The 9th International Forum on Energy for Sustainable Development

UNDP’s experience with sustainable financing mechanisms in the Europe & CIS Region

John O’Brien
Regional Technical Advisor, Climate Change Mitigation
Europe & CIS, Istanbul Regional Hub, Turkey
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GEF and GCF Portfolio

$117 million USD of Projects under implementation, total portfolio of projects including those under development is over $200 million. 70% or more of the projects deal with energy-efficiency.

26 projects, $80 million
Energy-Efficiency, Renewable Energy, Transport
Average project size: $3.1 million

2 projects, $37.34 million
Energy-Efficiency Buildings Only
Armenia & Bosnia & Herzegovina
Average project size: $18.67 million

$117 million USD of Projects under implementation, total portfolio of projects including those under development is over $200 million. 70% or more of the projects deal with energy-efficiency.
Energy-Efficiency is the largest area of UNDP support in the field of Sustainable Energy in Europe & CIS Region

- 40 sustainable energy proj. under Implementation of which 30 deal with energy efficiency
- Pipeline of another $150 million USD incl. new GCF project in Armenia and Bosnia & Herzegovina)
- 24 projects dealing with energy efficiency and
- Approx. $100 million USD
- 60% of all proj. deal with energy efficiency
- Approx 70% of the grant resources available

Energy-Efficiency

Renewable Energy

Transport

24 projects

8 projects
Supporting energy-efficiency is consistent with the Sustainable Development Goals … in Particular SDG-7.

SDG 7 - Affordable and Clean Energy. Energy Efficiency in Buildings. Save energy today for a better tomorrow!
Types of Energy Efficiency Projects Implemented by UNDP

EE Lighting
(e.g. – Russia, Ukraine, Kazakhstan)

EE Standards & Labels
(e.g. – Russia, Turkey, Kazakhstan)

EE Buildings (Public & Residential) – nearly every country incl. Ukraine (ESCO + EMIS)

Industrial Energy-Efficiency (e.g. – Turkey)
Types of Sustainable Transport Projects Implemented by UNDP

- **Promoting Public Transport**
  (e.g. – Georgia, Slovakia)

- **Promoting Carpooling**
  (e.g. – Slovakia)

- **Promoting Cycling**
  (e.g. – Russia, Serbia, Slovakia, Georgia)

- **Parking Strategies**
  (e.g. – Russia, Serbia, Slovakia, Georgia)

Sustainable Urban Transport Plans = ALL
Types of Renewable Energy Projects Implemented by UNDP

Wind Energy
(e.g – Republic of Belarus, Kazakhstan)

Biomass Energy
(e.g – Moldova, Ukraine, Serbia, Georgia)

Solar PV Energy
(e.g – Turkey)

Small Hydro Power
(e.g – Georgia, Kyrgyzstan)
Importance of Partnerships for Innovative Approaches

The purpose of this presentation is to outline the experience of UNDP in working with IFIs in the Europe and CIS region with IFI’s on climate change mitigation projects. Examples: from 6 countries: Georgia, Kazakhstan, Ukraine, Turkey, Armenia, Bosnia & Herzegovina.

UNDP leads on the technical assistance - IFI Partner leads on the investment
UNDP has provided support to various types of innovative financial mechanisms:

<table>
<thead>
<tr>
<th>Type of Innovative Financial Instrument</th>
<th>Country where UNDP has tried this instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCO – Energy Service Company</td>
<td>Moldova, Ukraine</td>
</tr>
<tr>
<td>Blended Finance – Grants + Soft Loans</td>
<td>Armenia, Bosnia &amp; Herzegovina, Kazakhstan, Turkey</td>
</tr>
<tr>
<td>Green Bonds</td>
<td>Idea being explored in several countries</td>
</tr>
<tr>
<td>Revolving Fund</td>
<td>Georgia (small hydro)</td>
</tr>
<tr>
<td>Interest Rate Subsidy</td>
<td>Kazakhstan (SME sustainable energy projects)</td>
</tr>
<tr>
<td>Loan Guarantee</td>
<td>Moldova, Kazakhstan</td>
</tr>
</tbody>
</table>
### Example 1: ORKOY Solar PV project in Turkey

<table>
<thead>
<tr>
<th><strong>Project Name</strong></th>
<th>Sustainable Energy Financing Mechanism for Solar Photovoltaic Systems in Forest Villages in Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Implementing Partner</strong></td>
<td>ORKOY (part of Ministry of Forestry and Water Affairs)</td>
</tr>
<tr>
<td><strong>GEF Amount</strong></td>
<td>$3,780,000</td>
</tr>
<tr>
<td><strong>Co-Financing</strong></td>
<td>$52,500,000 (incl. $45 million from ORKOY)</td>
</tr>
<tr>
<td><strong>Start Date</strong></td>
<td>January 2016</td>
</tr>
<tr>
<td><strong>Project Duration</strong></td>
<td>4 years</td>
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**Project description:** This project will assist Turkey with the promotion and financing of on-grid village cooperative solar PV in forest villages.

**Aim:** The implementation of financing mechanism which is to foster 30MW of installed capacity by the end of the project with further scaling up at end of project. First 500 Kw will be with 100% grants, next 1.5MW with 12.5% subsidy, then soft loans only for the remainder of the project. Delays in implementation.
Example 2: Urban NAMA Project in Kazakhstan

US$6.08 million USD UNDP GEF grant leveraging $30 million USD + in private investment

The Project supports the identification, design, and implementation of Nationally Appropriate Mitigation Actions (NAMAs) in the urban sector. NAMAs, consisting of investments in infrastructure supported by capacity building, awareness raising and technical assistance, will contribute to achieving the country’s GHG emission reduction voluntary target while improving urban services and the quality of life of citizens in Kazakh towns and cities. Project involves a strong partnership with Damu Foundation.

Project has implemented a financial support mechanism with interest rate subsidy and with a loan guarantee package with UNDP and Damu Foundation. Pilot projects realized in Almaty (airport EE fog lights), Karaganda (EE boilers), and Astana (EE lighting in Transport Towers). Sustainability is a key issue.

Project Started: April 2015
Key Partner: Damu Foundation
Project Duration: 5 Years
Planned End Date: April 2020 – possible 18 months extension
Lessons Learned: A few words about transformational projects

• Transformational projects do a lot more than organize workshops, seminars, and conferences and do awareness raising activities;
• Setting up the financial support mechanism can easily consume at least the first two years of the project;
• Market transformation takes a long time (example: Kazakhstan wind energy)
• GEF projects are supposed to transform markets and a key indicator of success is tonnes of CO2 reduced
• Market Transformation means changing laws/ regulations and sustainable financial mechanisms. Grants alone approach is not sustainable.

Blended Finance: Grant + Loan = Greater chance of sustainability
Thank you!!

11 Case Studies from 9 countries