# OPPORTUNITIES FOR COAL MINING REGIONS



Miners demonstrating against pit closures, "Budryk" Coal Mine in Ornontowice, 3 February 2015 The concept of a socially "just transition" should not only guide the redevelopment of coal mining regions, opening up the way to technological progress. It is also a chance for the rest of Poland to improve the quality of life and attain carbon neutrality.

### What does the term "just transition" mean?

ADAM DROBNIAK: The concept has become a popular political and economic slogan, and it carries a number of expectations. First of all, just transition is mainly associated with comprehensive restructuring of the coal mining industry and conventional power generation. It is seen as one of the EU's socioeconomic policies bringing significant changes to Poland's energy and fuel industries. It is also closely linked with major changes in the labor market and production structure, both of which cause a shift in cultural identity and development, in particular in coal mining regions. Finally, the concept describes a change in which high-emission technologies are gradually replaced by low-emission variants, which should provide employment for people affected by job losses in the wake of mine closures.

To make more sense of these ideas, let's try to define the notion of "just transition". It is rooted in the concept of fair, sustainable development, formulated in the UN's Agenda 2030. That document, adopted in 2015, laid out broad perspectives for sustainable development, just transition and integration of a wide range of processes. Just transition features among the 17 Sustainable Development Goals and refers to a transformation towards zero emissions by applying environmentally friendly solutions while limiting social costs.

Agenda 2030 is reflected directly in the European Green Deal (EU 2019). It focuses on three processes: just transition, sustainable resource management and fair distribution, and social justice. The Green Deal stresses the need to change the direction of sustainable economy by shifting away from traditional dividing lines - between the economy, society and the environment - towards an integrated, adaptive approach which adjusts to the environment rather than simply utilizing it. This cannot be achieved without social justice, including equal and fair access to resources (such as clean water and air, green spaces, employment, and infrastructure), eliminating developmental inequalities, and stimulating developmental potential in the long run. Such a change should be implemented through the process of just transition and take into account all social groups participating in the green revolution. This is why it's so important to support workers and local communities affected by the processes of transformation and environmental protection.

In this context, just transition means a shift away from thinking purely in terms of restructuring traditional industry (profitability vs. liquidation), heading instead towards transformation (decarbonization of the economy and creating new opportunities for development) while taking account of social factors. It also means a shift away from thinking purely in terms of technological indicators (such as energy mix

and efficiency) and economic ones (costs, benefits, profits) towards social factors, such as preventing social costs, creating new attractive jobs, and providing opportunities for development in former coal mining communities.

# What's the difference between just transition and energy transition?

Just transition is accompanied by a shift towards a green economy, including technological solutions focusing on a sustainable relationship between the economy and ecosystems. The main goal of a greener economy is to minimize damage to the environment. This means that technological processes in green economies are selected on the basis of environmental and social aspects in all sectors of the economy.

The key elements of a green economy are renewable energy, sustainable transport, green buildings made using energy-saving materials, waste management (circular economy), water management (blue economy), and land management, including reclamation of post-industrial areas and rational urban management.

A "Just Transition" means a shift away from thinking purely in terms of restructuring traditional industry, heading instead towards transformation, also taking account of social factors.

Branches of the green economy can also be treated as "technological carriers" of Agenda 2030 and the Green Deal. Their aim is to provide solutions helping us adapt to the changing climate. In a broader context, the energy transition is particularly relevant to renewable energy, but it is also important in sustainable transport and green buildings.

A long-term goal of the energy transition is achieving a zero-emissions economy. In Poland, this means reducing the reliance on coal for power generation in order to meet the goals of the Paris Agreement. This requires preparing and implementing new climate policies forming a part of economic development policies, policies supporting innovation and policies supporting the development of industry and services on the national scale.

The main differences between "just transition" and "energy transition" are how they impact society and how both types of transition are prepared. Another

## ACADEMIA FOCUS ON Interview



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key difference is that energy transition policies affect the country as a whole, while just transition mainly concerns coal mining regions.

Coal mining regions will experience the greatest social and economic impact of just transition due to pit closures or scaling back activities of mines and related organizations, conventional power stations, and manufacturers and suppliers of materials and equipment for mining activities. This is why such regions will receive aid from the EU through the Just Transition Fund and the InvestEU Programme - an initiative of EIB Group and the European Commission aimed at boosting the economy through mobilizing private financing for strategic investments. For example, the goal of the Just Transition Fund is to stimulate investment in start-ups and SMEs to bolster the diversity of their activities. It will also finance projects involved with research and innovation in tech transfer, investment in renewable energy and green buildings, investments supporting circular economy (minimizing the use of new resources and generation of waste by recycling), revitalization of post-industrial regions and helping employers of phased-out sectors find new jobs.

# Which regions in Poland are affected by just transition?

The Just Transition Fund is aimed at coal mining regions in many European countries. In Poland, the European Commission has preliminarily qualified nine subregions in the Silesian (Bielsko, Bytom, Gliwice, Katowice, Rybnik, Sosnowiec and Tychy), Wielkopolska (Konin) and Lower Silesia (Wałbrzych) voivodeships. Additional activities in the mining industry and conventional power generation are also carried out in the Lubelskie (Lublin subregion with Bogdanka), Łódź (Piotrków-Bełchatów) and Małopolska (Western Małopolska) voivodeships. In the Lower Silesian voivodeship, the town of Bogatynia in the Zgorzelec region is also being considered.

Further afield in Central Europe, coal mining regions are also found in Czechia (the Moravian-Sile-

sian, Ústi nad Labem and Karlovy Vary regions), Hungary (the town of Heves and Baranya County), Romania (the towns of Hunedoara and Galaţi and Gorj, Dolj, Prahova and Mureş counties) and Slovakia (the cities of Trenčín and Košice). However, the Silesian voivodeship remains the largest EU region in terms of coal extraction and direct employment in mining (over 80,000 employees or almost 50% of all EU miners).

# Has a just transition been carried out successfully anywhere?

It is currently difficult to give a clear answer to that in the context of a strict definition of a just transition and its planning – for instance, under the framework of the Just Transition Fund, whose current budget is set for between 2021 and 2027. Additionally, note that the "just transition" concept formally dates to policies and development programs from around 2015/2016.

Nevertheless, since the 1980s, many countries and regions of Western Europe have been making attempts to restructure traditional industry (including coal mining and steelmaking) while maintaining the importance of traditional industrial regions. However, as shown by regions which have shifted from being industrial to post-industrial regions – such as the Ruhr Valley, Saxony and Saxony-Anhalt (Germany), Nord-Pas-de-Calais (France), western Scotland and north-western England (the UK), Limburg (the Netherlands) and Wallonia (Belgium) – efforts at creating new paths to development have involved major financial burdens, taken many years and have not been entirely successful in maintaining the regions' socioeconomic status.

In any case, positive experience cannot be transferred directly from one region to another, due to different conditions and situations which preceded the transition in any given region, particularly notable between the countries and regions in Western and Central Europe. A decisive role may have been played by the very different levels of the knowledge base, productivity and the ability of local industries to adapt to new technologies and activities. Another key aspect is the competencies of local employees and their willingness to adapt and shift professionally. Yet another important element of implementing changes as complex as just transition and energy transition is the country or region's institutional potential. Polish regions are institutionally vertical and fragmented (e.g. they have low numbers of R&D institutions, science and technology parks, business centers and financial and technological support institutions and weak models of collaboration and co-management), which hinders the development of networks and effective functioning of regional innovation systems. This is made particularly clear through studies into what is known as the "regional innovation paradox": the

combination of major demand for innovation funding in regions which lag behind (i.e. those dominated by traditional industry and low productivity) together with relatively poor capacity to actually utilize such funds earmarked for innovation. All this means that in Polish coal mining regions implementing a just transition alongside an energy transition will be a major challenge requiring radical socioeconomic, cultural and institutional changes.

# What does "just transition" actually mean for the average Pole?

First and foremost, we have to clarify the difference between the impact of just transition and that of energy transition. The former, as noted earlier, overwhelmingly affects coal mining regions. In such regions, people who are involved with the mining sector, mining-adjacent industries and conventional power generation will need to adapt professionally. Organi-

For the average Pole, and for residents in coal regions with no ties to mining, the energy transition will be more significant.

zations in the mining sector will need to diversify or adapt their previous activities, perhaps to focus on the green economy. It is also important for children and young people in coal mining regions to be given alternative career choices.

For residents in coal mining regions who have no ties to traditional industry, just transition will have little significance. However, the decarbonization that goes with it will mean they may have to upgrade heating systems in their homes to something more environmentally friendly; on the flipside it will greatly improve their living conditions, for example by eliminating air pollution and smog.

Similarly, for the average Pole energy transition will be more significant. Decarbonization is a key process in achieving climate neutrality and improving the quality of life and wellbeing in Poland. As such, we can look at energy transition through the prism of preventing deaths caused by cardiovascular and respiratory disease due to air pollution or increasing healthcare costs due to poorer health in society. This is particularly important given that 36 of the 50 cities in the EU most heavily polluted (in terms of  $\rm PM_{2.5}$ ) are in Poland.

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