Poland
The case study of economic, social & environmental transition

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Poland

Population: **38 484 000** *(2014)*
Area: **312 679 km²**
Density: **123 per km²**

PL – Country characteristics

History

- 1944/1945 – 1989 a part of Soviet block, with a centrally planned economy, with strong mining and heavy industry. State-owned industry, with small (family) businesses (mainly services) and agriculture remaining in private hands.
- In 1989, after the first democratic elections, the political, economic and social transformation started.
- 1 May 2004 - Poland joined the EU.

Demography

- Ageing population
- Decreasing number

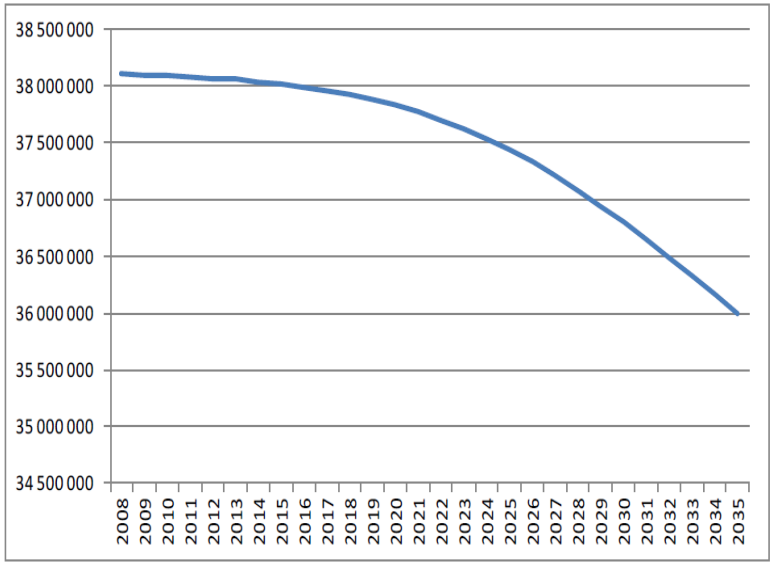


Figure 1 Forecast of the Polish population

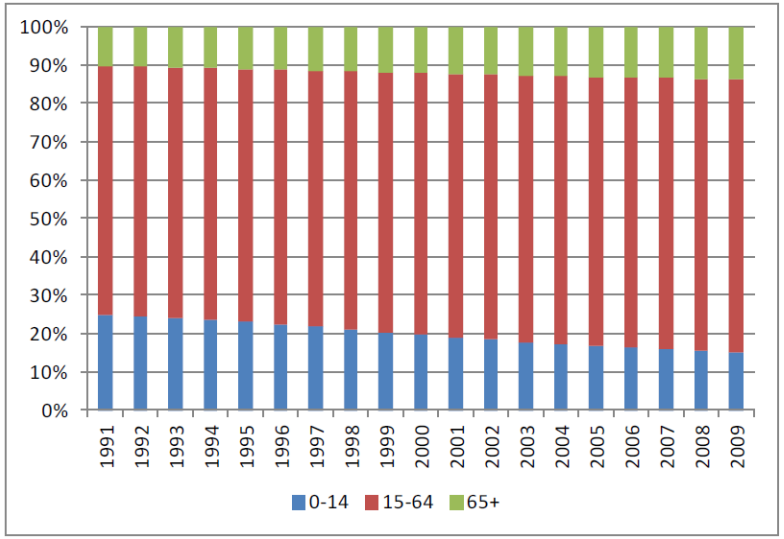


Figure 2 Structure of population according to age
Source: OECD Statistics, 2011

Economic transformation since 1989

- Restructuring of entire economy & deployment of the latest, technologies. Energy and material intensity got reduced, also thanks to the EU environmental laws ***(energy efficiency, emissions, waste, air, water, env. management … etc.)***.
- Industry remains important for economic growth, with the highest growth rate in manufacturing sector.
- Private sector, which generated in 2011 almost 86% of the value of the total production sold.

PL – Key ghg emitting sectors

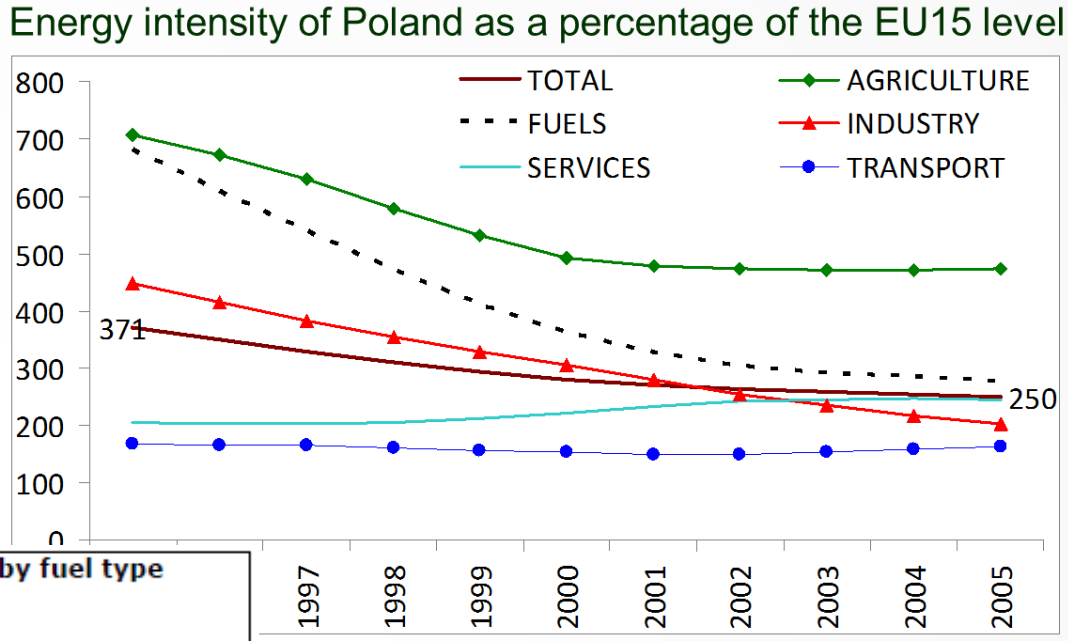
Sectors (IPPC – classification)			
1	Energy		81.4%,
1.A	Fuel Combustion		95.2%
	1.A.1	Energy Industries	53.7%,
	1.A.2	Manufacturing Industries and Construction	9.6%
	1.A.3	Transport	15.0%
	1.A.4	Other Sectors	16.9%
1.B	Fugitive Emissions from Fuels		4.8%,
4.	Agriculture		8.8%,
2.	Industrial Processes		7.2%
6.	Waste		2.4%,
3.	Solvent and Other Product Use		0.2%.

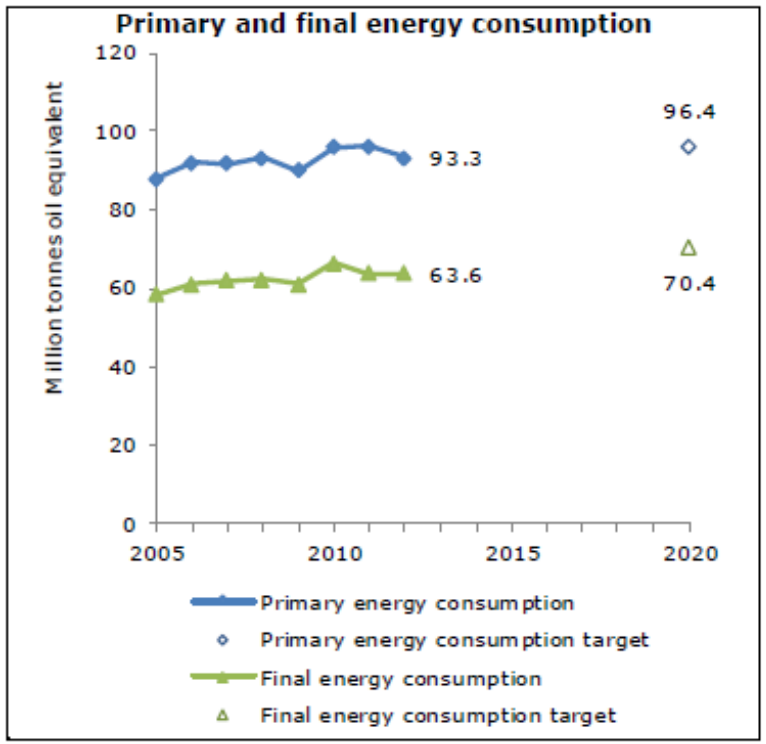
Source: KOBiZE, Environmental Protection Institute - PIB

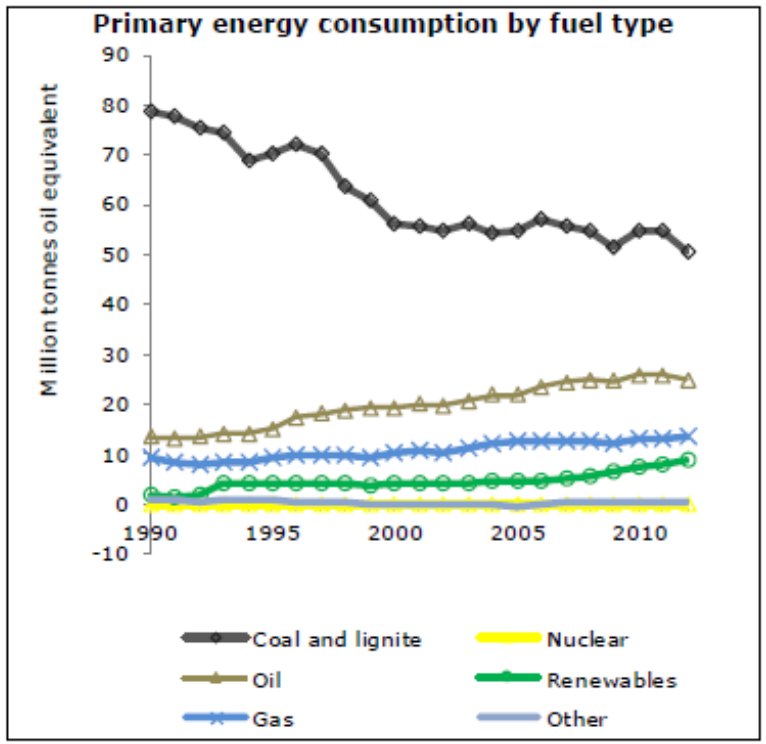
PL – economic transformation basic data

- Before EU accession

Source: own analysis of publicly available data







- The transition continues

Source: Country profile – Poland (EEA – 2015) – data from 31 July 2014

Environmental finance

- Environment considered the key challenge of Polish transformation
- **National Fund for Environmental Protection and Water Management** *(www.nfosigw.gov.pl)*, created in 1989
- Polish Constitution elevated the sustainable development to become one of the basic principle
- In 2011, the outlays on environmental protection (on fixed assets) amounted to 12.1 billion PLN (around 4 bilion US$) (compared with 7.5 billion PLN in 2007), including **3.1 billion PLN for air and climate protection**. In recent years, the share of expenditures on environment in the total outlays in the economy – wide, remained at the level of about 5%, which represents about 0.8% of the GDP

Poland 2018

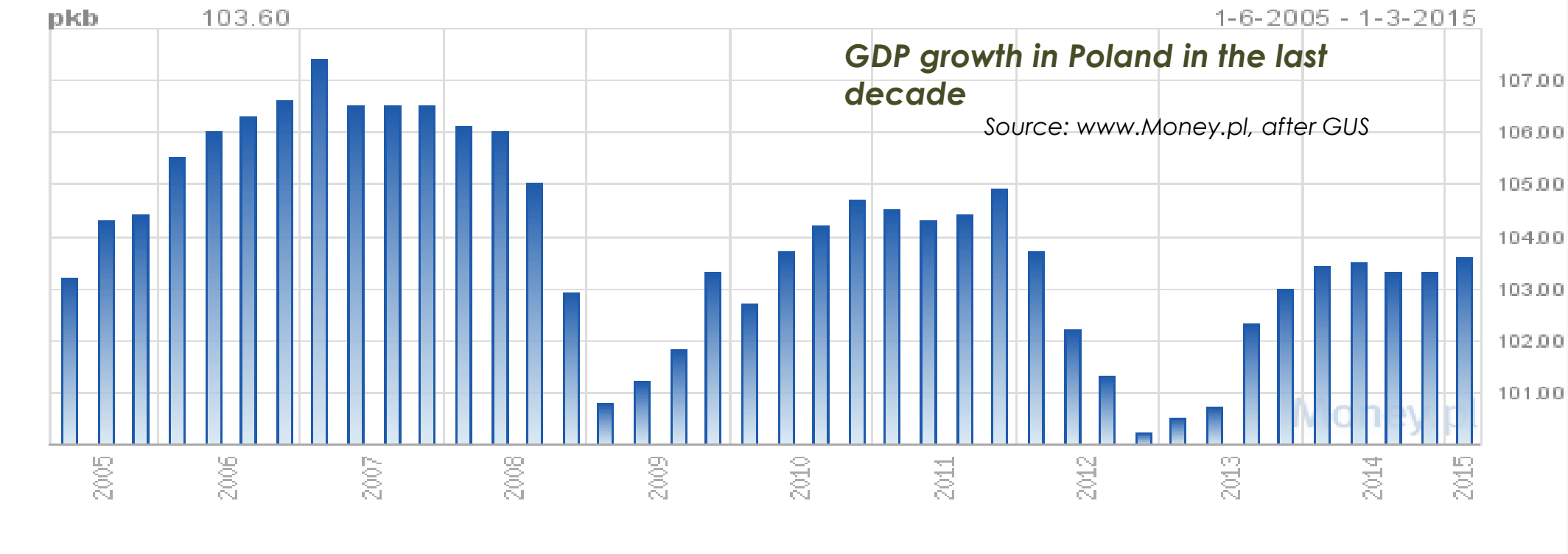
- **Politics**
  - Socio-economic transition moved country from single party system into mature democracy.
  - Criticism of EU climate policy as a barrier to development before less prosperous Member States.
- **Economy**
  - Successfully transformed to become market economy able to comply with EU imposed environmental standards and compete on the single market.
  - Transition has been a result of deliberate decision to quickly change the country, but at huge social cost, while achieving impressive environmental improvement, demonstrated by the decoupling of economic growth and GHG emissions
- **Social concerns**
  - Those unable to change professions and get new skill as well as elderly people (pensioners) are partly excluded (cannot use modern IT, no access to better jobs etc.)
  - Many young (around 20%) have no regular employment
- **Institutional capacity**
  - There is generally well developed national human and institutional capacity
  - Media and education system are changing their attitude towards climate change and sustainability, but public awareness still to be built or enhanced.
  - Big role of social partners (environmental NGOs) in this efforts

Climate related policies

- EU Climate – Energy Policy (40% reduction by 2030)
  - EU ETS
  - Effort Sharing Regulation
  - RES – quota on renewable energy
- Energy policy
  - Energy policy till 2030, (under the revision - till 2050)
  - Less carbon emissions from power sector
- Transport policy
  - Development of public transport, particularily rail transportation
  - Integration of different modalities
  - **Act on electromobility** – all companies must replace 10% of their fleet by 2020
- Agriculture and Forestry
  - Reduce the use of fertilizers, promote organic farming
  - Achieve the 30% by 2020 and 33% of territory covered by forests by 2050
- Industrial & Clean Air policies
  - Circular economy
  - Phasing out solid fuels from households

Key data on GHG emissions	2005	2011	2012	2013	EU 2012
Total GHG emissions (UNFCCC, Kyoto Protocol) (Mt CO_2-eq.)	398.8	405.7	399.3	396.0	4 544.2
GHG per capita (t CO_2-eq./cap.)	10.4	10.5	10.4	10.3	9.0
GHG per GDP (g CO_2-eq./PPS in EUR)	907	644	605	587	350
Share of GHG emissions in total EU-28 emissions (%)	7.7 %	8.8 %	8.8 %	8.9 %	100 %
EU ETS verified emissions (Mt CO2-eq.)	203.1	203.0	196.6	205.7	1 848.6
Share of EU ETS emissions in total emissions (%)	51 %	50 %	49 %	52 %	41 %
ETS emissions vs allowances (free, auctioned, sold) (%)	– 14.5 %	– 2.0 %	– 7.7 %	n.a.	– 14.1 %
Share of CERs & ERUs in surrendered allowances (%)	0.0 %	12.2 %	20.3 %	n.a.	26.4 %
Non-ETS (ESD) emissions, adjusted to 2013–2020 scope (Mt CO2-eq.)	179.6	191.5	191.5	190.2	2 566.6

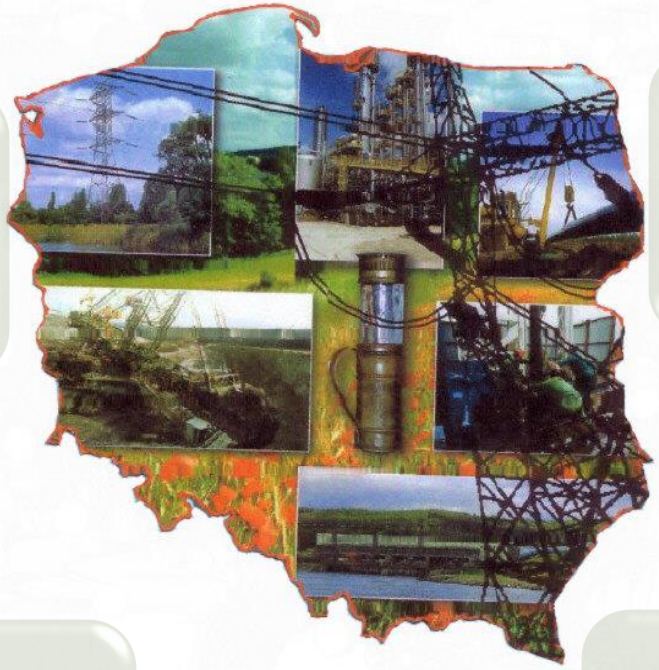
Source: Country profile – Poland (EEA – 2015)



Climate change (related) policies - challenges

High demand for final energy alleviated by efficiency measures

Inadequate generation and transmission infrastructure (ageing power plants, gaps in the grid)

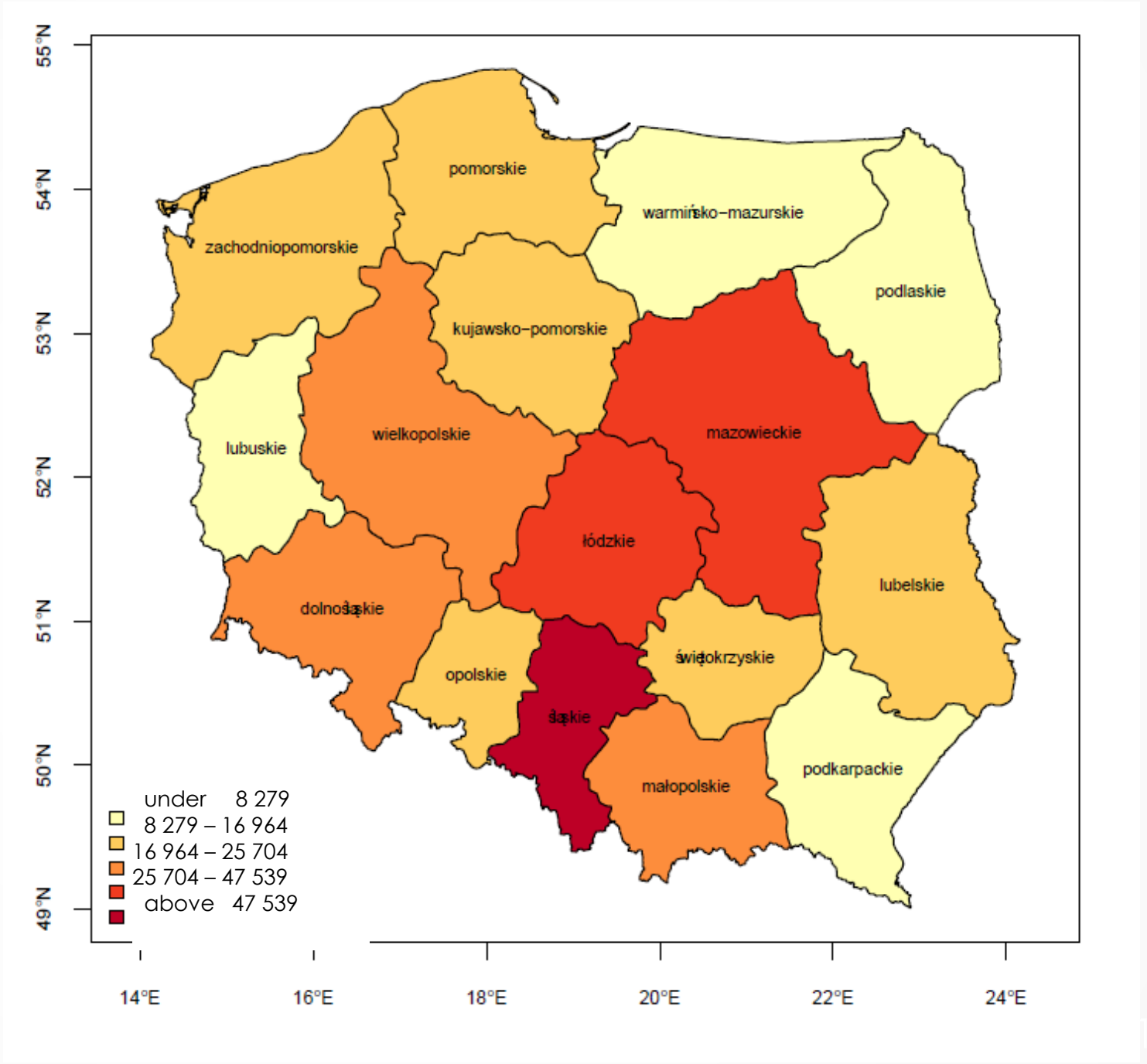


Significant dependence on external supplies of gas

Commitments on environment and climate protection compel to take decisive actions

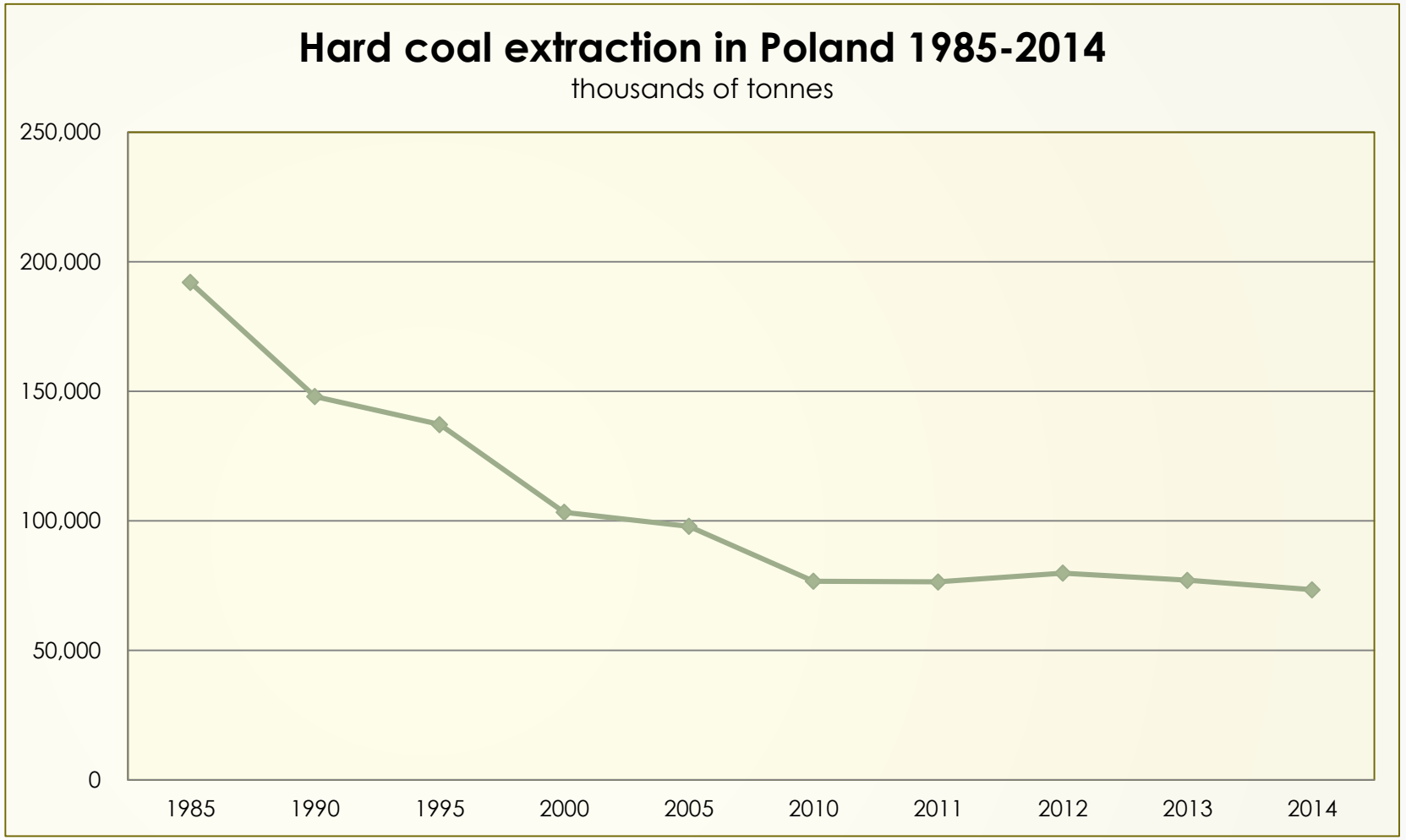
Almost 100% dependence on external supplies of crude oil

Impacts - regional



Source: KOBiZE

Impacts



Source: GUS

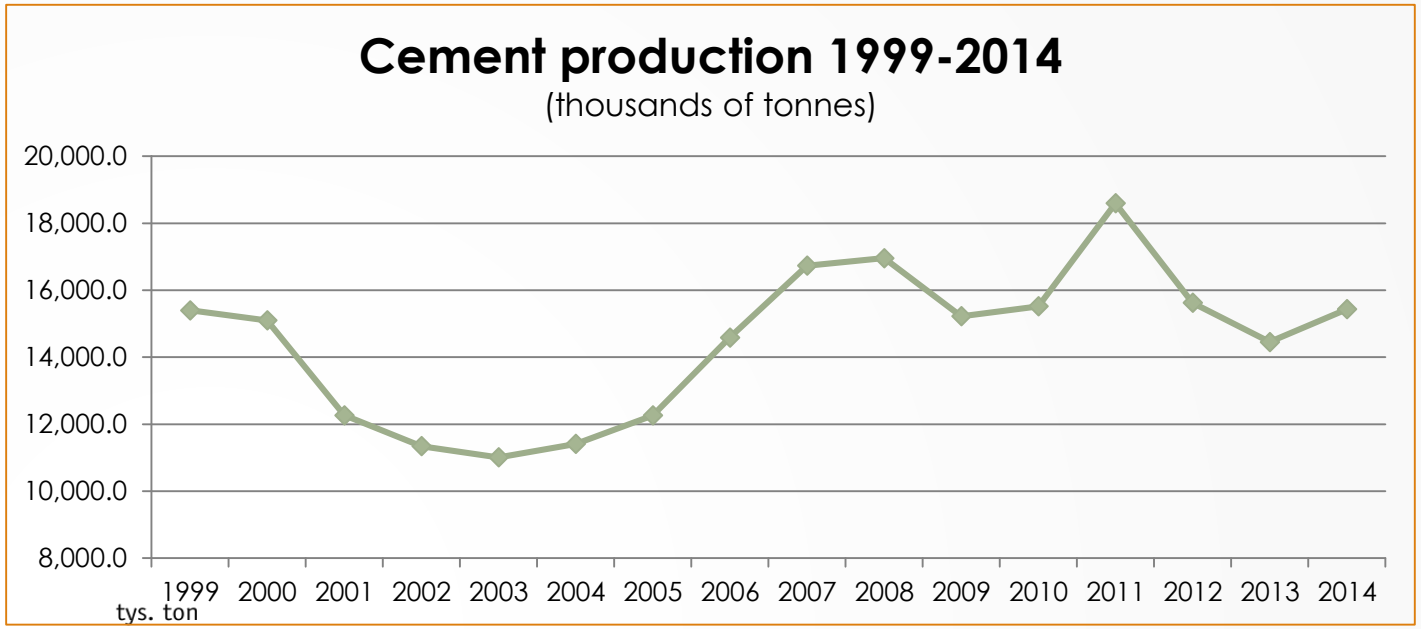
Social and economic impacts due to closing down mines, which used to be most important employers in the regions / town, thus leaving thousands of families without secure source of income.

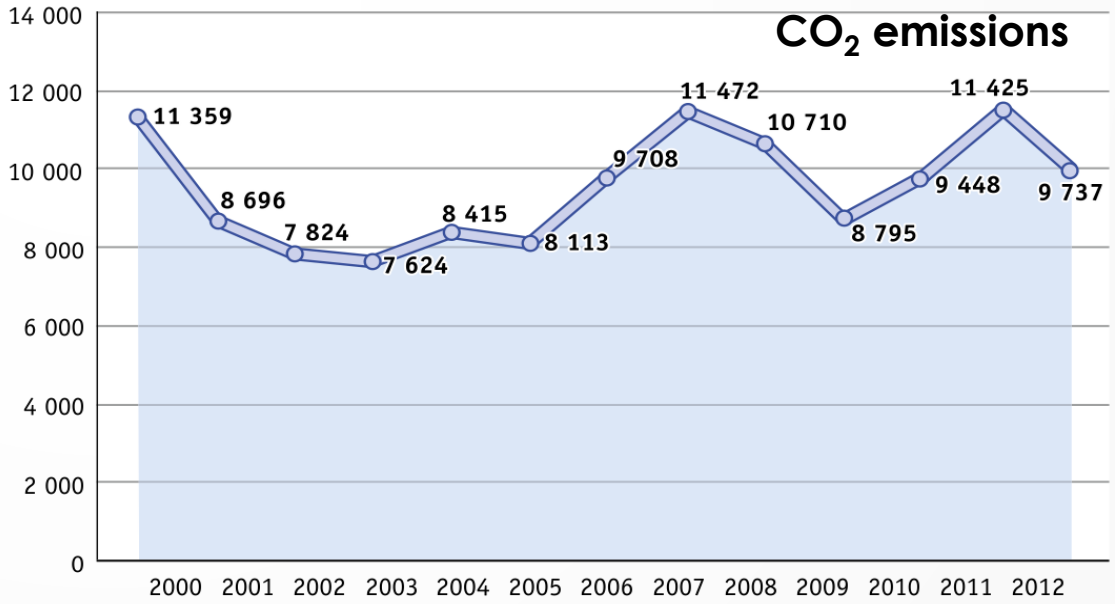
Impacts

Economic impacts:

Need to invest in efficient technology, but big demand for combustible waste (old tyres, plastics) created.

Source: www.polskicement.pl





Mitigation of economic impacts

- Free allocations of emission allowances under EU ETS, to address energy poverty as well as loss of competitiveness on global markets
- Non-commercial loans from environmental funds with interest paid back to beneficiaries, provided it is invested in improvement of environmental performance.
- Access to subsidies supporting environmental investments, including EU funds
- Thermo-modernization funds made available for both public and private buildings
- Special economic zones with tax exemptions to boost job creation in the regions, which lost most of their economic potential

Mitigation of social impcts

- Special programmes to support those laid off (early retirement, professional training, etc.)
- Job creation through public works, incl. improvement of infrastructure's efficiency.
- Access to subsidies supporting environmental investments, including EU funds.
- Thermo-modernization funds made available for both public and private buildings.
- Cities offering free public transport to elderly people and school children.
- Regional programmes

Sustainability of transition

Some observations/questions:

- What should be the priorities for developing/developed countries? (adaptation / mitigation)
- What level of ambition is required?
- Need to measure or monitor impacts in a comprehensive way
- How to identify suitable mitigation policies (for negative impacts)?
- What are the implications for donor organizations?
- How to take into account regional differences within country?

Sustainable transition to climate neutrality

- Transforming of a global development pattern in a way, so we can achieve **climate neutrality** by the second half of this century **remains the key long-term objective of the Paris Agreement**.
- Technology and investment driven reductions of carbon dioxide emissions must be balanced with the enhanced capacity of bio systems – forests and soil in particular to capture and store atmospheric carbon.
- Limited access to water, food and energy, without decent jobs may lead to international conflicts or even wars. Continued unbalanced development with too many struggling with poverty must be replaced by universally deployed policy of sustainable transition ensuring just and inclusive access of all to development.
- Such an access must offer equal opportunities to develop our homelands in a sustainable manner using endogenous resources and traditional knowledge, respecting everybody else's sovereignty, being mindful of the existing resource limitations.
- The balance between human, environmental and economic dimensions of development must be restored / built and maintained.

The stakeholders

- Businesses
- Civil society
- Indigenous groups
- Academia
- UN and other IGOs
- Cities and subnational authorities

They must take **their share of responsibility** when cooperating, acting jointly with other organisations as well as national governments within the legal systems of all countries

It is not only about coal

- Coal and oil communities - community renewal with investment in new energy, new industries and new jobs is vital.
- Cities - investment in low and zero emissions transport, clean energy and circular economy are the way forward.
- Industry - switching to renewable energy must be supplemented with clean industrial processes.
- Workers - collective bargaining ensures that essential support is there for reskilling and redeployment.
- Governments and their leaders - just transition offers the opportunity to solve three key challenges at once: Climate change, growing inequality and social inclusion.

Source: A Report for OECD May 2017. https://www.ituc-csi.org/just-transition-centre

Good stories about so far deployed practices do exist

- Many developed countries went through the processes on industrial plants level
  - switching into renewables in power generation
  - New more efficient technologies in steel plants
- Degraded cities – after collapse of industries eg. Dennver
- Restructuring of economies – Polish economic transition

WESO 2018 - Greening with jobs: Limiting warming will create jobs.

- A transition to agricultural sustainability and a circular economy will result in more and often better jobs
- Sustainable agriculture can create wage employment in medium and large organic farms, and allow smallholders to diversify their sources of income through a transition to conservation agriculture. Circular economy (reuse, recycling, remanufacture and repair of goods in particullar) will create around 6 million new jobs.
- Environmental sustainability is critical. In the years 2000 to 2015, natural disasters resulted in a global loss of working-life years equivalent to 0.8 per cent of a year's work. Projected temperature increases may reduce the total number of working hours by 2.0 per cent globally by 2030 and affecting above all workers in agriculture and in developing countries.

SDGs - #13 is Paris Agreement

https://www.google.sk/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwi81-quvbjNAhXRzRoKHTXtA4UQjB0IBg&url=http%3A%2F%2Fwww.csm4cfs.org%2Fworking-groups%2Fsdg%2F&psig=AFQjCNE2mn2XRrFie4LjcKac4brS6TLX5g&ust=1466576367342311

Thank you very much

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