



Launch and Meetings of Working Groups of the Platform for Coal Regions in Transition

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"World Bank Capacity to Assist Coal Regions in Transition"

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PAST WORLD BANK SUPPORT TO COAL INDUSTRY REFORM

World Bank supported coal industry reform in Russia, Ukraine, Poland, Romania, with USD 2.5 billion of lending in sector adjustment loans:

- 1980's - 1990's: unanticipated shocks to coal industries, governments were unprepared to address this challenge.
- 1996 - 2004, the World Bank supported large scale mine closures and coal sector downsizing in these four countries
- To 2018 Technical Assistance and support for addressing and mitigating social costs of mine closures and reclamation

World Bank Lessons Learned:

- *“Coal Sector Adjustment: Five Decades of Coal Mine Closure in Different Regions of the World” (forthcoming 2018)*
- *“Coal Transitions: Managing Industry Reform & Social and Labor Impacts” (forthcoming 2018)*



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Multiple Drivers of Change:

1. **Changes in government policies** GHG emissions and air pollution, and privatization of state-owned mining companies
2. **Changes in energy and power markets** excess coal production, substitution of natural gas and renewable energy, improved energy efficiencies.
3. **Mechanization of coal production** from less efficient smaller, more labor-intensive mines -- to more efficient mechanized mines

KEY INDUSTRY REFORMS:

1990's World Bank Coal industry reform projects were designed to support a “managed descent”

- loss-making mines were closed and assistance was provided to manage social impacts to labor and communities.
- For a subset of coal mines, improve efficiencies often by corporatizing and commercializing together with increased mechanization.
- Greater efficiencies through competition by (a) deregulating coal pricing and allocation systems, (b) transparency of regulation and full cost pricing for the power and transport sectors, (c) unbundling and commercializing coal mines, transportation and coal-to-power monopolies, and (d) by eliminating subsidies and cross subsidies and opening the energy chain to private investors



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Russia

- **Mine Closures.** At least 90 loss-making mines
- **Workforce Reductions.** workforce reduction of 100,000 people, with a further reduction to 175,000 employees as social activities were divested.
- **Subsidies.** gradually withdrawn, alternative funding to finance on-going social assets and social programs.
- **Social Protection.** transitional income and employment assistance in parallel with job creation programs.
- **Commercialization and De-monopolization.** transform into independent, self-financing, competing coal companies. RosUgol transformed into a joint stock company supporting coal sector restructuring.



Ukraine

- **Mine Closures** restructuring and downsizing the coal industry mining capacity and employment in line with the demand for coal;
- **Subsidies** setting the economically viable portion of the coal industry on a sound financial and commercial basis, reforming coal industry subsidies away from covering operational losses toward covering wage arrears, severance payments, social support programs and Physical Mine Closures
- **Workforce Reductions** putting in place urgently needed social support measures to cushion the impact of the restructuring on coal miners, their families, and affected communities,
- **Policy & Commercialization** established the Ministry of the Coal Industry (MoCI,1994) introducing institutional reforms to strengthen inter-government coordination and decision-making and corporatize and privatize the Ukraine coal industry.

Poland

- **Mine Closures** 1998 Hard Coal Sector Restructuring Program closure of 19 percent (25.5 million tons per year) of coal production capacity and a reduction of about 43 percent of the workforce (105,000 persons) from 1999 to 2002.
- **Social Protection** a miners leave severance package of up to five years of salary/wages to encourage voluntary early retirement (ii) a social allowance package of a free training, job search assistance, and a two year wages allowance for re-employment outside the mining sector, and (iii) an unconditional lump sum departure incentive as a one-time payment. The 1998-2002 cash costs of the MSP were estimated at about US\$2 billion
- **Coordination** Poland Stakeholder Dialogue following protests, the basis on which the employment restructuring and mine closures could be effectively and successfully implemented

Outcomes

- Employment reduced from 207,000 to 133,000 (2001 – 2002), using public engagement
- Two coal mine closure companies were established taking over and liquidating closed coal mines.
- Twelve mines were transferred to the mine closure companies and closed (reducing the number of mines from 52 to 40).
- Production was reduced by 14 million tons per year (from 116 million to 102 million tons per year).
- Financial losses of about US\$2 billion per year were improved to a net income of US\$0.5 billion per year, but in large part due to a significant 2001 increase in market-based coal prices.
- Post mine closure monitoring and maintenance incl. 2005-2025 Dewatering Master Plan



Romania

- **Mine Closures.** Initial Restructuring 1996, to stop budget losses: (i) stop all mining activities in dangerous working conditions or where reserves were close to being exhausted; (ii) reduce the mining industry labor force by offering miners lump sum separation packages of up to 20 months of wages; and (iii) increase investments to modernize production in mines that potentially could be profitable.
- **Workforce Reductions.** By December 1998, about 83,000 of the country's around 173,000 miners had left the industry, with about 84 percent accepting the voluntary redundancy package. Production stopped at 160 mines but only about 35 of the remaining mines were considered to be economically viable; so many more mine closures were needed.

Outcomes

- About 25,000 jobs were created by a range of job creation measures.
- From 2001 to 2005, a redundant worker's income increased from about 16 percent to about 50 percent of the average monthly income in the mining areas.
- Mining operational subsidies were steadily reduced from US\$144 million in 1999 to US\$80 million in 2005. Subsidy support was shifted from loss making mines to social programs and initiatives, Physical Mine Closures, and environmental remediation.
- A new mining law was enacted with a modern licensing system and title registry.

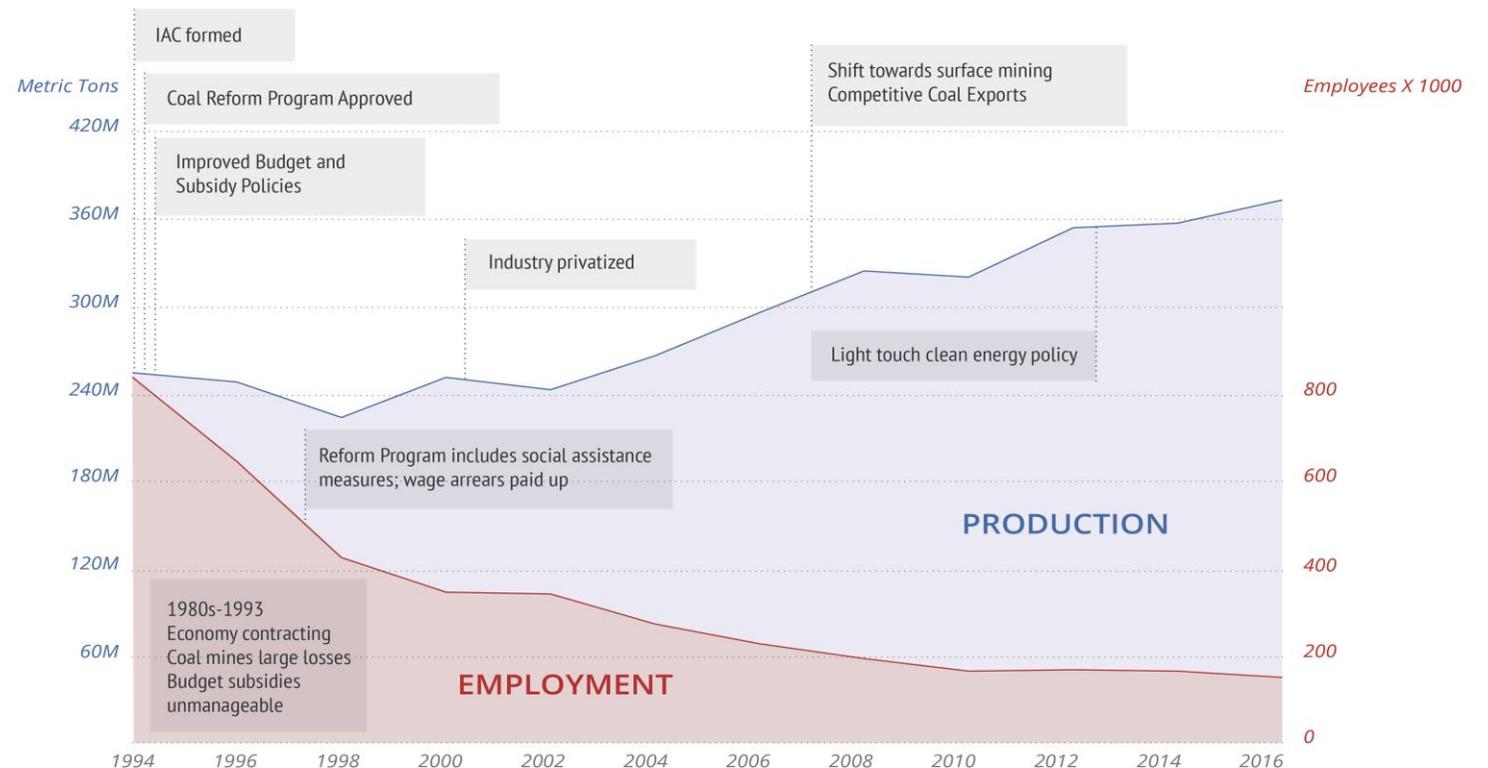


WORLD BANK COAL INDUSTRY REFORM PROJECTS

A narrow focus on coal industry reform led to two outcomes:

- (i) significant social impacts on labor and community, and
- (ii) a remaining industry having the efficiencies and capacities to sustain or significantly increase production.

Drivers of Change and Government Response RUSSIAN FEDERATION

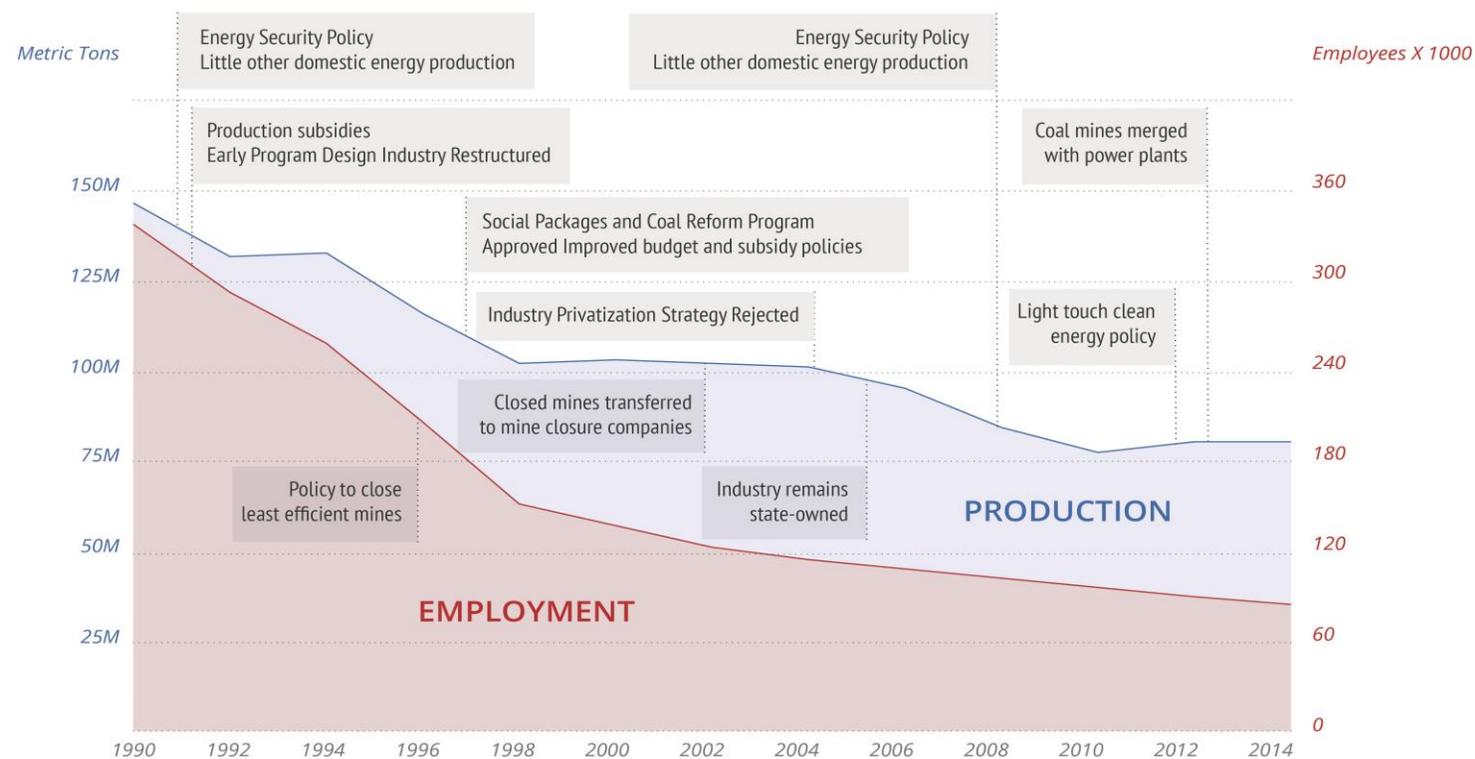


WORLD BANK COAL INDUSTRY REFORM PROJECTS

Drivers of Change and Government Response POLAND

Poland realized successive reductions in coal output

Multiple Drivers with strong government response



Countries that are coal dependent will inevitably face coal industry reform – integration with the Energy Transition is paramount.

A “just transition” is needed, a country-by-country / region-by-region approach:

- address the negative impacts of coal industry reform / energy transition on workers, families, and communities and help former miners return to productive employment (lessen shocks)
- Socioeconomic regeneration is more effective with community ownership
 - policies and programs to improve the private sector business environment,
 - strengthen links between mining communities and local government agencies, and
 - rehabilitate local infrastructure and social services.
- An integration with the energy transition to progressively close mines, improve energy efficiencies, deploy renewable energy & natural gas, integrate energy systems, and reduce emissions



Begin with a policy to integrate within the energy transition in place before, not after, closures and redundancies take place

The World Bank Continues to Support:

- Policies for coal industry reform incl. clear roles & responsibilities, a consistent approach across all government agencies , interventions to support a Just Transition
- Budgetary support (incl. mine closure, managing social impacts to labor and communities)
- Strengthening social support systems and institutional capacities tailored to the needs of affected regions and individual communities—including pre-layoff planning and assistance and post-layoff services.
- Policies and incentives for integration of renewables and natural gas to reduce PM2.5 and CO2 emissions
- Environmental reclamation and re-purposing lands



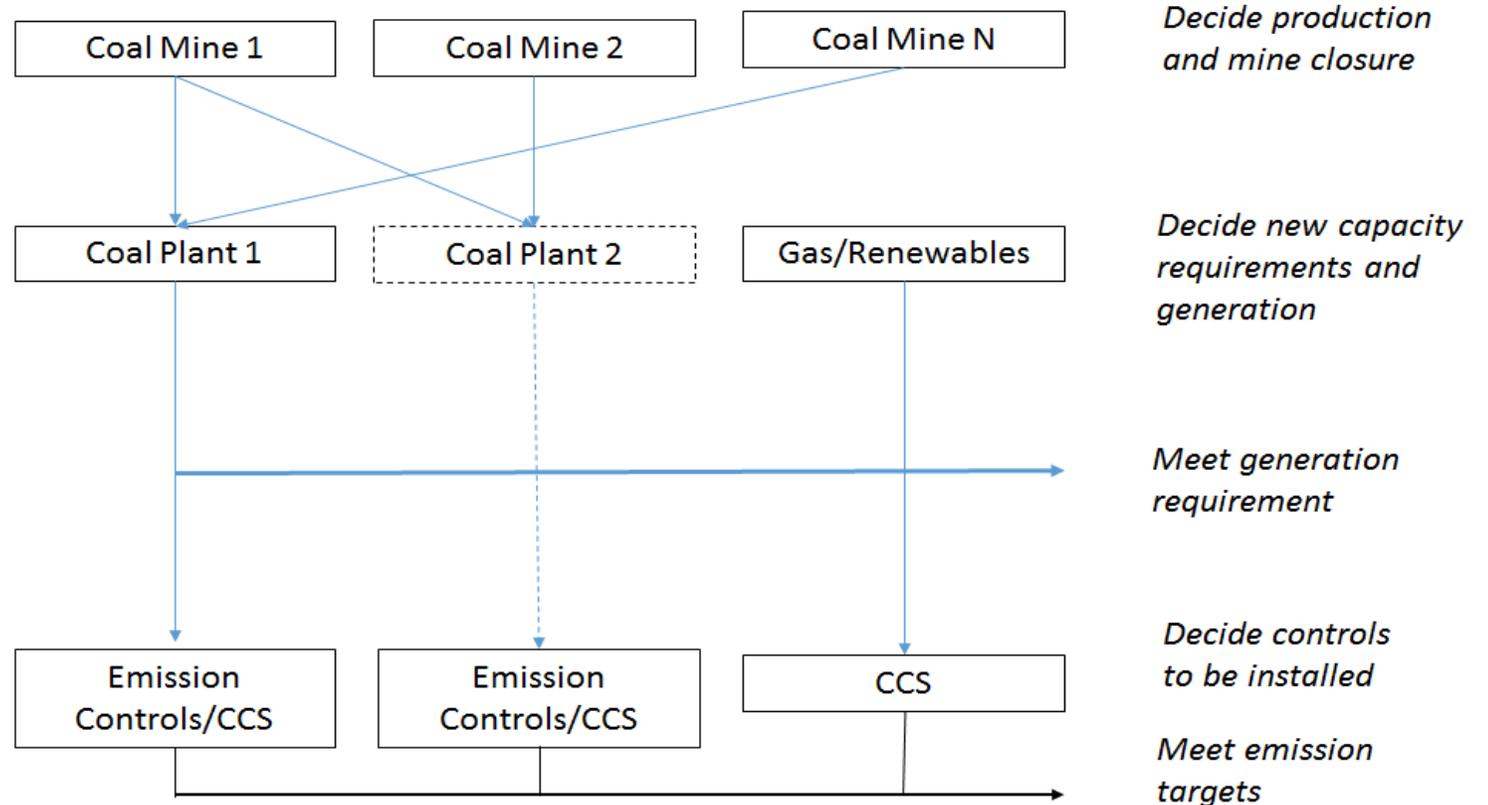
From coal industry reform to energy sector transition starting 1997

Poland pilot (2017) -- integrate coal industry reform with the dynamics of broader energy sector transition under the driver of climate change policies.

BAU scenario, with no emissions constraint, coal's share in generation and heating would fall from about 80 percent in 2017 to 63 percent in 2030.

Annual coal production drops from 100 million tons to 90 million tons by 2030.

Under a binding CO₂ limit after 2022 drives down coal production sharply, and overall coal production would fall to 48 million tons in 2030



THANK YOU

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