



A NEXUS ROADMAP FOR CENTRAL ASIA

3rd Executive Committee Meeting

Regional Nexus Dialogues Programme

5 June 2019

CAREC & IUCN Nexus team

Structuring a Nexus Process

OUTPUTS	OUTCOMES
1) A schedule of indicative nexus investments	1) Key stakeholders understand nexus principles 2) Nexus principles mainstreamed into planning 3) Stakeholder agreements in place
2) Institutional capacity building undertaken	4) Institutions committed to and aligned with nexus principles
3) A dossier of investment options	
4) A nexus financing model (for Central Asia)	5) Increased water, energy and agricultural security in Central Asia

A Nexus Roadmap for Central Asia

ELEMENT	TIME SLICES					
	first steps	the enabling environment	capacity building	river basing planning	potential financing model	implementation
Investments	<p>OUTPUT 1 indicative nexus investments for the Central Asian river basins (rationale cluster A)</p>			<p>OUTPUT 3 a dossier of multi-scale investment options for water, agricultural and energy security in Central Asia, and including natural as well as built infrastructure</p>		<p>OUTCOME 5 increased water, agricultural and energy security in Central Asia as a result of multi-scale investments in multi-purpose built or natural infrastructure</p>
Institutions	<p>OUTCOME 1 key stakeholders understand nexus principles (rationale cluster B)</p>	<p>OUTCOME 3 agreements drafted, negotiated, validated and in-force - including cost/benefits sharing arrangements - for national and/or transboundary multi-purpose investments in water, agricultural and energy security</p>	<p>OUTPUT 2 an institutional needs gap assessment and capacity building plan designed and implemented</p>			
			<p>OUTCOME 4 institutions that are aligned with and committed to nexus</p>			
Politics and policies	<p>OUTCOME 2 nexus principles are mainstreamed into river basin planning (rationale cluster C)</p>					
Finance					<p>OUTPUT 4 a nexus financing model for Central Asia</p>	

Nexus Assessment

1. Understand underlying politics, which influence investment planning in the nexus sectors
2. Dossier of case studies
3. Raise awareness of key stakeholders to increase political capital
4. Facilitate peer-to-peer processes and utilise nexus champions
5. Based on institutional and capacity needs assessment, implement a tailored capacity building programme

Next steps for Phase II

OUTPUTS	OUTCOMES
1) A schedule of indicative nexus investments ✓ / Investment projects Pipeline	1) Key stakeholders understand nexus principles ✓ 2) Nexus principles mainstreamed into planning ✓ 3) Stakeholder agreements in place
2) Institutional capacity building undertaken ✓	4) Institutions committed to and aligned with nexus principles
3) A dossier of investment options	
4) A nexus financing model (for Central Asia)	5) Increased water, energy and agricultural security in Central Asia

The end goal

Focusing Nexus activities

Practice

Demonstration project: from Nexus Pipeline, or on a transboundary hydrotechnical facility, or Urban Nexus
New Cooperation Model!!!
New Partners: municipal and rural administrations, finance, private sector

Finance

Superior Financial model!!!
New partners: Min.Finance, commercial banks, IFIs, business
Added value: New financial products
new budgeting modality

**Enabling
environment for
WEF cooperation
and investments**

Academy

Practical Tools: models and programmes to support multisectoral planning, Cost–benefit assessments,
Project design: sustainability strategy and plan, risk identification and mitigation plan, impact quantification, monitoring plan, potential for EU blending

Awareness

Relevant national, regional and global
platforms
Media

New partners: Research, Education Japan, Kazakhstan

A large, stylized teal graphic on a light background. It consists of several overlapping, curved lines that form a shape reminiscent of a leaf or a stylized human figure. The lines are smooth and have a consistent thickness. The overall composition is clean and modern.

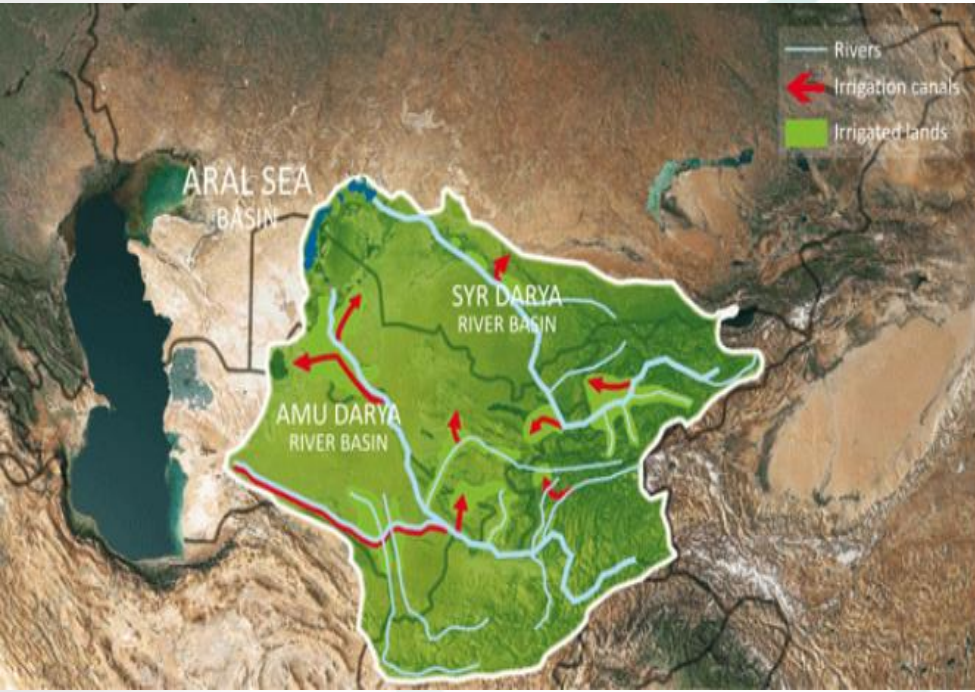
What could this look like in practice –
Nexus Project Pipeline

Aral Sea Basin is location for the Nexus investment project implementation (regional level)

- Aral Sea Basin: 154 934 00 ha
- Central Asia (83%)
 - Kazakhstan - 21%
 - Kyrgyzstan – 8%
 - Tajikistan – 8%
 - Turkmenistan – 21%
 - Uzbekistan – 25%
- Other countries (17%):
 - Afghanistan – 15%
 - Iran – 2%



The nexus investment projects cover separately two largest river basins: Syrdarya and Amydarya



- **The Amu Darya River** (2,540 km) with flow contribution:
 - Tajikistan - 74 %
 - Uzbekistan (8.6 %)
 - Kyrgyzstan (2.1 %)
 - Turkmenistan (1.8 %)
 - Afghanistan and Iran (13.6 %)
- **The Syrdarya River** (3,019 km long) with flow contribution:
 - Kyrgyzstan 75.2 % of river flow;
 - Uzbekistan 15.2 %;
 - Kazakhstan 6.9 %;
 - Tajikistan 2.7 %

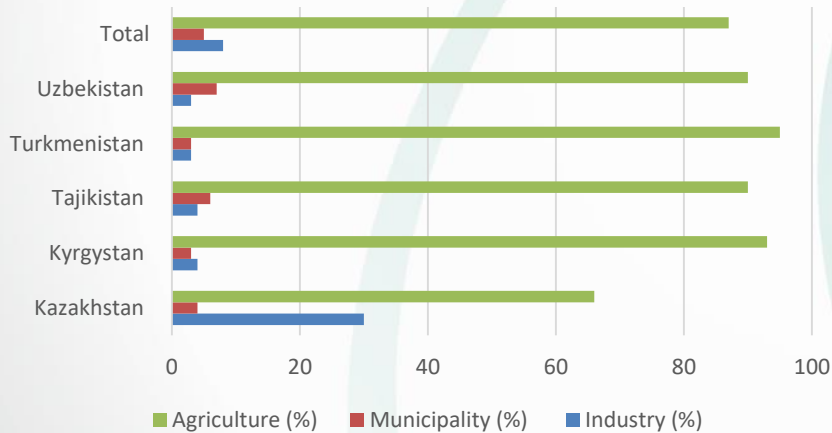
Nexus investment projects promotes the efficient transboundary water use in the Aral Sea Basin

Downstream countries (Kazakhstan, Uzbekistan and Turkmenistan) contribute 14 % of Aral Sea Basin river flow, withdraw 80% of the total flow generated in the irrigated areas.

Upstream countries comprise more than 60% of the entire Aral Sea Basin river flow, withdraw less than 11%, which generate over 90% of the hydro energy.

The agricultural sector uses 83.6% of the entire water resources in the region from, which only 50–70% of water reaches crops (68% of irrigated lands need reconstruction). Agriculture sector contributes between 10-30% of country's GDP and employs up to 40% of the population.

Water withdrawal by sector in Central Asia



In place: nine nexus project ideas of regional importance

Six got the owner; three needs the ownership

Six with ownership as listed further in this presentation:

Direction 1: Integrated water resources management (3 items)

- 1.1 “Modernization and introduction of SCADA in the Syrdarya River Basin”
- 1.3 “Dam safety and other hydrotechnical facilities (HRFs) in Central Asia”
- 1.4 “Improvement of the water resources in the Amydarya River Basin”

Direction 2. Environmental Protection

- 2.1 “Rehabilitation of the Aral Sea ecosystem to combat the desertification and land degradation”

Direction 3: Socio – economic development

- 3.2 “Integrated development of eco-and agro-tourism with elements of ethno-tourism in protected natural areas in the Aral Sea Basin”

Direction 4: Improving the institutional and legal instruments

- 4.1 “Enabling the environment for the regional cooperation in the Central Asia”

Three proposed for ownership:

1.2 Improvement of the meliorative condition of the irrigated lands in the Amu Darya and Syr Darya river basins

2.2 Integrated disaster risk management in the Aral Sea Basin

3.1 Sustainable water and energy supply in the rural areas in the Central Asia

PROJECT 1.1 «MODERNIZATION AND INTRODUCTION OF SCADA IN THE SYRDARYA BASIN»

Key information:

Project initiator: Water Basin Organization “Syrdarya”

Involved countries: Kazakhstan, Kyrgyzstan, Uzbekistan

Implementation: Water Basin Organization “Syrdarya”, Scientific-Information Center of the Interstate Coordination Water Commission of Central Asia

Developers: LLP “Sigma Automatic” (Tashkent), PKTI Vodoavtomatika (Bishkek)

Budget: \$USD 10 378 000

Timeline: Four years since financed

Objective: Modernization of the existing SCADA and installation of the new SCADA on the most important transboundary HTFs of the interstate importance in Syrdarya River Basin to ensure the transparency and accuracy of the water withdrawal by the riparian states.

Expected results:

- Transparent and efficient water use and withdrawals by the country - consumers,
- Accurate data on the water availability in the river basin to support the decision makers is readily available;
- Control over the operating modes of 18 HTFs of interstate importance is initiated. Their reliable and uninterrupted operation for the next 25 years is ensured.



PROJECT 1.3 «DAM SAFETY AND OTHER HYDROTECHNICAL FACILITIES (HTFs) IN CENTRAL ASIA: DEVELOPMENT OF THE POTENTIAL AND THE REGIONAL COOPERATION»

Key information:

Project initiator: Water Basin Organization “Syrdarya”

Involved countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Implementation: Water Basin Organizations “Syrdarya” and “Amudarya”.

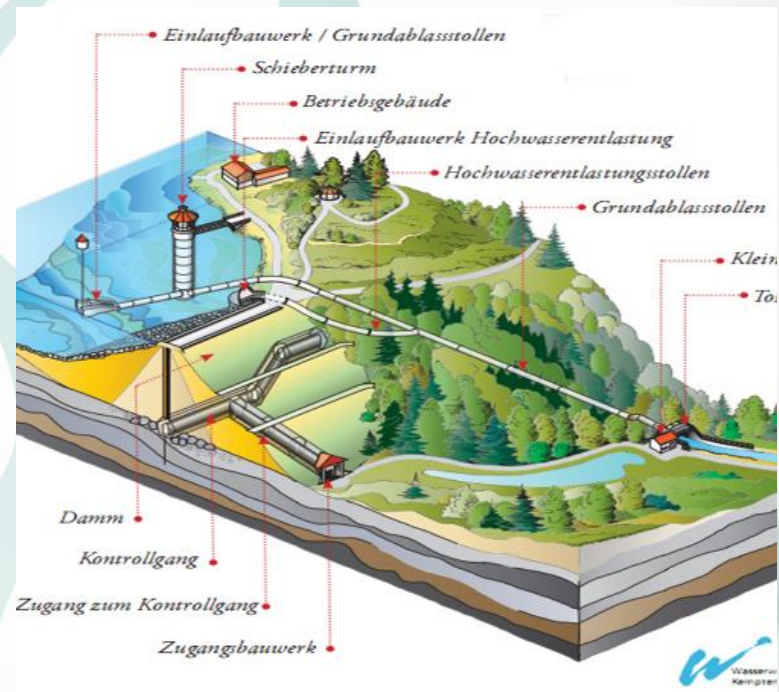
Budget: \$USD 6 800 000

Timeline: four years since financed

Objective: to improve the dam safety in Central Asia by developing the institutional and legislative frameworks, as well as modernization of certain HTFs through the implementation of the following activities.

Expected results:

- Efficiency and stability in the management of the water and hydro-energy resources;
- Reliable and uninterrupted operation of hydrotechnical facilities, including of interstate significance for the next 25 years;
- Beneficial regional dialogue and cooperation on the HTFs of interstate importance.



PROJECT 1.4 «IMPROVEMENT OF THE WATER RESOURCES IN THE AMUDARYA RIVER BASIN THROUGH THE REHABILITATION AND MODERNIZATION OF THE WATER FACILITIES AND INTERSTATE LEGISLATIVE FRAMEWORK»

Key information:

Project initiator: Water Basin Organization “Amudarya”

Involved countries: Tajikistan, Turkmenistan, Uzbekistan

Implementation: Water Basin Organization “Amudarya”

Budget: \$USD 35 000 000

Timeline: four years once financed

Objective: to tackle the sustainable water resources in the Amudarya River Basin by creating the legislative framework and introduction of SCADA .

Expected results:

- The first legislative framework is laid out;
- Decrease of non-productive water losses by 20%;
- Improved hydro infrastructure and technological communication along the river basin (hydro posts)
- Installation of the SCADA at the key facilities, technical capacity of the staff of water basin organizations and its branches is increased, decreased flood risks.



PROJECT 2.1 «REHABILITATION OF THE ARAL SEA ECOSYSTEM TO COMBAT THE DESERTIFICATION AND LAND DEGRADATION»

Key information:

Project initiator and developers: Executive Board of the International Fund for Aral Saving in the Republic of Kazakhstan

Involved countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Budget: to be defined during the project preparation

Timeline: 2020-2025

Objective: rehabilitation of the Aral Sea bottom by forestation and improvement of the collector-drainage system.

Expected results:

- “Green belt” with a territory of 180-200 thousand ha is created;
- Collector and drainage system with a length of 200 km in the deltas of Amudarya and Syrdarya Rivers is modernized and constructed to support the “Green Belt”;
- 2 nurseries with territory of 4 ha is created in Karakalpakstan is established (150-200 ha); test site for the cultivation of desert plants is created (50 ha) and a nursery for planting material (10 ha) in Dashoguz Velayat, Turkmenistan.



PROJECT 3.2 «INTEGRATED DEVELOPMENT OF ECO-AND AGRO-TOURISM WITH ELEMENTS OF ETHNO-TOURISM IN PROTECTED NATURAL AREAS IN THE ARAL SEA BASIN»

Key information:

Project initiator and developers: Executive Board of the International Fund for Aral Saving in the Republic of Kazakhstan

Involved countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Budget: to be defined during the project preparation

Timeline: 2020-2025

Objective: the mobilization of the economic potential and preservation of the ecosystems of the Aral Sea Basin by the development of the eco-touristic corridors and formation of the single regional services for tourists around the Aral Sea

Expected results:

- Relevant touristic routes across the Aral Sea Basin is developed; touristic infrastructure is in place; respective touristic networks are established, socio-economic well-being of the population improved



PROJECT 4.1 «ENABLING THE ENVIRONMENT FOR THE REGIONAL COOPERATION IN THE CENTRAL ASIA»

Key information:

Project initiator and developer: Ministry of Agriculture of the Republic of Kazakhstan

Involved countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Budget: to be defined during the project preparation

Timeline: 2019-2022

Objective: enable the environment on establishment of the potential financial and economic mechanism in the Central Asia.

Expected results:

- Sound economic and financial mechanism is proposed for the top decision makers with the respective institutional and legislative frameworks.



“Nexus dialogue for Central Asia is an opportunity to address practically the water, energy and food issue at the level of technical specialists of three sectors, as well as the dialogue at the highest level on water issues at the level of IFAS”

Nexus team



**Thank you
for attention!**

Ludmilla Kiktenko
lkiktenko@carececo.org