



21-24 September 2004, Sydney, Australia
The 14th Asia-Pacific Seminar on Climate Change

Kazakhstan perspective on capacity building activities in Asia Pacific Region

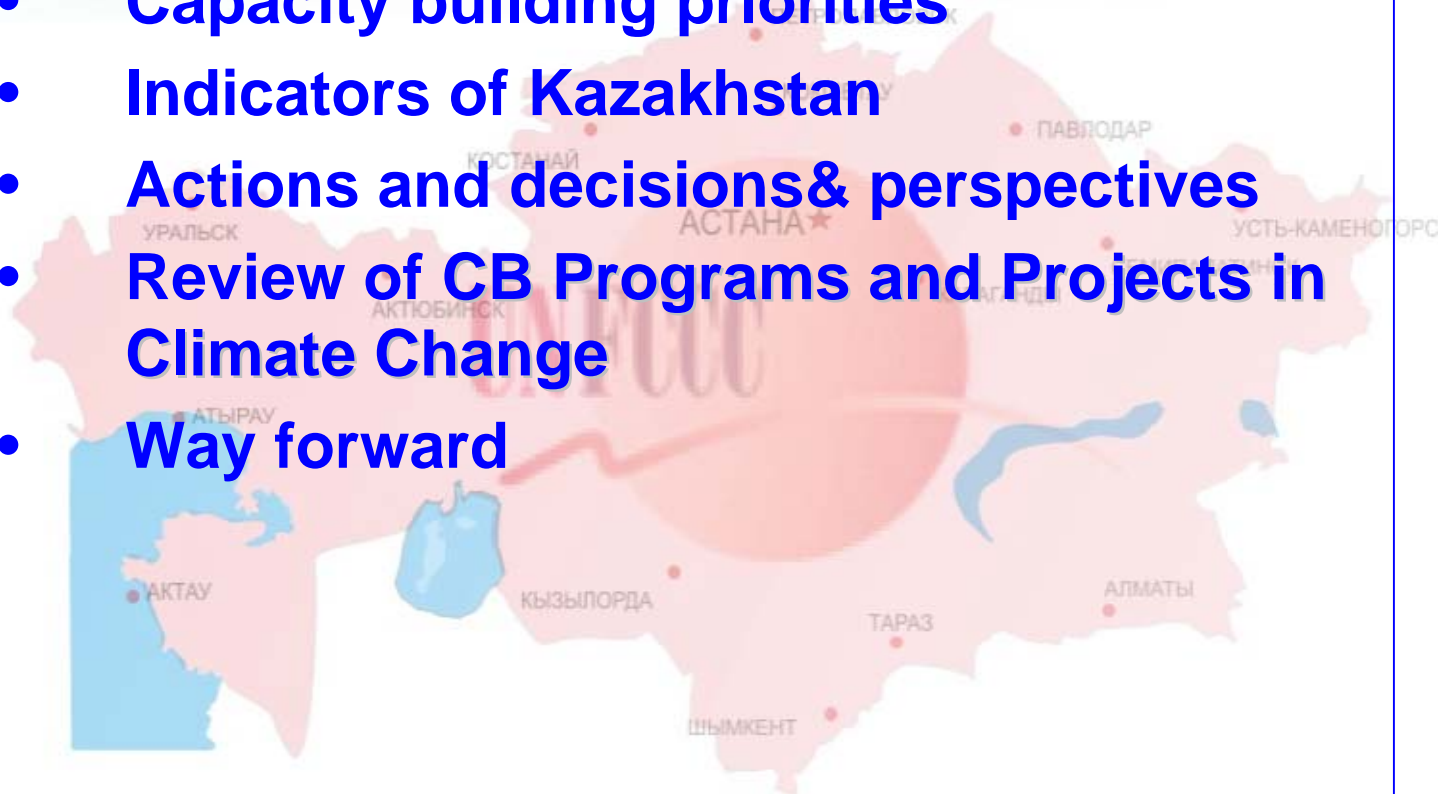


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Outline of Presentation

- Capacity building priorities
- Indicators of Kazakhstan
- Actions and decisions & perspectives
- Review of CB Programs and Projects in Climate Change
- Way forward





CB priorities due to UNFCCC

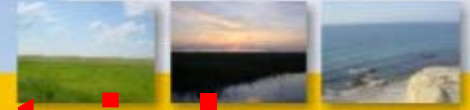
Strengthening the capacities to address:

- climate change
- its impacts
- impacts of response measures

Technology transfer

CB due to KP technical implementation:

- **Methods and data:**
 - inventories and expert reviews
 - Baseline setting
 - Registries
 - Transaction logs
- **Efficient institutions**



CB for Greater Industrial System Efficiency

- CDM and JI are expected to attract new and additional investment in developing and transition economy countries
- The current CDMJI project portfolio lacks energy efficiency projects- most are forest-related, methane capture, big hydro etc.
- Qualifying industrial energy systems for CDMJI will require building technical capabilities in developing countries and reduction transaction costs for carbon credits



Development objectives and tools for success

- **Build institutional, organizational, and technical capabilities in developing countries**
- **Identify assess, and develop industrial energy efficiency projects**
- **Enhance technology transfer and long-term investment prospects in the industrial sector**
- **Facilitate a flow of industrial projects that deliver additional revenues to project hosts and investors through the sale of carbon credits**
- **Provide effective training for business companies, also policy makers**





CB for Companies

- Risk management team
 - Environmental and Finance Dept interacting
- Preferred hedging tools/appetite for risk
- Lear by doing: contracts, implications for balance sheet, etc.
- Consult and verify CO₂/GHG emission baselines
- Develop target scenarios for Kyoto period
- Market acceptance/ timing of structure





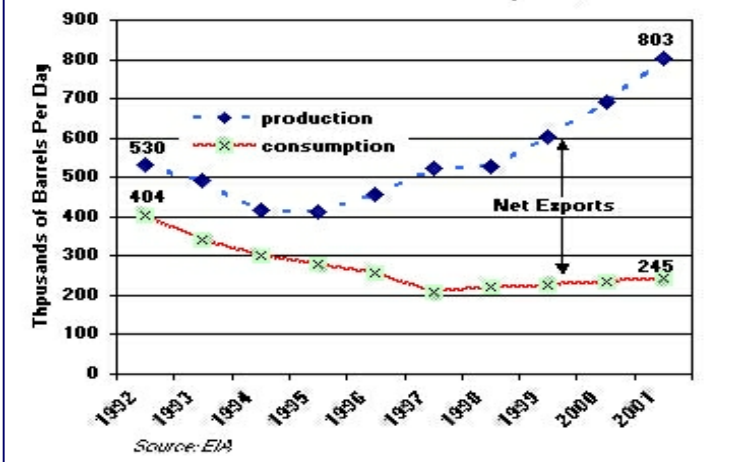
Population
14.93 million

GDP(PPP)*
(billion 90
US\$)
69.37

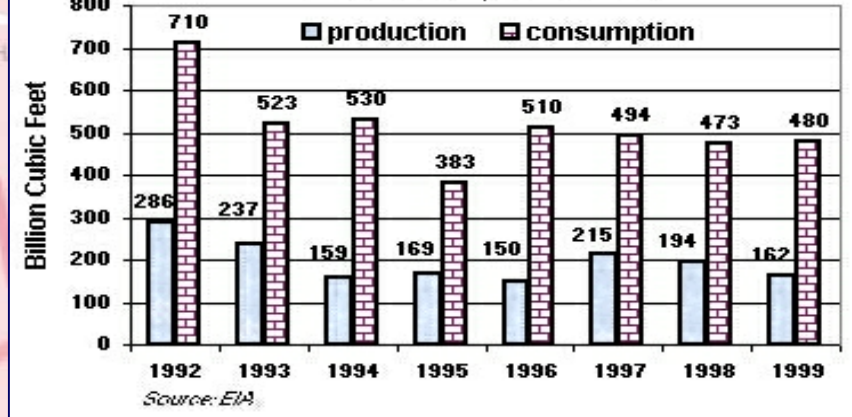
Energy Prod
(Mtoe)
64.67

Net Imports
(Mtoe)
-29.83

Kazakh Oil Production and Consumption, 1992-2001



Kazakh Natural Gas Consumption and Production, 1992-1999



GDP
(billion 90
US\$)
20.32

TPES
(Mtoe)
35.44

Elec.Cons.**
(TWh)
42.37

CO2*Emissi
ons**
(Mt of CO2)
114.45





CB : Actions and Decisions

1995-1999	UNFCCC is ratified(1995), Kyoto Protocol is signed. First National Communication, GHG Inventory - 1990 and 1994
2000-2001	Decision to join Annex 1, COP-5 – 2000.Voluntary obligation on Art. 4.2gUNFCCC. Government Decree on IACCC, Climate Change Coordination Center-working body of IACCC.GHG Inventory for 1992 and Identification of 1992 as a base year
2001-2002	National System for CDM/JI projects review and approval, GHG projects registry. Inventory 1994, 1999,2000. <u>COP 7 decision on Kazakhstan status:</u> Upon ratification of the KP by Kazakhstan and its entry into force, Kazakhstan becomes a Party in Annex1 for purpose of this Protocol in accordance with Ar.,pr.7 of the KP. The COP recognized that Kazakhstan will continue to be a Party not included in Annex1 for purposes of the Convention.MoU between NEDO&Kazakhstan to implement JI_CDM project in Uralsk
2003	IAC:Launched the model of national procedures for approval of JI/CDM projects ; approved 2 GHG reduction pilot projects. Strengthening international cooperation, MoUs Situation scenarios of macroeconomic modeling and GHG emissions, developing regulation of KP mechanisms in Kazakhstan. Analysis of benefits/disadvantages in KP participation for the decision makers.GHG Inventory 2000-2002 under National budget.Model.Uralsk project according to the shedule (UPDD, preliminary national approval, validation)
2004	Active consultations, meetings on preparation to KP ratification on the highest level(Special working group under Vice-Premyer in June 2004) Researches in energy and economic sector development strategies up to 2030 ;2015 including KP Starting NC-2 under UNDPGEF; launch 3 pilot CDM projects under CIDA. Uralsk project under shedule:technology transferred, construction starting.



Inter-Agency Coordination on CC

(Government Decree #590, 2000)

Government of the Republic of Kazakhstan

Interagency Commission on Ratification of the Kyoto Protocol and Implementation of RK's Obligations Under UNFCCC (IACCC)(12 Ministries)

Observers: NGO and Parliament Representatives, Representatives of Donor Countries and Organizations, Representatives of Business

**Climate Change Coordination Center
(Executive Body of IACCC)**

**Projects related
to climate change**

**Projects related to phase-out
Ozone Depleting Substances**

Other



IAC: Best Practice policies and measures

Harrisein Company (PETROKAZAKSTAN) project on utilization of the associated gas at Kumkol field with the expected GHG emissions reduction about 500 thousand tons per year (planned investments – about 35 million USD).

Model energy saving project at Uralsk CHPS, performed by Japanese Government Company “NEDO” in cooperation with the KAZ Ministry of Energy and Mineral Resources, expected GHG emissions reduction 62 thousand tons per year (investments amount to 15 million USD).





Kazakhstan CB perspectives:

- to ensure the implementation of concrete Greenhouse Gas (GHG) reduction measures;
- to use new effective technologies in this field of work;
- to introduce renewable energy resources; and
- to reduce the level of power intensity in the economy of Kazakhstan.
- to raise awareness on the climate change and to
- to involve Kazakhstani decision-makers and local
- expertise on climatic change in general and specific
- processes.



Technology Transfer: Introduction Renewable Energy Sources

- Introduction of RES to energy market with acceptable prices, and creation of incentives for use of renewable energy;
- Introduction of changes into construction norms for buildings;
- Hydro potential: about 170GWh/yr, only 8 GWh/yr in use
Wind potential: 8m/sec in Jungar Gates
- Solar energy potential: 2,200-3,000 h/yr;
1,300-1,800 kWh/m²

**Biomass
and
biogas
energy**

**Hydro
energy**

**Solar
power**

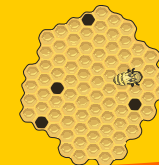
**Wind
Power**

**Geother
mal
energy**

Improvement of environmental conditions

Improvement of social conditions at small settlements unconnected to central power supply lines

Substitution and saving organic fuels





CB Programs and Projects in CC

- **2000-2001 USAID/GGERI; UNDP/GEF**
Greenhouse Gas Emissions Reduction Initiative
- **Central Asia Manual for project Developers**
- **GHG Inventories, Base year 1992.**
- **Legislative framework development**
- **CDI(Capacity Development Initiative)**
- **2001-2002 USAID/ PA consulting**
- **Central Asia Natural Resource Management Project Technical (Assistance in Joint Implementation Projects in Kazakhstan)**
- **Conduct an assessment of the Bartogay small hydropower Joint Implementation (JI) project**





CB Programs and Projects in CC

2002-2003:

- **UK Government, BP, British gas Kazakhstan, Shell;**
Institutional Strengthening of national systems to reduce GHG emissions in Kazakhstan

- Kazakhstan: CO2 emissions forecasting and regulation mechanisms for reducing GHG

- **NEDO/JAPAN Model Project**
- **MoU with World Bank**

2003-2004:

- **CIDA Caspian Training Program (CTP)**
- Training modules (4 workshops); Three pilot projects launched (100,000USD per Country)
- **Canada JICDM Office**

Enhancing Kazakhstan's initiatives to take advantage of the opportunities to use CDM / JI in the global effort to address climate change

- **Research with EBRD, Denmark/Ramboll; Tohoko Inc.,**
- **MoU with CNet on CDM projects**
- **TACIS regional project for Central Asia-start Sept.2004**
- **PREGA project –opportunity to start (II October Workshop in Manila)**



Progress of Japan/Kaz CDM/JI project

- **The MoU between Japan (NEDO) and Kazakhstan was signed on 20 June 2002 in Astana. The parties started implementing the project on construction of a gas turbine cogeneration system with the capacity of 25 MW**
- **Bilateral financial structure Japan&Kazakhstan**
- **During 2008-2012 Kazakhstan will annually transfer its quota of 62 thousand tons of CO₂, generated as a result of the gas turbine facility operation, to Japan upon MoU**





Project: Support for strengthening of national system for implementation of UNFCCC, Kyoto Protocol and GHG emissions reductions projects in Kazakhstan (2001-2003)

PARTNERSHIP:

- the British Embassy,
- British Gas,
- Shell,
- British Petroleum,
- British Kazakhstan and the Kazakhstan Climate Change Coordination Center

www.fco.gov.uk; www.climate.kz;
www.unfccc.int

ACTIVITIES CARRIED OUT:

Component I: data collection, model development, data input, interpretation, workshop discussion, report writing editing and reproduction.

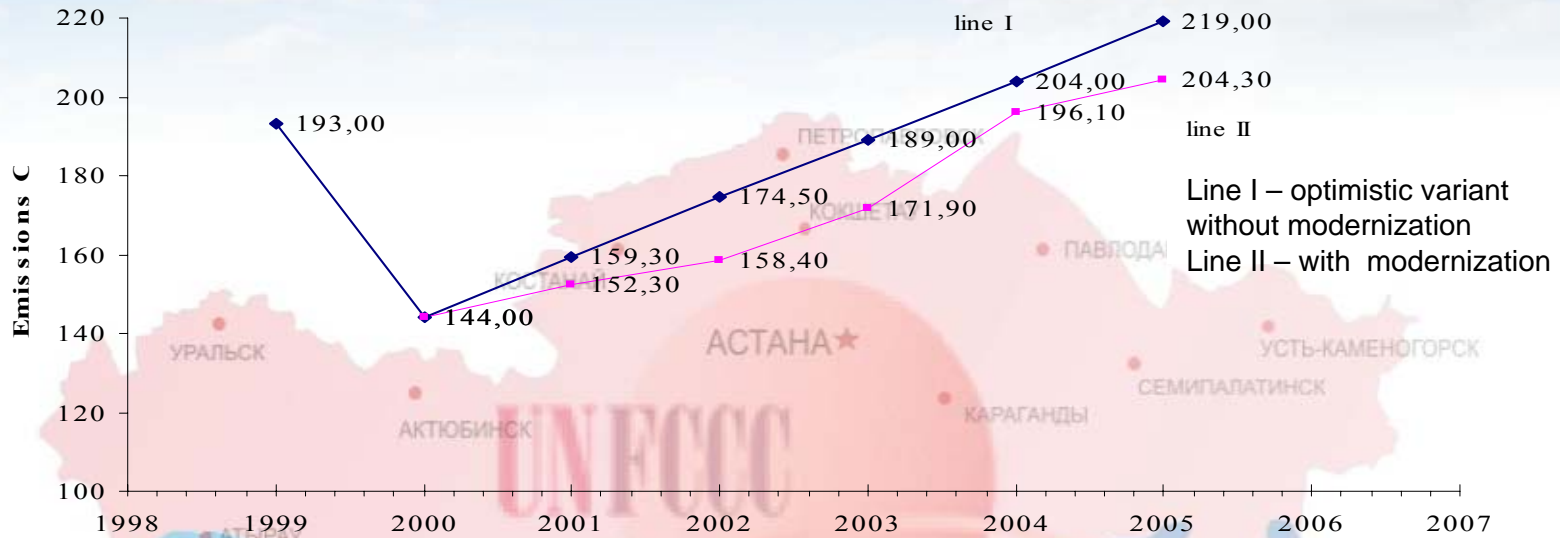
Component II: secondments to UK companies and Emissions Trading Office, ET simulation and training workshop in Kazakhstan.

Component III: baseline assessment, baseline validation, feasibility studies, workshops in Kazakhstan.



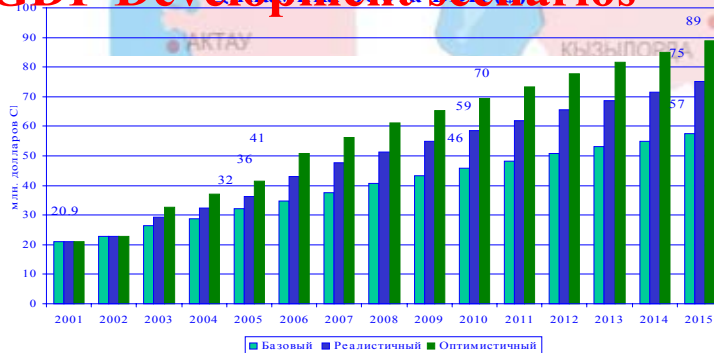
High potential in EE and RE

Forecasting GHG Emission with/without modernization HPS, mln. t CO₂



Source: Calculations of the Task Force group

GDP Development scenarios



- Basic scenario : 7-8% GDP increase
- Realistic scenario: 9-10% GDP increase (rates of 1999-2002)
- Optimistic scenario: >12% GDP increase (Innovative-Industrial Development Strategy 2015)



Caspian Training Program in GHG Emissions Reduction (CTP)

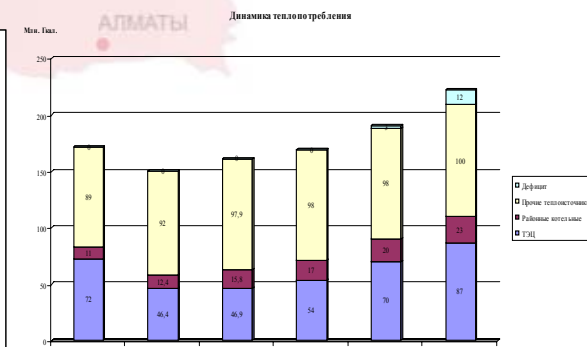
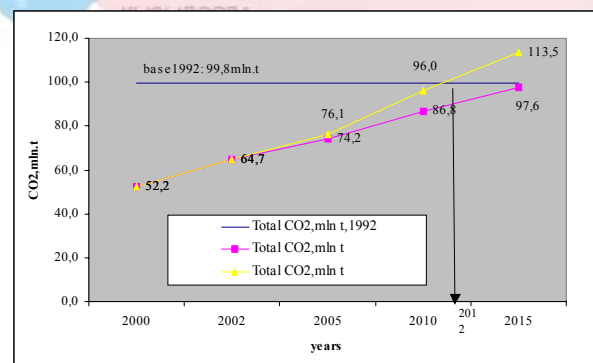
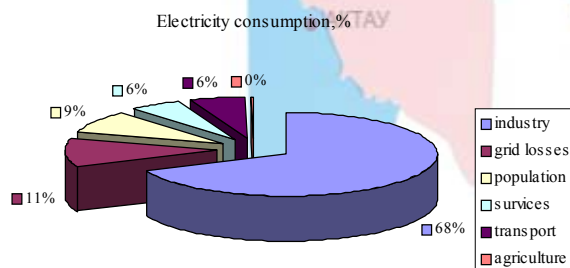
- Funds \$4,28 Mln Canadian via **Canadian International Development Agency (CIDA)**, duration 2002-2005
- Countries involved: Azerbaijan, Kazakhstan, Uzbekistan, Tajikistan
- **Objective:** strengthening CB of Countries to attract investments using KP mechanisms, involving business into process
- Four completed Training Courses (Train the Trainers, Environmental Management, Core JI/CDM, Project Cycle)
- the Study Tour to Canada.
- The Small Demonstration Projects lunched (Three projects per Country)
- **www.ctp-ghg.com**



Enhancing Kazakhstan's initiatives to take advantage of the opportunities to use CDM / JI in the global effort to address climate change

Cooperation with Canadian CDMJI Office 2003-2004

- Concept of National Strategy Study;
- Development of baselines at the sectoral & regional level in Kazakhstan
- Assessment to Carbon Funds
- Early Carbon Market Study
- Updating rules for national procedures for CDM/JI assessment, approval by GOK





TACIS Project: Technical Assistance to Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan with Respect to their Global Climate Change Commitments

- **Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan**
- ***Local Operator EC Consultant***
- **Name** SOFRECO
- **Project Starting Date: April 27, 2004. Project Duration: Thirty months**
- **Project cost: 4,500,000 EU**
- **Overall Project Objective: Assist Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan in building institutional and technical capacity for participation in the UNFCCC and Kyoto Protocol.**
- **Projects Activities:**
 - **Task 1: Assist in Development of CDM Infrastructure**
 - **Task 2: Assist in Development of Technical Capacity for the CDM**
 - **Task 3: Measures towards creating JI Systems in Kazakhstan**
 - **Task 4: Legal and Institutional Capacity Building**
 - **Task 5: Strengthen Inventory Capacity**
 - **Task 6: Enhance Economic Modeling Capacity**
 - **Task 7: Training**
 - **Task 8: Public Outreach**



National policy for Energy

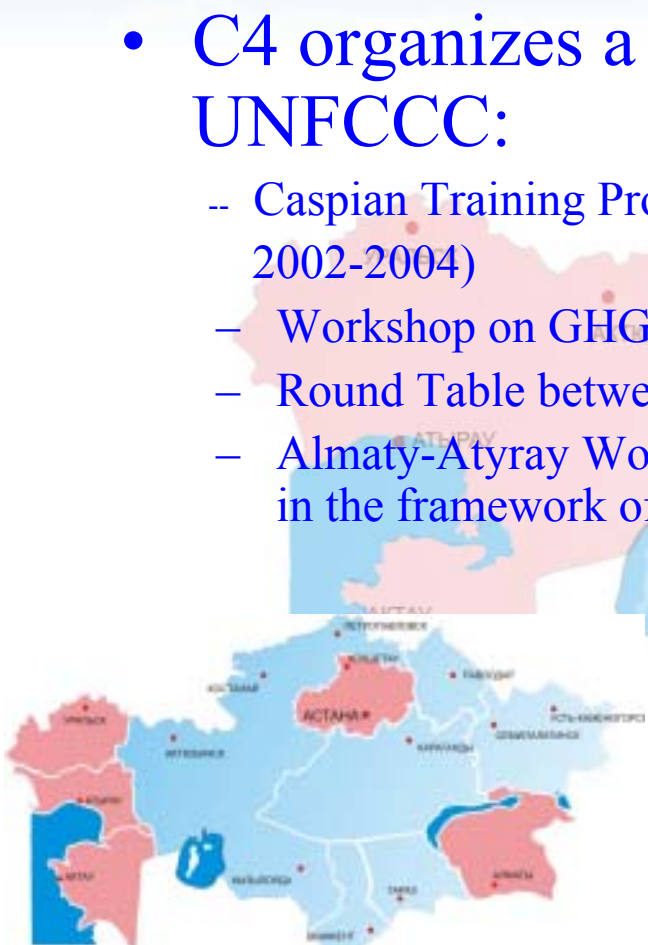
- 2003- Strategy of electricity sector development up to 2015 includes the issues and GHG emissions reduction
- 2004 recently in the development: Strategy of energy sector development up to 2020 (including issues on joint relations development of energy market with Russia and contribution on GHG emissions reduction activities)





Training Seminars, Public Outreach

- C4 organizes a lot of training for implementing Art.6 UNFCCC:
 - Caspian Training Program on GHG emissions Reduction (5 modules during 2002-2004)
 - Workshop on GHG Inventory improving(participating UK(Nov 2003)
 - Round Table between business and the Government on CC cooperation(2003)
 - Almaty-Atyray Workshop on British experience of energy sector development in the framework of GHG emissions reduction (BP support)
 - Uralsk seminar on Model Modernization CHP Project(support NEDO)
 - Aktau workshop on baseline evaluation, validation for the enterprises of oil&gas sector in Kazakhstan (support UK Government)
 - TV, publications, regional cooperation workshops participating; website : www.climate.kz





Way forward

✓ Goals/objectives:

- Better understanding of the CDM/JI opportunities and challenges
- A strategy to reap the benefits and minimize risks through capacity building and collaboration
- Opportunities in strengthening CB on regional level (training for NIS countries: Ukraine, Belarus)
- Involving business (REEP in 2005?), establish communications and propose programs with others

• Strategies and action plans:

- Identify major issues and options to access CDM/JI collaborative framework
 - Share experience and lessons learned
 - Further capacity building activities, incl. pilot projects
- Identify projects and develop a portfolio
- Identify strategic partners for project development
- Seek CDM/JI support through appropriate channel



Thank you!

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