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 The United Nations Framework Convention on Climate Change (UN FCCC) was signed in 1993

The Kyoto Protocol was ratified in 1999

•For Uzbekistan as a Non-Annex I Party having no the limits on the greenhouse gases (GHG) emissions, only Clean Development Mechanism is acceptable



• The Centre of Hydrometeorological Service (UZHYDROMET) is responsible body for UN FCCC and Kyoto Protocol implementation in Uzbekistan

#### 2002 Switzerland/WB/Uzbekistan Project « Reconstruction of heat supply in Andijan city of Fergana province»

EBRD has financed the study of the base-line and elaboration of monitoring and verification protocol as CDM project with the aim of trade of certified emission reductions (CERs) to the Experimental Carbon Fund.

The project design document (PDD) was submitted to CDM Executive Committee at UNFCCC, but it is not accepted due to its inconsistency with methodology.



#### 2003 - 2006 "Canadian Training Program on the GHG reduction emission in Caspian Region" of CIDA

- The Project "Creation of the field-protecting forestation in Jizak province" will allow to provide the CO<sub>2</sub> sinks sequestering 15 tons of CO<sub>2</sub>- equivalent from per hectare of forest or 195,4 tons of CO<sub>2</sub> - equivalent per year.
- The Project "Reconstruction of the heat-supply system on the local boiler-house in Tashkent city" using of solar collectors for the hot water supply and the heating will provide of 1032 GgCal/year energy saving or 168 thousand m<sup>3</sup> of natural gas resulting in reduction 318,6 tons of CO<sub>2</sub>equivalent per year.
- The Project "Use of the solar energy for the heat-supply of greenhouses" will provide the energy saving about 12 thousand m<sup>3</sup> of natural gas, that allow to reduce 22,8 tons of CO<sub>2</sub>-equivalent per year.













### **SUBJECTS**

- Assistance in the development of institutional structures for CDM project realization.
- Capacity building in development of the CDM projects for the relevant carbon funds and training on formation of the national conditions, rules and procedures of selection, expertise and approval of CDM projects
- Public awareness on Kyoto mechanisms issues



2005 - 2008 GEF/UNEP/Uzbekistan Project «Preparation of the Second National Communication under the UNFCCC in Uzbekistan»



Development of climate change mitigation measures includes:

 Macro economical scenarios of the GHG emission reduction on key economical sectors till 2020

 Development of mitigation measures on key economical sectors with cost-efficiencies approach

 Environmental Sound Technology Need Assessment

Preparation of the list CDM projects (PINs)

# Priority economical sectors for the GHG emission reduction measures

Production of the electric and thermal power

Oil & gas sector

Municipal-communal sector

Transportation

Wastes

•Agriculture

Chemical Industry

7

# Priority projects in the electric and heat power production

#### Small Hydro Power Plants



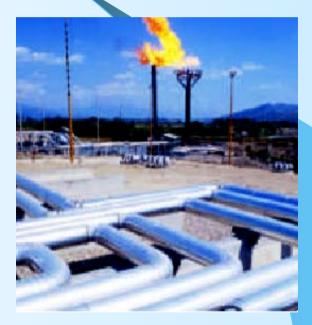
• Construction of Small Hydroelectric Power Plants with capacity up to 15 MW/h with use of energy efficiency pumps for utilizing irrigational discharge will reduce about 12 thousand ton/year of the  $CO_2^$ equivalent

## Priority projects in oil & gas sectors

#### Energy efficiency technology at gas transportation

Use of modern sealing materials and armatures on the main gas pipe of the Joint-Stock Company " Uztransgas" will allow to reduce of methane leakages at gas transportation till 10 million gas m<sup>3</sup>/year or 147 thousand tons in the CO<sub>2</sub>equivalent

Annual methane leakages amount to 30 million gas m<sup>3</sup>



### Priority projects in oil & gas sectors

#### Utilization of passing gas in oil&gas sector



• Recycling of passing torch gases on the gas deposit plant "Zevardy" in Kashkadariay area will give annual reduction of GHG emissions up to 70,1 thousand ton / year of the  $C O_2$ -equivalent

Annual GHG emissions from burning gas on torches at "Zevardy" plant amount up 152, 8 thousand tons C  $O_2$  per year

### Priority projects in waste management sector

Technology of electric and thermal energy generation by of effective use of landfill gas on solid waste site of big cities





Collection of landfill gas (methane) and its burning in the gas generator for electric power production on one solid waste site of Tashkent city will allow to reduce  $CH_4$  emissions up to 287,2 thousand ton  $C O_2$ /year

### Priority projects in chemical industry



Technology of using carbon dioxide which emitted in the process of ammonia production as raw material for carbamide manufacturing on the chemical plant in Chirchik city allows to recycle 247,5 million m<sup>3</sup>  $CO_2$  per year or 489 thousand ton per year of the  $CO_2$ -equivalent

Technology on recycling of nitrous oxide emission in the process of nitric acid manufacturing also will contribute significantly to GHG emission reduction

### Priority technologies in agriculture



2000 ha forest plantation of speed growing breed of poplars for technical wood production will allows to provide the  $CO_2$  sinks sequestering 30 tons per year of  $CO_2$ - equivalent Afforestation, reforestation and deforestation for protection of agricultural lands and other

 Use of biomass and waste from agriculture for power energy generation



# Priority technologies in automobile transportation



Use of the liquefied gas and diesel fuel in motor transport

 Hybrid engines automobile production

# Conclusion

Now the CDM project proposals are being developed and in future will be submitted to stakeholders and partners, the carbon funds, international banks and potential investors for joint implementation of Kyoto Protocol.

# **Welcome to joint cooperation!**