

National Climate Policy in Belarus: Domestic Measures Complemented with Kyoto Mechanisms

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Introduction

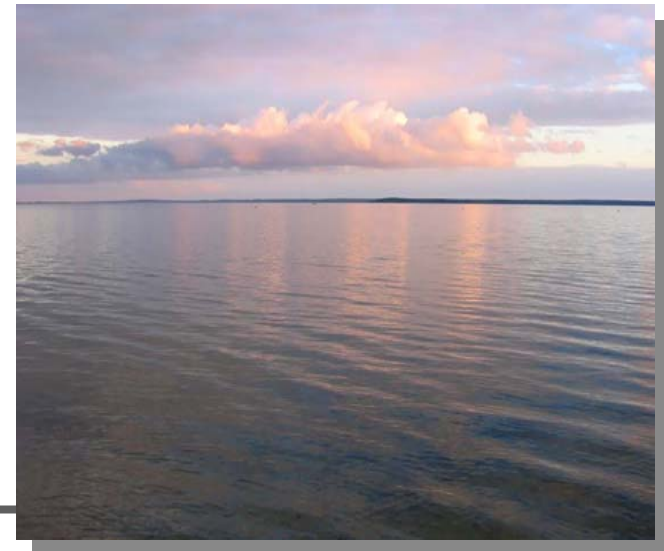
welcome to Belarus



Belarus in brief

landscape and climate

- Land of forests, lakes, swamps and rivers
- East-European plain
- Black Sea – Baltic Sea watershed
- Mild climate
Low -8C, High +18C
Annual precipitation 600 mm
- Unique nature ecosystems
- Population: 10 millions
Area: 20.8 millions ha



Belarus in brief

economy

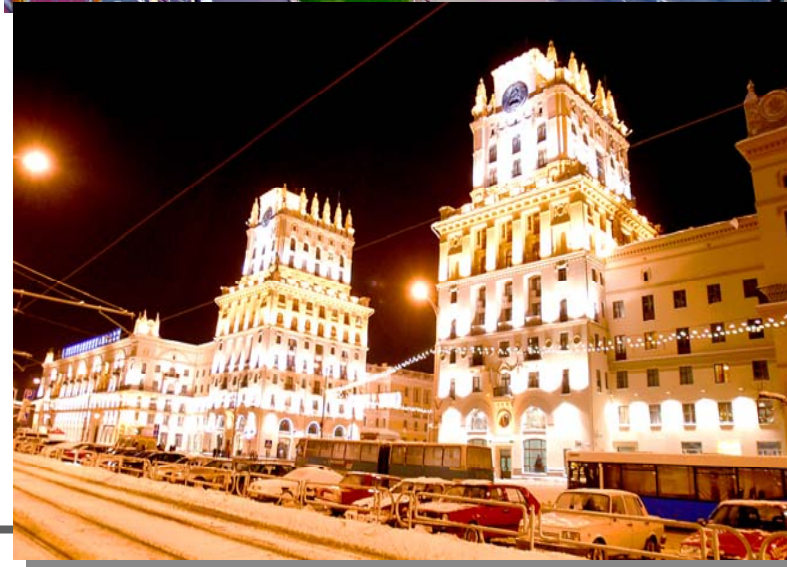
- Economy in transition to market
- Advanced machine-building, oil-refining, chemical and petrochemical industries
- Deposits of potassic salts, peat, limited brown coal and oil shale
- Industry accounts for 1/3 of GDP
- Local fuel provides 16% of primary fuel consumption



Belarus in brief

among others

- Relatively high UNDP human potential development index (within top 1/3)
- The highest GDP growth and the least GDP energy intensity among countries of CIS
- The country that suffered from Chernobyl disaster most of all



Belarus in brief

socio-economic indicators (2006)

GDP (PPP)	86.85 billion USD (re: IMF)
GDP (PPP) production per capita	9 143 USD (re: IMF)
Cash income per capita	1 971 USD
Export (2005)	15 979 million USD
Import (2005)	16 708 million USD
Average lifetime	63.2 years for men 75.0 years for women
Aggregate GHG emissions (2005)	76.5 million tons of CO ₂ eq (without LULUCF) 65.5 million tons of CO ₂ eq (with LULUCF)

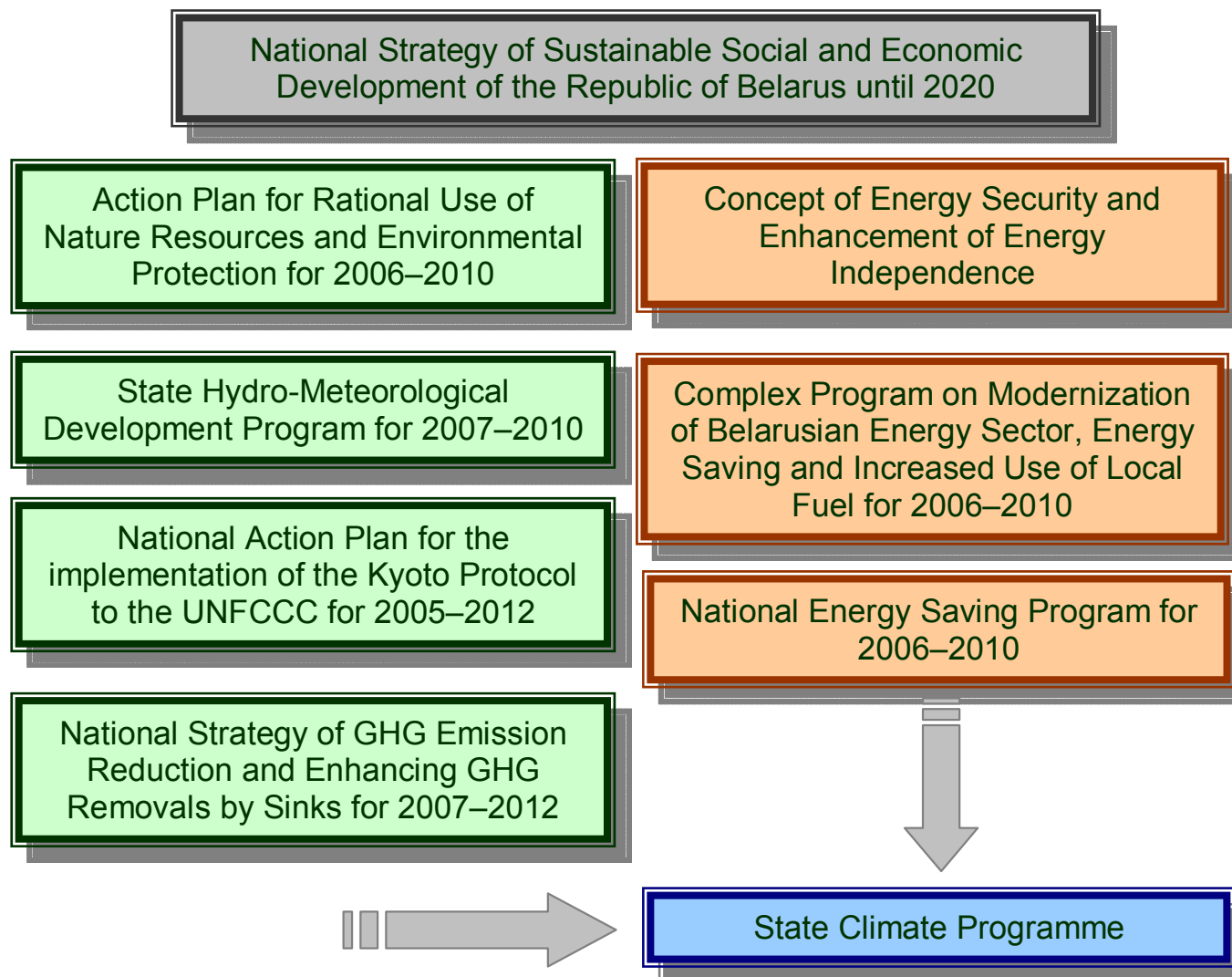
Climate policy

major objectives and tasks

- Reduce GHG emission and enhance GHG sinks
- Help adaptation to negative climate change impact to economy and population health
- Provide compliance with Belarus' commitments
- Provide relevant capacity building
- Attract and effectively utilize national and international resources including those derived from Kyoto and non-Kyoto mechanisms
- Establish a system for provision of hydro-meteorological data and prognoses
- Derived from
 - National Action Plan on Rational Use of Natural Resources and Environmental Protection for 2006-2010
 - National Strategy of Reducing Emissions and Enhancing Removals by Sinks of Greenhouse Gases in the Republic of Belarus for 2007– 2012
 - UNFCCC and Kyoto Protocol to UNFCCC

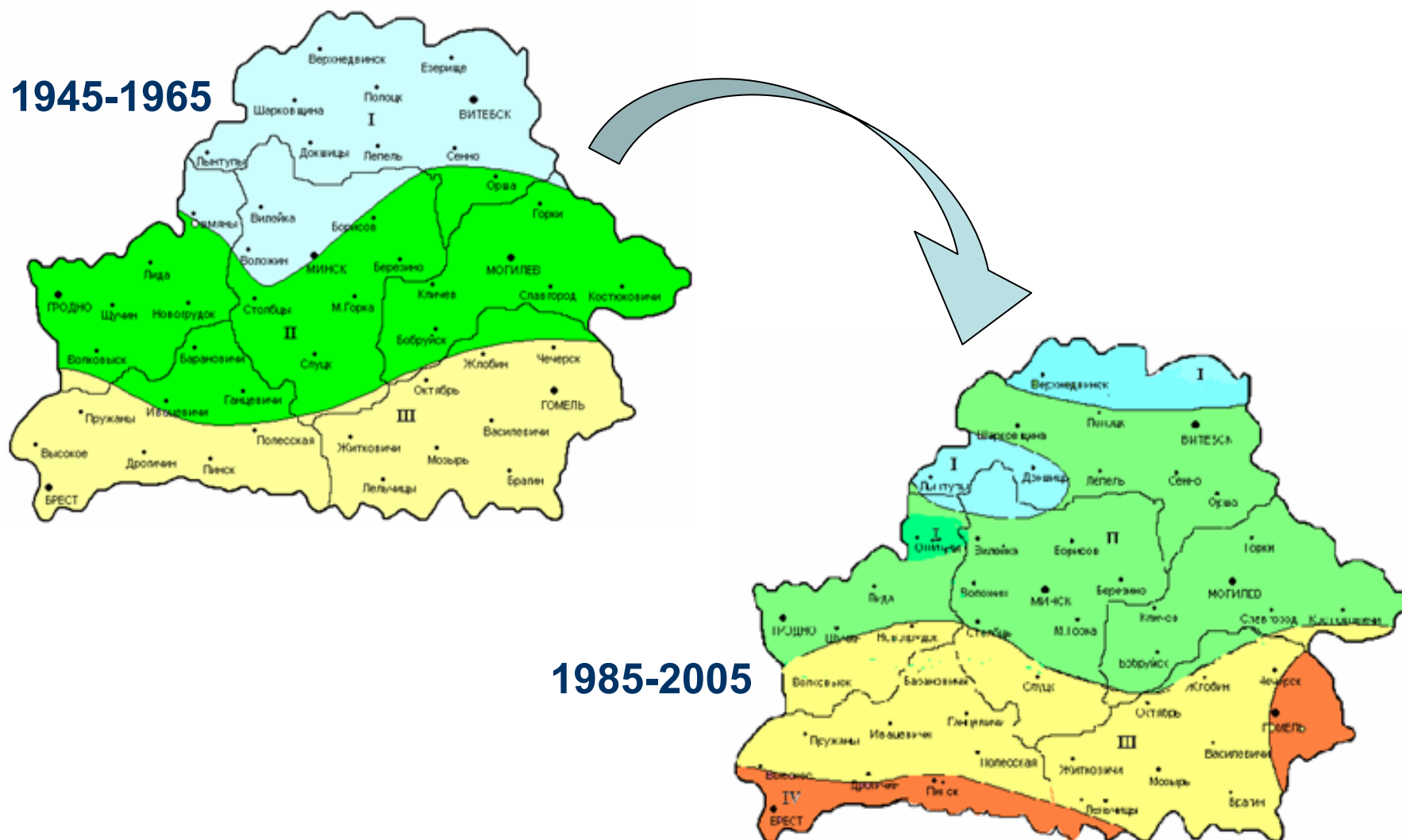
State Climate Programme

its position in relevant major state programs



State Climate Programme

rationale: change of climatic zones



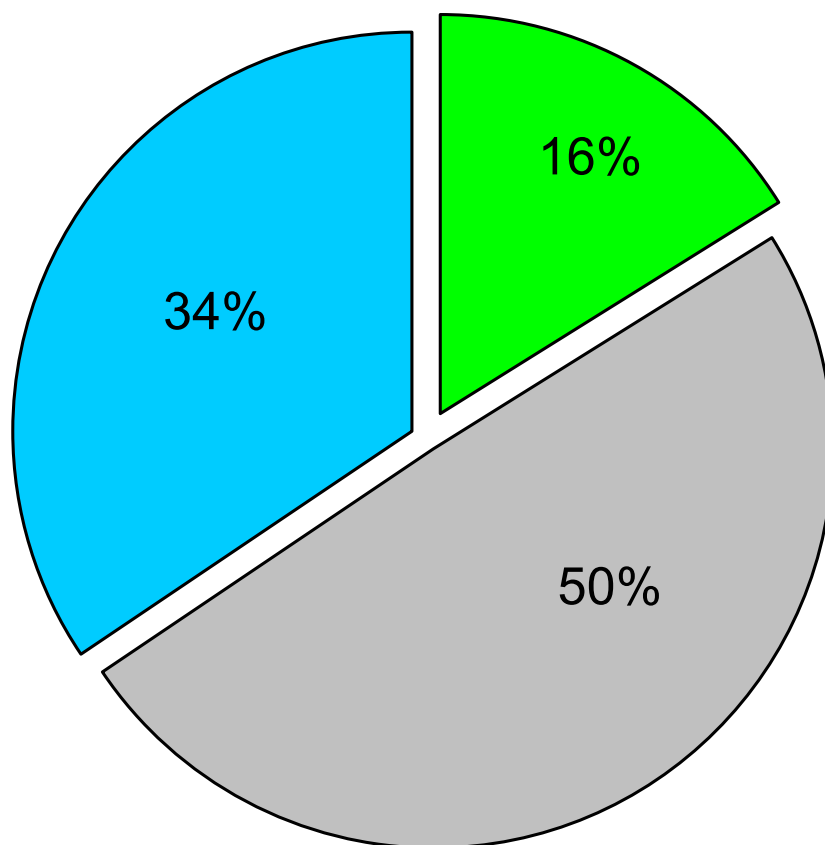
State Climate Programme

objectives relevant to Kyoto mechanisms

- Core component of GIS
- Implementation of greening, primarily hard greening (decision 10/CMP.2)
- Conditions for possible bundling the same type projects from different applicants
- Conditions for complex projects within a single task of the Programme
- Transparent and verified conditions for projects implementation
- Political support and responsibility
- Co-financing and its securing

State Climate Programme

co-financing in 2008-2012 (draft)



- National Climate Programme
- Other related programmes
- Kyoto mechanisms

Total = 1 500 million USD

State Climate Programme

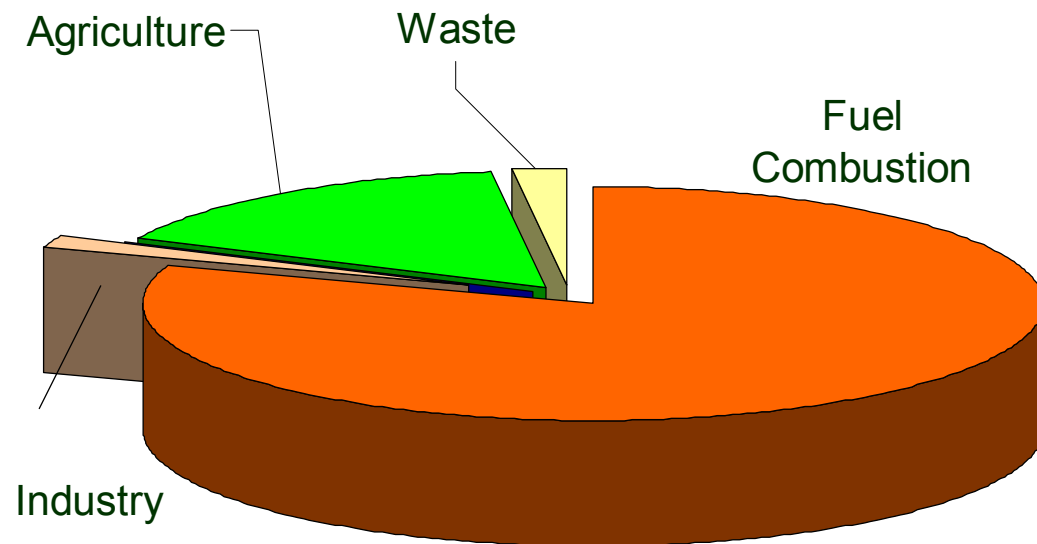
directions and components

- Overseeing the climate change
 - system upgrade of meteorological survey and prognosis
 - informational network improvement
- Climate change mitigation
 - renewable energy
 - energy efficiency, energy saving
 - peat land preservation, mire formation, afforestation
- Adaptation to climate change
 - land degradation prevention
 - selection and introduction of new agriculture varieties
 - new crop protecting agent and soil protecting technologies
- Adjustment of legal and institutional framework
- International cooperation
- Capacity building

GHG emission reduction to be achieved

rationale: GHG emissions (2005)

- Total GHG emission (without LULUCF) 76.5 million tons CO₂eq
- Carbon dioxide – 73%
- Methane – 17%
- Nitrous oxide – 9.5%
- Other GHG – 0.1%



GHG emission reduction to be achieved

rationale: LULUCF (1990-2005)

● In thousand tons of CO₂eq

	1990	2005
Emissions	13 825	12 678
Removals by sinks	-25 132	-24 850
Total in LULUCF	-11 307	-10 987

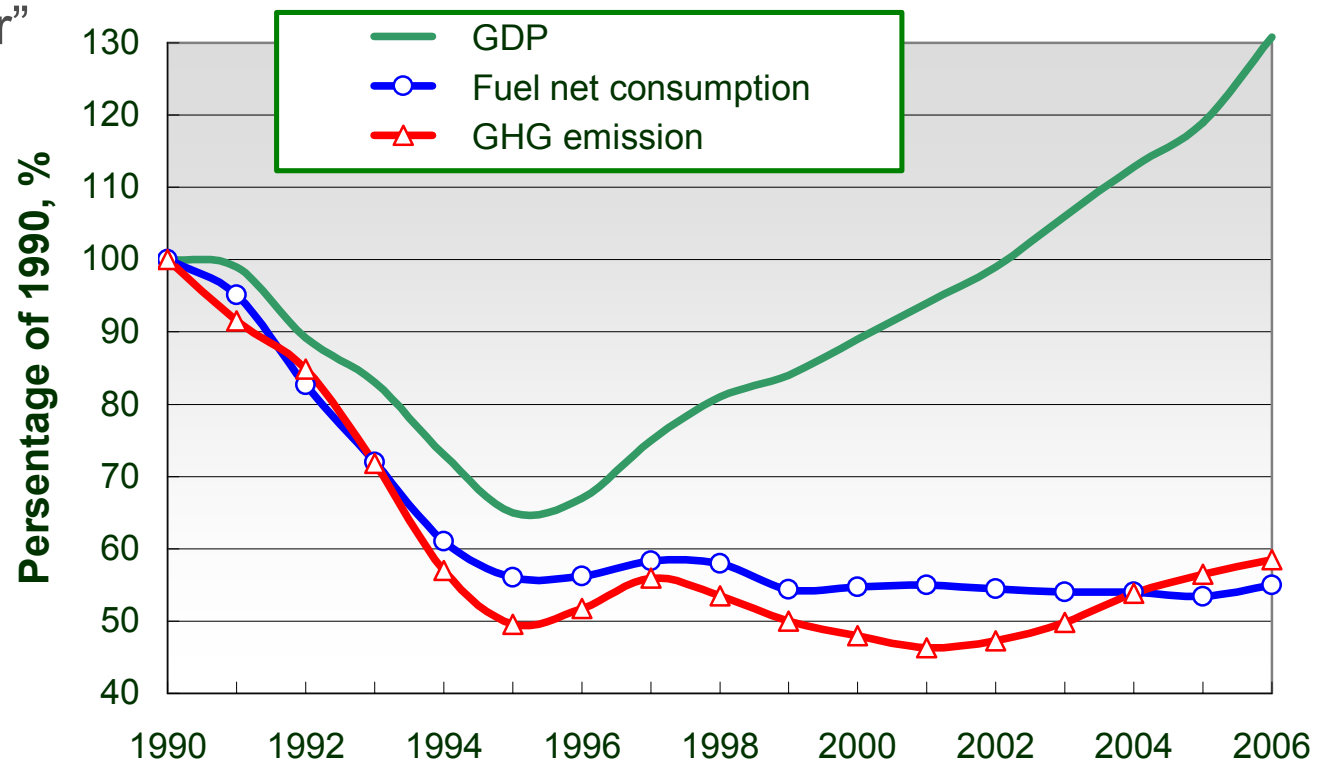


GHG emission reduction to be achieved

rationale: GHG emission vs. major indices

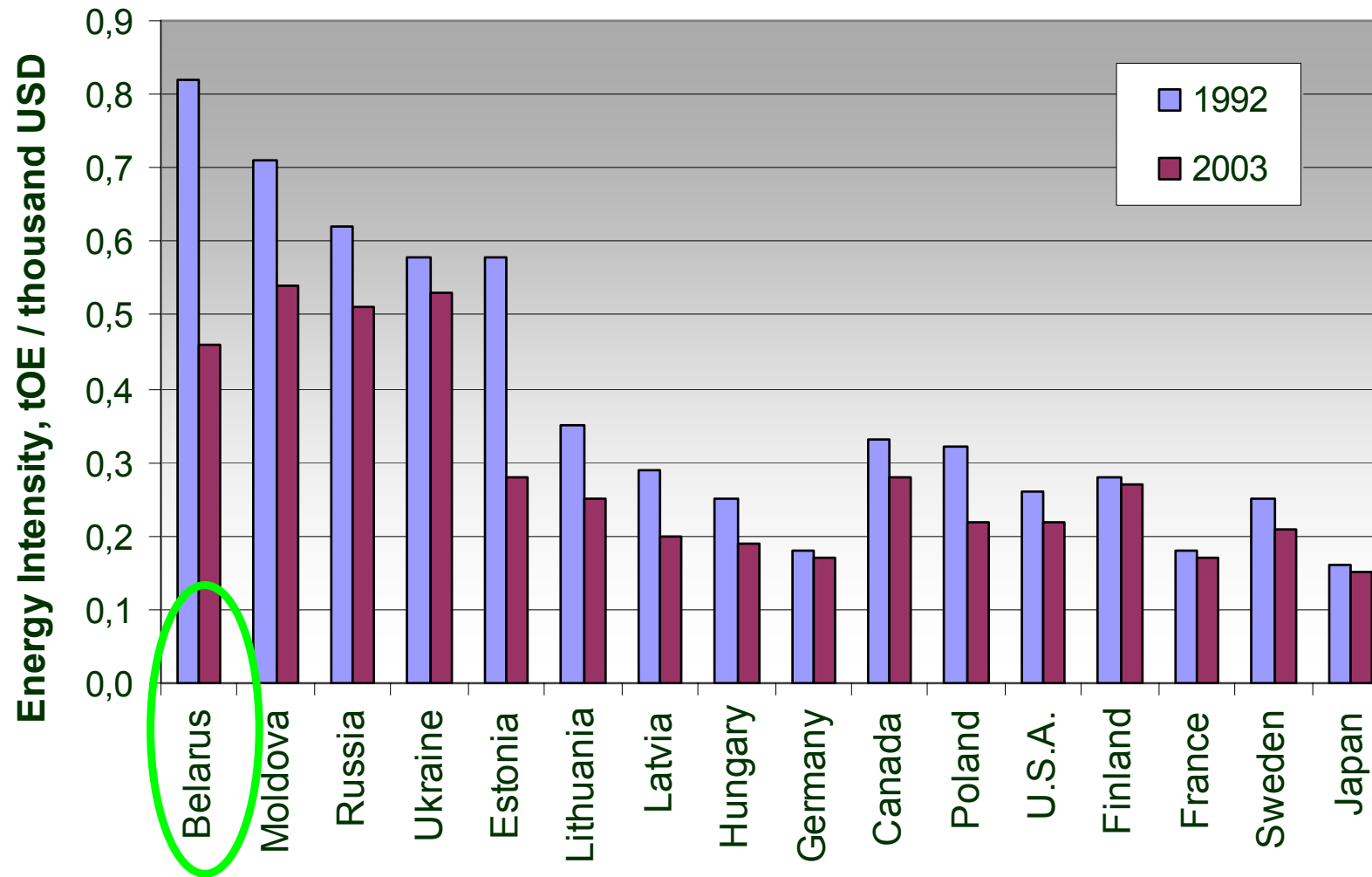
- Reduction of GHG emissions
 - 1990—1995 – economy recession
 - 1995—2005 – change of fuel and energy mix and GDP structure
 - 1997—today –extensive energy saving policy and use of renewable energy

- Today the “hot air” is not really “hot”



GHG emission reduction to be achieved

energy intensity per GDP (PPP)



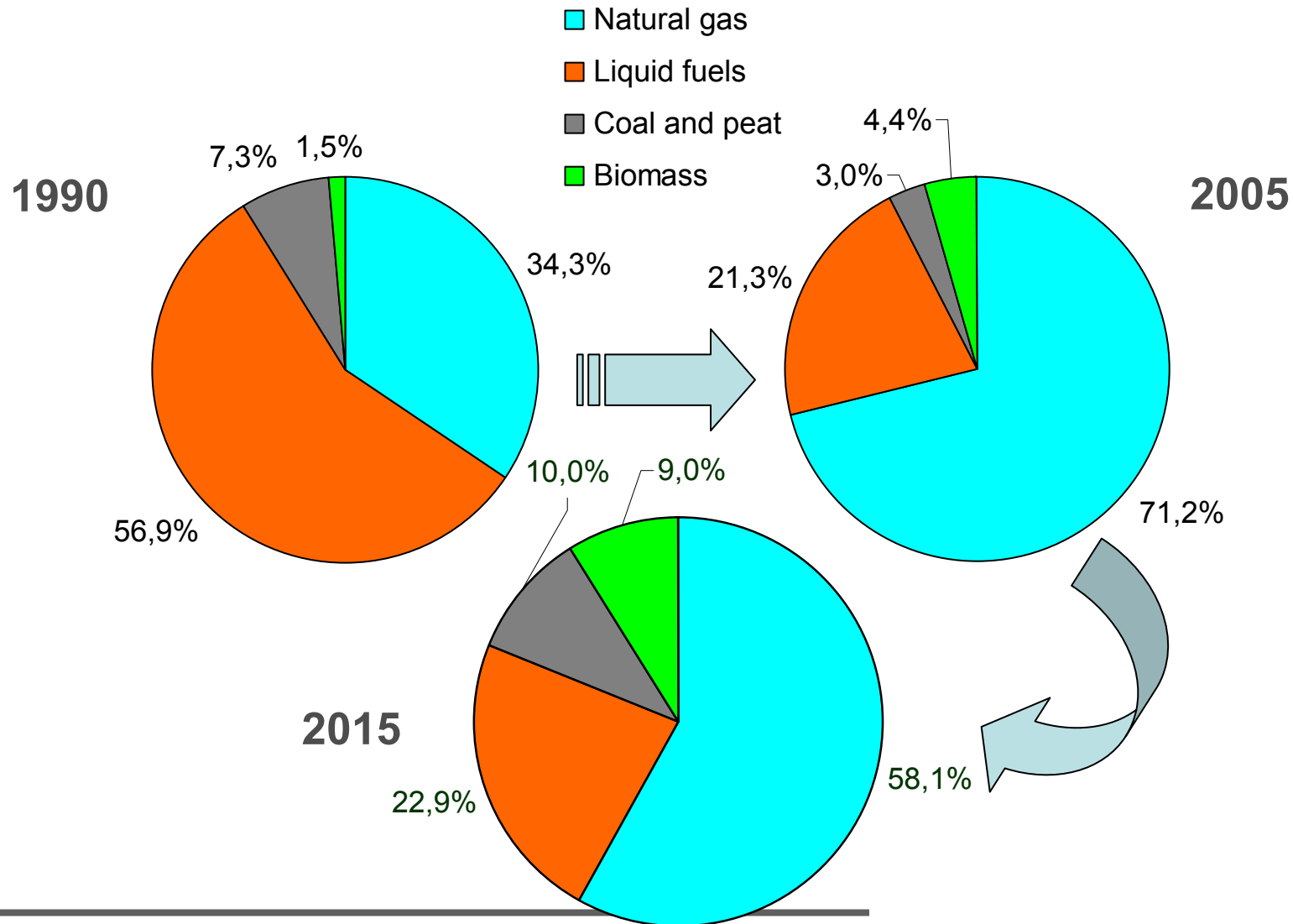
GHG emission reduction to be achieved

recent governmental resolutions in figures

- GDP in 2015 is to be approx. twofold higher compared to 2005
- Energy intensity in 2015 is to drop down up to approx. 20% of that in 2005, providing annual reduction of the energy intensity of GDP by 6–7%
- Total consumption in 2015:
 - electric power 42.5 GW-h
 - thermal power 80.2 million Gcal
- Increase of energy safety by means of:
 - Consumption of peat fuel in 2015 is to be 2.1 times as much compared to 2005
 - In 2015, use of black and brown coals, refinery coke, combustible shale and lignin is foreseen in the amount of 3.2 M t.c.e.
 - Consumption of wood fuel in 2015 is to be approx. 2.8 times as much compared to 2000
 - Will it be 100% of renewable biomass?

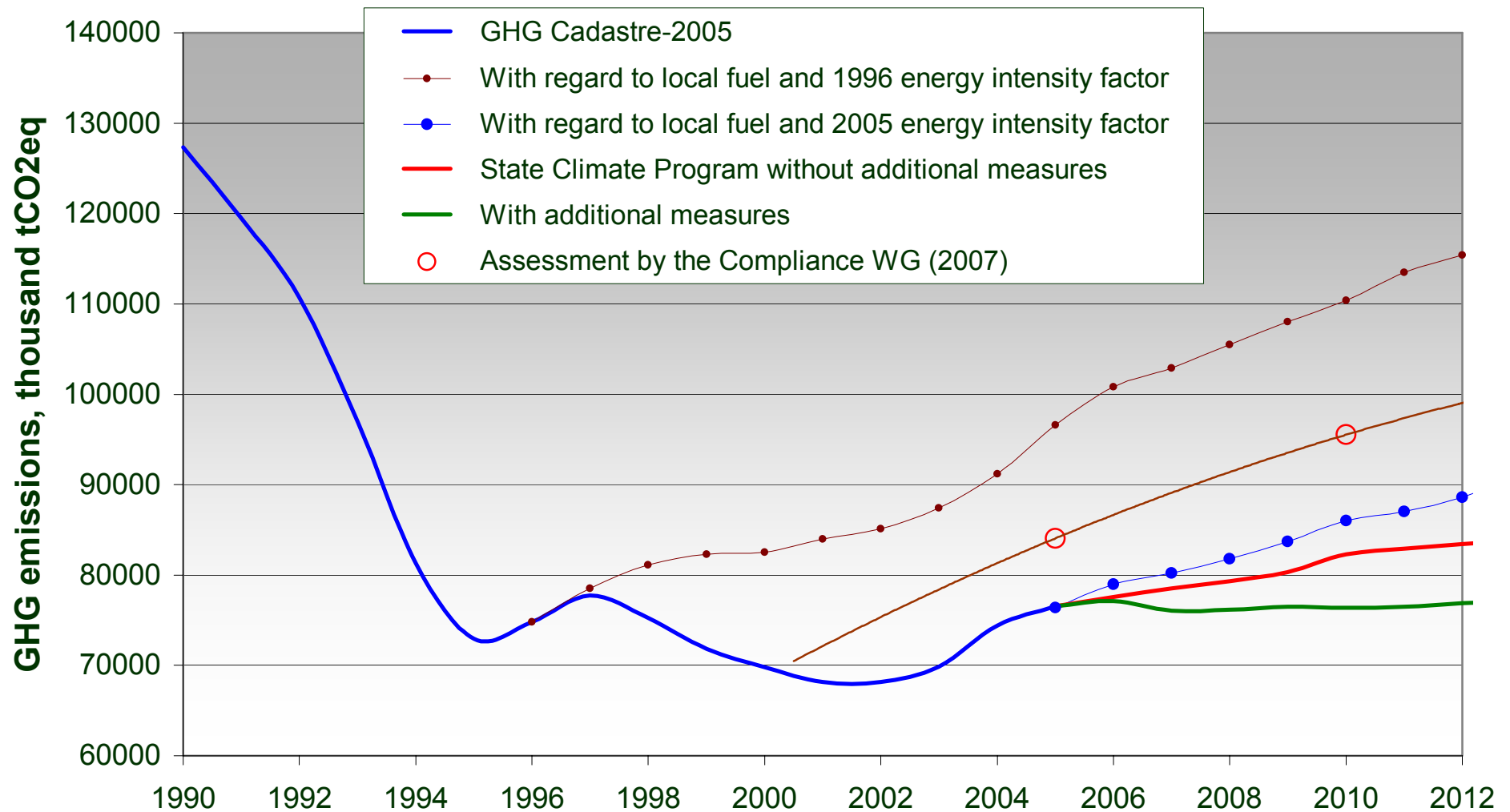
GHG emission reduction to be achieved

dynamic of fuel balance



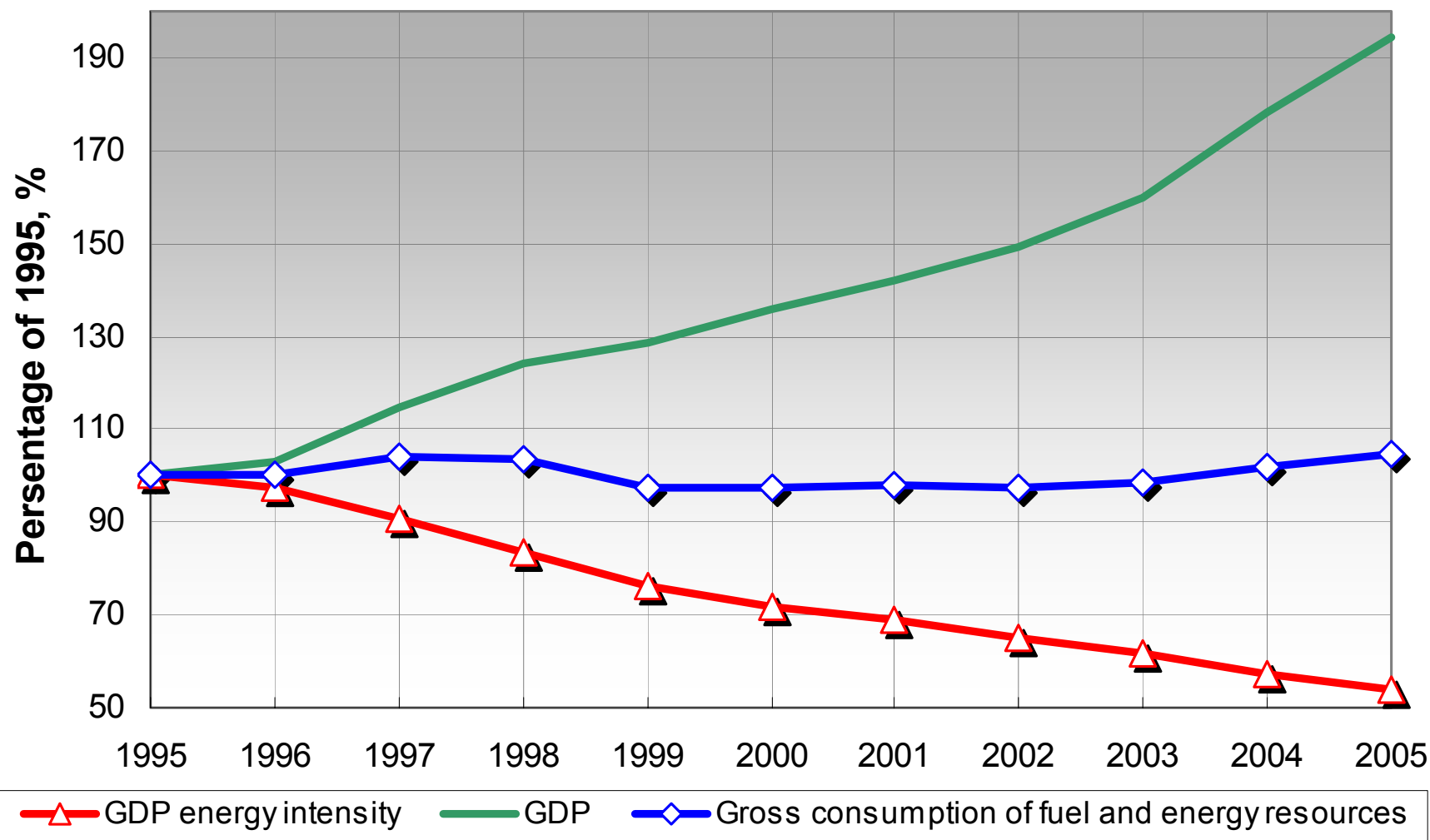
GHG emission reduction to be achieved

GHG emission assessments



GHG emission reduction to be achieved

dynamic of some annual indices



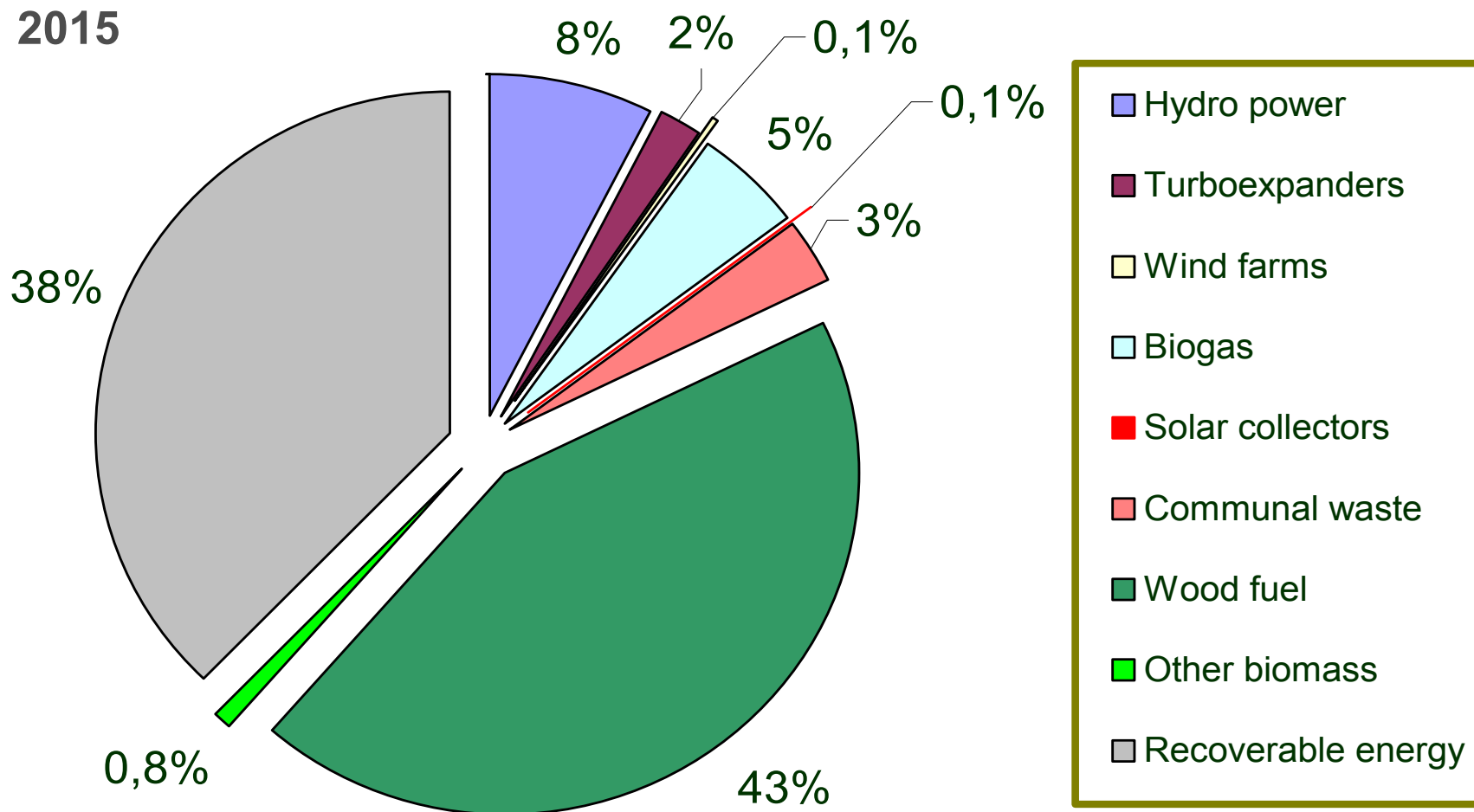
GHG emission abatement strategy

actions and measures

- National strategy on reduction of GHG emissions and increase of GHG removals for the period 2007-2012
- Objective:
 - identify key actions allowing to secure perspectives of national economic development under the condition that the assigned GHG emission limit is not exceeded
 - preserve and increase the GHG mitigation potential to be able to meet more strict post-Kyoto commitments
- The principal directions are:
 - Continue fuel and energy saving efforts thus stabilizing the level of emissions
 - Sustain growth of production output in construction, industrial and transport sectors through the use of resource-saving technologies
 - Proper waste management including communal waste and sewage
 - Improvement of the quality and enhancement of GHG sinks

GHG emission abatement strategy

fossil fuel replacement (=94,107.9 TJ)



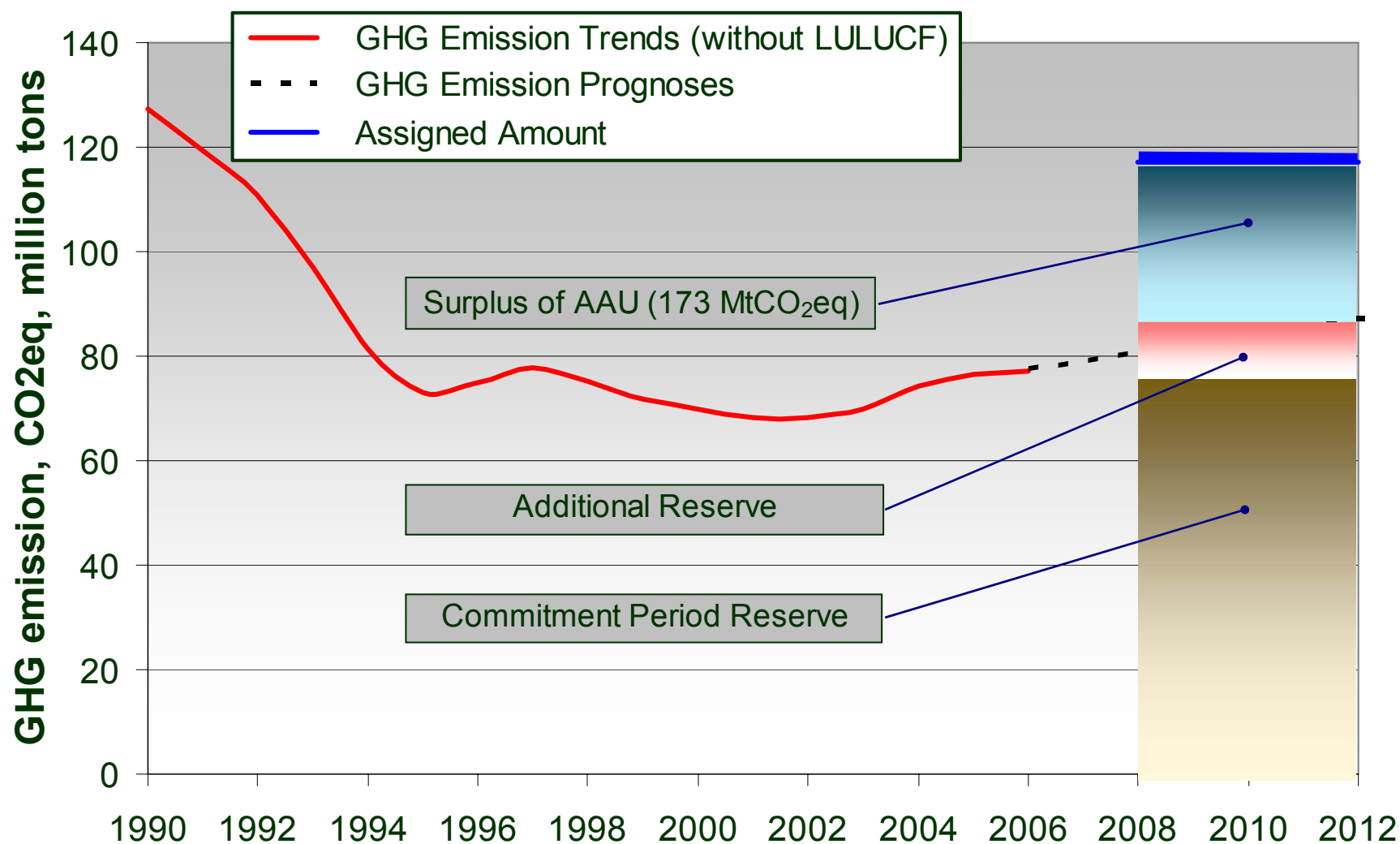
Assigned amount

Initial Report data

- Commitment period assigned amount
 - 586 MtCO₂eq.
- Commitment period reserve
 - 372 MtCO₂eq.
- Additional reserve
 - 41 MtCO₂eq.
- Surplus of the assigned amount of GHG emissions
 - 173 MtCO₂eq.
- GHG emissions from all sources
 - 415 MtCO₂eq. (2008 to 2012)
- Potential excess allowances
 - 171 MtCO₂eq.

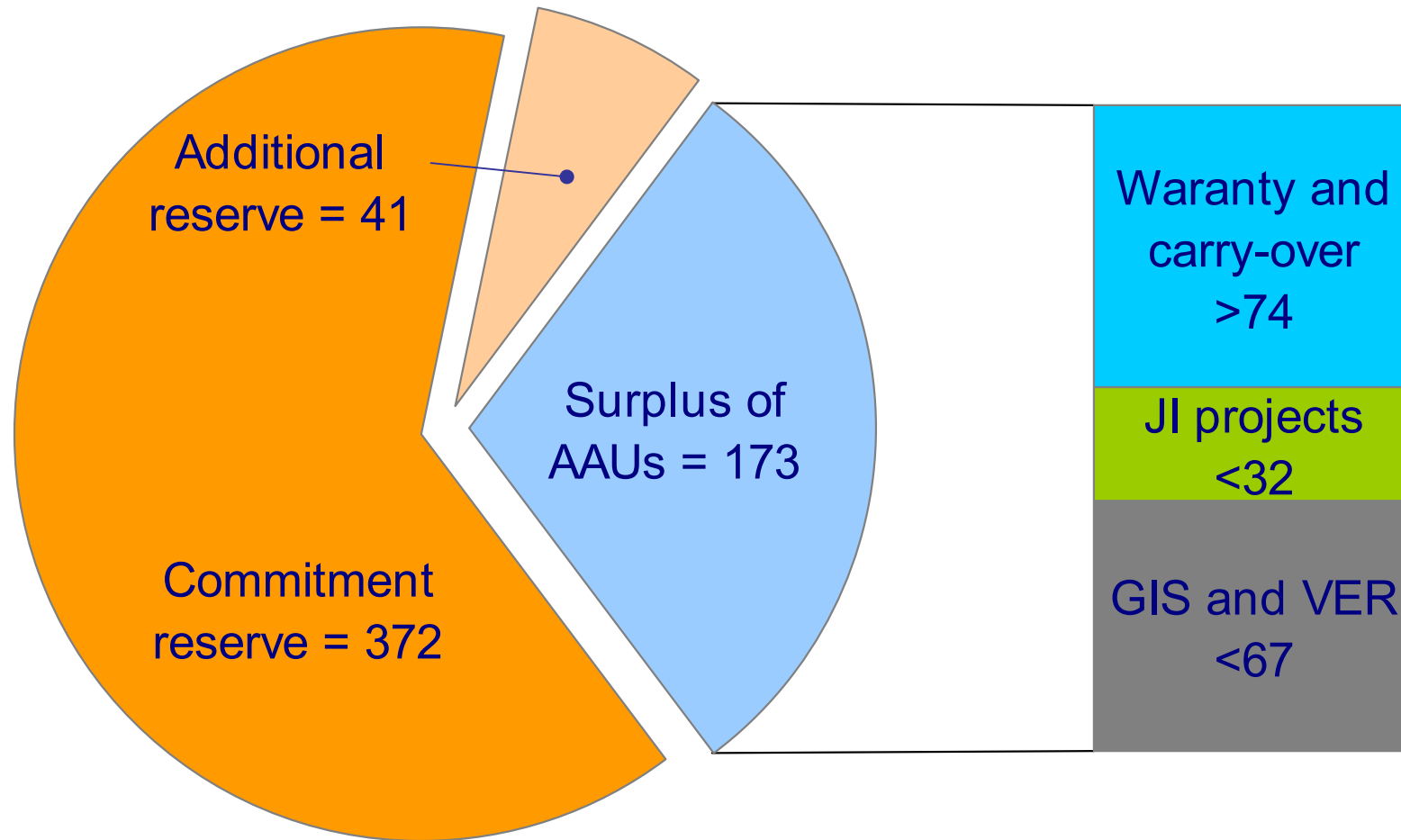
Assigned amount

emission trend and forecast



Assigned amount quantified emission allowances

AAU = 586 MtCO₂



Belarus and the 6 eligibility requirements

Belarus in climate agreements

May 9, 1992	Adoption of the UNFCCC
June 11, 1992	Belarus signed the UNFCCC
December 1997	Adoption of the Kyoto Protocol to the UNFCCC
April 10, 2000	Belarus approved the UNFCCC
August 9, 2000	Belarus became a full Party to the UNFCCC
September 5, 2003	The year 1990 was determined as a base year for Belarus
February 16, 2005	The Kyoto Protocol entered into force after ratification by Russia
August 12, 2005	Belarus ratified the Kyoto Protocol by accession
November 24, 2005	The Kyoto Protocol entered into force for Belarus

Belarus and the 6 eligibility requirements

Belarus and Annex B

December 9-10, 2005	Decision 32/CMP.1 acknowledges the intention of Belarus to be assigned GHG emission limitation
February 2006	Belarus communicates to the UNFCCC Secretariat the text of the respective amendment
November 17, 2006	Decision 10/CMP.2 adopts the amendment assigning GHG emission limitation and reduction commitments of 92 per cent of the 1990 level and invites Parties to ratify, accept or approve it
April 30, 2007	Belarus ratifies the amendment by the Presidential Decree
since 2007	Ratification of the amendment by 75% of Parties of the Kyoto Protocol is expected

Belarus and the 6 eligibility requirements

UNFCCC & Kyoto provisions

- Belarus established all necessary UNFCCC components
 - Designated Focal Point
 - National GHG Inventory System
- Belarus meets all Kyoto Protocol requirements
 - Implementation of national policy and measures (Article 2)
 - Meeting quantified GHG emission limitation and reduction commitments (Article 3)
 - Compliance with other eligibility requirements under the Kyoto Protocol
- Belarus continues to be in compliance with all provisions of UNFCCC and Kyoto Protocol

Belarus and the 6 eligibility requirements

tick appropriate boxes



a) Should be a party to the Kyoto Protocol	V
b) The quantified emission limitation should be set and registered	
c) A national GHG inventory system should be created	V
d) A national registry of carbon units should be created	V
e) Should annually submit the latest required GHG inventory	V
f) Should submit additional information on assigned amounts	V

The DNA responsible for approval of JI projects	V
National guidelines and procedures for JI projects approval	V

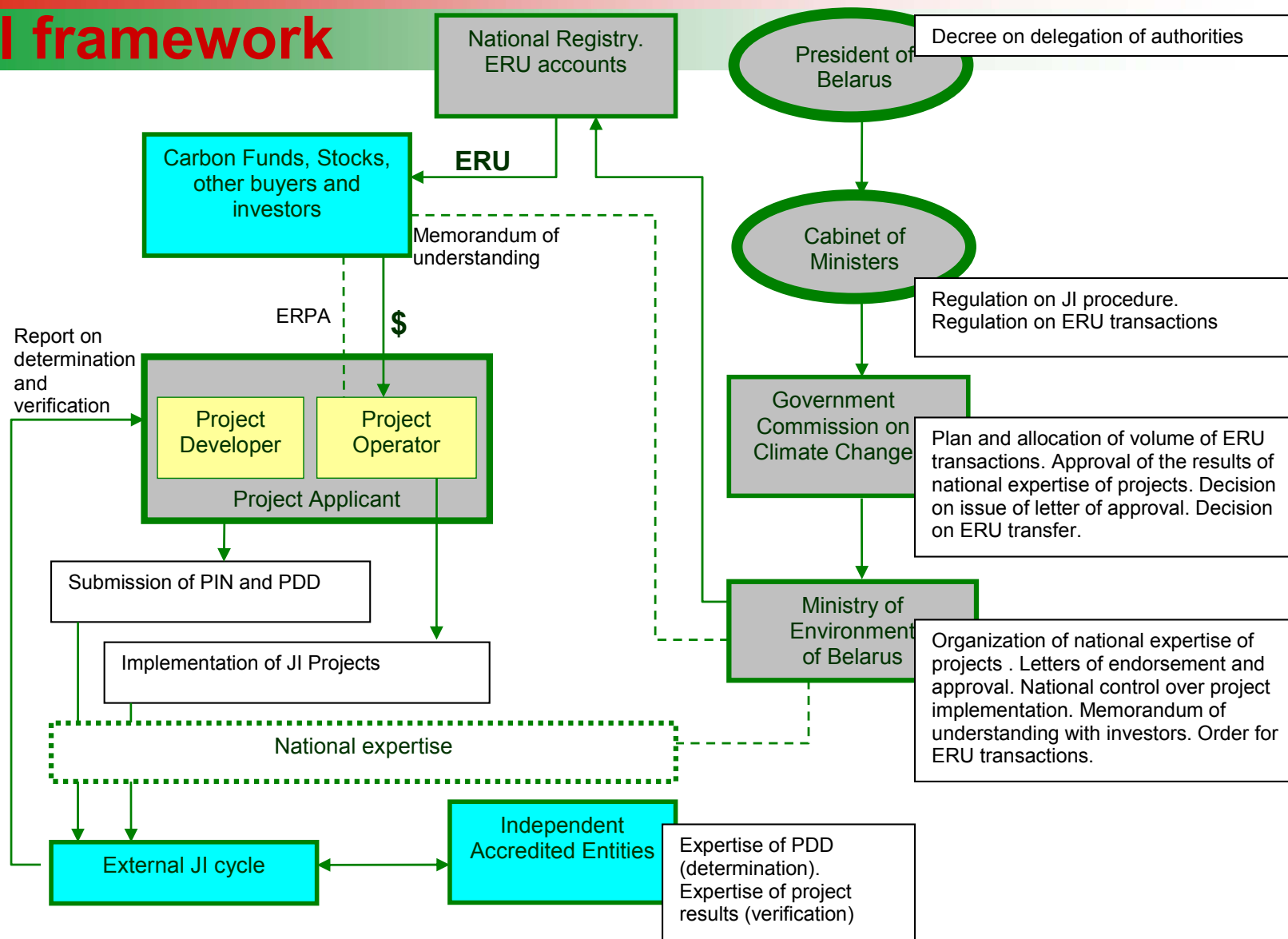
Major principals of JI and GIS

JI

- Large projects and bundled projects
- Track II to be switched to Track I (still Track II remaining available)
- Peer expertise by respective authorities / ministries:
 - responsibility and professional review
 - review, control, and audit of project development and implementation
 - review, control, and audit of financing facility
- Political support
- Transparent structure for decision making

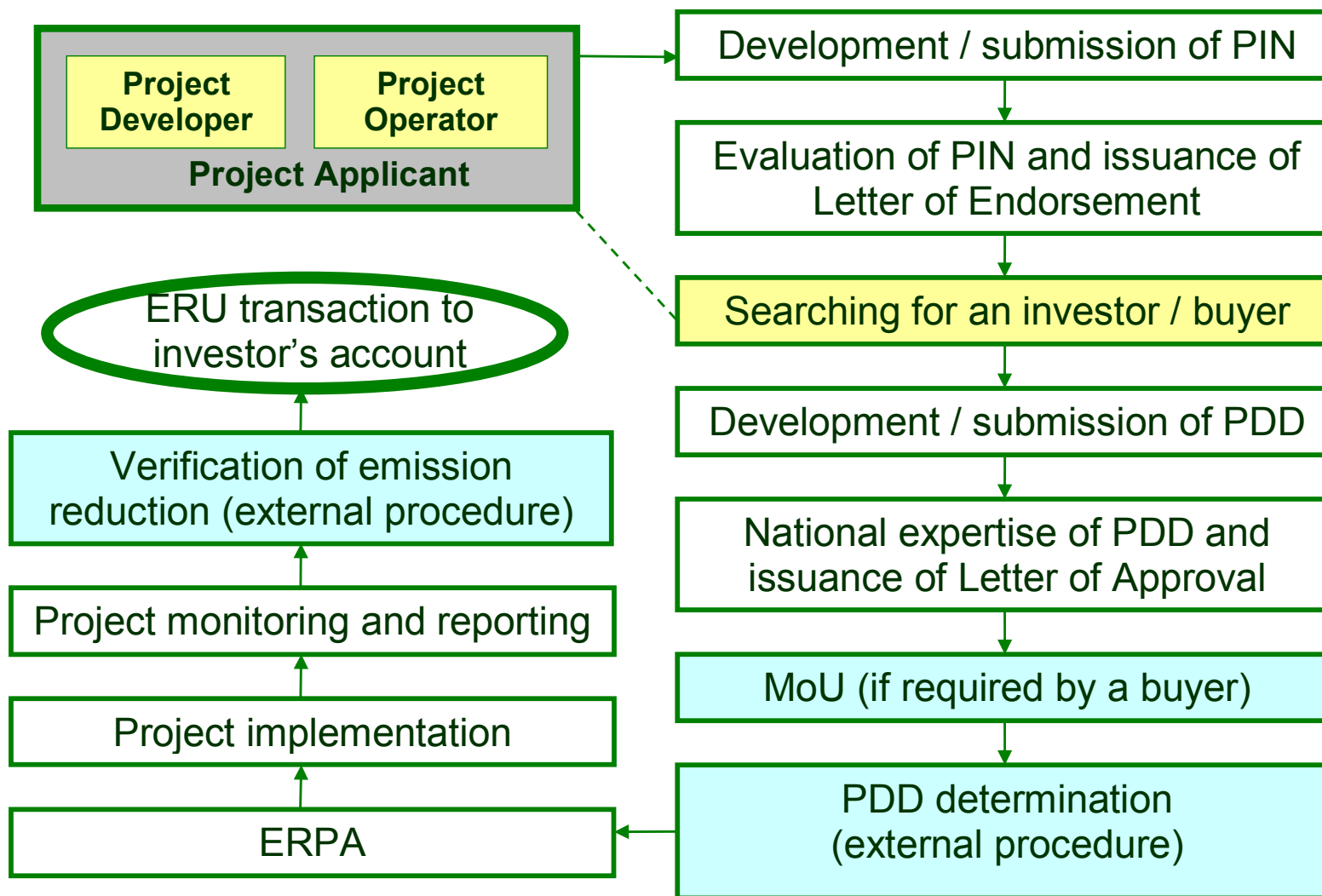
Major principals of JI and GIS

JI framework



Major principals of JI and GIS

JI framework (a backup graph)

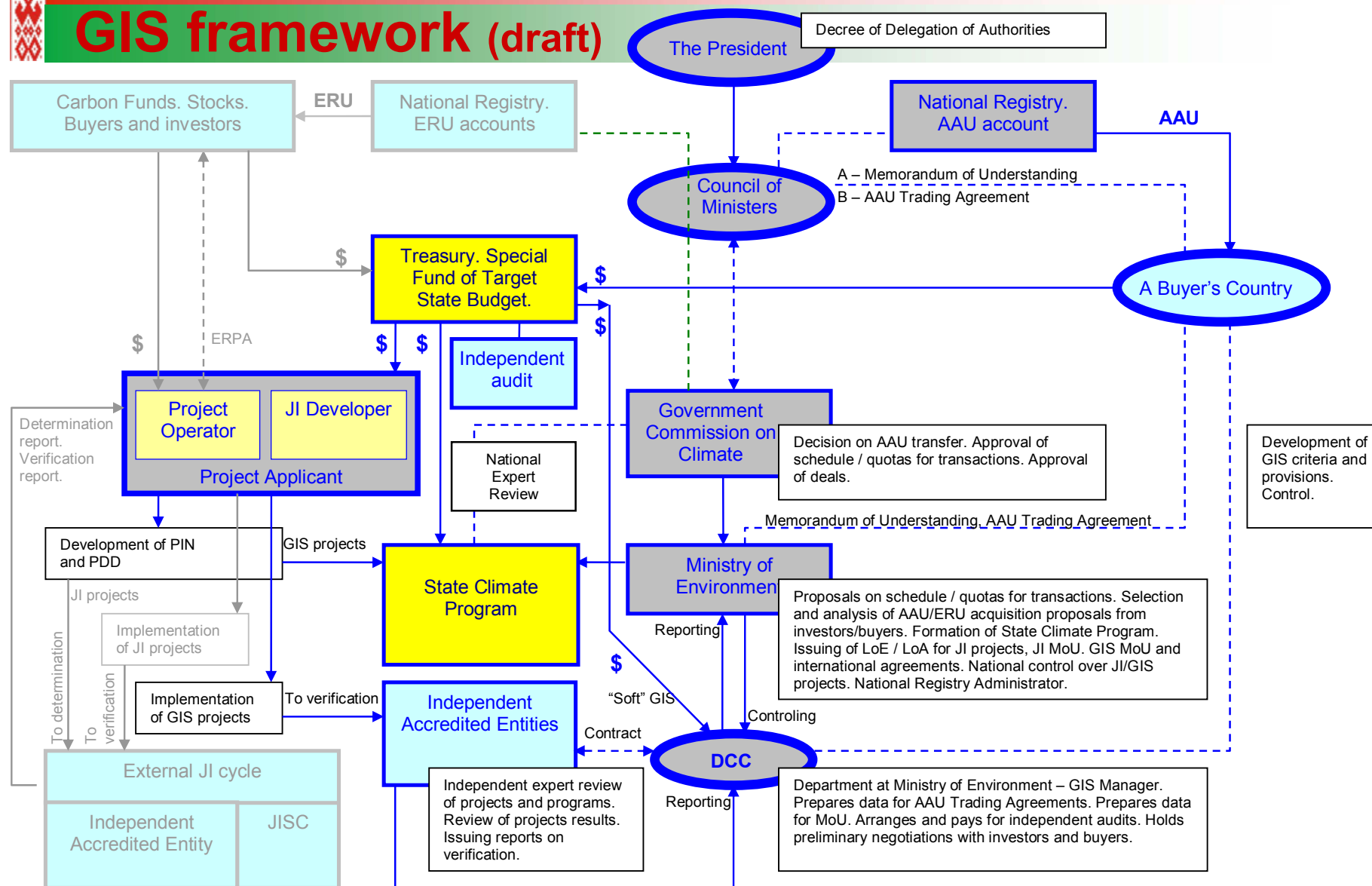


Major principals of JI and GIS

GIS (draft)

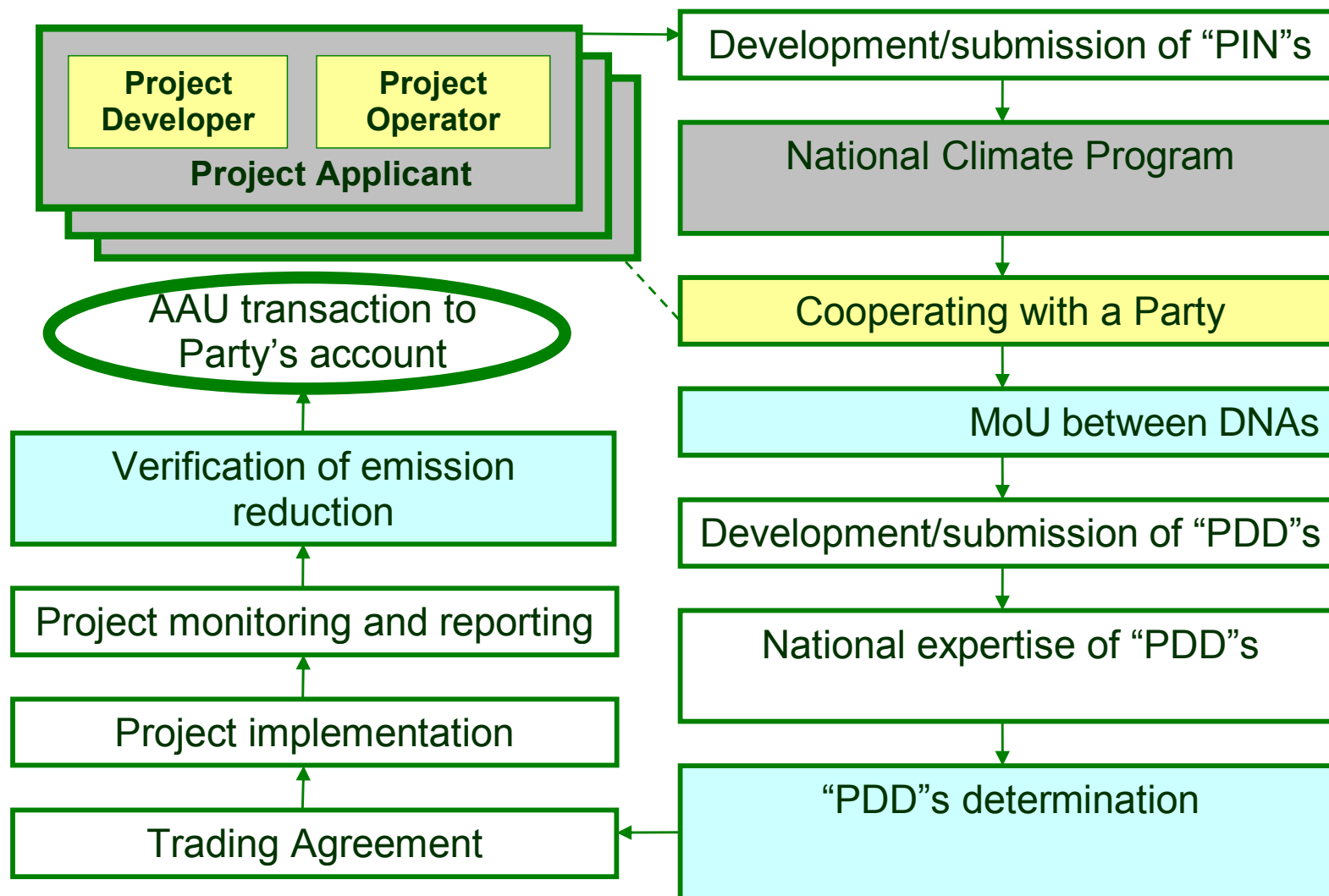
- Exclusively for GHG emission abatement measures (decision 10/CMP.2)
- Programme based (bundled and / or complex projects)
- Public funds (state budget) of parties to the Protocol are respected as Belarusian state budget:
 - responsibility
 - review, control, and audit of project development and implementation
 - review, control, and audit of financing facility
 - transparent target environmental investments
- Political support
- Transparent structure for decision making

GIS framework (draft)



Major principals of JI and GIS

GIS framework (a backup graph)



Major principals of JI and GIS project cycle

Procedure	JI	GIS	VER
Simplified PIN + LoE and Web announcement			
Special paragraph of the State Climate Programme			
PDD + LoA and Web announcement for comments			
PDD or similar			
Memorandum of understanding between DNAs (AR – as requested / required by a buyer)	AR		AR
Validation and verification by IAE+JISC			
Validation and verification by IAE only			
ERPA between a project host and a buyer			
Trading agreement between DNAs			

Major principals of JI and GIS

institutions involved

- DNA/DFP – Ministry of Environmental Protection
- National GHG ET Registry – Belarusian Center “Elologia”
- Domestic instrument for collection and allocation of carbon financing – Separate Assignment of Belarusian Ecological Fund (state budget, extrabudgetary sources, carbon fee, other legal resources)
- Management – Department on Climate Impact Issues (national agency for carbon financing)
- Core element for a project-based (or programme-based) approach – National Climate Program

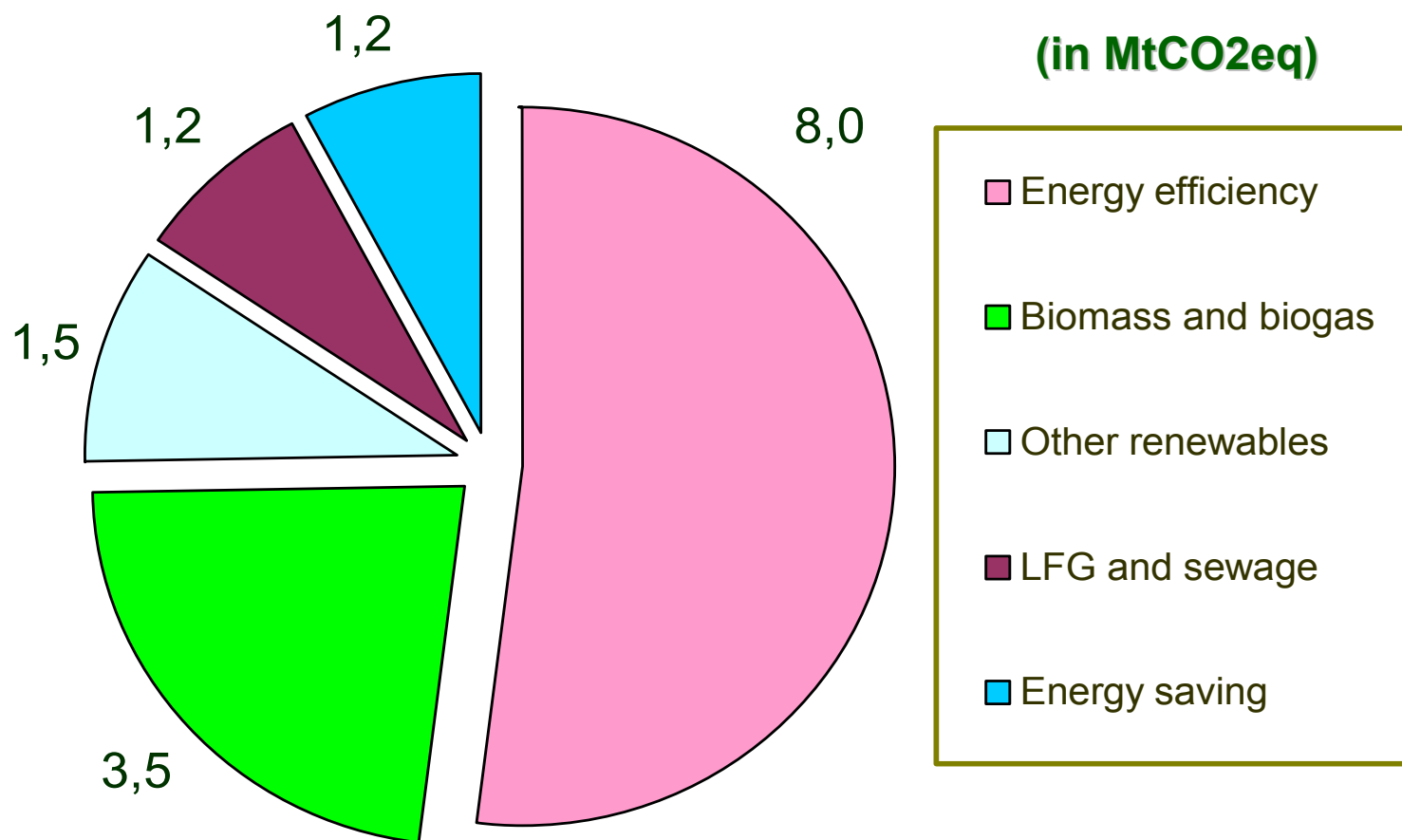
GHG abatement projects

project pipeline

Sector	Projects
Energy sector	Cogeneration schemes, Combine cycle, Hydro power, Fossil-to-biomass fuel switch
Industry, Construction, Transport	Energy saving, Wood/organic waste utilization, Heat pumps, N2O control, New cement production technologies
Municipal Sector	LFG utilization, Sewage treatment, District heating
Agriculture	Agricultural waste treatment (biogas)

GHG abatement projects

project pipeline by project type



GHG abatement projects

projects by financing scheme (recommended)

Criteria	JI / VER project	GIS project
Type of project	Separate project, bundled projects	Group of non-same-type projects, entire programme
The likely scale	Enterprise	Region, country
Project commencing	Preferably years 2007-2010	May begin later than 2012
B&M methodology	Exists or can be developed	Absent or difficult to develop
Size of projects (tCO ₂ eq)	At least 150,000 (JI) Almost no limits (VER)	No limits. Other greening or/and social effects possible
Verification	Easy	Difficult or impossible
Economic viability	Viable if ERUs (VERs) are involved	Non-viable or high risk of incorrect assessment



Belarus' peculiarities **advantages**

- Focus is on the quality of carbon credits offered to buyers
- Flexibility and ability to quickly adapt to buyers' demands
- High executive discipline
- Internal expertise and peer review of projects by respective governmental agency
- Further responsibility of the agency for proper implementation of the projects
- Completed and established legal and institutional framework for project / programme based carbon financing under either JI / VER / GIS

Belarus' peculiarities challenges

- Little experience (learning stage) – many immature project proposals, which need more details on site, equipment, consumers, baseline emissions, *etc.*
- Lack of knowledge of well grounded additionalities
- Business-as-usual investor vs. Belarus:
 - low interest in capital investments, equity and capital shares, especially in state-owned industries
- Limited number of available and experienced experts
- Belarus is not a big seller and is not able to influence the situation in the market and prices



Belarus' peculiarities

capacity building needs from Annex II Parties

- JI projects methodological instruments
- GHG emission prognoses
- Climate and economic modeling
- Clean technologies and best practice
- Vulnerability assessment
- Adaptation strategy

Conclusion No.1

● The Republic of Belarus

- The country that one of the first signed UNFCCC
- The country that only recently joined the Kyoto Protocol (November, 2005)
- The country that within one and a half year has all necessary UNFCCC and Kyoto components established
- The country that initiated the first amendment to the Kyoto Protocol (decision 10/CMP.2)
- The country that focuses upon mutual cooperation in the Kyoto mechanisms and welcome investors and ERU buyers

● The inclusion of Belarus in Annex B to the Kyoto Protocol will serve as recognition and acknowledgement of the efforts the country has been making for many years to mitigate anthropogenic impact on climate

● The inclusion of Belarus in Annex B will open new opportunities for the country to intensify its activities in combating climate change

Conclusion No.2

welcome to Belarus



to combat together for saving the Earth, to help realize the GHG mitigation potential, and to pick up the projects...

