

UNDP Climate Change Projects in Belarus: Integrated Approach

Maxim Vergeichik,
Vladimir Voitekhovich



UNDP Belarus

UNDP Belarus Climate Change Cluster

**INCREASING
LOCAL
INVESTMENT
CAPACITY FOR
ENERGY
EFFICIENCY**

**KYOTO
PROTOCOL
ASSISTANCE**

**WIDE USE OF
WOODWASTE**

**PEATLANDS
RENATURA-
LIZATION**



*Integral elements of a single
support strategy*

Increasing Energy Efficiency: the Context

Potential market estimates: EE opportunities with IRR over 50% and payback periods of 2-3 years

State concessional financing available, but underutilized:

Limited awareness of opportunities among energy managers

Little experience in assessment of energy efficiency business proposals

No systemic corporate or personal incentives for energy efficiency

No EE re-investment mechanisms



Increasing Energy Efficiency: the UNDP-UNECE-GEF Project

Energy Center(s)

- The GEF to finance start-up costs
- The Committee for Energy Efficiency to finance running costs
- Option of turning into a self-sufficient business consultancy

Incentives and Reinvestment

- Proposals for EE savings to be retained by municipalities;
- Operationalize autonomous EE accounts and staff bonuses;

Wide replication

Folding into 3rd National Energy Savings Plan



Increasing Energy Efficiency: Expected Project Value

INVESTMENT:

catalyzing annually
USD 7-8 M in EE
investment

CLIMATE CHANGE:

1 M tons of CO₂
equivalent reduced
over 15 years



Capacity created will feed biomass and JI projects
Preparatory stage launched

Kyoto Protocol Assistance: the Context

GHG emissions: 120 M tons CO₂ in 1990; 62 M in 2000

Since 1995: GDP growth without energy consumption buildup, gas and renewables displace fossils

Pessimistic estimated potential for JI and ET projects: USD 300 M yearly



Belarus –lack of clarity regarding country status

Joining the Kyoto Protocol: Need for assistance

Kyoto Protocol Assistance: the UNDP-UNECE Initiative

Feasibility Study and Document Preparation

- Economic and environmental analysis
- Draft President Decree
- Communication with Secretariat

Institutional Preparedness

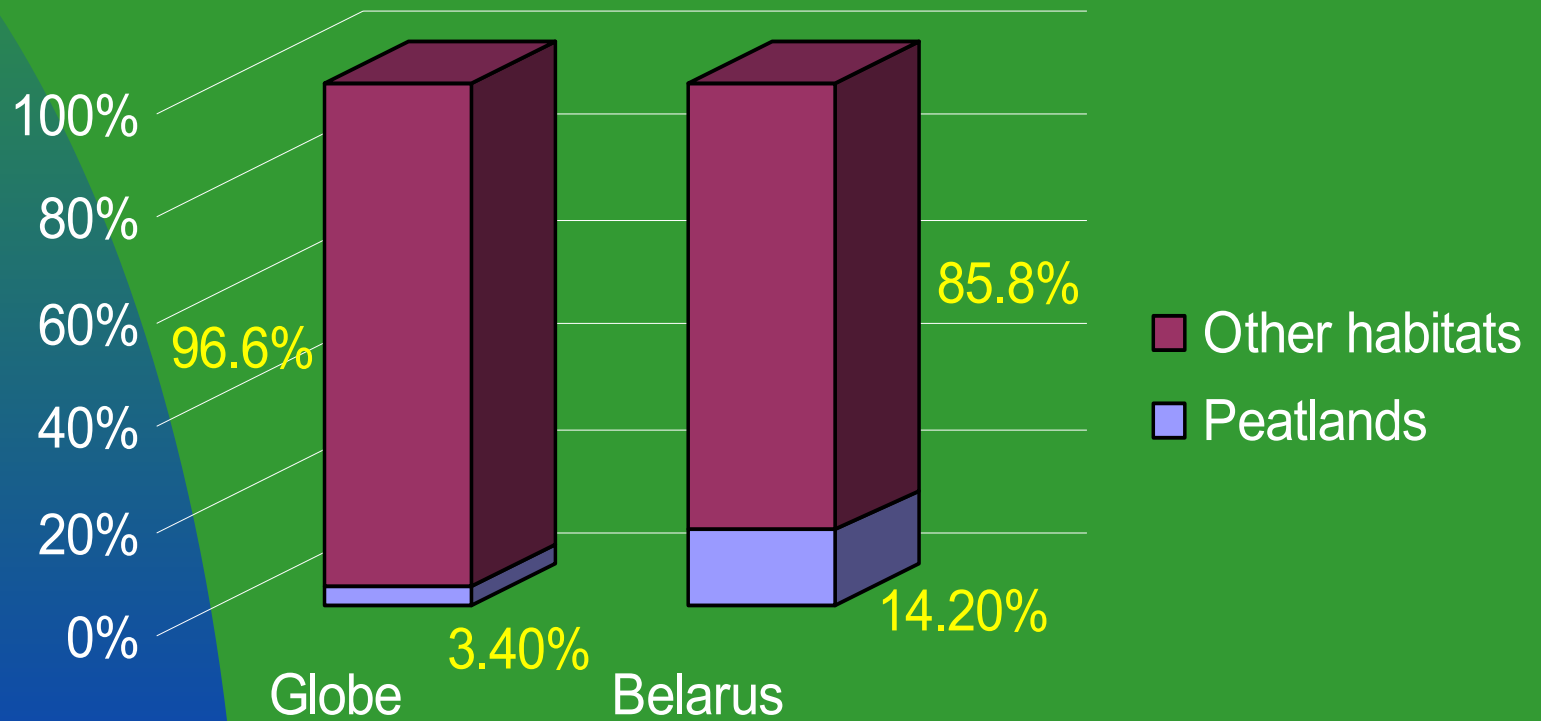
- ToR for Interdisciplinary National Commission on UNFCCC and Kyoto Protocol

Walk-in (follow up assistance) plan

Establishment of JI and ET mechanisms



Peatlands as carbon sinks: worldwide and in Belarus



Impact of Drained Peatlands on Climate

- Drained and mineralized: supply 5.5 - 22.0 tons CO₂ / ha / year
- Annually in Europe 1-2 cm of peat are lost



Peatlands: UNDP-GEF Initiative

Policy level

Drafting and revising sectoral programs

Demonstration level

Re-waterlogging drained peatlands

Capacity building and awareness raising

Monitoring, local knowledge, public awareness



Peatlands Project: Expected Value

CO2 REDUCTION:

350,000 tons CO2
reduction annually

OTHER VALUES:

- Biodiversity loss stopped,
- Land degradation prevented,
- Radioactive contamination suspended



Testing ground for sinks as a subject of JI

Medium-sized project to start in 2004

Biomass Energy from Wood Waste in Belarus

UNDP/UNECE/GEF/
Government of Belarus:

GEF – USD 3,374 million

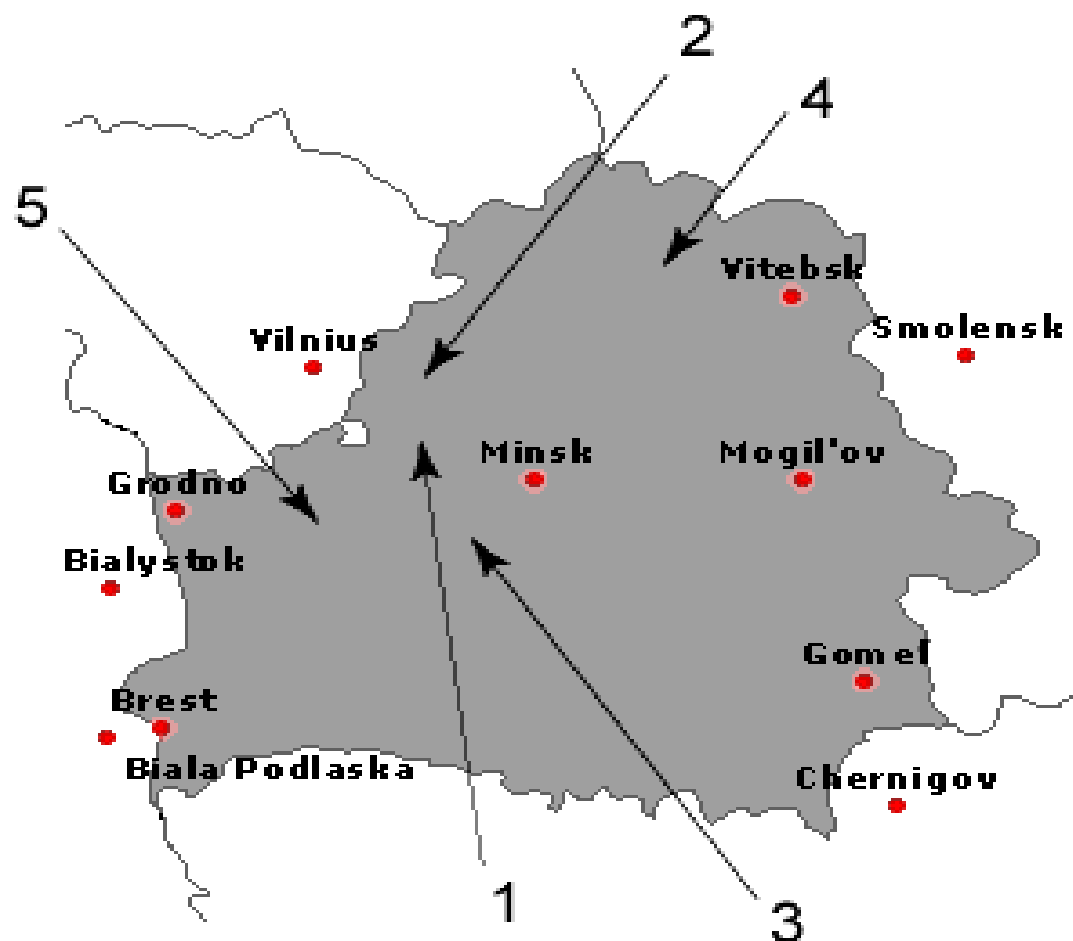
(Incl. USD 1,54 million for a Revolving Fund)

Government – USD 2,19 million

Site owners – USD 3,37 million



Demonstration sites



Technologies of conversion

- *direct burning*

- a) **new small size water boiler**
- b) **new medium size low pressure steam boiler with back pressure turbine (CHP),**
- c) **new medium size high pressure steam boiler with back pressure turbine (CHP),**
- d) **new big size low pressure steam boiler**

- *gasification,*

- a) **furnace extension for existing medium size steam boiler**



Expected direct GHG emissions reduction as a result of fossil fuel substitution

1.08 million tonnes of CO₂ over a 15-year period



The Revolving Fund Operation

UNDP/GEF USD 1,54 Million

↓
“Belinvestenergosberezhenie” special HC bank account
temporary acting as the Revolving Fund

↓ ↑
Zero interest hard currency loans for 4-5 years to 6
demonstration sites

↓
Further transformation of a special HC bank account
into the RF based on the charter and regulations
approved by the National Bank and Authorities



Biomass project: Key component in the UNDP CC Cluster

The technical experience and the Revolving Fund are the foundation for wide-scale introduction of renewables in Belarus:

further investment projects are going to be assisted by Energy Center and many will qualify for JI and emissions trading under the Kyoto Protocol



Biomass Project Key Lessons So Far: Operational Level

- Tax favors to technical assistance projects
- Local legislation is not a barrier for the Revolving Fund operation.



Biomass Project Key Lessons So Far: Strategic Level

- **Renewables profile raised:**
 - National Renewable Programme
 - Regional construction of CHP plants"
- **The Biomass project is the core of the CC program of UNDP assistance to the Government of Belarus.**



Thank you