



15 Years of Expertise for Better Environment

Sub-regional priorities on climate technologies in Central Asia

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15 YEARS OF EXPERTISE FOR BETTER ENVIRONMENT

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Background

Common features

- **Vulnerability to climate change**
 - ALL 5 countries are amongst the **most vulnerable to climate change impacts** to compare with other countries in Eurasia
 - The most susceptible socio-economic sectors are:
 - Water and land resources, agriculture, energy, biodiversity and health
- **Highest level of risk in:**
 - Food security
 - Energy security
 - Climate-induced disasters

Different features

- **GHG emission trends**
 - **KAZ, TRM and UZB** – traditional source of energy
 - **TAJ and KYR** – hydro (up to 90%)
- **Country-based priorities**
 - Green economy, sustainable economic development, sustainable energy development, agro => industry
- **Level of progress on reporting and institutional set up**
 - BURs, MRV, national ETS

Why climate technologies, finance and capacity building?

- **2015: Paris-process at the level of Central Asia**
 - Need for formulation a joint sub-regional vision towards implementation of Paris agreement through:
 - Multi-sector dialogue on **finance, technology, knowledge and capacity building**, reporting, etc.
- **Nationally Determined Contributions (NDCs):**
 - Kazakhstan, Kyrgyz Republic, Tajikistan
 - Reduction of GHG emissions from 10% up to 30% by 2030
 - Reduction of vulnerability to climate risks

Need for climate technology, finance and knowledge

Methodology

- **Desk review and study**
 - **Central Asia only: KAZ, KYR, TAJ, TRM and UZB**
 - **INDCs/ national strategic documents** (e.g. NDS, Sector-based policies, SD programs, Green Growth Concept/ Program)
 - **National Communications/ Biennial Update Reports**
 - **Technology Needs Assessment** (Kazakhstan only)

Climate technologies: adaptation Vs mitigation

• **Adaptation**

• **Water and irrigation sector:**

- water saving technologies, water collection techniques

• **Agriculture:**

- land management practices, crop diversification, irrigation practices, selective livestock breeding

• **Disaster risk reduction (DRR) and climate services:**

- early warning, climate modeling, agro-forecasts, EWE prevention

• **Ecosystems and forestry:**

- carbon sequestration and sustainable forest management

• **Mitigation**

• **Energy sector:**

- deployment of renewable/ alternative energy
- energy saving and energy efficiency (housing, street lighting, heating)
- energy loss (transmission lines) reduction

• **Industry:**

- infrastructure, 'clean' technologies, waste utilization, use of alternative energy from waste

• **Transport:**

- use of clean fuel, traffic management

Climate technologies: soft Vs hard

- **Soft technologies**

- **What?**

- Effective policies/ enabling environment
- Effective institutional set-up
- Knowledge and capacity building

- **When?**

- Immediate/ short-term

- **Where?**

- ALL sectors on adaptation/mitigation

- **How much?**

- Low – medium cost

- **Hard technologies**

- **What?**

- Infrastructure
- Construction
- High-tech equipment
- New jobs

- **When?**

- Medium/ Long-term

- **Where?**

- Mostly energy, industry and transport

- **How much?**

- High cost

Climate technologies: soft Vs hard

• **Adaptation**

• **Water and irrigation sector:**

- water saving technologies, water collection techniques

Soft

• **Agriculture:**

- land management practices, crop diversification, irrigation practices, selective livestock breeding

Soft

• **Disaster risk reduction (DRR) and climate services:**

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Soft

• **Ecosystems and forestry:**

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Soft

• **Mitigation**

• **Energy sector:**

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Soft

Hard

Soft

• **Industry:**

- infrastructure, 'clean' technologies, waste utilization, use of alternative energy from waste

Hard

• **Transport:**

- use of clean fuel, traffic management

Hard

Shortcomings

- **Need for Technology Needs Assessments (TNAs)**
 - Kaz is the only country, which has its TNA
- **Gap between **climate** technologies and ALL technologies**
 - e.g. climate technologies is within climate-related agencies and new technologies and technology transfer is within the Ministry/Centre of innovations and technologies
- **Prioritization and country development goals**
 - short-term vs long-term perspective and economic development priorities
- **Cost-effectiveness of a suggested technology**
 - how much a suggested technology costs?

Barriers

- **High costs for new technologies**
- **Lack of domestic resources and finance**
- **Insufficient legal basis and implementation mechanisms**
- **Weak partnership between public and private bodies**
- **Lack of research and evidence base**
- **Lack of technical capacity and knowledge**

Foreseen opportunities: CAREC

- **Maintain** a sub-regional Post-Paris process at the level of Central Asia and move a **climate technology agenda**
- Support the countries of Central Asia in formulating **methodologies and joint programs on climate technologies**, and mobilizing **climate investments**
 - E.g. within the planned project on CAMP2ASB
- Support **capacity building** of national experts from CA and develop **knowledge/analytical products** on climate technologies
 - E.g. within the planned project on CAMP4ASB and existing water-related projects
- Support the sub-regional **Nexus approach** and link energy, water and agriculture through the lenses of **climate technologies**
 - E.g. within the existing projects on water dialogue in Central Asia and share best practices and planned project on Nexus for Central Asia

Thank you!

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