

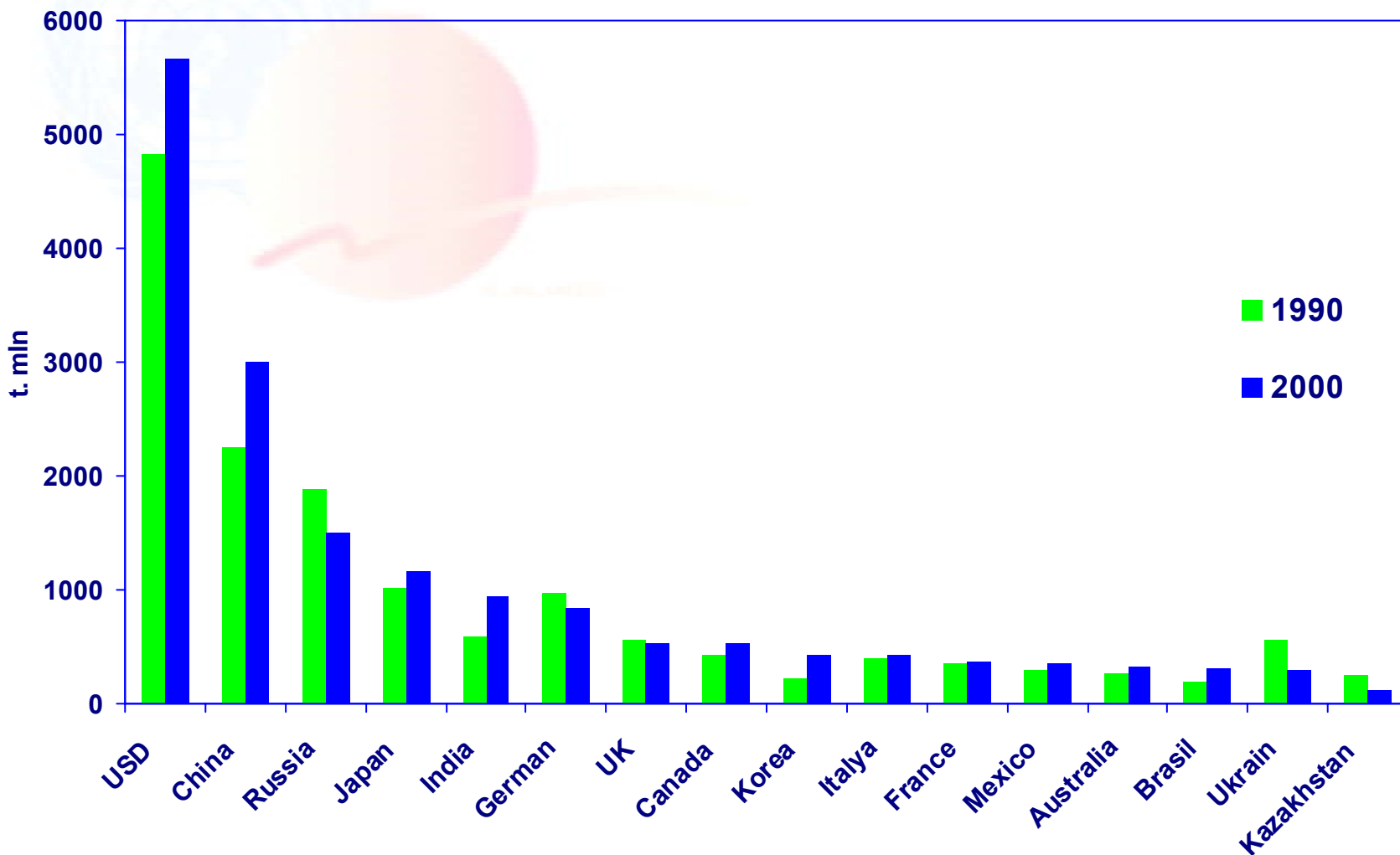


2-5 September 2003, Miyazaki, Japan  
The 13-th Asia-Pacific Seminar on Climate Change

**KAZAKHSTAN'S RESPONSE  
TO CLIMATE CHANGE:  
experience in preparation for CDM/JI**

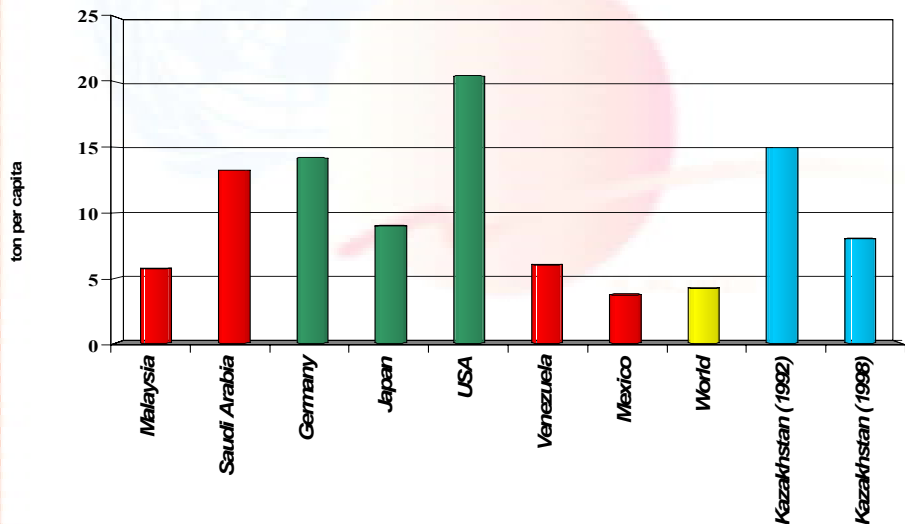
Lyubov Inyutina,  
Senior Expert on Environment Policy and Regulation  
Climate Change Coordination Center, Kazakhstan

# Countries-leaders in GHG Emissions and Kazakhstan

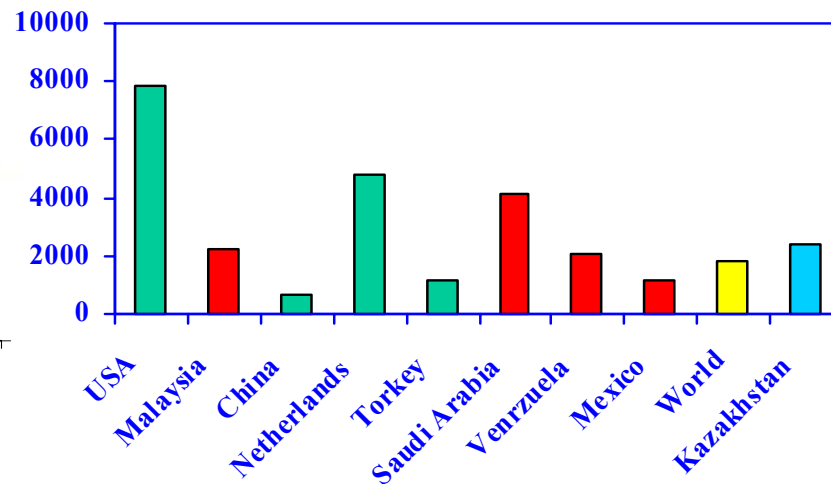


# Some indicators of Kazakhstan in comparison with other countries

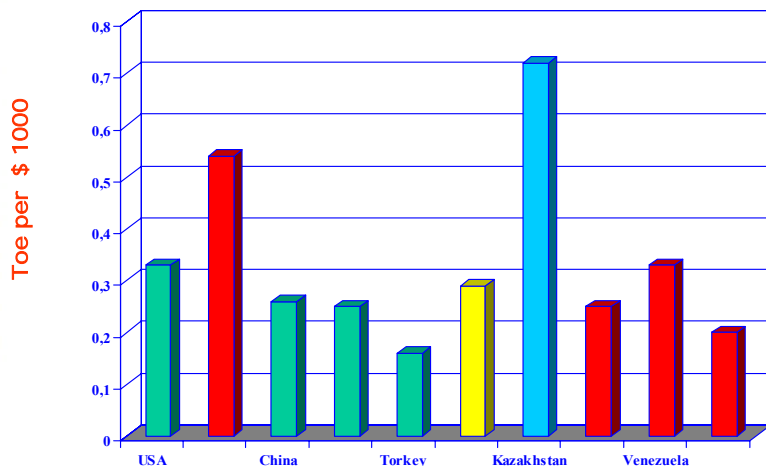
## CO2 emissions per capita



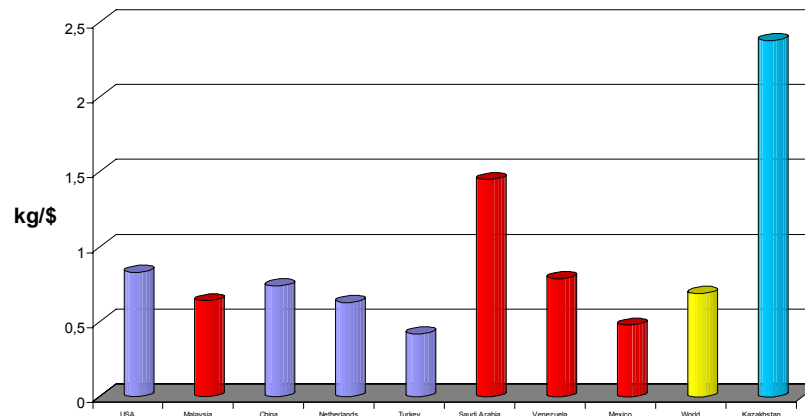
## Energy consumption per capita



## Energy Intensity of GDP

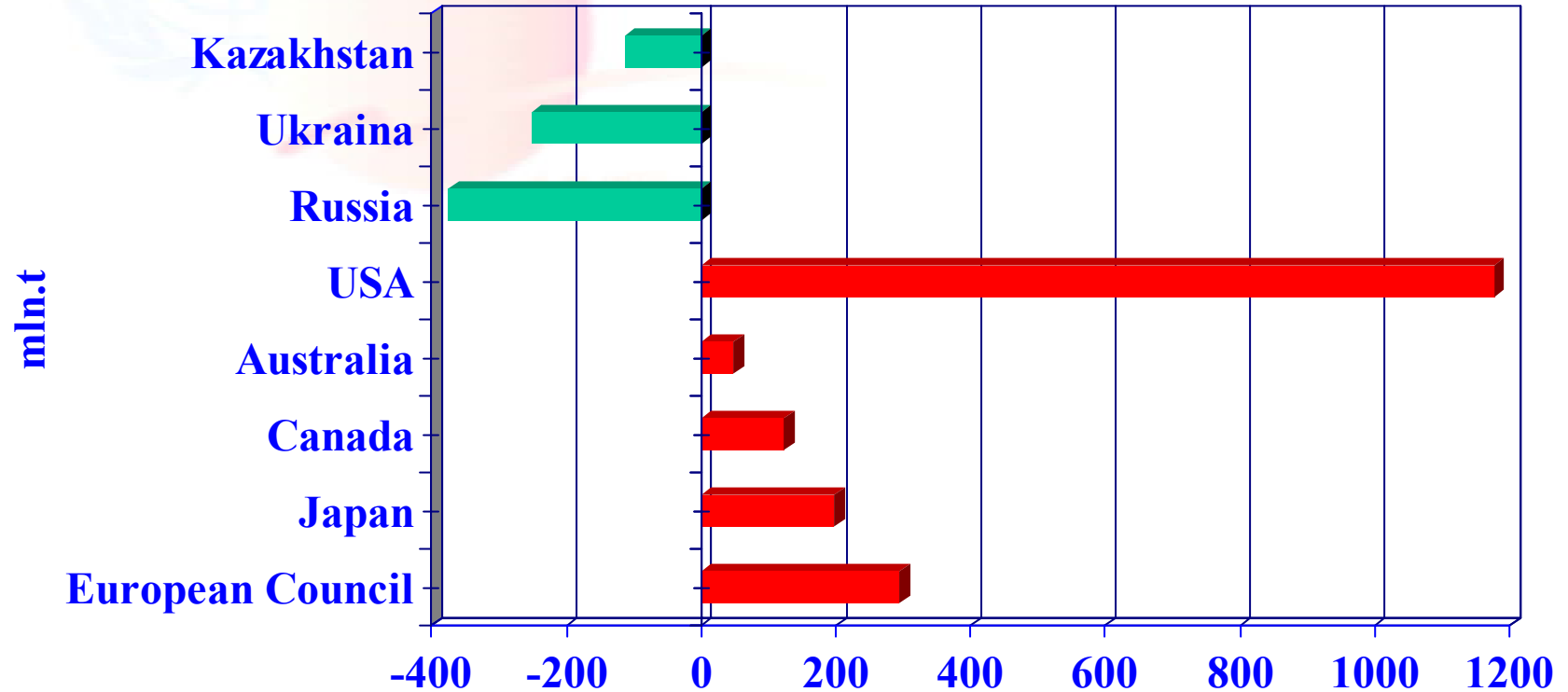


## CO2 emissions per GDP





# Supply-and-demand on the carbon market



# Key steps: progress achieved

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1995 | UNFCCC is ratified                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1999 | Kyoto Protocol is signed.<br>First National Communication, GHG Inventory - 1990 and 1994.                                                                                                                                                                                                                                                                                                                                                                            |
| 2000 | Decision to join Annex 1, COP-5 – 2000. Voluntary obligation on Art. 4.2g UNFCCC.<br>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 | National System for CDM/JI projects review and approval, GHG projects registry.<br>Inventory 1994, 1999, 2000.<br><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 Annex 1 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 Annex 1 for purposes of the Convention. |
| 2002 | IAC: Launched the model of national procedures for approval of JI/CDM projects ;<br>approved 2 GHG reduction pilot projects.<br>MoU with WB                                                                                                                                                                                                                                                                                                                          |
| 2003 | Searching of international partners, MoUs<br>Situation scenarios of macroeconomic modeling and GHG emissions, developing regulation of KP mechanisms in Kazakhstan<br>Analysis of benefits/disadvantages in KP participation for the decision makers<br>Participation in the development of Energy Development Strategy up to 2030                                                                                                                                   |



# Institutional framework: Inter-Agency Commission on Climate Change (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 (IAC)**

Ministry of Economy and Budget Planning  
Ministry of Industry and Trade  
Ministry of Environment Protection  
Ministry of Energy and Mineral Resources  
Ministry of Justice  
Ministry of Finance

Ministry of Foreign Affairs  
Ministry of Agriculture  
Ministry of Transport & Comm.  
Ministry of Defense  
Ministry of State Revenue  
Extreme Agency

**Observers:**

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

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

**Support for strengthening of national system for implementation of UNFCCC, Kyoto Protocol and GHG emissions reductions projects in Kazakhstan**

**Phase-out Ozone Depleting Substances in Kazakhstan**

# National Priorities in Climate Change

## ⊕ *The KP ratification in three stages:*

- 1. 2003-2004: without commitments. Anticipated investments \$ 50-70mln.*
- 2. 2003 – 2005: determination of GHG quantitative obligations and negotiations with world community. Anticipated investments \$150-300 mln.*
- 3. 2005-2007: undertake commitments as Annex 1 Party, at the same time acceding Annex B. Anticipated investments \$500-600 mln.*

## ⊕ *Establishment of normative and legal basis*

for realization of financial mechanisms for natural resources management based on the new law on atmospheric air protection:

## ⊕ *Development of “national system” under art.5 KP and a national registry functional in accordance with Article 7.4 of the Protocol;*

## ⊕ *Approval of internal procedures on JICDM*

for consideration, evaluation, verification, monitoring and validation of GHG reduction projects under JI/CDM

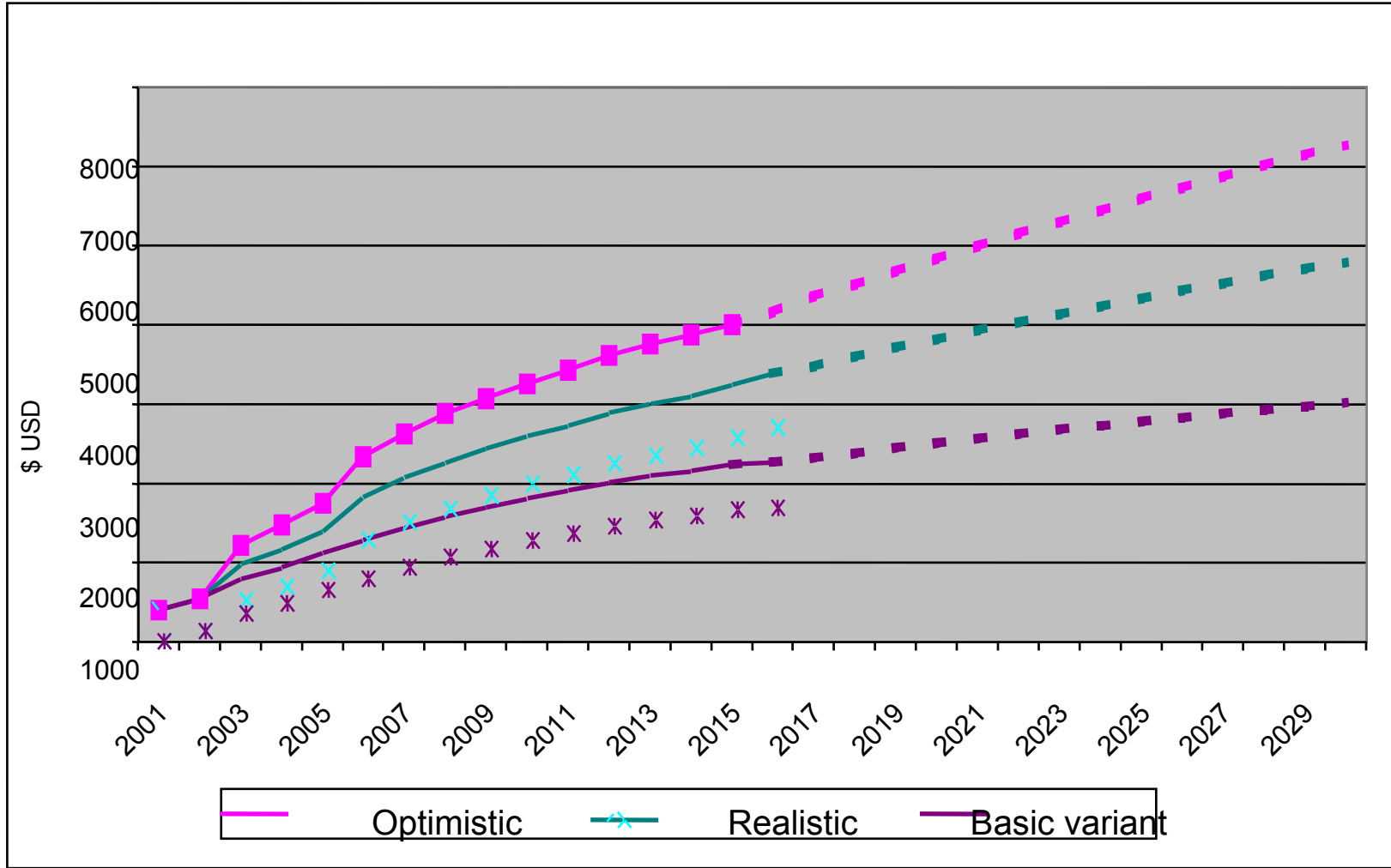
## ⊕ *Development of NSS*

on greenhouse gas emissions reduction





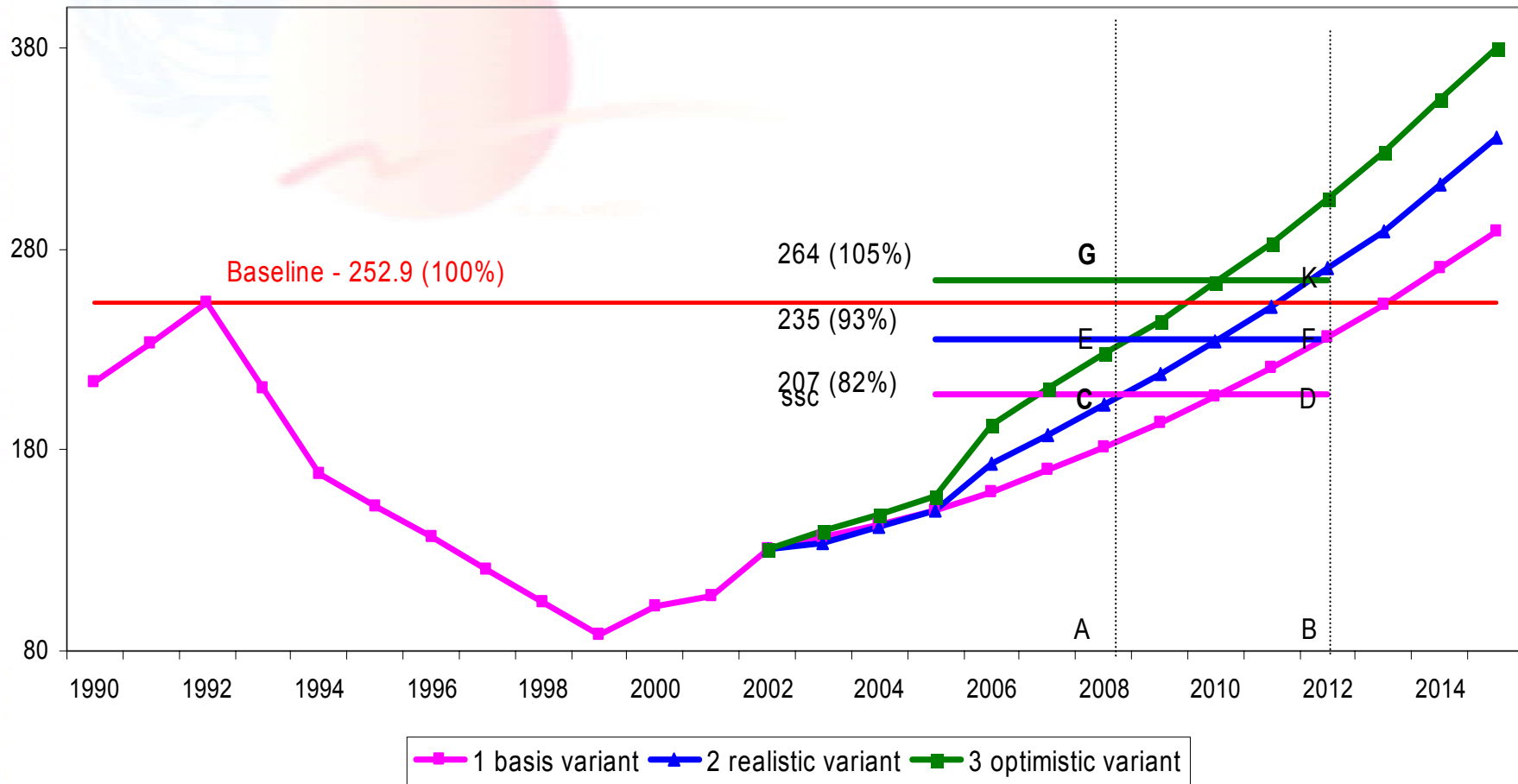
# Dynamics of GDP per capita



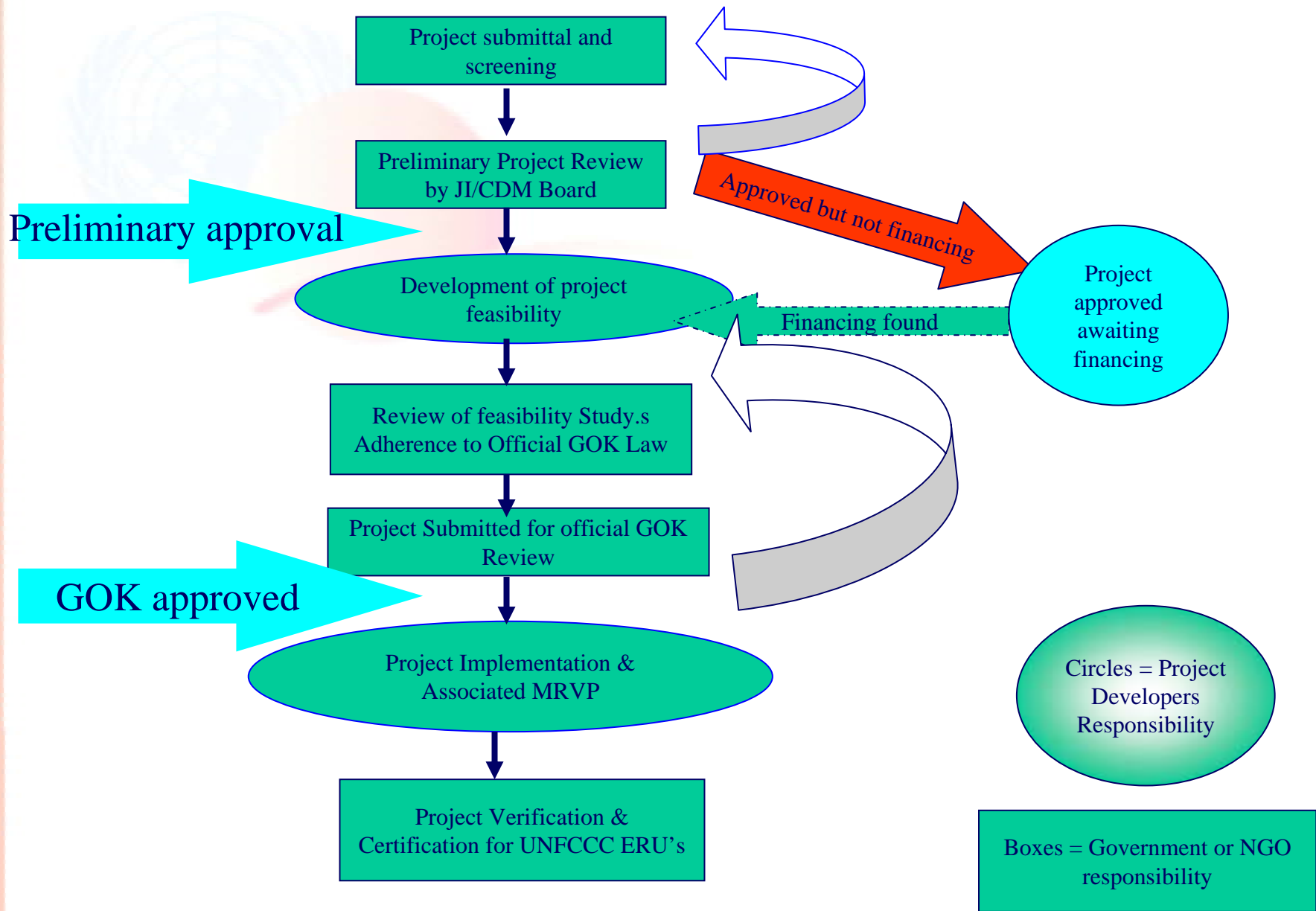




# GHG emissions levels by three scenarios of the economy development for 2008-2012, million tonnes



# The Scheme of GHG Project Approval by GoK





# Project screening criteria in Kazakhstan

1. **Consistency with the UNFCCC and/or the Kyoto Protocol**
2. **Consistency with relevant national criteria (project implementation in identified priority sectors under the prevailing legislation)**
3. **National and local environmental benefits**
4. **Consistency with the strategic objectives and operating principles of Kazakhstan**
5. **Measurability of project greenhouse gas emissions**
6. **Contribution to sustainable development**
7. **Provision of long-term benefits**
8. **Potential for significant amounts of greenhouse gas reductions**
9. **Acceptable Monitoring plan complying with relevant monitoring rules**
10. **Additional (other) project criteria ( minimized implementation and duplication risks, allow objective evaluation and comparison, replication)**



# Japan/Kazakhstan first potential JI/CDM project

## "Installation of a gas turbine with 25 MW utilizing boiler at the Uralsk Heat Power Plant"

On 31 January 2002 in Uralsk working meeting on implementation of the energy efficiency project was held to launch joint efforts to address global warming under the Kyoto Protocol and to present UPDD on the project. Participants: Western-Kazakhstan oblast's Akimat, Ministries( of Natural Resources and Environmental Protection, of Economy and Trade, Energy and Mineral Resources), Japanese companies (Mitsubishi, Hitachi, Tohoku electrics, NEDO organization), Zhaiykteploenergo, Uralsk Heat Power Plant, Western-Kazakhstan regional electrical company and the Climate Change Coordination Center.

On 20 June 2002 in Astana the MoU between Japan (NEDO) and Kazakhstan(the Ministry of Energy and Mineral Resources, Ministry of Natural Resources and Environmental Protection and the Government of the West-Kazakhstan oblast) was signed. The parties started implementing the project on construction of a gas turbine cogeneration system with the capacity of 25 MW.



# Japan/Kazakhstan first potential JI/CDM project

## Importance for several priority activity directions of Kazakhstan:

- A gas turbine facility to be installed according to the latest Japan technology, will significantly increase energy efficiency of the Ural Heat Station and will ensure its environmental safety, conforms to the concerns of the national energy sector development;
- The project will allow both countries to develop internal legal and regulatory mechanisms for implementation of GHG reduction projects, will significantly increase investment attractiveness of Kazakhstan for foreign donors, and will improve economic feasibility of environmental projects;
- Kazakhstan and Japan are becoming leaders in the process of addressing global warming, and they will start taking relevant practical steps well before the World Summit on Sustainable Development in Johannesburg;
- The project cost is US\$ 15 million, the Japan party will fund it, and during 2008-2012 Kazakhstan will annually transfer its quota of 62 thousand tons of CO<sub>2</sub>, generated as a result of the gas turbine facility operation, to Japan.

# Kazakhstan's potential in energy efficiency and renewable energy resources use

- The Kazakhstan GDP energy intensity is 1,73 toe/ thousand USD, the energy intensity (average) of OECD is 0,19 toe/ thousand USD(2000). If achieving the energy intensity of the developed countries the absolute potential of energy saving of the Republic of Kazakhstan will be 61,51 mln. t.c.e. (tones of coal equivalent or 166,08 mln. t. CO<sub>2</sub>)

- Hydro potential:about 170GWh/yr, only 8 GWh/yr is in use

- Wind potential: 8m/sec in Jungar Gates

- Solar energy potential: 2,200-3,000 h/yr; 1,300-1,800 kWh/m<sup>2</sup>



# Next Steps in Kazakhstan

## national level

- Turn procedures into regulations (legislation)-clear, rationale system:
  - 1) Create national carbon management structure -- institutions, policies, authorities;
  - 2) Design and institutionalize transparent procedures for offset projects;
  - 3) Establish a project pipeline; pre-screen;
  - 4) Mmarket the pipeline to potential investors;
- Creation of National CDM(JI) Board;
- Start regular Business Forum for outreach;
- Initiate public education campaign w/NGOs.

## business level

- Start of GHG inventories at enterprises;
- Business strategy development in the framework of UNFCCC and Kyoto Protocol;
- Development of baselines;
- Identification of list of projects and GHG projects preparation;
- CB Development and rising understanding of benefits of Kyoto mechanisms.

## civil level

- Information / awareness raising and developing of transparency of GHG project process;
- Showing of economic benefits for small/medium business of Kyoto mechanisms;
- Adaptation of measures and issues of global environment;
- Involvement of into active participation in the process of combating global warming – the way to sustainable development.



# Kazakhstan Carbon Fund

