Role of the local financial institutions in promoting access to climate resilience technologies in Tajikistan

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Water, energy and land resources are vulnerable to climate change, exposing the private sector to increasing climate risks.

**Water**
- Droughts and floods already common
- Increased severity and frequency due to climate change

**Energy**
- Reliance on hydropower for 98% of electricity production
- Climate change affects river flows

**Land**
- Land degradation due to mountainous terrain and poor land management
- Climate change intensifies soil erosion and flooding

**Climate change is a risk amplifier – exacerbates inefficient resource use**

**Climate change marker scenarios for Tajikistan**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2030s</th>
<th>2050s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\Delta T$</td>
<td>$\Delta P$</td>
</tr>
<tr>
<td>Arid</td>
<td>+2 °C</td>
<td>-20 %</td>
</tr>
<tr>
<td>Hot-dry</td>
<td>+3 °C</td>
<td>-10 %</td>
</tr>
<tr>
<td>Warm-wet</td>
<td>+1 °C</td>
<td>+20 %</td>
</tr>
</tbody>
</table>

**Private sector highly exposed to climate risks**

- High cost of coping strategies (alternative energy/water sources)
- Limited access to improved climate resilience technologies
## MARKET BARRIERS

- Generally average-to-low penetration of climate resilience technologies
- Knowledge gaps and lack of awareness among Participating Financial Institutions (PFIs), end-users, suppliers / installers
- High cost and low availability of medium term finance
- Low energy and water tariffs create dis-incentives
- Scarcity of qualified suppliers and installers

### Effective climate resilience technologies exist but market barriers limit their uptake

<table>
<thead>
<tr>
<th>Water use improvement</th>
<th>Agriculture</th>
<th>Business / manufacturing SMEs</th>
<th>Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Drip and sprinkler irrigation</td>
<td>• Improved processing technologies</td>
<td>• Refurbish distribution system</td>
<td></td>
</tr>
<tr>
<td>• Alternative sustainable water sources</td>
<td>• Refurbish distribution system</td>
<td>• Grey water recycling, rainwater harvesting</td>
<td></td>
</tr>
<tr>
<td>• Water capture and storage</td>
<td>• Grey water recycling, rainwater harvesting</td>
<td></td>
<td></td>
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<tr>
<td>• Water metering</td>
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</table>

### Energy use improvement

<table>
<thead>
<tr>
<th>Energy use improvement</th>
<th>Agriculture</th>
<th>Business / manufacturing SMEs</th>
<th>Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved water pumps</td>
<td>• Insulation</td>
<td>• Insulation</td>
<td></td>
</tr>
<tr>
<td>• Renewables – biogas, biomass</td>
<td>• Improved HVAC systems</td>
<td>• Improved space heating</td>
<td></td>
</tr>
<tr>
<td>• Solar greenhouses, solar dryers</td>
<td>• Energy-efficient production and processing machinery</td>
<td>• Energy-efficient household appliances</td>
<td></td>
</tr>
</tbody>
</table>

### Sustainable land management

<table>
<thead>
<tr>
<th>Sustainable land management</th>
<th>Agriculture</th>
<th>Business / manufacturing SMEs</th>
<th>Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Agroforestry</td>
<td>• Nil</td>
<td>• Nil</td>
<td></td>
</tr>
<tr>
<td>• Minimum/zero till farming</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tajik FIs have the potential and willingness to act as agents of change, to rapidly and sustainably increase market penetration of climate resilience technologies.

**Aim for transformative impact, empowering PFIs as agents of change**

<table>
<thead>
<tr>
<th>Why?</th>
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<tbody>
<tr>
<td>Partner Financial Institutions:</td>
</tr>
<tr>
<td>✓ Have good market presence</td>
</tr>
<tr>
<td>✓ Are interested by climate resilience technologies that may have large market demand in the medium term</td>
</tr>
<tr>
<td>✓ Are willing to become sufficiently skilled to finance these technologies</td>
</tr>
<tr>
<td>✓ Financing climate resilience technologies would help to diversify their portfolios</td>
</tr>
</tbody>
</table>
CLIMADAPT Programme: Promoting climate resilience and resource efficiency technologies for food security

ABOUT CLIMADAPT PROGRAMME - TAJIKISTAN CLIMATE RESILIENCE FINANCING FACILITY

• Launched in 2016, CLIMADAPT provides financing to enterprises and households in Tajikistan via local banks and microfinance institutions for improved water and energy use and sustainable land management measures.
• EBRD financing is blended with concessional longer-term finance from the Pilot Programme for Climate Resilience, to overcome affordability barriers to action on climate resilience.
• CLIMADAPT has two windows: one targeting businesses, especially in the agricultural sector and another for households.

FINANCING STRUCTURE

EBRD credit lines US$ 5 million
Concessional credit lines from the Pilot Programme for Climate Resilience US$ 5 million
Technical assistance support from UK DFID and the EBRD ETC Fund € 2.25 million

IMPACTS

• Tajikistan is highly vulnerable to future changes in river runoff and glacier melt, via impacts on its agricultural sector, its hydro-based electricity system and soil erosion.
• The facility impact metrics will therefore account for reduced water consumption, energy efficiency gains and reduction in soil erosion loss.
CLIMADAPT loan portfolio exceeded USD 5 m, reaching out to more than 2000 farmers, households and SMEs.

CLIMADAPT achievements as of 1st July 2017:

- **Overall credit line**: 5.0 USD million
- **Value of sub-projects supported**: 29%
- **Number of sub-projects supported**: 2005
- **Size of credit line**: 10 USD million
- **Portfolio split (number of sub-loans)**
  - 68% Share of energy efficient technologies supported
  - 30% Share of water efficient technologies supported
  - 2% Share of sustainable land management technologies supported
- **Savings achieved**
  - 1253 tons/annum CO2 emission reduced from the sub-projects supported
  - 628 m³/annum Water savings generated from the sub-projects supported
  - 19 tons/annum Soil erosion reduced from the sub-projects supported

- ✓ 29% of all borrowers are women clients
- ✓ 59% of all borrowers are rural clients
- ✓ >500 PFI personnel trained
- ✓ 6 technology workshops in various regions of Tajikistan with over 250 participants (clients, representatives of financial institutions and civil society)
CLIMADAPT Programme activities deliver targeted support to the key stakeholders – PFIs, Vendors, Clients and Public

- Relationship management
- Trainings

- Joint promotion activities
- LESI list population

- Assessment of sub-projects
- LEME list population

- Mass marketing
- PR and events

- PFI engagement and capacity building
- Clients & PFIs - technical support

- Marketing and awareness raising
- Cooperation with Vendors and partners
Partner Financial Institutions, EBRD and CLIMADAPT Project Team have established strong partnership at various levels

**Strategic level:**
- Management buy-in and joint action plan
- Value-added through capacity building measures
- Sustainability in the longer-term

![Diagram showing processes including Action plan and KPIs, Marketing, Trainings, Product development, Products, and Services.](image)
Partner Financial Institutions, EBRD and CLIMADAPT Project Team have established strong partnership at various levels

**Operational level:**
- Relationship management
- Work-flow – optimization, coaching
- “Be there” approach – regular meetings, field visits
CLIMADAPT Programme facilitated strong partnerships between Partner Financial Institutions and Vendors

Case - Cold storages

Role of Vendor:
- Turn key construction of cold storages
- Post-sales advisory and support
- Joint promotion activities

Role of PFI:
- Special loan terms
- Joint promotion activities

Role of Climadapt:
- Facilitate linkage and partnership between PFI and Vendor
- Concessional funding available for both Vendor and End-Users (Farmers)
- Joint promotion activities
Lessons learned

• Consider wider group of stakeholders – government, value chain partners, CSOs

• Get parties interested and engaged

• Develop and follow up on joint action plan BUT be prepared for changes

• Develop trustful relationship over time

• Public/donor support is needed to stimulate market demand and supply in regards to development of incipient innovative technologies

Challenges

• Supplier market is in emerging stage of development and require further ongoing support, in particular outside of Dushanbe and Khujand cities

• Low market penetration of some innovative technologies require intensive awareness raising and promotion campaigns

• Energy and water tariffs are remain low, which makes investments less attractive for potential beneficiaries
Thank you for your attention!

Kairat Shalabay
Team Leader for the EBRD Climadapt Project