various stakeholders, including resource users, into the project design.

- **Enabling political and institutional environment:**
 - Strengthen national and regional coordination mechanisms and legal frameworks for multi-sectoral planning and decision-making;
 - Develop national and regional knowledge and data sharing platforms;
 - Identify the role and assess capacities of regional institutions in promoting the nexus approach and its application;
 - Enhance national policy coherence for better regional coordination and cooperation.

- **Multi-sectoral investments:**
 - Review nexus project selection criteria;
 - Provide guidance on design and implementation of nexus investment projects;
 - Explore innovative investment opportunities, including blended financing, by developing a financing model for Central Asia.

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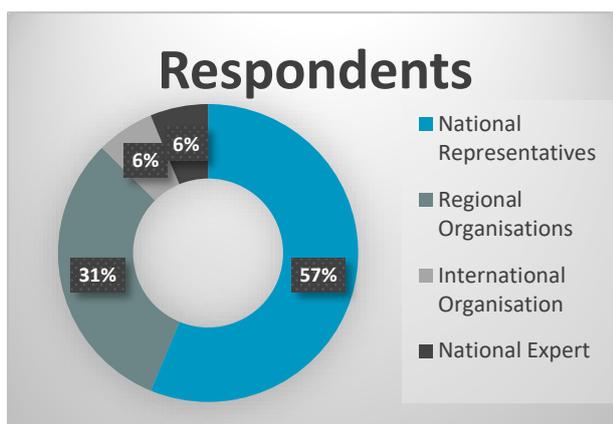
Annexes

Annex 1 – Questionnaire

The questionnaire was sent to relevant stakeholders, which included officials of relevant international agencies/institutions, officials of relevant regional and national bodies and selected individual experts. In particular, the questionnaire was completed by stakeholders involved in IFAS and the ASBP-4 process (members of regional and national ASBP-4 working groups), international agencies involved or supporting ASBP, former IFAS and/or ASBP working group members, the Amu Darya and Syr Darya Basin Water Organisations (BWO) and other relevant stakeholders and/or experts.

Interviews took place between May and September 2018. Where possible face-to-face or telephone interviews and/or focus group, discussions were conducted. The Central Asian International Environmental Forum (CAIEF), meetings of the ASBP-4 working groups, Intersectoral Working Group (IsWG) meetings and Regional Steering Committee (RSC) meetings served as opportunities for setting up relevant stakeholder meetings and for conducting interviews. Russian-English translation was provided. Where this was not possible, questionnaires were sent via email to stakeholders/experts. However, face-to-face or telephone interviews were preferred as these allowed queries by respondents to be addressed and follow-up/ clarification questions to be considered.

Overview of respondents:



Interviews were conducted with a total of 16 individuals – nine representatives from national ministries, five from regional organisations, including basin water organisations, one from an international organisation and one national expert. Of the nine national representatives, three are from Kazakhstan, four from Tajikistan, one from Turkmenistan and one from Uzbekistan. Kyrgyzstan did not participate in the questionnaire due to their membership in IFAS being frozen.

Three of the respondents are female and thirteen are male. It was striking that eleven of the sixteen respondents (approx. 69%) named water as one of their key areas of responsibility and/or expertise. This is significant as the nexus debate largely remains in the water sector. This is particularly the case in Central Asia, where water allocation challenges and the reasonable utilisation of water resources characterised by security concerns due to water scarcity, continues to be a major priority for the region. The involvement of other sectors is often not possible, due to geo-political challenges.

The questionnaire can be found below.



The Project is funded by the European Union, implemented by CAREC in cooperation with IUCN, supported by EC IFAS

Addressing the institutional arrangements and capacity needs for the development, selection and implementation of Water-Energy-Food Security Nexus investment projects as part of the Aral Sea Basin Program IV

STAKEHOLDER INTERVIEWS

This interview is conducted as part of an institutional analysis and capacity needs assessment in the framework of the EU-funded project [“Fostering Water, Energy and Food Security Nexus Dialogue and Multi-Sector Investment in Central Asia”](#). The aim of the project is to create a multi-sectoral enabling environment to facilitate sustainable and climate-resilient investments for increased water, energy and food (WEF) security in Central Asia.

The interview consists of two parts: (i) a questionnaire and (ii) a capacity score card, including follow-up questions. These consider the institutional arrangements and capacities of the Aral Sea Basin Program (ASBP) IV to select multi-sectoral investment projects. It draws on the experiences, perceptions and knowledge of key stakeholders, actors and experts involved in ASBP at national and regional levels.

The process of collecting data will be facilitated by an interviewer (the interviewer should introduce her/himself and introduce the process, as well as answer any questions that interviewees may have before the start of the interview). It should be made clear that the confidentiality of interviewees will be protected.

PART 1

General Information

1. Name of the Interviewee:
2. Name of Organisation/Ministry/Department:
3. Contact Information (Email, Phone):
4. What is your area of responsibility/ area of expertise (*more than one answer is possible*)?
 - Water Energy Food/Land-use/Agriculture
 - Environment/Ecosystems Economic development and investments
 - Other, please specify:
5. Geographical scope
 - National Transboundary Local Regional

Other, please specify:

6. Gender

Male Female

WEF security Nexus Awareness and Understanding

7. I have a sufficient understanding of the Water-Energy-Food security Nexus and the interdependencies of the WEF sectors.

highly agree agree neutral disagree highly disagree

Comments:

8. There is a common definition of the WEF security Nexus that has been agreed on national/regional level (please, specify type of document: strategy/sectoral strategy/concept/law/statement, etc.)

highly agree agree neutral disagree highly disagree

Please specify:

9. There is sufficient knowledge exchange between WEF sectors on national level.

highly agree agree neutral disagree highly disagree

Comments:

ASBP Planning Process (national/regional)

10. ASBP Working Groups include representatives of WEF line ministries and state agencies.

highly agree agree neutral disagree highly disagree

Comments:

11. Genuine multi-sectoral dialogues are taking place between WEF line ministries and state agencies, where each sector has the chance to present its interests and priorities.

highly agree agree neutral disagree highly disagree

Comments:

12. The interests/priorities of one particular sector are usually prioritised (which one?)

highly agree agree neutral disagree highly disagree

Comments:

13. Socio-economic development is prioritised over environmental sustainability in the selection of investment projects (for ASBP-3/ASBP-4, if appropriate).

highly agree agree neutral disagree highly disagree

Comments:

14. There are too many national investment projects and not enough regional/transboundary ones (for ASBP-3/ASBP-4, if appropriate).

highly agree agree neutral disagree highly disagree

Comments:

15. Policymakers have the decision-making power to engage in planning and develop regional/transboundary multi-sectoral investment projects.

highly agree agree neutral disagree highly disagree

Comments:

16. Policymakers have the technical capacity to engage in planning and develop regional/transboundary multi-sectoral investment projects. (please specify what could be done to improve this)

highly agree agree neutral disagree highly disagree

Comments:

17. Negotiation about trade-offs and competing interests of sectors is possible at national/regional levels; the mechanisms employed enable the development of a common vision for multi-sectoral planning.

highly agree agree neutral disagree highly disagree

Comments:

Selection and Implementation of transboundary/regional ASBP Investment Projects

18. The selection criteria of regional projects needs to be improved for ASBP-4 (please specify, how are projects selected, drawing on your experience from ASBP-3 what improvements do you think should be made).

highly agree agree neutral disagree highly disagree

Comments:

19. The selection process of regional projects is transparent and well structured (please reflect on your experience from ASBP-3).

highly agree agree neutral disagree highly disagree

Comments:

20. The selection process/criteria allow for the negotiation of regional priorities and the selection of projects that are either implemented by more than one country or have significant regional significance (please specify how it may be possible to increase the number of selected projects that have a regional focus).

highly agree agree neutral disagree highly disagree

Comments:

21. Regional projects can be effectively monitored and evaluated (please specify, how does the process work? How can it be improved, e.g. what technology, skills, capacities are needed?)

highly agree agree neutral disagree highly disagree

Comments:

21a. Environmental and social safeguards are included in the design of regional projects, enforced during project implementation and monitored throughout (please reflect on your experience from ASBP-3).

highly agree agree neutral disagree highly disagree

Comments:

22. The expectations of investors/donors on transboundary/regional investment projects are clear. (reflecting on your experience with ASBP-3, how could the involvement of donors be structured for the successful implementation of ASBP-4)

highly agree agree neutral disagree highly disagree

Comments:

23. There are sufficient investment opportunities/sources of financing for transboundary/regional investment projects.

highly agree agree neutral disagree highly disagree

Comments:

Open Questions *(these may require someone explaining or asking probing follow-up question)*

24. What factors do you think make dialogue for planning of WEF transboundary/regional investment projects for ASBP-4 successful?

25. What outcomes do you expect from a multi-sectoral dialogue for planning of WEF transboundary/regional investment projects for ASBP-4?

26. From your experience, what factors prevent multi-sectoral dialogue for planning of WEF transboundary/regional investment projects for ASBP-4 (these can include institutional, policy, structural, capacity etc.)?

Ethics framework for stakeholder engagement

The following are a set of minimum requirements and principles that were respected in any engagement with stakeholders in the frame of this institutional analysis. In particular, they established the standards that were applied during design, data collection and analysis. These ethics principles ensured the credibility, reliability and transparency of applied methods as well as contributed to preserving the integrity, rights and confidentiality of key stakeholders.

- A focus on mutual learning in order to build understanding and capacity of those involved rather than making this assessment a purely technical exercise.
- Transparency in the design, purpose and use of analysis and resulting data, including clear communication with stakeholders concerning the purpose of the interview, questions and the intended uses of the results.
- Respect for the rights and interests of stakeholders, particularly with regards to culture, customs, fundamental values and the right to or not to participate. Assessments must be appropriate, representative and respectful, ensuring accessibility (e.g. language translation), meaningfulness and usefulness. Due regard should be given to the welfare, beliefs and customs of those involved, including respect for divergent perceptions and views. In particular, measures should be taken to avoid harm, including by consideration of the political sensitivity of the assessment and its results.
- Full disclosure and free, prior and informed consent, meaning that interviewees have the right to consent to, decline or withdraw participation in the analysis.
- An unbiased approach of the interviewer when conducting interviews to ensure the necessary openness and respect for the views, perceptions and opinions of stakeholders. Additionally, the analysis should be based on reliable and quality data and observations, providing credible results. Credibility is achieved where interviewers ensure their objectivity, independence and impartiality, meaning that vested interests of the interviewer do not interfere with this analysis.
- Due credit and acknowledgement of contributors, respecting intellectual ownership, while ensuring confidentiality of individuals and groups.
- Gender representation and the participation should be ensured to the extent possible. This may be a challenge in Central Asia, where key stakeholders and decision makers are traditionally male.



**INTERNATIONAL UNION
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