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Kazakhstan

WORKING TOGETHER FOR A BETTER FUTURE

## UNDP IN KAZAKHSTAN

### KAZAKHSTAN- WIND POWER MARKET DEVELOPMENT INITIATIVE

**Thematic area:** Environment Management and Human Security

**Objectives:**

The objective of the full-scale project is to promote the development of the wind energy market in Kazakhstan by: (a) assisting the Government to formulate a National Program on Wind Energy Development; (b) providing information for and building the local capacity to develop wind energy products in Kazakhstan and to organize financing them (including site “mapping” and expansion of the wind speed measurement program); (c) facilitating construction of the first 5MW wind farm to prepare ground for and reduce the risks of further investments; and (d) monitoring, analyzing and disseminating the experiences and lessons learnt during the implementation of the project.

**Background:**

Kazakhstan is the largest emitter of greenhouse gases in Central Asia:

- In 1990 total net greenhouse gas emissions were 320 million tons of CO<sub>2</sub> equivalent. According to the 2004 data of IEA emissions of energy related CO<sub>2</sub> per GDP in Kazakhstan was about 6 CO<sub>2</sub> kg/USD.
- Energy sector contributed about 80% of total emissions, with about 45% coming from energy industries (electricity and heat production)

By ratifying the United Nations Framework Convention on Climate Change (UNFCCC) in 1995, Kazakhstan accepted the commitment to formulate, implement, publish and regularly update national and, where appropriate, regional programs containing measures to mitigate climate change.

Although Kazakhstan is rich in significant renewable energy resources, apart from a small share of hydropower in country's energy balance, these resources are still to be tapped. From the geographical and meteorological point of view, Kazakhstan is probably one of the best countries in the world to promote large-scale wind energy production. Prospective of wind power in Kazakhstan shows that about 2000MW of wind capacity can be used in Kazakhstan up to 2024. UNDP/GEF support the Kazakhstani Government program for wind power development. The UNDP/GEF project titled “Kazakhstan-Wind Power Market Development Initiative” is part of Government strategy of fulfilling its commitments to the UNFCCC utilisation of the country's wind resources. Within the main project UNDP cooperates with REEEP (Renewable Energy and Energy Efficiency Partnership) on implementation of subproject named “*Compiling RES legislation for Kazakhstan*” and with GOF (Global Opportunity Fund) to support elaboration and adoption of RES regulation in Kazakhstan.

**Partners:** Ministry of Energy and Mineral Resources,  
Ministry of Environment Protection,  
KEGOC,

Almaty oblast Akimat,  
Private investors ( ALD Consulting, NIF)  
REEEP,  
GOF,  
UNDP

**Budget and Donors for full scale project:**

2,550,000 USD (GEF)  
4,560,000 USD (private sector)  
164,000 USD (Government)  
57,000 USD (REEEP)  
100,000 ( GOF)

**Achievements to date:**

1. 5 MW pilot wind farm is under preparation process .
2. Wind monitoring Program completed for 8 selected sites.
3. Wind potential assessment completed
4. National Wind Power Program under discussion.
5. Draft law for RES under discussion.

**Future targets:**

1. Construction of the first pilot wind farm;
2. Wind atlas of Kazakhstan
3. Adoption of National Wind Power Program
4. Support of adoption of Draft Law for RES
5. Presenting and distribution of main project results