European Bank
for Reconstruction and Development

The EBRD just transition initiative

Sharing the benefits of a green economy transition and protecting vulnerable countries, regions and people from falling behind

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Overview

The EBRD's just transition initiative aims to help the Bank's regions share the benefits of a green economy transition and to protect vulnerable countries, regions and people from falling behind. The initiative builds on the EBRD's experience of fostering transition towards sustainable, well-functioning market economies, and will focus in particular on the link between the green economy and economic inclusion. Working with national and regional authorities, EBRD clients and other partners, the initiative emphasises policy and commercial financing interventions that support a green transition while also assisting workers (particularly those whose livelihoods are linked to fossil fuels) in accessing new opportunities. This paper sets out the aims, rationale and broad approach to implementation of the just transition initiative.

Contents

Executive summary

Vision: A "just transition" in which the benefits of a green economy are shared and the vulnerable are protected

A rapid change in the speed and scale of actions required to reduce the risks of climate change will create new economic opportunities. But it will also create stranded assets, displace jobs and threaten livelihoods. A "just transition" seeks to ensure that the substantial benefits of a green economy transition are shared widely while also supporting those who stand to lose economically – be they countries, regions, industries, communities, workers or consumers. In addition, it is vital to consider a fair distribution of the costs and benefits of a green economy transition in the context of recovery from the coronavirus pandemic, as the crisis has exacerbated inequalities and created economic risks for people, sectors and regions that could also be impacted by a green economy transition. While a just transition is mainly based on environmental considerations, it is also shaped by other structural changes affecting labour markets, such as globalisation, labour-saving technologies and the shift to services.

The EBRD's just transition initiative aims to ensure the benefits of a green economy transition while protecting vulnerable countries, regions and people from falling behind. In EBRD countries, the Bank has been supporting transition towards sustainable market economies, which it now broadly defines as economies that are competitive, well-governed, green, inclusive, resilient and integrated. The EBRD will now build on this work by linking two of these transition qualities: green (supporting the transition to a low-carbon economy and preserving the environment for future generations) and inclusive (ensuring equal opportunity for all regardless of their gender, place of birth, socioeconomic environment, age or other circumstances).

The importance of better integrating environmental and social issues is widely acknowledged. A just transition is an integral part of many of the global commitments taken by countries. For example, 14 of the 17 Sustainable Development Goals are linked to reduced pollution, climate or environmental sustainability and the Paris Agreement highlights the importance of workers in responding to climate change. Many countries have recognised the challenge that this transformation entails and are taking leadership to protect the vulnerable, including across the EBRD regions. For example, by 2030, the European Union (EU) under its Just Transition Mechanism is expected to mobilise around €150 billion for its most carbon-intensive territories as part of the EU Green Deal.

The Covid-19 pandemic and its unfolding economic consequences are an unprecedented challenge to the world and the EBRD regions, and any recovery from the coronavirus crisis should support an inclusive transition to a green economy. As countries overcome the immediate threat of the pandemic, the EBRD will continue to work on the transformation of economies in its regions. Tackling climate change, addressing wider issues of environmental sustainability and ensuring economic inclusion will require accelerated progress in the next decade, as these longer-term ambitions remain unchanged. Therefore, recovery from the impact of the Covid-19 pandemic should incorporate interventions that help tackle the immediate economic impact of the virus and also have environmental and social benefits, including green investments that generate access to decent jobs, can be quickly deployed and have long-term positive impacts.

Challenge: A rapid reduction in energy and carbon intensity across the EBRD regions

The economies in which the EBRD operates remain among the most carbon intensive in the world. Their average greenhouse gas (GHG) emissions per capita are 20 per cent higher than those of comparable economies with similar populations and per capita incomes. Fifteen of the 38 economies where the Bank invests have a higher carbon intensity than the world average, and 10 are in the top 20. Similarly, 16 have a higher energy intensity than the world average.

The green economy transition will present significant opportunities. It is important to share these widely but also to support regions and social groups that are vulnerable to the changes transition will bring. Certain opportunities can both support a green transition and tackle pre-existing inequalities. However, for some these opportunities will remain outside of their reach, creating the need for additional support. Those who are likely to experience challenges from a green economy transition include countries that are fossil fuel exporters, workers in firms reliant on the use of fossil fuel for energy production and consumption (such as carbon-intensive electricity producers and petrochemical manufacturers), communities whose livelihoods are directly and indirectly linked to fossil fuels, and poorer consumers who could be adversely impacted if policies are designed in a socially regressive way. The extent of the vulnerability depends on a

variety of factors – including endowments of fossil fuels, industrial structures, skills and labour market mobility – that vary substantially across the EBRD regions. Importantly, the vulnerability of these groups is also driven by factors not directly linked to the green economy transition (such as the relocation or the competitiveness of other types of industry).

While a green economy transition will require transformation across multiple sectors, the coal sector – and the workers and communities who rely on it – appear particularly vulnerable in the short term. The EBRD region has around 25 per cent of global coal reserves, with the largest located in Kazakhstan, Poland, Russia and Ukraine. Around 240 coal-fired power plants located in the EBRD regions produce a quarter of the regions' electricity. More than 400 coal mines supply these plants and, while some mines are nearly depleted, in many others significant coal reserves remain. Despite this abundant supply, a combination of factors, such as competitive alternative technologies and the introduction of climate policies, are putting pressure on the continued use of coal – particularly in mining and electricity generation.

There are risks to coal-related employment, which tends to be concentrated in specific sub-national regions. An estimated 1.1 million jobs are directly or indirectly linked to activities in coal-fired power plants and coal mines in the EBRD regions. Within the EU, 90,000 jobs could be lost (of which over 80 per cent would be in the supply chain and surrounding economy). The main impacts will be felt in the large coal-mining regions of Poland (Śląskie, Łódzkie and Mazowieckie), Romania (Sud-Vest Oltenia and Vest), Greece (Dytiki Makedonia) and Bulgaria (Yugoiztochen). Similar pressures will be felt in EBRD economies outside the EU, due to a combination of national energy and climate targets (such as in Kazakhstan and Ukraine), policy alignment with the EU (relevant for the Western Balkans) and broader pressures in the industry.

Achieving lasting reductions in energy and carbon intensity will require a concerted policy response, which should also consider their impact on poorer consumers. A core area of policy reform is to ensure that the prices which energy users and GHG emitters pay reflect the true cost of those uses and emissions to society and remove incentives for wasteful, high-carbon consumption. In the EBRD regions, fossil fuel subsidies are estimated to have been US$ 21 billion in 2017, equivalent to around 1 per cent of the regions' total GDP for that year. If the full social costs of the pollution associated with fossil fuel use are included, the amount rises to 11 per cent. This larger number reflects the fact that an adequate price signal for carbon is not yet in place in many economies where the EBRD invests, particularly those outside the EU. As countries strive to reform their fossil fuel subsidies, they can incorporate measures to protect poorer consumers.

Any support for vulnerable groups must consider the broader context of inequality. Since starting their transition to an open-market economy, countries in the EBRD regions have achieved remarkable progress in many areas, and people are just as satisfied with their lives as their peers are elsewhere. However, despite this broadly positive picture, not everyone has benefited. Indeed, more than half of all people in these regions have not seen their earnings converge with those of people living in western Europe. Furthermore, those in the bottom 23 per cent of the income distribution are worse off than they were in 1989. Two-thirds of income inequality in the EBRD regions is accounted for by inequality within countries, while one-third is attributable to differences between countries. This in turn drives substantial population shifts, both across and within countries, and from rural to urban areas, as people (often those with the highest skills) cross borders in search of better economic opportunities.

The coronavirus crisis further exacerbates inequality challenges. While it is still too early to understand the full implications of the crisis, it could present challenges to those vulnerable to the green economy transition. For example, the region of Central Asia has been strongly affected via slowing global demand for oil, gas, metals and other commodities as well as through trade and travel restrictions put in place to contain the spread of Covid-19. This simultaneous interruption of tourism and other sectors creates further challenges for regions to reorient their economic bases, attract investments and invest in human capital.

Experience: Insights from historical cases of transition

The EBRD's first-hand experience of supporting structural change provides insight on how to support vulnerable communities and workers. Further insight has emerged from a wide review of literature on the transition away from carbon-intensive sectors in other geographies. These transitions can have a significant impact on local communities through associated job losses and through new or alternative jobs that no longer afford decent livelihoods. They can also disproportionately affect certain groups in society, such as women, low-skilled workers or those in self-employment who are part of the wider local value chain. Furthermore, the transitions can trigger undesirable impacts on consumers, including on

vulnerable groups. Often, the experience of supporting structural change is about how to ease the process for these groups.

There is a need for strategic planning for impacted communities. This involves engagement with a wide range of stakeholders ahead of any closure or decline of an industry, in order to build consensus around actions and roles (lesson 1). The approach should be locally owned, with public sector involvement through regional authorities, in cooperation with national authorities and with firms that are large employers (lesson 2). The planning should also address inequalities and be embedded into multi-faceted approaches to regional development, with implementation through pilots to aid policy learning (lesson 3).

Strong public sector institutions are needed to support sustainable and inclusive policy design and investment. When advancing transition in Russia in the 1990s, the EBRD applied a "cluster approach" to target investments in specific geographical areas for enhanced impact, with success linked to a strong role of the public sector and coordination with other actors. It is important to have effective institutional structures, led by high-capacity authorities – whether they are at the national or regional level – to fulfil multi-dimensional strategic plans (lesson 4). While a strong public-sector response is needed, the role of the private sector is also important, including that of large firms linked to transition – although in practice many owners of fossil fuel assets can be state-owned (lesson 5).

Successful interventions take a holistic approach to regional economic development and seek to create viable short-term and long-term solutions for local populations who are affected. Economic development should be prioritised according to specific regional needs and in some cases a partial "managed retreat" can be a valid response, particularly as attracting the private sector to such regions can be difficult (lesson 6). Opportunities are likely to arise from emerging sectors, including, but not limited to, those linked to the green economy, through conversion of stranded assets as well as through new jobs in tourism, agriculture or green buildings (lesson 7). Through skills policies that are closely tied to the demands of local labour markets, it is important to provide responses that are tailored to workers directly and indirectly impacted by transition and that help them find good-quality new jobs (lesson 8). The focus is not just on identifying new employment opportunities but also on ensuring equal opportunities for all, including women and vulnerable groups. The environmental legacies of high-carbon industries should be addressed (lesson 9), and investments that focus on enabling sustainable physical and digital infrastructure are important for stimulating economic opportunities (lesson 10).

Response: How the EBRD will support a just transition

Across its regions, the EBRD already plays a role in supporting an inclusive transition to a green economy. The Bank is effective at mobilising commercial investment in the green economy through its Green Economy Transition (GET) approach, particularly via small and medium-sized enterprises (SMEs) and private sector activity. Its approach to economic inclusion and gender through vocational and skills training programmes and approach to regional inclusion reflect private sector needs and also work to support employment opportunities in the energy sector. In addition, the EBRD has experience of developing and implementing action plans at the regional level that combine investments, technical cooperation and policy engagement (for example, through the EBRD Green Cities programme, which prepares multi-sectoral plans for environmental improvements at the city level).

Building on its policy and financing activities, the Bank will enhance its focus on just transition. It will do so by undertaking policy activities and commercial financing that will ensure that the benefits of a green economy transition are shared more equally, and support those who stand to lose economically. This support is particularly important in light of the economic impact of Covid-19, to ensure that the momentum of the green economy transition is not lost.

There are three themes to prioritise for specific EBRD interventions: the green economy transition, support for workers, and regional economic development. Green economy transition activities, guided by the Bank's GET approach, will focus on supporting actors with high-carbon assets across a variety of sectors in the transition to a low-carbon economy. These activities will include targeting the conversion of fossil fuel assets, the remediation and rehabilitation of land, and other green investments that create local employment (such as in the circular economy). In addition, the work will include supporting ambitious climate policies which also incorporate affordability considerations into their design. Support for workers whose livelihoods are affected by the transition process will promote access to alternative jobs through reskilling and by enhancing entrepreneurship, while addressing the underlying drivers of inequality of opportunity. This is embedded in regional economic development support that will emphasise activities that provide employment, including tailored support for competitive SMEs and larger firms as well as the financing of projects in sustainable infrastructure.

Given the importance of strategic planning to overcome challenges, the EBRD will pilot targeted support in a small number of countries. This targeted support, and subsequent interventions, will be guided by a "just transition diagnostic" – an assessment of transition challenges and opportunities. In regions where such diagnostics already exist, the Bank will use them for guidance. For example, within the EU, "territorial just transition plans" will identify the strategic needs of specific regions. In countries where such diagnostics do not yet exist, the EBRD may, at the request of the relevant authorities, take a leading role in their preparation, especially in countries that have a lower capacity for this work. These pilots will allow evidence-based policy learning to adapt the approach before it is scaled up further.

The Bank will also continue to proactively identify investment and policy engagements that can accelerate a just transition. Working with companies to identify and manage the risks of climate change is an important area of intervention. These companies, such as energy utilities, are often the main employer in a local area, own the fossil fuel assets and will play a pivotal role in designing greener investments and minimising the impacts of transition on the workforce. The EBRD will work closely with these clients to improve corporate governance on climate-related matters, design business plans consistent with a green economy transition and support workers through the transition by introducing inclusive workforce management – working with local or regional authorities as appropriate. These efforts will be embedded within wider strategic processes and developed with regional and/or national stakeholders.

The EBRD will internalise the just transition initiative into its operational processes. This will include, for instance, adding just transition to the Bank's transition impact methodology – and analysing it as part of the relevant sector and country strategies. More concretely, the EBRD's just transition initiative will be embedded into the EBRD's strategic directions for the future, notably in the forthcoming Strategic and Capital Framework and updates to strategies on the green economy transition, economic inclusion and gender.

Partnerships: How the EBRD will work with others

Strategic partnerships are critical for the successful development of the EBRD's just transition initiative. The EBRD will look to build partnerships with other stakeholders who are also working to achieve a just transition (including, potentially, by blending its investments with available concessional funding). For EU countries in the EBRD regions, the Bank will align its activities with the requirements of the EU's Just Transition Mechanism, while looking to finance related projects. For example, this could be achieved by providing project preparation support or leveraging EU funding through the InvestEU Programme. Outside the EU, the EBRD´s initial focus will be on EU neighbourhood countries – such as Ukraine or countries in the Western Balkans – although early stage dialogue will also begin elsewhere.

The EBRD will work with other institutions to coordinate efforts and help implement just transition plans. Coordination with other multilateral development banks (MDBs) is critical. The EBRD will partner with MDBs in individual countries (see the discussions underway in Greece and Poland, for example) and establish partnerships at the regional level (for example, the EBRD is in discussions about its work in the Western Balkans and Ukraine with the World Bank, European Commission and the European Investment Bank). In parallel, the EBRD will continue its strong partnership with the European Training Foundation and the International Labour Organization to inform the Bank's skills programmes and policy engagements.

1. Vision: A transition in which the benefits of a green economy are shared and the vulnerable are protected

Transitioning to a low-carbon economy will require a rapid movement away from fossil fuels. Swift change at the speed and scale that are required will create new economic opportunities but is also likely to strand assets, displace jobs and threaten livelihoods. It is important to support those who stand to lose economically from the climate action that is envisaged. For example, regions abundant in fossil fuel assets may face sizeable direct and indirect job losses. Early recognition of industrial, regional and individual vulnerabilities, and active engagement with these issues, will help to ensure that the benefits of a green economy transition are shared widely and the vulnerable are protected. This support has become even more important as the economic effects of Covid-19 have led to a sharp economic contraction, higher unemployment and a narrowing of fiscal space, all of which could undermine any green measures that are perceived to result in economic hardship.

To ensure the required momentum for climate action, a "just transition" seeks to ensure that the substantial benefits of a green economy transition are shared widely while also supporting those who stand to lose economically – be they countries, industries, communities, workers or consumers. This is recognised in several global commitments by countries to tackle the challenge of climate change and sustainability, including in the 2015 Paris Agreement, which acknowledges "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities". Speed in reaching consensus is essential, as climate action will need to be accelerated in the next decade.

The purpose of this paper is to set out the importance of a just transition, and how the EBRD will support this in the economies where it invests. The Bank is well placed to provide this support, with its three decades of experience in facilitating transition towards sustainable market-oriented economies, through its private sector-oriented business model.

Moving to a low-carbon economy in line with what is needed to reduce the significant risks associated with climate change will require a rapid movement away from fossil fuels. The evidence is that, managed well, climate action creates substantial benefits. These benefits are linked to reducing greenhouse gas (GHG) emissions and local air pollution, avoiding the risks associated with climate change and creating new jobs and livelihood opportunities.[1]

Yet, while presenting economic opportunities, the green economy transition involves challenges. One risk is "stranded assets" – fossil fuel assets that are no longer as profitable as previously anticipated, due to factors such as changes in policy or technology. Countries and specific sub-national regions whose economies depend on those assets may face sizeable direct and indirect job losses. This will be economically damaging, particularly in areas where workers have few other opportunities.

As noted earlier, support for a just transition seeks to ensure that the significant benefits of a green economy transition are shared widely while also supporting those who stand to lose economically – be they countries, industries, communities, workers or consumers. The starting point is to identify the vulnerabilities of countries, regions, industries and consumers as early as possible.[2] It is important to consider the fair distribution of the costs and benefits of climate action in the context of recovery from the Covid-19 pandemic, which has exacerbated existing inequalities and created economic risks for sectors, regions and people who could also be impacted by a green economy transition.

A just transition will necessarily be local in its focus – dealing with the people and places who need extra support, either because their employment or livelihoods are at risk or because climate change affects poorer households more severely than the wider population. This acknowledges that actors have different starting points, will be impacted in different ways, and do not have the same capacity to respond. In the words of the United Nations Sustainable Development Goals pledge, a just transition seeks to "leave no one behind", directly linking to SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic

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[1] See Pachauri et al. (2014).

[2] The term "just transition", whose origins date back to the US trade union movement in the 1970s, is often used flexibly to address a wide range of issues. These range from the potential (negative) impacts of climate change mitigation (both for producers and consumers of fossil fuels) to the impacts of physical climate change. The term can also be used to cover other environmental issues beyond climate change and can be linked to the full spectrum of issues related to economic inequality. In this report, the term is used in the context of climate change mitigation.

Growth), SDG 10 (Reduced Inequalities) and SDG 13 (Climate Action).[3] Indeed, climate change and environmental protection are at the heart of the Sustainable Development Goals (SDGs) to be achieved by the end of 2030: 14 of the 17 SDGs are linked to reducing pollution or to climate or environmental sustainability.[4]

Just transition must be seen in the context of the Covid-19 pandemic and its unfolding economic consequences, which present an unprecedented challenge to the world and the EBRD regions. The EBRD is determined to stand with its shareholders, with the economies where it invests, and with its partners and clients, by rapidly increasing support under the Bank's "Solidarity Package". As of June 2020, the EBRD envisages that all of its activity in 2020 and 2021 will seek to tackle the economic impact of this pandemic and prepare for the medium- and long-term post-virus era.

Any recovery from the coronavirus crisis should support an inclusive green economy transition. As countries overcome the immediate threat of the pandemic, the EBRD will seek to build a better future in its regions. Addressing climate change and ensuring environmental sustainability more broadly will require accelerated progress in the next decade if the aims of the Paris Agreement and the Sustainable Development Goals are to be met. These long-term ambitions remain unchanged. Therefore, recovery from the impacts of the Covid-19 pandemic should incorporate interventions that have clear environmental benefits and help tackle the economic and social impacts of the virus. These interventions should include green investments that generate access to decent jobs, can be quickly deployed and have long-term positive impacts.[5]

So what do potential solutions look like? They are likely to include a combination of policies, technical assistance and targeted investment. They will involve both the public and private sector. They will encompass activities such as repurposing stranded assets where economically viable, investing in land remediation and promoting sustainable investment, including in hard-to-abate industrial sectors. They will involve the reskilling of workers and the introduction of regulations for attracting new companies, the funding of high-impact infrastructure projects and lending to small and medium-sized enterprises (SMEs). They will ensure that climate policies are not designed in a socially regressive way.

Training is clearly a key part of the response, to ensure that people have the requisite skills to take advantage of new opportunities. Training enables alternative employment opportunities for the most vulnerable and also ensures that the wider workforce has the skills the market will demand. The importance of human capital must therefore be acknowledged, alongside the national climate commitments of each country. In a review of 169 countries undertaken by the ILO, less than 40 per cent of the climate pledges that countries have made in their nationally determined contributions (NDCs) include plans for skills training to support their implementation and 20 per cent of countries plan no activities at all in relation to human capital.[6] The situation is starker across the EBRD regions, where only around 25 per cent of countries have plans for skills training.

Whatever combination of solutions is found to be viable, the process will be complex and require a long-term view. In parallel with the need for a green economy transition, any solutions will need to consider other major changes in economic structures: the shift to services in the job market, labour-saving technologies and globalisation, all of which are perceived to increase inequality. Engagement with the public sector will also be crucial – as policymakers, but also as owners of the fossil fuel assets themselves, which are particularly prevalent in the energy sector across the EBRD regions.

The call for a just transition has significant momentum. In 2018, when the COP24 climate summit was held in the coal-and-steel Polish industrial heartland of Silesia, a Solidarity and Just Transition Silesia Declaration was signed, noting that "just transition of the workforce and the creation of decent work and quality jobs are crucial to ensure an effective and inclusive transition."[7] This declaration was signed by more than 50 countries; a similar number committed to developing "national plans for a just transition and create decent green jobs" through the Climate Action for Jobs Initiative led by the International Labour Organization (ILO), Spain and Peru. The European Union is already taking up the challenge: as part of its

[3] This leave-no-one-behind terminology is also consistent with the EU's approach to just transition: "the Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind." See https://ec.europa.eu/commission/presscorner/detail/en/IP_20_812 (last accessed 12 June 2020).

[4] See Elder and Olsen (2019).

[5] See Hepburn et al (2020).

[6] See ILO (2019).

[7] See United Nations Climate Change Conference (2018).

European Green Deal to achieve climate neutrality by 2050, a Just Transition Mechanism will mobilise around €150 billion for its most carbon-intensive territories.

Building on its experience, the EBRD is well placed to support a just transition in its regions. Mandated in 1991 to "foster the transition towards open market-oriented economies and to promote private and entrepreneurial initiative"[8] in the formerly communist eastern side of Europe, the Bank has three decades of expertise in promoting well-functioning markets. Since its establishment the EBRD has been concerned with "environmentally sound and sustainable development",[9] linked to tackling the environmental problems caused by central planning and underinvestment before 1990.

A partner of the European Union, although with a footprint reaching further east and south, today the EBRD works in some of the most carbon-intensive regions in the world, where the need for decarbonisation is most acute (see a detailed overview in the "Challenge" section of this paper).

The EBRD still fosters transition to open-market economies, but it now defines the well-functioning market economy as being competitive, well-governed, green, inclusive, resilient and integrated – the six EBRD "transition qualities". Support for a just transition is fully in line with this vision, focusing on the interface between the two of the transition qualities: green (supporting the transition to a low-carbon economy and preserving the environment for future generations) and inclusive (ensuring equal opportunity for all regardless of their gender, place of birth, socioeconomic environment, age or other circumstances).

The EBRD approach to supporting a just transition links to current EBRD strategies and policy initiatives and also builds on the Bank's track record in green finance and economic inclusion.

The Green Economy Transition (GET) approach of the EBRD aims to raise the share of green investments that the Bank makes to 40 per cent of its annual investment by the end of 2020.[10] This target was attained in 2019, with a green investment share of 46 per cent. Furthermore, since 2006 cumulative EBRD green finance has reached €34 billion across more than 1,900 projects.

The Bank´s GET investments are in climate mitigation, climate resilience and other environmental activities, or combinations of these. The EBRD's expertise and business model covers a range of green activities, including: energy efficiency investments in the financial, industrial and infrastructure sectors; renewable energy policy and financing; green banking with a network of 150 commercial banks across the EBRD regions; climate resilience assessment and finance; and circular economy facilitation and financing. It also supports green investment at the municipal level through the EBRD Green Cities programme, with the aim of building a better and more sustainable future for cities and their residents through multi-sectoral strategic planning, sustainable infrastructure investment and capacity-building.

Supporting a just transition builds on the EBRD's commitments in its Energy Sector Strategy 2019-2023 to "engage with countries of operations with significant coal dependence to develop strategies to support a transition away from coal that addresses issues of air quality, retrenchment and energy security."[11]

On economic inclusion, the EBRD seeks to address the challenges of inequality as set out in its strategies on economic inclusion and gender.[12] These strategies focus on access to skills and employment, entrepreneurship and access to finance, as well as access to services that enhance economic opportunities. With over 100 projects worth around €7 billion, across countries with considerable inclusion challenges (mainly in the southern and eastern Mediterranean region, the Western Balkans, Turkey and Central Asia), the Bank has a solid foundation for further enhancing its impact in addressing the inequalities in its regions. In addition, EBRD investments must adhere to the Bank's Environmental and Social Policy,[13] which sets out a number of performance requirements, one of which requires that whenever a project is likely to give rise to job losses, any retrenchment is carried out in accordance with the EBRD's requirements and in line with national law.[14]

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[8] See EBRD (2013).

[9] Ibid.

[10] The EBRD Green Economy Transition approach, as approved by the Board of Directors at its meeting on 30 September 2015.

[11] See EBRD (2018a). It is important to note that the EBRD will not invest in coal mining or coal-powered electricity.

[12] See EBRD (2017a) and (2016b).

[13] See EBRD (2019a).

[14] See EBRD (2017b).

A just transition will also require support for broader regional development. The EBRD has a number of instruments relevant to this area. These include credit lines issued through local banks to small and medium-sized enterprises, an advisory service for small businesses and expertise in the infrastructure investment that the EBRD regions need in order to access economic opportunities in the future.

Against this backdrop, the guiding vision of the EBRD's approach to a just transition is to support investment, policy engagement and technical cooperation that promote sharing the benefits of a green economy transition and protecting vulnerable countries, regions and people from falling behind.

The rest of this paper sets out how the EBRD will support a just transition as part of the Bank's forthcoming just transition initiative, and outlines the following:

- the energy and carbon intensity of the EBRD regions, including an identification of the sub-national regions that are most reliant on coal (Challenge)
- the insights gained from experience, which can be used to inform the design and effective support of a just transition (Experience)
- how the EBRD will design and implement its just transition initiative in the economies where it invests, given its mandate and experience as a "transition bank" (Response)
- the mechanisms for collaborating with other stakeholders (Partnerships).

2. Challenge: A rapid reduction in energy and carbon intensity across the EBRD regions

While all economies in the EBRD regions have, to differing degrees, made commitments to combating climate change and other environmental challenges such as air pollution, more has to be done. In moving from pledging to delivering commitments, the shift to a greener model of development presents significant opportunities in the power, transport, buildings and industrial sectors. However, as the EBRD regions will need to phase out fossil fuels, make more investments in renewables and achieve significant improvements in energy efficiency faster than the global average, considerations of just transition are important.

To explore where these considerations are most pertinent in the EBRD regions, this section of the paper details the following:

(1) the levels of energy and carbon intensity of individual countries, comparing those in the EBRD regions with other countries and regions
(2) the role that policy plays – most notably in regard to energy subsidies for fossil fuels, which provide incentives for wasteful, high-carbon energy use
(3) coal value chains and associated employment in the EBRD regions
(4) broader considerations of economic inclusion.

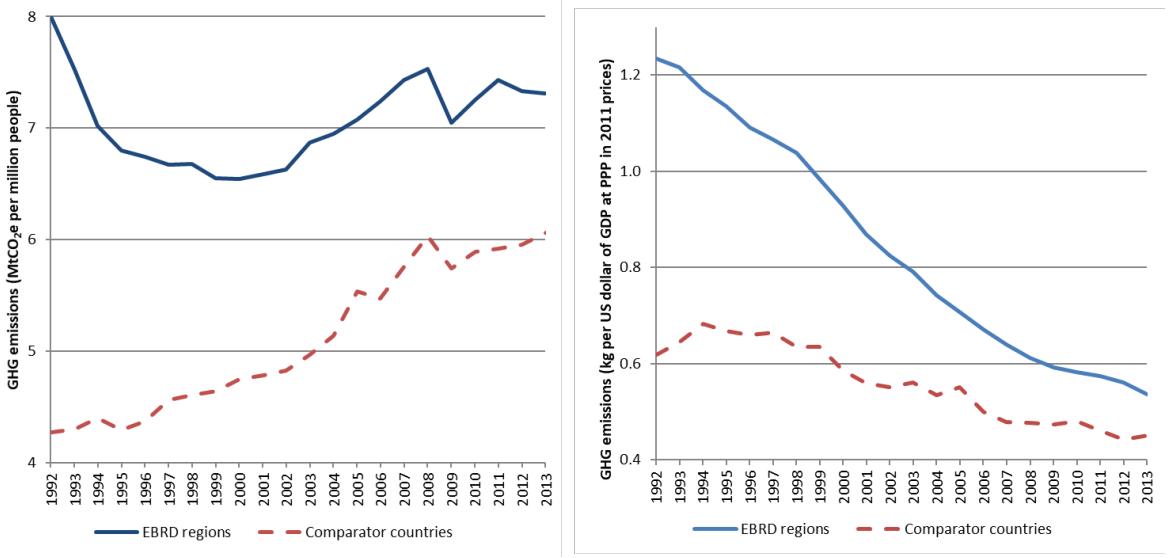
Energy and carbon intensity of the EBRD regions

In the early 1990s, the first EBRD countries of operations across the eastern side of Europe had the highest levels of carbon intensity in the world in terms of their economic output. This was a legacy of central planning, with its polluting industries, cheap energy and chronic environmental neglect. Since then, GHG emissions in these economies have fallen markedly, whether measured in aggregate terms, per capita or per US dollar of GDP. This fall has been a result of the restructuring that underpins a shift to open-market economies: structural economic change including a larger service sector, price and regulatory reforms, greater efficiency and improved environmental regulation.

Despite this progress, some economies in the EBRD regions remain among the most carbon-intensive in the world. Fifteen of the 38 EBRD economies have a higher carbon intensity than the world average, and 10 are in the top 20. These 10, in order of declining carbon intensity, are Mongolia, Bosnia and Herzegovina, Kosovo, Kazakhstan, Lebanon, Serbia, Poland, Cyprus, Morocco and Estonia.

In the economies where the EBRD invests, GHG emissions per capita and per US dollar of GDP remain around 20 per cent higher than those in comparable economies with similar populations and per capita incomes (see Chart 1). Indeed, while GHG emissions per capita in the EBRD regions declined and reached their lowest point in the year 2000, they have been rising steadily since then.

Chart 1. GHG emissions per capita and per US dollar of GDP



Source: EBRD *Transition Report 2017-18*, based on data from World Resources Institute.

Note: Data represent unweighted averages across countries. Comparator countries are emerging markets that are similar in terms of population size and income per capita (see EBRD *Transition Report 2017-18* for details). "$MtCO_2e$" means "million metric tonnes of carbon dioxide equivalent".

The EBRD regions' energy-related GHG emissions (mostly CO_2) come both from industries that produce energy (through electricity generation, petroleum refining and heat production) and from direct fuel combustion by end-users in sectors such as buildings, industry and transport.

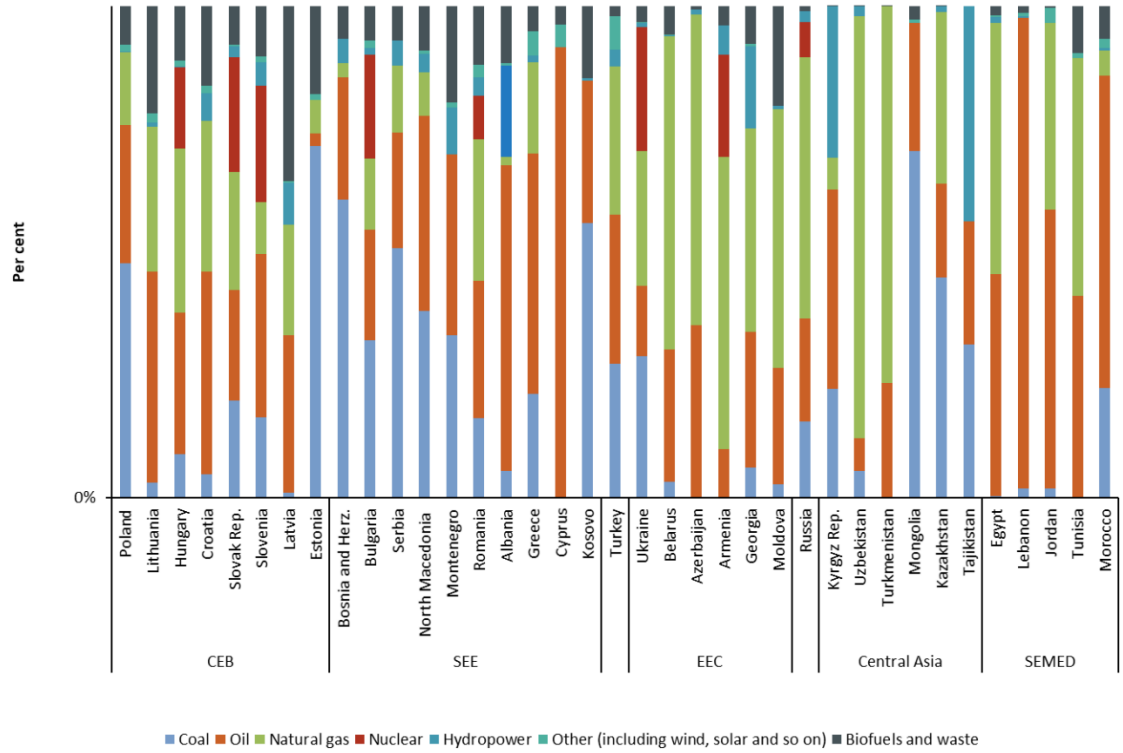
Clearly, achieving the ambitious objectives of a low-carbon economy requires an urgent structural shift in the way that economies operate. To achieve a reduction, as GDP rises, there will need to be a decoupling from GHG emissions. Countries will have simultaneously to reduce carbon intensity (emissions per unit of energy) and energy intensity (energy use per unit of GDP).

Carbon intensity is primarily driven by the use of fossil fuels – coal, oil and gas – which remain the regions' primary energy source, making up 88 per cent of total primary energy supply (see Chart 2) and around 80 per cent of electricity generation. The economies of Central Asia are most reliant on fossil fuels, followed by those in the southern and eastern Mediterranean (SEMED) region, and by Russia and Turkey. Eastern Europe and the Caucasus (EEC) and south-eastern Europe (SEE) rely less on coal, oil and gas, but all need to make reductions to lower their emissions intensity in line with what is required to minimise the risks of climate change.[15]

A similar story emerges for energy intensity. Average energy intensity per unit of GDP has roughly halved in the EBRD regions since the early 1990s, partly due to structural changes in economies (particularly deindustrialisation and a shift from industry to services) and partly due to improvements in individual sectors. However, energy intensity remains high. Sixteen of the 38 economies where the EBRD invests have a higher energy intensity than the world average, and 3 (Turkmenistan, Ukraine and Uzbekistan) are in the top 20. To reduce energy intensity will require significant improvements in energy productivity across all sectors – particularly the energy- (and carbon-) intensive industries such as petrochemicals, steel and cement, which are still prevalent across the EBRD regions (see Chart 3).

[15] It is also important to note that many of these assets are under public sector ownership. See Prag et al. (2018).

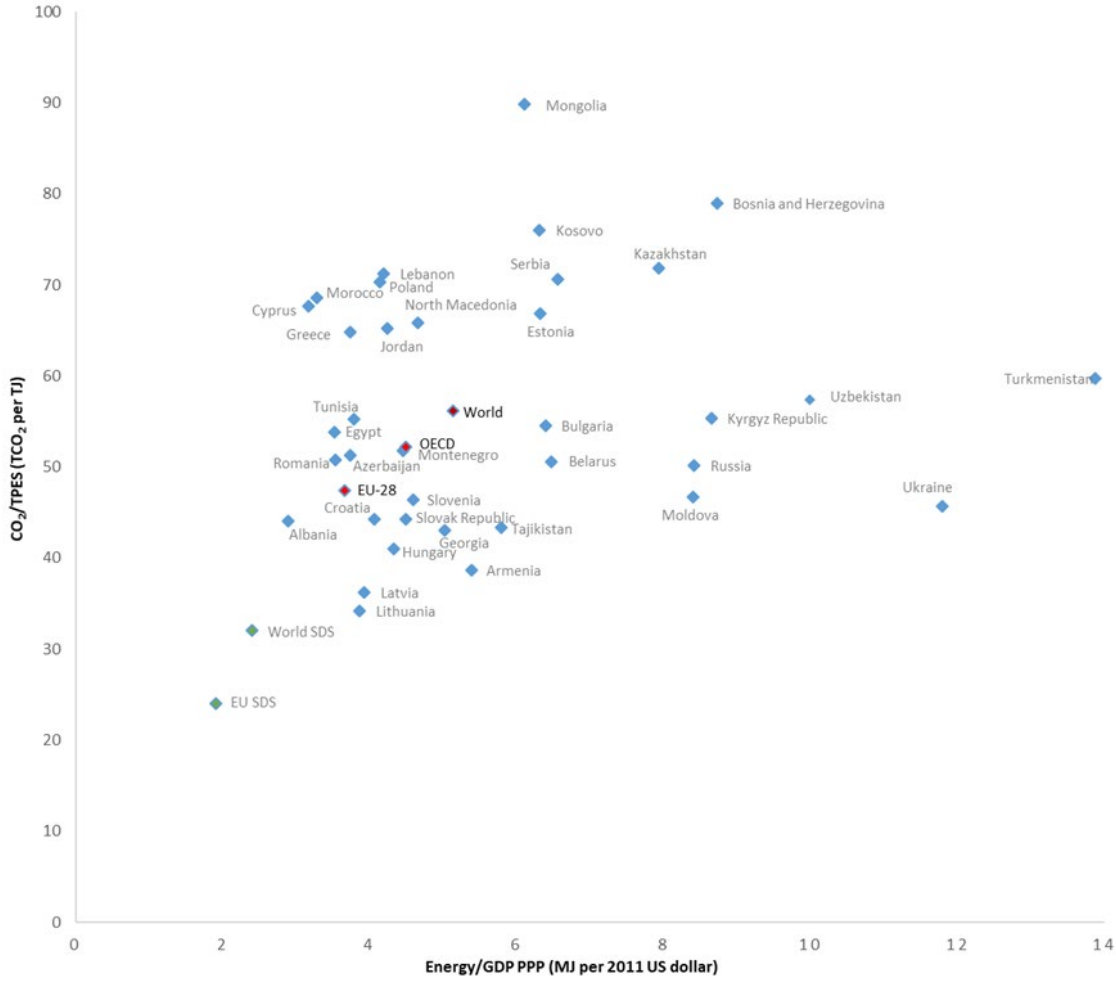
Chart 2. Breakdown of total primary energy supply by fuel type, 2017



Source: International Energy Agency (IEA) World Energy Balances (2019).

Note: Total primary energy supply excludes heat and electricity. The chart does not include data for the West Bank and Gaza. Coal includes oil shale (in keeping with IEA methodology).

Chart 3. Energy and carbon intensity by country, 2017



Source: IEA (2017) and World Bank (2015).

Note: Carbon intensity data are for 2017. Energy intensity data are for 2015, except the Kosovo figures, which are for 2013. The IEA's Sustainable Development Scenario (SDS) is a possible path towards meeting climate goals.

The green economy transition will present significant opportunities, and it is important to share these widely and to support those who are vulnerable to the transition. There are opportunities that can both support a green transition and tackle inequalities. However, for some these opportunities will remain out of their reach, creating the need for additional support. These include countries that are fossil fuel exporters, firms reliant on fossil fuel use for energy production and consumption (such as carbon-intensive electricity producers and petrochemical manufacturers), communities whose livelihoods are directly and indirectly linked to fossil fuels, and poorer consumers who could be adversely impacted if policies are designed in a socially regressive way. The extent of their vulnerability depends on a variety of factors that vary substantially across the EBRD regions, including endowments of fossil fuels, industrial structures and labour market mobility. Importantly, the vulnerability of these groups is also driven by factors not directly linked to the green economy transition (for example, the relocation or the competitiveness of other types of industry).[16]

These shifts will ultimately have a link to jobs and livelihoods. In a scenario created before the Covid-19 pandemic, the International Labour Organization showed that by 2030, with significant climate action, 25 million jobs would be created and nearly 7 million lost globally. Of those holding the 7 million jobs, 5 million people would be able to find jobs in the same occupation but in a different industry within the same country. Around 2 million workers would, however, be affected by jobs that would cease to exist and, for

[16] See EBRD (2011) chapter 2 for a detailed overview of the economic costs of climate change mitigation across the EBRD regions. See also EBRD (2015) for an assessment framework for understanding the risks to government assets.

these people, finding alternative employment would be challenging. While this negative employment impact would be small relative to the total size of the labour market, it would be concentrated in vulnerable geographic regions.[17]

The EBRD has analysed potential risks at the national level from a green economy transition. Depending on whether countries are fossil fuel suppliers (net exporters) or buyers (net importers), as they trade fuels they will be affected differently by policy changes that shift global energy markets towards cleaner energy and put downward pressure on fossil fuel prices. For instance, in Kazakhstan, a major oil exporter, a scenario in which there is worldwide adoption of greener energy practices in line with the SDGs and the Paris Agreement could lead to an overall drop of around 40 per cent in Kazakhstan's fiscal revenues, relative to a 'business as usual' scenario. This could also lead to unsustainable levels of debt and potentially to depletion of the country's national savings from oil within the next decade.[18]

The role of policy: carbon pricing and energy subsidies in the EBRD regions

Achieving lasting reductions in energy and carbon intensity will clearly require a concerted policy response. One area of policy reform seeks to ensure that the prices energy users and GHG emitters pay reflect the true cost of those uses and emissions to society and remove incentives for wasteful, high-carbon consumption.

Part of the reason for the energy- and carbon-intensiveness of the EBRD regions is the role of policy in the provision of subsidies that support the use of fossil fuels for energy. This, in part, also explains why private firms across the EBRD regions are lagging behind in terms of both environmentally friendly production and trade in environmentally friendly goods and services.[19]

All economies in the EBRD regions provide subsidies on the production and/or consumption of energy, meaning that no country takes into account the true cost of fossil fuels, both in terms of their climate change impact and of local air pollution (see Chart 4). In many countries, the price of energy does not even reflect the costs of its generation, operation and maintenance, and different types of consumer pay different prices, which may put significant burdens on certain groups at the expense of others. The subsidisation of fossil fuels also results in forgone consumption tax revenue which could be used in other development priorities. By making fossil fuels (and the electricity generated from them) cheaper for individuals and companies, incentives are provided for wasteful energy use. Meanwhile, cleaner fuels are fiscally disadvantaged. In addition, subsidies may disproportionately benefit richer consumers who use more energy.

Despite certain improvements over the past decade, the scale of the distortion from fossil fuel subsidies remains significant. Based on International Monetary Fund (IMF) estimates, fossil fuel subsidies in the EBRD regions could amount to US$ 21 billion for 2017, equivalent to around 1 per cent of the regions' GDP for that year, and if tax treatment is included, the amount increases to US$ 370 billion, or 11 per cent of the regions' GDP. The highest subsidies are seen in Ukraine, the Western Balkans (in Bosnia and Herzegovina, Serbia, North Macedonia and Montenegro), Central Asia (in Uzbekistan, Mongolia, Turkmenistan, the Kyrgyz Republic and Kazakhstan) and Egypt. This larger number reflects the fact that many economies in the EBRD regions do not yet have in place a strong carbon price signal to incentivise a shift towards green investments.[20]

Subsidies on coal and oil make up approximately 84 per cent of total subsidies across the EBRD regions (see Chart 5). This figure is based on the high carbon intensity of these fuels, with inadequate pricing of externalities therefore resulting in a high level of subsidy per unit of fuel.[21]

Substantial economic benefits would come from reforming these subsidies and ensuring that energy prices reflect full market prices and linked externalities. However, it is not straightforward to raise energy prices, not least because poorer households would potentially be hardest hit if policies were designed in a regressive way. This is important to consider as part of a just transition approach, given that many EBRD economies lack adequate socioeconomic safety mechanisms to protect the energy-poor (definitions vary, but here "energy-poor" means those who spend at least 10 per cent of their income on energy).

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[17] See ILO (2019).

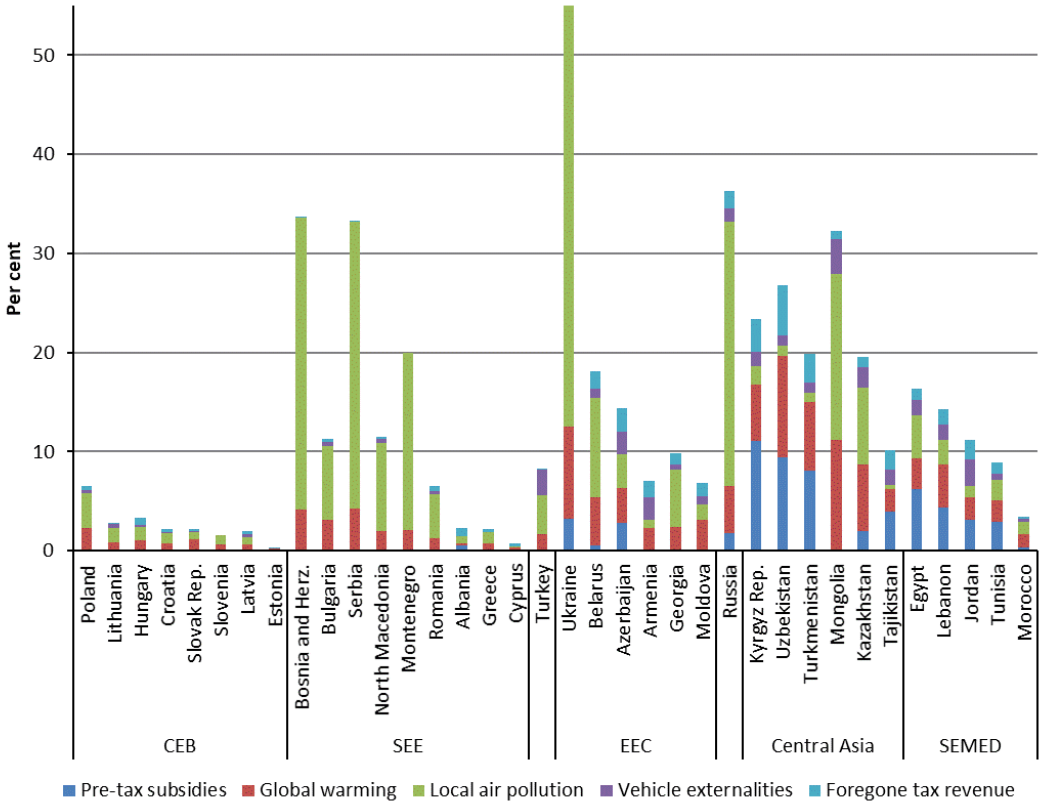
[18] See EBRD (2018b).

[19] See EBRD (2017b) and EBRD (2019b).

[20] For a recent assessment of carbon price instruments across the EBRD regions, see World Bank (2019).

[21] The definition of what constitutes an energy or fossil subsidy varies. For the purposes of this paper IMF estimates of subsidies are used as explained in the note below chart 4.

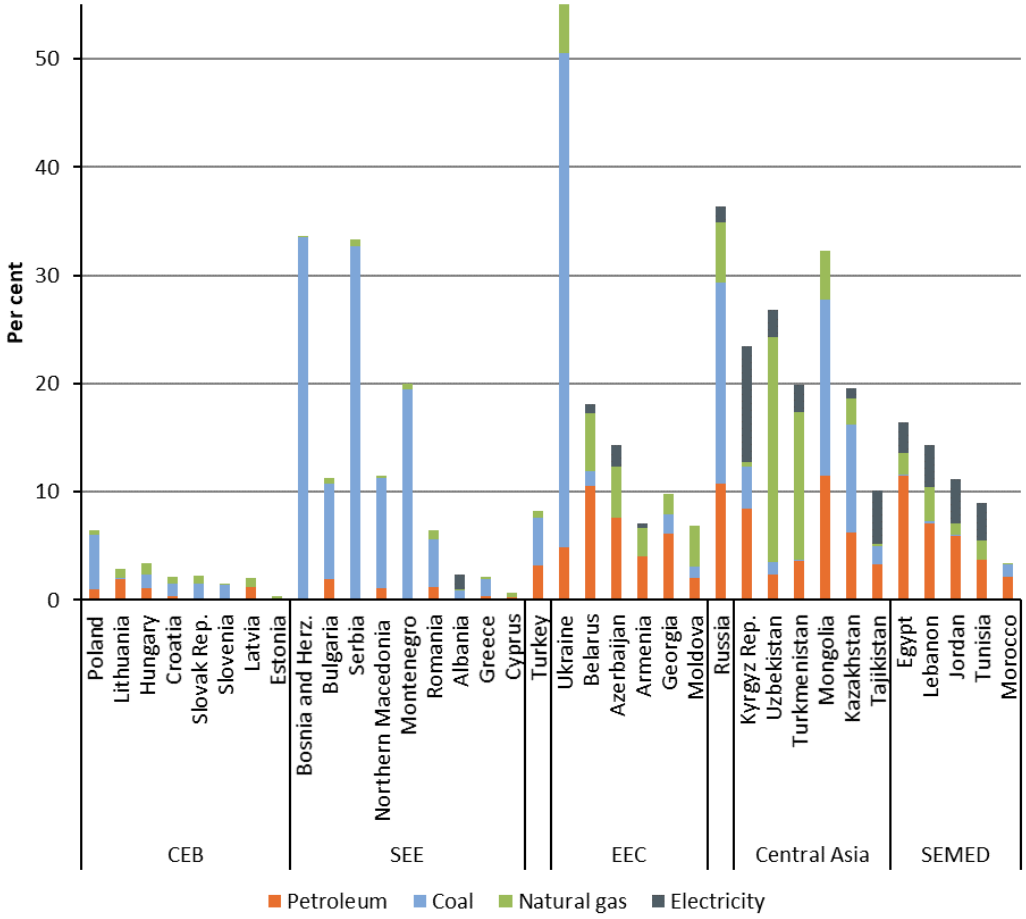
Chart 4. Subsidies on energy as a percentage of GDP, by subsidy component, 2017



Source: IMF Energy Subsidies Template (2019).

Note: These estimates include both consumption and production-related subsidies (inclusive of tax treatment).Tax treatment distinguishes between the subsidies received, calculated as the difference between prices consumers pay and the cost recovery price (pre-tax subsidies), and the difference between the cost recovery price and the "efficient" level of taxation. This incorporates (a) contribution to global warming due to emissions; (b) the health impacts of local air pollution, including increased mortality; and (c) broader externalities of vehicles, including congestion, slower speeds for road users, the costs of road damage, and traffic incidents.

Chart 5. Subsidies on energy as a percentage of GDP, by fuel source, 2017



Source: IMF Energy Subsidies Template (2019).

Note: These estimates include both consumption and production-related subsidies (inclusive of tax treatment). See note below chart 4 for an explanation of tax treatment.

Coal value chains and associated employment in the EBRD regions

The EBRD's energy sector strategy for 2019-23 shows that the energy sector across the EBRD regions will need to reduce its GHG emissions through rapid deployment of cleaner technologies, electrification of energy use in end-use sectors and upgrading of electricity distribution networks to ensure they are secure, reliable and flexible.

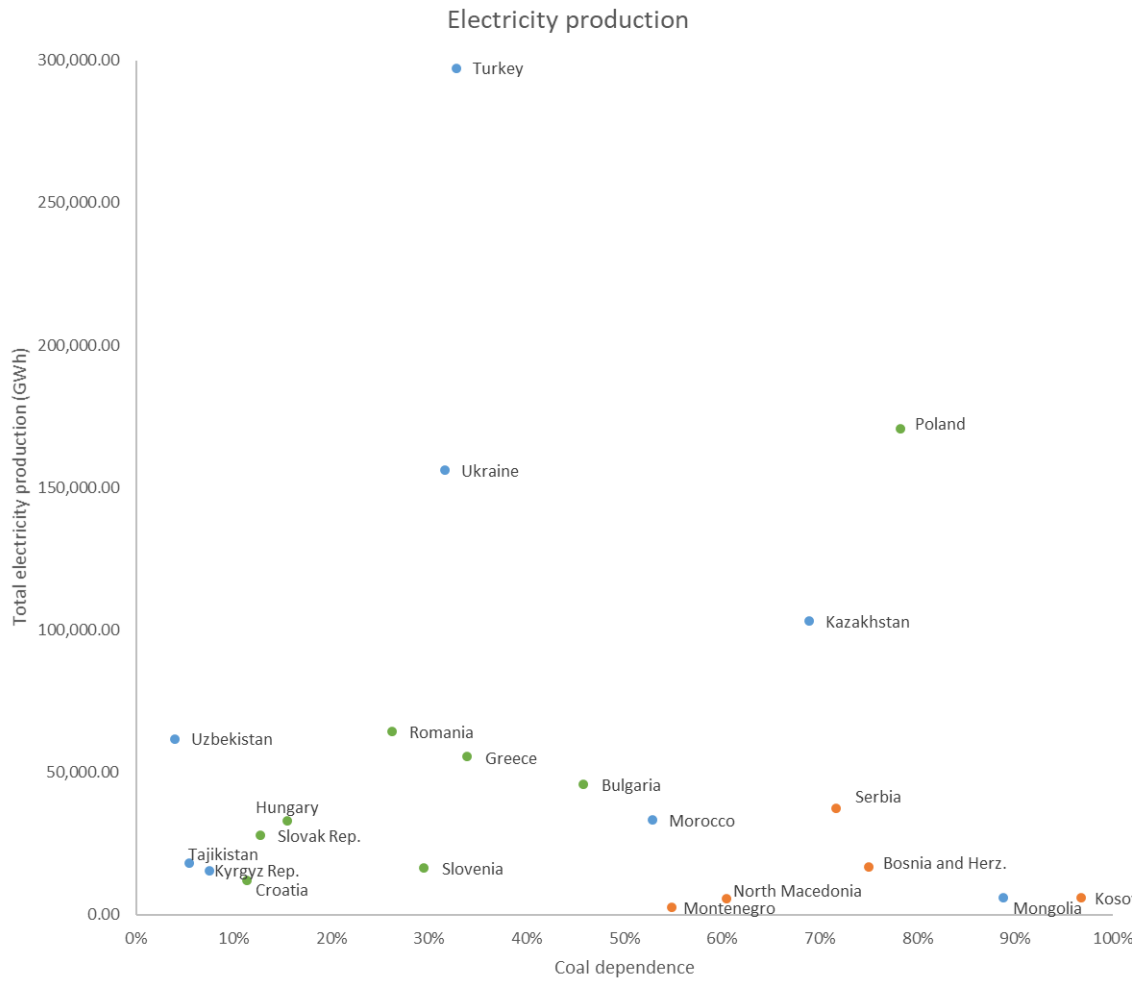
Of the fossil fuel assets at risk of becoming stranded due to the green economy transition, coal power stations and coal mines are prominent among those thought to be particularly vulnerable in the short term. This is due to a combination of factors, such as the existence of competitive alternative technologies (for example, renewables), high carbon intensity and policy responses including carbon pricing.[22] Therefore, an initial assessment has been undertaken of regional vulnerabilities across the EBRD economies that are most reliant on coal, to ascertain where the Bank could most usefully deploy its support in the near term. A full list of these specific coal regions at the sub-national level in EBRD economies is shown in Annex A. An assessment of coal assets in the EBRD regions will be provided in a forthcoming EBRD publication.

In the electricity sector, around 240 coal-fired power plants operate in the EBRD regions, producing in excess of 670 TWh of electricity per year. This accounts for a quarter of all electricity generation in the EBRD regions, with the largest users in Russia, Poland, Turkey, Kazakhstan and Ukraine (see Chart 6).

[22] It is important here to distinguish between different types of coal: the so-called "low-rank"(such as lignite and sub-bituminous coal), which is most commonly used in electricity generation and is characterised by lower energy density, and the "hard" varieties of bituminous coal and anthracite that have a higher energy density and are more commonly used in industrial activities.

There is significant regional variation; within the EU, Poland's large volumes of coal for electricity generation and their share in the energy mix stand out, while Bulgaria, Romania and Greece have large power markets, with between 25 and 50 per cent of generation from coal. The Western Balkans countries, excluding Albania, have small power sectors, but on average the region relies on coal for more than 70 per cent of its electricity, with the largest volume of coal use in Serbia and the largest share of generation in Kosovo.

Chart 6. Coal as a share of total electricity generation, 2018



Source: IEA World Energy Balances (2019).

Note: Russia is not shown but has total generation of around 1.1 million GWh and a coal dependence of around 1 per cent. Countries that have less than 1 per cent of coal use in their energy generation (Belarus, Georgia, Estonia and Moldova) or that do not use coal are not shown. Coal used for heating is also not shown. Tajikistan, Mongolia and Greece have the highest use of coal in heat production, while Russia, Ukraine, Kazakhstan and Poland lead in terms of absolute use. Some countries rely on shale oil – Lebanon (~95 per cent), Cyprus (~90 per cent) and Estonia (~80 per cent).

To supply these plants, there are more than 420 coal mines, producing around 1,000 Mt of coal per year. In total, the EBRD regions have around 25 per cent of global coal reserves, 15 per cent of which are in Russia. While some mines are nearly depleted, in many others, significant coal reserves exist. In all EBRD economies, apart from Morocco, which imports its coal, supply is primarily sourced domestically from local mines, with limited exports (exceptions are Kazakhstan and Mongolia, which export substantial amounts). Mirroring the size of their power markets, the largest producers are in Poland, Greece, Bulgaria and Romania in the EU; Serbia in the Western Balkans; and elsewhere, Kazakhstan, Turkey, Ukraine and Mongolia.

These assets generate significant employment in the EBRD regions. An estimated 1.1 million jobs and livelihoods are directly or indirectly linked to coal activities in coal-fired power plants and coal mines. Of these, around 640,000 are direct jobs, with mining, which is more labour-intensive than power generation, making up around 75 per cent of the total. It has been estimated that these activities also indirectly

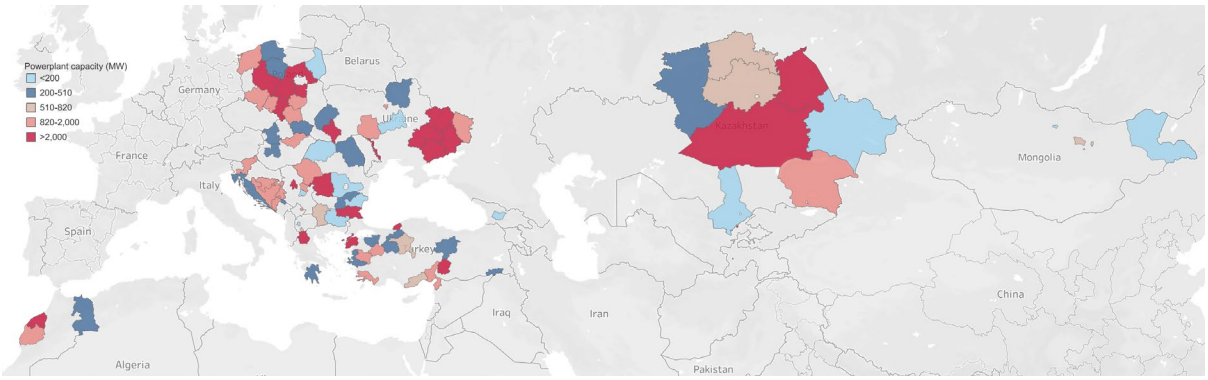
support around 500,000 jobs in the associated coal supply chain and through employment generated in the local economy.[23]

Coal assets and related employment are highly concentrated in specific sub-national regions. Charts 7 and 8 show the specific regions where assets are located, with the largest concentrations of both coal power plants and coalmines in the EU found in Poland (for example, in the Śląskie, Dolnośląskie and Łódzkie regions), Romania (Sud-Vest Oltenia and Vest), Greece (Dytiki Makedonia) and Bulgaria (Yugoiztochen). Outside the EU, large coal regions can be found in Russia (in the Siberian and Far Eastern federal districts), Kazakhstan (Pavlodar and Karaganda) and Ukraine (Donetsk), among other countries.

The decline of coal use could have significant local employment effects in the near term. In the EU, it is estimated that approximately 80 per cent of coal-fired electricity capacity in the eight EBRD countries of operations in the EU that use coal will need to be closed by 2030 to meet EU targets.[24] This would lead potentially to 90,000 job losses (of which over 80 per cent would be in the supply chain and surrounding economy). The largest impacts would be felt, in declining order of size, in Poland, Romania, Bulgaria, Greece, Hungary, the Slovak Republic and Slovenia. Any job losses would result in impacts that are primarily localised in the specific regions where the assets are located, including in the Śląskie and Małopolskie regions in Poland (around 45,000 direct jobs at risk), Sud-Vest Oltenia and Vest in Romania (around 15,000) and Yugoiztochen in Bulgaria (around 10,000 jobs at risk). While these employment impacts are small relative to the overall size of the respective labour markets, their local implications can be significant.

Similar pressures will be felt in EBRD economies outside the EU, although for different reasons. First, these pressures will be felt due to the stringency and ambition of national energy and climate change policy in the near term (this appears to be most pertinent in Ukraine and Kazakhstan, based on their current strategies). Second, countries working towards policy alignment with the EU will need to comply with the Large Combustion Plants Directive (LCPD) and the Industrial Emissions Directive (this applies particularly to EU-accession countries Albania, Montenegro, North Macedonia and Serbia). Third, because of increasingly cost-competitive alternatives to coal for electricity generation, whether gas or renewables, it will not be cost-competitive to continue operating power assets and mines, even when the sunk costs are taken into account.

Chart 7. Coal power-plant capacity by sub-national region in economies where the EBRD invests



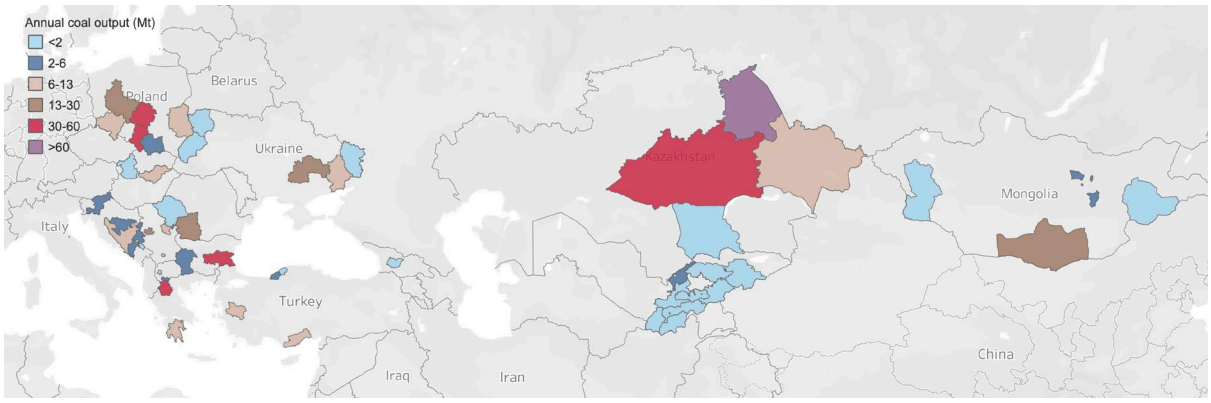
Sources: See Annex A for a full list of sources.

Note: Data for EU countries are for 2015. For non-EU countries, data are the latest available as set out in Annex A. Due to the gaps in data and to contradictions between different sources, the map should be treated as a broad illustration of the capacity of coal power plants. Precise country-level verification will be undertaken in subsequent stakeholder engagements at the country level. Due to its scale, Russia is not mapped but data are set out in Annex A.

[23] Note that these numbers exclude Uzbekistan, for which reliable data could not be found. Given the scale of mining and coal-fired power in Russia, the absolute number of jobs linked to coal (directly and indirectly) is substantial, making up around a third of all jobs. More details will be available in a forthcoming EBRD publication on coal assets in the EBRD regions.

[24] See Alves Dias et al. (2018).

Chart 8. Coal-mining output by sub-national region in economies where the EBRD invests



Sources: See Annex A for the full list of sources.

Note: Data for EU countries are for 2015. For non-EU countries, data are the latest available as set out in Annex A. Due to the gaps in data and to contradictions between different sources, the map should be treated as a broad illustration of coal-mining output. Precise country-level verification will be undertaken in subsequent stakeholder engagements at the country level. Russia could not be mapped with the same regional disaggregation as other countries and is therefore not included in this map, but data for Russia are set out in Annex A.

Broader considerations of economic inclusion in the EBRD regions

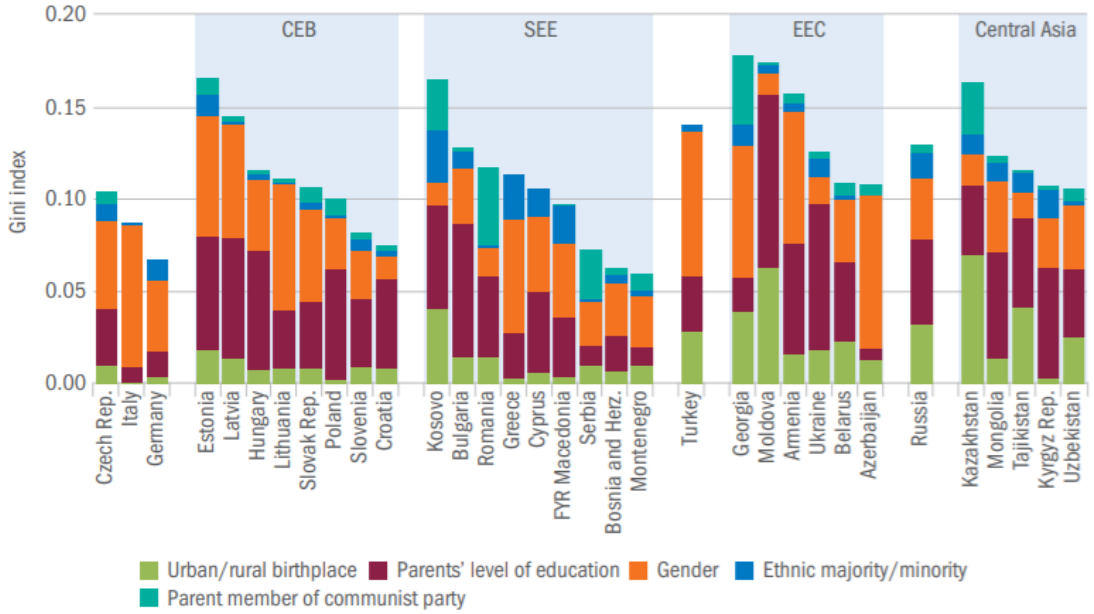
The proposed approach to just transition attempts to address a future growth in inequality associated with a low-carbon transition. In that regard, the EBRD's response should be crafted in line with broader considerations of inequality in the regions where it works.

Since the start of the transition to open-market economies, countries in the EBRD regions have achieved remarkable progress across a range of areas. Income convergence with western Europe has progressed, albeit at a slower pace since the 2008 financial crisis, and people are just as satisfied with their lives as their peers are elsewhere. However, despite this broadly positive picture, not everyone has benefited. Indeed, more than half of all people in the regions have not seen their earnings converge with those of people living in western European countries. Furthermore, those in the bottom 23 per cent of the income distribution are worse off than they were in 1989. Across most of the EBRD regions (with the exception of the SEMED region and Turkey), income inequality has increased sharply since the start of the transition process; however, it remains moderate in comparison with other parts of the world.[25]

These unequal outcomes are partly linked to inequality of opportunities, which in the EBRD regions remains higher than in western European countries such as Germany. Outcomes such as income, wellbeing, employment, job quality and skills are shaped by socioeconomic circumstances. Those who lack access to opportunity due to factors beyond their control, such as their gender or place of birth, or their ethnicity or parents' level of education, tend to live shorter and less healthy lives and are unable to break the vicious circle of poor education, low skills and limited employment prospects. These factors, which are inherently unfair, vary by country, but account for an average of 20 to 50 per cent of total income inequality in the EBRD regions (see Chart 10). They shape the lives of young people seeking – but often failing – to enter the labour market, delaying their financial and social independence and lowering lifetime earnings.

[25] See EBRD (2016c).

Chart 9. Factors impacting total inequality of opportunity in terms of income



Source: EBRD *Transition Report 2016-17*, based on the third *Life in Transition Survey* (LiTS III) – see EBRD (2016a).

Note: This chart indicates the percentage of the variation in income in each country explained by five individual circumstances. The relative contributions of these five circumstances are calculated using "Shapley decompositions". See the EBRD *Transition Report 2016-17* for more details.

Unequal access to opportunities also manifests itself geographically. Two-thirds of income inequality in the regions is accounted for by inequality within countries, while one-third is attributable to differences between countries. This in turn drives substantial population shifts, both across and within countries, as people (often those with the highest skills) cross borders to search for enhanced economic opportunities. Overall, this has resulted in a decline in the number of people living in rural areas and secondary urban centres, and an increase in the population density of major cities. Moreover, in 45 per cent of economies in the EBRD regions, more than half of all people live in places where localised population density has declined since 2000.

The approach to supporting a just transition must address some of these underlying drivers of inequality – particularly as the region looks to recover from the impacts of Covid-19. The coronavirus crisis further exacerbates inequality challenges. While it is still too early to understand the full implications of the crisis, it could present challenges to those vulnerable to the green economy transition. For example, the region of Central Asia will be very strongly affected via slowing global demand for oil, gas, metals and other commodities as well as through trade and travel restrictions put in place to contain the spread of Covid-19.[26] This simultaneous interruption of tourism and other sectors creates further challenges for regions to reorient their economic bases, attract investments and invest in human capital. This also increases the barriers for individuals to reskill and switch to employment in alternative sectors.

Just transition is also linked to the transformation of work and to the opportunities that will be available in the future to workers and impacted regions, both within the energy sector and more widely. As set out in the EBRD's *Transition Report 2018-19*, this needs to consider demographic change, the potential role of technology and automation of jobs, and the migration of workers both across and within national borders.

[26] See EBRD (2020).

3. Experience: Insights from historical cases of transition

In developing a set of specific interventions that the EBRD can support in practical ways, it is important to be guided by the Bank's knowledge base, as well as a broader awareness of the types of deep structural change that will be required to deliver a green economy transition. Such structural changes have occurred in the EBRD regions over the past generation as economies have moved towards a market-orientation – with different phases observed from a "first-generation" of market-enabling reforms linked to small-scale privatisation and trade liberalisation in the 1990s, through to a "second-generation" of market-deepening and a "third-generation" of market-sustaining reforms.

In addition to first-hand experience of structural change across the EBRD regions, extensively documented in the EBRD's annual *Transition Report*, the Bank has undertaken a wider review of large-scale changes seen in coal and heavy industries in other parts of the world. This includes recent efforts with regard to national strategy, including in Germany, Scotland and Spain.[27]

These transitions, which cause industries to decline, can have a significant impact on local communities through associated job losses, especially where the local economy relies solely on one particular economic activity. They can also disproportionately affect certain groups in society (including women, low-skilled workers or those in self-employment who are part of the wider local value chain). Moreover, they can trigger undesirable impacts on consumers in vulnerable groups. Often the experience of supporting these transitions is about how to ease the process and reduce any painful consequences.

Set out below is a series of insights from experience in regions that have transitioned away from coal, mining and heavy industry. These insights serve to inform how the EBRD can support a just transition in its regions, given the Bank's mandate and business model.[28] (Further detail on historical cases, analysed in countries and regions that have varying degrees of economic development and institutional maturity, can be found in a forthcoming EBRD paper, Insights from historical cases of transition.) The insights cover the following:

(1) the challenge of transitions in mining and industrial regions
(2) insights from strategic planning at the regional level
(3) insights from developing institutions to implement change
(4) insights from developing institutions to implement change

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The challenge of transitions in mining and industrial regions

A consequence of mine and industry closures in the 20th and 21st centuries has been the loss of direct and indirect jobs attributable to those activities, and often the short-term difficulty of finding comparable sources of income for those affected. Subsequent repercussions can be severe because these industries shape surrounding communities. Deindustrialisation and mine closure can result in unemployment, an increase in poverty, and demographic decline as people leave affected regions to seek better opportunities elsewhere. These impacts compound each other, causing affected communities to suffer a vicious circle of rising unemployment rates, economic stagnation and a fall in public revenue.

There can also be significant social and cultural impacts such as social isolation and loss of identity for workers after mine closures, as well as psychological effects among their wider communities. This implies that, as well as focusing on economic and financial impacts, a just transition must seek to tackle broader social issues. Successful conversions are often long term and even intergenerational, meaning that "quick fixes" focused solely on the immediate needs of workers directly employed in the industries, rather than on the wider community, are likely to be insufficient.

In attempting to draw on experience, a series of insights on managing change can be found, which can then inform how to shape the just transition agenda. These insights emerge around three areas: strategic planning, institutions to implement change and the design of specific interventions (see Box 1).

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[27] Detailed national strategies are emerging in some countries. See for example Ministry for Ecological Transition and Demographic Challenge (2019), German Commission on Growth, Structural Change and Employment (2019), and Scottish Just Transition Commission (2020).

[28] The review of experience analysed in this section is limited in scope, given the different perspectives relevant to just transition. For example, this section does not analyse the experience of phasing out fossil fuel subsidies or of introducing carbon pricing that supports vulnerable consumers. Evidence of how to design climate policy to address the distributional consequences of climate change policy can be found in: Rentschler (2018) and Büchs et al (2011). This section does not tackle experience in regions dealing with the impacts of climate change either, although some insights will remain valid for such regions.

Strategic planning

Examples of successful strategic planning normally include early engagement with a wide range of stakeholders to ensure the process is inclusive and to build consensus with regard to actions and roles (lesson 1). Where facilities will need to either adapt their operations substantially, or close down, engaging in the process well ahead of time is important, preferably during the profitable stages of operation. Often, engagement does not take place during these early stages, as was seen in the closure of a nickel mine in Ravensthorpe, Australia. But it is crucial to start early, because transformation in undiversified regions can take decades (see, for instance, the iron mining city of Atikokan in Canada, the former coal region of Limburg in the Netherlands and the rust belt in Germany.)

Moreover, given the localised nature of impact, locally led approaches are important for delivering solutions that correspond to the needs and visions of workers and residents. An approach of this kind often involves coordination between different levels of administration, with local and regional authorities in the lead, designing policies in line with national policy frameworks (lesson 2). A locally led approach, working directly with municipal governments, has also been demonstrated successfully in the EBRD Green Cities programme.

Strategic plans can differ in their approach. They can be short-term and narrow – focusing only on the financial losses of the affected workers – or take a more long-term and holistic approach comprising a wider set of issues such as social services and infrastructure, and regional schemes for economic diversification. Historical evidence shows that holistic approaches, while costlier, are more likely to deliver just transition outcomes, particularly when combined with iterative policy experimentation (lesson 3). The experience of the decline of steelworks in the United Kingdom shows that policies were implemented during the height of industrial decline in the 1970s, but that since then, various approaches have been trialled and developed. Some approaches were linked directly to the steel industry or through broader policies on regional development and urban regeneration. Thus, the importance of small-scale pilots to aid evidence-based policy learning can be an important part of finding out what works.

Institutions to implement change

Having institutions – with the requisite capacity – is vital to implementing change. Local capacity and an effective institutional structure led by local and regional authorities to design and deliver multi-dimensional strategic plans are crucial (lesson 4). Sometimes this requires the setting-up of new and innovative agencies dedicated to implementation. In Australia, the Latrobe Valley Authority was set up in a coal-mining region and designed to support workers and facilitate economic development in that region, but was given a flexible mandate to forge close partnerships with the community and industry.

The action of the public sector is critical for success – be it in leading strategy design, investing in social and economic infrastructure, securing financial resources or preparing a specific policy response. But the private sector, too, can play a principal role, including companies (in some cases, state-owned or state-controlled) that might be closing down (lesson 5). In particular, an effective interaction between the public and private sectors can achieve sustainable policy responses and long-term outcomes. Indeed, the behaviour of large companies can have a big impact on the local community. For companies facing significant downscaling of production, a common strategy has been to diversify their core activities, leading to reduced damage for the local community. Examples include heavy-industry firms such as RAG and Thyssenkrupp in Germany, which adapted their business models over time.

Linked to its experience of supporting transition in Russia during the 1990s, the EBRD has applied a "cluster approach" to target investments in specific geographical areas for enhanced impact. The insight here was that working in regions that are open to reforms, and clustering activities, can have a large impact at the local level. However, this does require strong public-sector leadership at the national and regional level, as well as coordination with donors and other institutions.[29]

[29] As set out in EBRD (2002).

The design of specific interventions

Which specific interventions appear to work? It is clearly important to support economic development and alternative sources of employment, and where alternative opportunities are not forthcoming, a "managed retreat" (whereby people are given the tools – for example, through reskilling – to relocate to other areas) may be more appropriate (lesson 6). Successful development of new industries or new technologies in regions usually builds on inherited regional capabilities, and this is the basis of the EU's "smart specialisation" approach. However, the closure of a large company or industry will typically not be replaced by another large company or industry and, although employment opportunities may be generated, they will not necessarily offer the same salaries, status or benefits, or need the same skills. Therefore, attracting new private sector investment to a region can be challenging.

Which prospective sectors of economic activities will open up is a question that regional approaches address. Past cases of transition in mining areas suggest that the promotion of tourism and construction (including energy and infrastructure) can help generate new jobs, at least in the medium term. The green economy transition presents another opportunity. Renewable energy is cited as a natural destination for former miners because of similarities in the skillsets required and the ease with which mining land can be converted into a renewable energy site. However, that employment potential can be restricted by the resources of the site and by the relatively low ratio of jobs per unit of output. Therefore, it is crucial to expand options and tap into other green opportunities – such as in buildings, agribusiness, sustainable tourism and environmental remediation (lesson 7).

Support for the people and communities impacted by these changes is essential and should focus on workers impacted directly, but should also address broader impacts in the supply chain and surrounding community (lesson 8). In this context, the focus is not just on identifying new employment opportunities but also on ensuring that everyone, including women and vulnerable groups, has inclusive access to these to these opportunities. Both passive and active labour-policy measures have been adopted to support workers in past transitions. Well-designed, early engagement with passive labour-policy measures such as early retirement, adjustment allowances and compensation schemes is helpful in the short term – including for the reduction of conflict – but does not address long-term issues. Therefore, to improve outcomes, active labour market policies are required, such as employment services, education and training, relocation support and support for the development of SMEs. These programmes should be designed and implemented in coordination with educational centres, private businesses and the sectors that are in decline, to meet the future needs of the labour market and ensure employability. The approaches should focus on job quality rather than on narrowly counting job numbers.

Mental health support and financial counselling are newer approaches that can add to the success of relocation and decrease the stress linked to changing jobs. This combination has been applied with relative success in the case of the German Ruhr Valley and the Latrobe Valley region. In the latter case, the region also extended training and job-seeker support to contractors and to workers' family members, given the labour market impacts in the supply chain.

Environmental legacies are a critical factor, including the proper remediation and rehabilitation of former industrial and mining sites (lesson 9). Such legacies remain a widespread challenge that, if neglected, can have negative environmental and health and safety impacts where the basic principles of environmental rehabilitation (that remediation and rehabilitation should be complete and that costs should not be borne by the public, in line with the "polluter pays" principle) are not met. Once rehabilitated, the land can be used for new activities. A failure to do this can deter new activities and populations. Thus, it is important to set up appropriate regulations and resources for cleaning up and preparing sites for reuse.

Lastly, investing in new and upgraded infrastructure has an important role to play in affected regions (lesson 10). In Rochester, New York, after the decline of the Kodak factory, which was the largest employer in the area, repurposing the existing infrastructure helped overcome financial constraints for new businesses. As seen widely across the EBRD regions, a lack of high-quality infrastructure (transport, buildings or digital) can also hinder private investment. Interconnections to other regions, including via road and rail, are important as they could stimulate job creation in a given region, or improve workers' access to jobs in surrounding regions.

Box 1. Insights from historical cases of successful transitions in mining and energy-intensive industries

Strategic planning

Lesson 1: There is early engagement with a wide range of stakeholders, ideally prior to any negative impact of transition, to ensure the process is inclusive and builds consensus about actions and roles.

Lesson 2: The approach is locally owned, with state delivery led by municipal and regional authorities, in collaboration with national-level authorities.

Lesson 3: A comprehensive assessment of challenges and opportunities guides future interventions. The plan is holistic, addresses multi-faceted regional development issues and pre-existing inequalities, focuses on short- and long-term issues and is implemented through pilots to aid evidence-based policy learning.

Institutions to implement change

Lesson 4: An effective institutional structure, led by high-capacity regional authorities in collaboration with national government, is required to fulfil multi-dimensional strategic plans.

Lesson 5: A strong public sector response is needed, although the role and behaviour of the private sector can be transformative in delivering sustainable new economic activities, including for companies that are at risk of closing down.

Design of specific interventions

Lesson 6: Economic development strategies are tailored to the specific needs of the affected community and in some cases a partial "managed retreat" is a valid response, particularly where attracting new investment through the private sector is challenging.

Lesson 7: Significant opportunities may arise from the green economy transition – from the growth of sectors such as green buildings, bio-agriculture or eco-tourism, as well as the conversion of stranded assets.

Lesson 8: Workers (both directly and indirectly impacted) are supported to find new jobs of a good quality through skills policies closely tied to the needs of local labour markets, with broader support such as job-finding services, mental health support and financial counselling.

Lesson 9: The environmental legacies of high-carbon industries should be addressed

Lesson 10: Focused investments that enable physical and digital infrastructure have an important role to play – including those that strengthen the economic integration of the affected region with nearby economic centres.

4. Response: How the EBRD will support a just transition in its operations

Given the vision, challenge and insights laid out in the previous sections of this paper, the Bank's response to supporting a just transition should be a cross-cutting theme in its efforts to support the green economy transition. The response must also be in line with the Bank´s mandate, its six transition qualities and operational model.

As described earlier in this paper, the Bank already plays a role in supporting a just transition across its regions, through its green finance, approach to economic inclusion and regional integration, and support for SMEs. Building on its existing policy and financing activities, the Bank will enhance this focus on just transition.

It will do so by undertaking policy activities and commercial financing that ensure the benefits of a green economy transition are shared widely, while also supporting those who stand to lose economically from a green economy transition.[30] The Bank's approach will prioritise access to alternative economic opportunities for affected regions and populations.[31] And it will include support for ambitious climate policies, which also incorporate affordability considerations into their design. This support will ensure momentum is not lost, and is particularly important in light of the economic and social impacts of Covid-19. As the EBRD will continue to promote investment and policy reforms that reduce physical climate risk it will consider at a later stage integrating just transition considerations into those activities.[32]

Given the importance of strategic planning to overcome some of the challenges, the EBRD will pilot more targeted support in a small number of countries. To guide specific interventions, the EBRD will use a "just transition diagnostic" – an assessment of transition challenges and opportunities, prepared in collaboration with key actors – as the basis for investment, policy and decisions. In regions where such diagnostics already exist, the Bank will use them for guidance. For example, within the European Union, "territorial just transition plans" will identify the strategic needs of specific regions. In countries where diagnostics of this kind do not yet exist, the EBRD may, at the request of the relevant authorities, take a leading role in facilitating their preparation, especially in countries or regions that have a lower capacity for this work.

The aim will be to target, through tailor-made interventions, those regions, communities and companies that are committed to supporting a just transition. Recognising that countries have different starting points and capacities, the EBRD will use its experience of dialogue on policy reform to facilitate local, regional and national discussions about decarbonisation and just transition in those jurisdictions where the discussion is at an early stage.

Support for just transition will also seek to address other inequalities, in line with the Bank's strategies on inclusion and gender. In practice, this means identifying and understanding pre-existing social inequalities, as part of the diagnostic process, which are then factored into the package of EBRD responses.

The Bank will also continue to identify investment and policy engagements that can accelerate a just transition. One important area of intervention will be working with companies in identifying and managing climate change risks. These companies, such as energy utilities, are often the main employer in a local area, own the fossil fuel assets and will be crucial to implementing a just transition. The EBRD will work closely with those clients to improve corporate governance in relation to climate issues (in line with the recommendations of bodies such as the Task Force on Climate-related Financial Disclosures), designing business plans consistent with what is required for a green economy transition, and assisting workers through this transition.

In supporting governments, regional authorities and firms in a just transition, the Bank acknowledges that capacity-building for local stakeholders – in investment preparation and policy design alike – will be crucial.

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[30] The EBRD will also be guided by internationally recognised principles such as those in ILO (2015).

[31] "Carbon-intensive regions" will be assessed based on the carbon intensity of the region and on employment in carbon-intensive activities and focusing on regions that are experiencing barriers to economic opportunity linked to recent declines in carbon-intensive activities.

[32] This includes incorporating just transition considerations into policy design for those policies that address physical climate change.

The EBRD's priority themes to support a just transition

EBRD interventions to support a just transition will be built around three priority themes to guide the Bank's investments, policy support or technical cooperation.

The first theme is the financing of green economy transition investments and the conversion of vulnerable assets into alternatives. This will be guided by the Banks's GET approach and will attempt to identify those activities likely to create local employment. It will include: the conversion of stranded assets; the remediation and rehabilitation of land and other assets that are legacies of carbon-intensive activities; and other sustainable infrastructure investments such as those for green buildings, the circular economy, district heating with renewables, eco-tourism and so on. It will also include supporting industrial sectors whose carbon intensity will be hard to abate, by pushing technological and environmental standards well beyond EU legislation and positioning them as global best practice. An example of this is the EBRD´s recent €90 million investment in Poland, where the former site of an aluminium facility was repurposed to produce batteries for electric vehicles.

These investments will be delivered by tailoring existing EBRD programmes that support a green economy transition – including direct financing programmes for industry, the EBRD Green Cities programme, Green Economy Financing Facilities – and, where necessary, are accompanied by advice on policy design. In parallel, the EBRD may also work to design policy frameworks such as Nationally Determined Contributions that can help deliver a green economy transition, and work at the corporate level to improve corporate governance with regard to climate issues.

A second theme will be enabling workers to access alternative jobs, including through reskilling and enhancing entrepreneurship in any workforce put at risk by the transition. This will include supporting companies going through the transition, with advisory measures for inclusive workforce planning and for developing tailored reskilling and upskilling programmes that will help to fill new internal and external roles for which there will be an economic need. An example of prior EBRD activities in this area includes dialogue with representatives of the Turkish business sector, policymakers and civil society organisations to overcome the challenge of significant youth unemployment while employers are also struggling to find workers with certain skills.

These interventions will build on the EBRD's existing approach to economic inclusion which already looks to address regional inclusion challenges. They will also build on part of the Bank's approach to environmental and social due diligence in projects, which can include specific activities around the retrenchment of workers.

A third theme will be the financing of investments that support economic development at the regional level and are likely to generate local employment and deliver economic diversification. This work could include tailored financial and technical advisory support for new and growing SMEs, as well as for entrepreneurs, or support through technical assistance and financing for sustainable infrastructure projects. For example, it could encompass investments in tourism, where as part of the EBRD's property and tourism strategy, the Bank seeks to invest in the development of an inclusive and competitive hospitality and tourism sector. This third theme can also support regional or cross-border infrastructure, which may stimulate the affected region, creating synergies with nearby economic centres and facilitating regional integration and inclusiveness.

Through its Advice for Small Businesses programme and SME financing programme, the EBRD already has measures in place that provide SMEs and entrepreneurs with access to finance and technical assistance. The Bank also has substantial experiencing of investing in sustainable infrastructure, in diverse sectors such as transport, agribusiness, energy, and information and communication technologies.

Priority short-term activities

The EBRD will take three immediate steps to enhance its work on just transition.

The first step will be to undertake targeted support for just transition in a small number of economies in the EBRD regions. In these, the Bank will deploy a just transition diagnostic on a pilot basis. The pilots will allow policy experimentation and evidence-based learning to help adapt the approach before it is applied in other jurisdictions. In the absence of a diagnostic, the Bank will also continue to seek out investment and policy opportunities that support a just transition.

The second step will be to internalise the just transition concept into the EBRD's work by fully integrating it into the Bank's transition impact methodology, relevant strategic documents and related selection of projects and policy engagement. This will include the incorporation of the EBRD's approach to just transition into its strategic directions for the future. The forthcoming Strategic and Capital Framework will

be among the documents that detail these directions, as will the Bank's country strategies and updates to its approaches to green economy transition and economic inclusion.

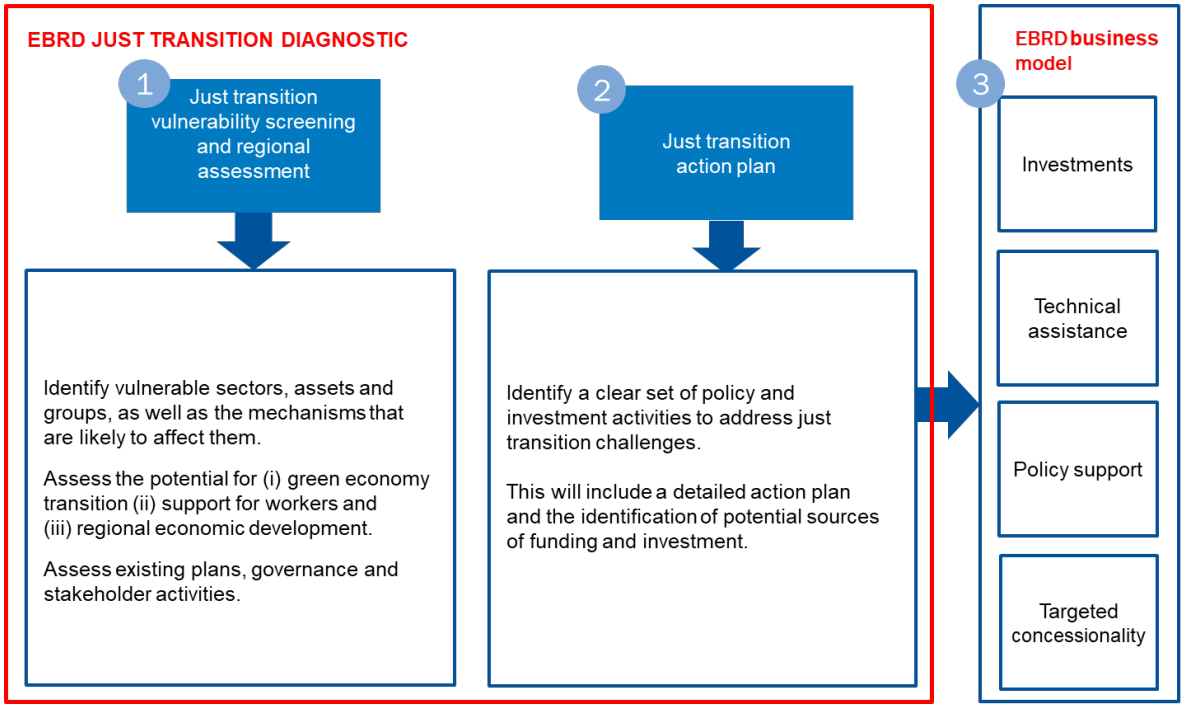
As a third step, the EBRD will build partnerships with other institutions also working to achieve a just transition. These partners will include both public and private institutions that have systemic impact at the sectoral, regional, national and international levels, deploying concessional finance to de-risk new areas of investment and bringing in appropriate technical assistance.

An overview of the EBRD approach to a just transition diagnostic

The EBRD just transition diagnostic will comprise two sequential steps, which will be undertaken in collaboration with stakeholders (such as national and regional governments, companies and civil society) and will guide their actions. As Chart 10 shows, these steps are:

- a screening for vulnerability to just transition, and a regional assessment: mapping those regions that could lose a significant number jobs and economic activity because of a low-carbon transition and highlighting the challenges and opportunities in each of the vulnerable regions identified.
- Just transition action plan: setting out appropriate interventions, disaggregated between those that the EBRD could lead and those for other actors.

Chart 10. Overview of the EBRD's approach to a just transition diagnostic

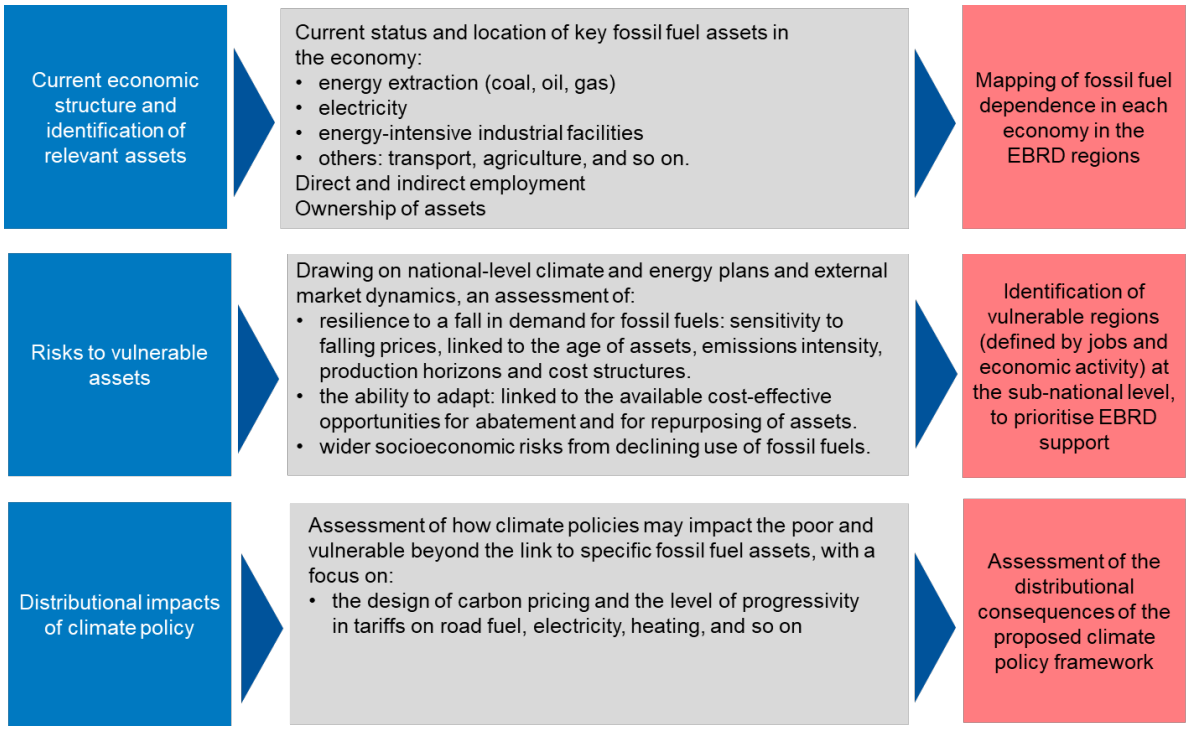


The just transition vulnerability screening and regional assessment will aim to broadly identify geographical areas of concern in certain countries, and to highlight challenges and opportunities relevant to those areas. These areas will include coal and former mining regions as well as areas with other carbon-intensive activities. The work will also include an assessment of the potential distributional impacts of climate policy. The purpose of this step is to identify follow-on activities as part of the action plan (see Charts 11 and 12).

Once a specific area has been highlighted, a more granular assessment at the regional level will be undertaken. This will focus on the three themes of the EBRD's just transition initiative: the green economy transition, support for workers, and regional economic development at the regional level. It will be complemented by an analysis of existing plans and financial structures as well as the composition and skills of the institutions leading the transition. To ensure such analysis adds value, the work will build on current strategies and plans, to highlight specific areas where further detailed assessment would be valuable. The granular assessment will be delivered together with relevant stakeholders.

In identifying specific geographic areas where just transition is relevant, the EBRD will follow the regional classification that each country uses. In the EBRD regions, such diagnostics are likely to be undertaken at either the Nomenclature of Territorial Units for Statistics (NUTS) 3 level or the more granular NUTS 2 level of sub-regional demarcation. For E[33]BRD economies outside the EU, diagnostics will be conducted at the regional level, equivalent to NUTS 2 and NUTS 3. In certain cases, a different geographical scope could be used, for instance the municipal level if added to a Green City Action Plan, as part of the EBRD's Green Cities programme.

Chart 11. Components of a just transition vulnerability screening and regional assessment (1)



[33] According to the NUTS 2015 classification valid from 1 January 2018 there are 104 regions at the NUTS 1 region level, 281 at NUTS 2 and 1348 at NUTS 3. NUTS 3 was used as the primary territorial unit for the initial assessment of regions within the EU that could access the EU Just Transition Fund.

Chart 12. Components of a just transition vulnerability screening and regional assessment (2)

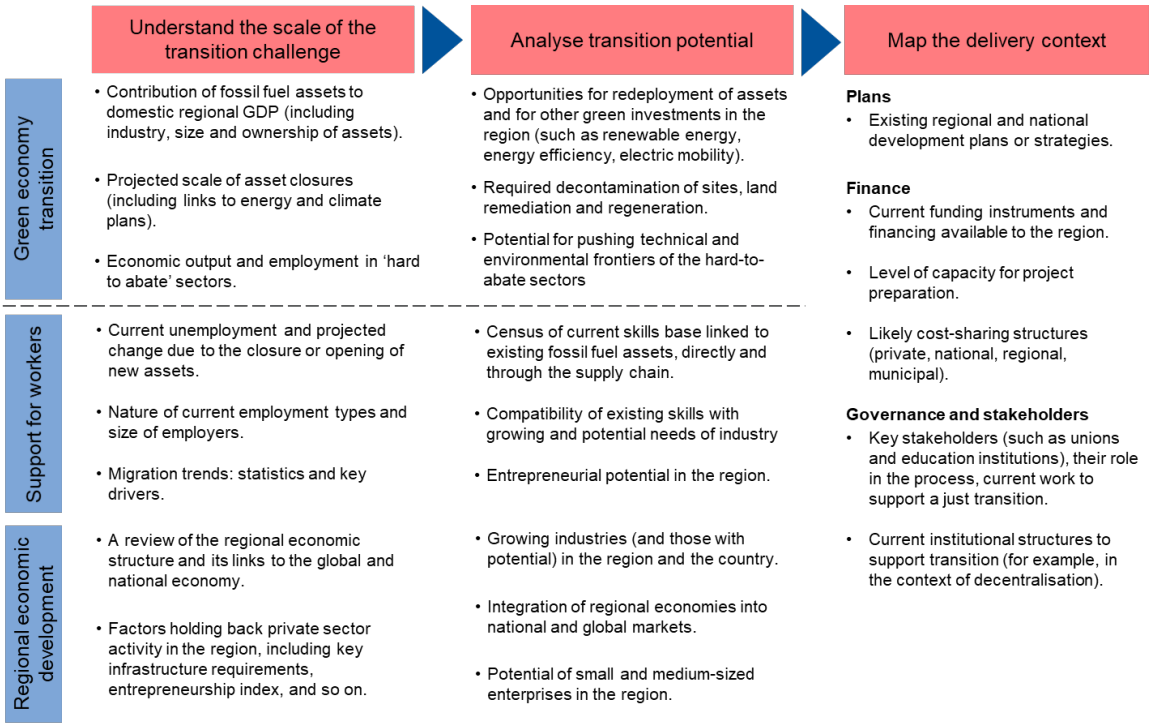
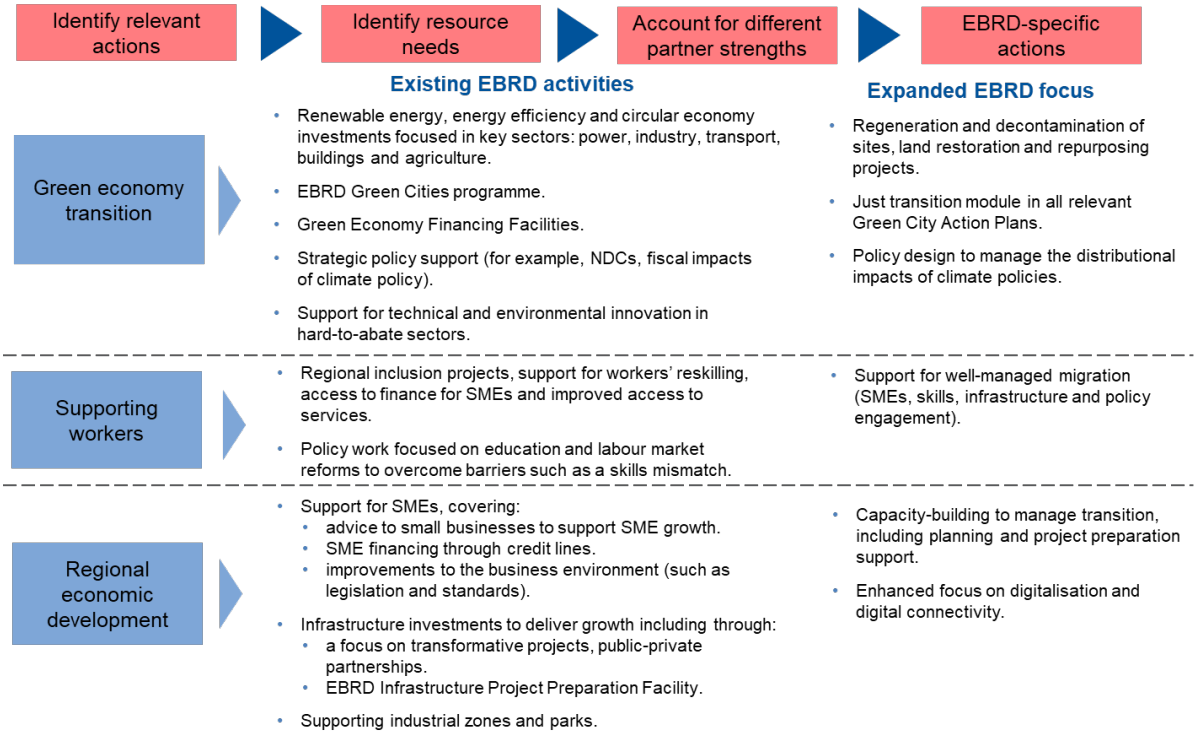


Chart 13. Just transition action plan



In certain cases, where the economic activity of a sub-region is dominated by one or a handful of large companies, the approach highlighted may need to be designed also at the level of these firms. Some of these companies would have transition potential and the Bank is well placed to assist in their transition. While the transition of such firms would typically impact the local community, the Bank will seek to identify in any given case whether involvement at a company level or regional level is likely to have more impact.

Where possible, the Bank will seek to combine company-based intervention with regional initiatives and to incentivise the company to contribute to such initiatives.

Integration into the EBRD's project cycle

Just transition considerations will be embedded into the EBRD's strategy process and into the Bank's cycles of project selection, implementation, monitoring and evaluation. This structured approach enables the EBRD to focus on projects and policy interventions that bring systemic change to markets and institutions.

The EBRD's just transition initiative will be embedded into the Bank's strategic directions for the future, notably in the forthcoming Strategic and Capital Framework and updates to strategies on the green economy transition, economic inclusion and gender.

At the country level, an initial review of issues related to just transition will be conducted in the context of country diagnostics, as part of the EBRD's assessments of transition qualities. Drawing on existing information, this will highlight the main just transition-related challenges and their link with other transition challenges, as per the EBRD´s methodology. The will review then serve as a basis for the formulation of strategic priorities in country strategies.

At the project and policy level, just transition will be integrated into the Bank's approach to ex-ante transition impact, designed to highlight the transition benefits of EBRD interventions. Projects with a just transition element will be labelled as being part of the EBRD's just transition initiative if they fulfil the relevant criteria, ensuring that they can be linked credibly to supporting a just transition. It is foreseen that many "just transition projects" may be packaged under frameworks – for instance, one framework per country or per region or sector – as this would better capture the contribution of different interventions to the scale of the challenge in a well-defined geographical area. Standalone projects will also be allowed, particularly in the early stages of engagement with stakeholders and prior to just transition plans being in place for the jurisdictions concerned (see Box 2 for the initial criteria that will be used for this assessment).

Subsequently, just transition activities will be monitored and evaluated as part of (i) the EBRD's transition impact monitoring systems, (ii) the results frameworks for individual policy and technical cooperation engagements; and (iii) the country strategy results frameworks. Depending on the nature of individual transactions, the indicators used will be extracted from the EBRD's compendium of indicators. A succinct list of indicators used to track the overall pace and performance of the just transition initiative can be found in Annex B.

Box 2. Criteria for individual EBRD projects to be considered as supporting a just transition

1. The project should be deemed consistent with the aims of the Paris Agreement.

2. The project should benefit a geographical area considered vulnerable to the green economy transition or make a systemic change to a high-emission sector at a country level.

3. The project should be aligned with a strategic approach to tackling just transition, for example with a clear link to a national energy and climate plan, territorial just transition plan (or similar) or result in a contribution to the development of such plans or strategies.

4. The project should contribute to the three priority themes of the EBRD's just transition initiative. Where a project can be linked to a formally endorsed strategic plan for just transition a clear link to one theme will suffice, otherwise it is envisaged that two of the three objectives below should be pursued as part of the project:

- supporting a green economy transition, including investments in affordable clean energy, a reduction in GHGs, investments in energy efficiency and renewable energy or support for corporate strategies that lead to the phasing out of fossil fuel-based assets or high-emission business activities.
- support for workers, including through reskilling and upskilling programmes for the affected local workforce which would be undertaken alongside an EBRD investment.
- support for regional economic development. This includes financing and advising local firms (including SMEs) and investing in sustainable infrastructure, making the region more attractive for businesses, improving regional integration and interconnectivity and providing alternative economic activity.

5. The project should not do any significant harm to any other environmental objective.

The EBRD will not finance budgetary support for municipalities, regions and/or governments to deal with the social or economic costs of asset closures nor will it provide compensation packages for affected workers or communities. In addition, the EBRD will not provide grants and other types of incentives to public authorities to develop their own programmes. This will not exclude the Bank from providing loans to such municipalities or state-owned enterprises to ensure the implementation of priority investments clearly linked to just transition objectives.

The criteria set out here act as an operational guide for what constitutes a credible just transition project. They will be reassessed and possibly adapted over time.

5. Partnerships: How the EBRD will work with others

Strategic partnerships are critical for the successful development of the EBRD's just transition initiative and for supporting a just transition in general. No institution can deliver singlehandedly the ambitious objectives of a just transition, and therefore the EBRD will work together with a range of actors, looking for leverage and complementarity. These will include national and regional governments and municipalities concerned, European Union institutions, multilateral development banks, civil society organisations, business associations and any other strategic partner relevant to the region targeted.

The EBRD will also seek to partner with donors, to create concessional and blended financing structures that can help overcome the significant market barriers and other obstacles to financing which the most affected EBRD regions face, and to meet increasing demand from EBRD clients and policymakers for support in this priority area.

Strategic partnerships – European Union

Through its European Green Deal, the EU envisages that Europe will becoming the world's first climate-neutral continent by 2050. Measures planned range from cutting emissions and investing in research and innovation and new businesses to preserving the EU's natural environment.

The European Green Deal Investment Plan is the investment pillar of the European Green Deal. Through the EU budget and associated instruments it aims to mobilise at least €1 trillion of private and public investments by 2030 in support of the EU climate agenda. As part of the Investment Plan, the Just Transition Mechanism ensures that the green transition is socially just, through a financial package which is expected to mobilise at least €150 billion over the period 2021-27.

The financial package of the Just Transition Mechanism is made up of three pillars:

(1) The Just Transition Fund consists of €40 billion to be used primarily as grants, with a preliminary allocation of €21 billion to the EBRD countries of operations in the EU (53 per cent of the total Fund),[34] and access to the funds predicated on the preparation of just transition plans.[35]

(2) The "just transition scheme" under the InvestEU scheme, aimed at mobilising private-sector investments through dedicated incentives for implementing partners, may be offered via fees or more advantageous risk coverage for projects to be implemented in relevant regions.

(3) The public sector loan facility. In total, €1.5 billion from the EU budget and €10 billion from the European Investment Bank (EIB) is expected to mobilise €25-30 billion of investments. This facility will provide concessional loans to the public sector.

In the short term, the EBRD will focus on supporting the European Commission's efforts by working with governments, companies and other key parties in the EU to fulfil just transition objectives, particularly in light of the economic impacts of Covid-19. While the primary focus of the EBRD will be on financing investments, the Bank could support national and regional authorities in a small number of countries in the elaboration of their territorial just transition plans if requested, and only at the demand of the relevant authorities. Such plans are required in order to unlock funding in the period 2021-27, and any role for the EBRD will need to complement that of other stakeholders (for example, the EIB). Linked to these plans, the EBRD will look to finance specific just transition projects. Discussions with other MDBs are ongoing in Greece and Poland, for example.

In parallel, the EBRD will participate in the EU's Just Transition Platform, building on its historic participation in the European Union´s platform for coal regions in transition, which is bringing together stakeholders, both public and private, from affected countries to exchange experience, form alliances and prepare the ground for projects and policy initiatives.

Strategic partnerships – outside the European Union

Outside the EU, the EBRD´s emphasis will initially be on EU neighbourhood countries, including Ukraine and those in the Western Balkans. To support dialogue between carbon-intensive regions across the EU neighbourhood countries, the EBRD is working with the European Commission, the World Bank and the Energy Community Secretariat to set up a platform similar to the EU Just Transition Platform.

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[34] See European Commission (2020).

[35] Final allocations are subject to the adoption of the EU multiannual financial framework for 2021-2027.

The Western Balkans is at a critical juncture in terms of its energy infrastructure choices. Major assets need to be decommissioned and replaced in the short and medium term, particularly as countries across the Western Balkans are in the process of aligning themselves to EU standards. This alignment is expected to be linked to the launch of the EU's Green Agenda for the Western Balkans, which is due later in 2020, with input from the EBRD. The Covid-19 pandemic that is impacting this region presents a risk that action might stall, hence support for a just transition is even more crucial.

In other relevant geographical areas (in other words, Central Asia, Turkey and Morocco, as Annex A highlights), the EBRD will initially seek to start a dialogue with governments and other public administrations about the need to begin just transition conversations early. Any scaling up of dialogue in these countries would not occur until after the completion of pilot engagements.

Strategic partnerships – multilateral development banks

Through their commitment to aligning financial flows with the Paris Agreement, MDBs have committed to "continue working with national development banks and other financial institutions, to develop, by COP26, financing and policy strategies supporting a just transition that promotes economic diversification and inclusion".[36]

The EBRD welcomes cooperation with other multilaterals to ensure a systemic, rather than piecemeal, approach to supporting just transition in different parts of the world. While the mandates and tools of MDBs may differ, there are advantages in having a shared vision, developing a common understanding of best practices, coordinating responses and monitoring mechanisms to optimise the impact that can be achieved.

To this end, the EBRD is working with other MDBs under the auspices of the MDB Paris Alignment Working Group to determine how MDBs can most effectively support a just transition – including through reviewing current policy and financing instruments and seeing where new instruments may be required – and to build strategic partnerships with other multinational and regional organisations. In certain countries, the EBRD will also seek to partner with other MDBs to avoid duplication of effort and to coordinate expertise and resources.

Strategic partnerships – other stakeholders

The EBRD will work with other stakeholders at the regional, national and international level as needed. These stakeholders will include international organisations, research institutes, trade unions, civil society, the financial sector and other development finance institutions. The EBRD will build on current partnerships – for example, through the European Training Foundation and the International Labour Organization – and will also look to expand them to other relevant partners.[37]

At the national level, drawing on the expertise and networks in the EBRD's regional offices, it will be particularly important to reach out to civil society organisations. Here, the Bank will build on successful past engagements with civil society on environmental and social issues, gender, economic inclusion and business development.

The EBRD may work with major firms whose the transition is considered critical for the successful just transition of certain regions. The Bank will assist these firms to design specific strategies that help them to transition out of activity which is not aligned with a carbon emission pathway that reduces the risk of climate change. The EBRD will then look to finance aspects of such strategies while at the same time supporting workers through the transition by introducing inclusive workforce management – working with local or regional authorities as appropriate

Strategic partnerships will also include stakeholders critical for the mobilisation of resources. In particular, the Bank would seek to promote the raising of capital for investments via dedicated bond programmes and would seek to demonstrate their results via corporate disclosures.

Strategic partnerships – donors

Delivering a just transition will in many cases require blended finance. Blended finance involves mixing the Bank's own finance and the finance offered on commercial terms by other investors, with donor-provided concessional finance in either private or public sector projects for the benefit of EBRD clients. These

[36] As set out in the "High Level MDB Statement" published at the 2019 UN Climate Action Summit. See ADB et al. (2019).

[37] As an example, in 2020, the EBRD joined the Green Jobs Assessment Institutions Network (GAIN), an ILO-coordinated network of policy research institutions and experts that analyses the social and employment-related outcomes of green policies. The EBRD will leverage the network's tools and expertise in further guiding its approach to the green economy transition and just transition.

products may include capital expenditure grants, concessional risk-sharing, extended tenors, grace periods and/or below-market interest rates to improve the commercial viability of projects that can demonstrate good (just) transition impact and — due to structural market failures — would not be considered commercially viable. For example, concessional finance is often used in climate change mitigation projects where green benefits are significant, but the market alone would not deliver them. At the EBRD, the use of such finance is guided by a set of principles used by MDBs and other development finance institutions.[38]

Technical cooperation activities will also be required and will need funding. The purpose here is to improve the preparation and implementation of the EBRD's investment projects and to offer advisory and policy services to private and public sector clients. Related to just transition, such activities could include the preparation of just transition diagnostics, specific policy initiatives or project preparation assistance and advisory services. These mechanisms should be deployed in line with regional needs – and should target the regions that have the least resources available.

Any efforts to raise donor funds for just transition will build on and expand existing donor partnerships and facilities. This will include links to EU funds deployed under the Just Transition Mechanism (for example, through dedicated just transition projects as part of InvestEU) and will draw on current EBRD partnerships with other bilateral and multilateral donors.

[38] These principles are set out in the October 2017 summary report of the DFI Working Group on Blended Concessional Finance for Private Sector Projects. In summary, these principles provide guidance in the use of concessional finance in DFI blended operations through five principles: four operational guiding principles (additionality, minimum concessionality, commercial sustainability and reinforcing markets) and a fifth calling for strengthened governance and transparency in handling and using blended concessional finance.

Annex A. Sub-national regions with coal-related assets, in EBRD economies

Table A.1. Coal-related assets of EBRD countries of operations in the European Union

Country	NUTS 2 code	NUTS 2 region	Preliminary territorial eligibility for EU Just Transition Fund	Power plant capacity (MW), 2016	Mine output (MT), 2015
Bulgaria	BG32	Severen tsentralen		290	
	BG33	Severoiztochen		152	
	BG34	Yugoiztochen	Maritsa	3,271	33
	BG41	Yugozapaden	Bobov Dol	816	3
	BG42	Yuzhen tsentralen	5	120	
Croatia	HR03	Jadranska Hrvatska	Istria	335 (no operational)	
	HR04	Kontinentalna Hrvatska	Sisak-Moslavina		
Cyprus	CY00	Cyprus	Vassilikos, Dhkelia		
Estonia	EE00	Estonia	Ida-Viru (North-eastern region)		
Greece	EL53	Dytiki Makedonia	Kozani, Kastoria, Florina	3,401	38
	EL41	North Aegean	Lesvos, Samos, Chios		
	EL42	South Aegean	Rhodes, Mykonos		
	EL43	Crete	Heraklion, Lasithi, Rethimno, Chania		
	EL65	Peloponnisos	Megalopolis (Arcadia)	511	8
Hungary	HU21	Közép-Dunántúl		294	
	HU23	Dél-Dunántúl	Baranya		
	HU31	Észak-Magyarország	Heves	836	9
Latvia	LV00	Latvia	Vidzeme, Latgale		
Lithuania	LT00	Lithuania	Kaunas, Telsiai, Siauliai		
Poland	PL21	Małopolskie		1,214	5
	PL22	Śląskie	Sosnowiecki, Bytomski, Gliwicki, Rybnicki, Tyski, Bielski, Katowicki	5,690	59
	PL41	Wielkopolskie	Koniński	2,553	14
	PL42	Zachodniopomorskie		1,424	
	PL51	Dolnośląskie	Wałbrzyski	1,599	7
	PL52	Opolskie		1,710	
	PL61	Kujawsko-pomorskie		283	
	PL63	Pomorskie		322	
	PL71	Łódzkie		4,960	42
	PL72	Świętokrzyskie		1,575	
	PL81	Lubelskie			9
	PL84	Podlaskie		157	
	PL92	Mazowieckie		3,954	

Table A.1. Coal-related assets of EBRD countries of operations in the EU (continued from previous page)

Country	NUTS 2 code	NUTS 2 region	Preliminary territorial eligibility for EU Just Transition Fund	Power plant capacity (MW), 2016	Mine output (MT), 2015
Romania	RO11	Nord-Vest		145	
	RO12	Centru	Mures		
	RO21	Nord-Est		200	
	RO22	Sud-Est	Galati		
	RO31	Sud-Muntenia	Prahova	150	
	RO41	Sud-Vest Oltenia	Gori, Doli	4,505	24
	RO42	Vest	Hunedoara	1,308	1
Slovak Republic	SK02	Západné Slovensko	Trencin	266	2
	SK04	Východné Slovensko	Kosice	220	
Slovenia	CY00	Cyprus	Zavaska, Savinjska	1,420	3

Source: Alves Dias et al. (2018) and European Commission (2020b). The regions highlighted for the Just Transition Fund also consider factors beyond coal (such as the emissions intensity of industry) to determine the allocation. Regions highlighted above that have no coal assets but are shown as eligible for the EU Just Transition Fund are included on the basis of other high-carbon activity (for example, the Aegean islands in Greece use oil-fired power plants).

Table A.2. Coal-related assets of EBRD economies outside the EU

Country	Region	Coal power plant capacity (MW)	Mine output (MT)	Source
Bosnia and Herzegovina	Federacija Bosne i Hercegovine	1,146	6	EU JRC-PPD-OPEN (2019) CEE (2018)
	Republika Srpska	838	5.1	
Georgia	Imerti	13	0.3	National Statistics Office of Georgia (2017) Energy Community (2017)
Kazakhstan	Almaty	290		For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Nur-Sultan	290		
	East Kazakhstan	308	7.1	
	Karagandy	2,052	24	
	Kostanay		0.1	
	Kyzylorda	84		
	North Kazakhstan	401	3.9	
	Pavlodar	8,445	69.4	
Kosovo	Pristina	1,288	8.2	EU JRC-PPDB-OPEN (2019) CEE (2018)
Kyrgyz Republic	Batken		0.4	National Statistics Committee of the Kyrgyz Republic (2019) Dzhundubaev (2004)
	Naryn		1.1	
	Osh		0.8	
	Zhalalabat		0.2	
Moldova	Tiraspol	2,520		WRI (2019)
Mongolia	Chowd (Khowd)		0.1	For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Ömnögovi (South Gobi)		22.4	
	Orchon	50		
	Ulaanbaatar	745		
Montenegro	Plievlja	225	1.9	CEE (2018) Global Coal Plant Tracker (2019)
Morocco	Casablanca-Settat	2,356		For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Marrakesh-Safi	1,386		
	Oriental	515		
North Macedonia	Bitola (in the Pelagonia statistical region)	699	4.5	For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Novaci (in the Pelagonia statistical region)		2	
	Oslomej (in the Southwestern statistical region)	125	0.9	

Table A.2. Coal-related assets of EBRD economies outside the EU (continued from previous page)

Country	Region	Coal power plant capacity (MW)	Mine output (MT)	Source
Serbia	Belgrade	3,274		For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Branicevo (Southern and Eastern Serbia statistical region)	1,007	8.6	
	Pomoravlje (Šumadija and Western Serbia statistical region)	120		
	Kolubara (Šumadija and Western Serbia statistical region)		28.4	
Russia	**Central Federal District**	**4,405**	**202**	Federal Statistical Service (2019) Global Coal Plant Tracker (2019)
	Moscow oblast	2,725		
	Ryazan	1,230		
	Tula	450		
	Far Eastern Federal District	**8,446**	**72,009**	
	Amur	600		
	Buryatia Republic	1,270		
	Chukotka Autonomous Okrug	98		
	Khabarovsk	1,360		
	Primorsky	2,412		
	Sakha Republic	570		
	Sakhalin	560		
	Zabaykalsky (Transbaikal)	1,576		
	Northwestern Federal District	**1,381**	**9,886**	
	Arkhangelsk	268		
	Komi Republic	330		
	Murmansk	153		
	Vologda	630		
	Siberian Federal District	**20,875**	**351,387**	
	Altai Krai	1,304		
	Irkutsk	3,703		
	Kemerovo	5,041		
	Khakassia Republic	406		
	Krasnoyarsk	6,473		
	Novosibirsk	2,505		
	Omsk	1,425		
	Southern Federal District	**2,852**	**5,380**	
	Rostov	2,852		

Table A.2. Coal-related assets of EBRD economies outside the EU (continued from previous page)

Country	Region	Coal power plant capacity (MW)	Mine output (MT)	Source
Russia (continued from previous page)	**Ural Federal District**	**7,643**		Federal Statistical Service (2019) Global Coal Plant Tracker (2019)
	Chelyabinsk	3,522		
	Sverdlovsk	4,121		
	Volga Federal District	**1,278**	**28**	
	Bashkortostan	120		
	Kirov	803		
	Orenburg	355		
Tajikistan	Dushanbe	400		WRI (2019) EITI (2017)
	Shahru nohiyahoi tobei cumhuri		0.2	
	Viloyati Khalton		0	
	Viloyati Sugd		1.1	
Turkey	Adana (Mediterranean region)	1,660		For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Ankara (Central Anatolia region)	620		
	Bartin (West Black Sea region)		0.3	
	Bolu (East Maramara region)	142		
	Bursa (Marmara region)	210		
	Çanakkale (West Marmara region)	3,575		
	Hatay (Mediterranean region)	1,200		
	İzmir (Aegean region)	350		
	Kahramanmaraş (Mediterranean region)	2,800		
	Kütahya (Aegean region)	1,206		
	Manisa (Aegean region)	990	9.4	
	Mersin (Mediterranean region)	630	8.6	
	Muğla (Aegean region)	1,050		
	Sivas (Central Anatolia region)	537		
	Şırnak (Southeast Anatolia region)	405		
	Zonguldak (Black Sea region)	3,451	5.3	

Table A.2. Coal-related assets of EBRD economies outside the EU (continued from previous page)

Country	Region	Coal power plant capacity (MW)	Mine output (MT)	Source
Ukraine	Cherkasy	180		For the sources of these figures, see the forthcoming EBRD paper "Coal in the EBRD regions"
	Chernihiv	200		
	Dnipropetrovsk	1,332	20	
	Donetsk	5,380	8	
	Ivano-Frankivsk	1,215		
	Kharkiv	1,625		
	Luhansk	1,380	0.3	
	Lviv		1.4	
	Misto Kyiv	1,950		
	Mykolaivs'ka		0.2	
	Vinnytsy	1,800		
	Zaporizha	1,255		
Uzbekistan	Surkhandarya		0.2	Angren Powerplant (2019)
	Tashkent city	2,493		
	Tashkentskaya		3.9	Yangi Angren power plant (2019) State Committee of the Republic of Uzbekistan on Statistics (2019) Embassy of Uzbekistan in New Delhi (2018) Gazeta UZ (2012) Vertuhov (2019)

Note: The regional divisions for EBRD economies outside the EU are mapped at different administrative division levels, depending on the availability of regional data, as there is no NUTS 2 equivalent for most non-EU countries. For Mongolia, the brackets indicate alternative names and other levels of administrative sub-divisions. For Turkey, the regions are mapped at a level equivalent to NUTS 3, with NUTS 1 divisions in brackets. In North Macedonia, the data is provided at the municipal level with the NUTS 3 level-equivalent in brackets. In Serbia, the data shows NUTS 3 regions, with NUTS 2 regions in brackets. Note that according to the IEA, Moldovan coal capacity has not generated since 2014.

Annex B: Indicators for the just transition initiative

A selection of preliminary high-level indicators linked to the just transition initiative is outlined below. Given the very broad nature of interventions that are likely to be part of the initiative, individual indicators will be developed for each project as per the EBRD´s compendium of indicators. These indicators will be reviewed and refined over time.

Financing

- Financial resources mobilised by EBRD investment for the just transition initiative (€ millions)
- EBRD financing for the just transition initiative (€ millions)
- Just transition initiative projects (number of projects)

Policy and strategy

- Just transition diagnostics prepared and agreed by stakeholders (number of diagnostics)
- Just transition policy dialogue platforms established (number of platforms)

Green economy transition

These indicators are linked to green projects and to the accelerated retirement of high-carbon assets that are attributable to EBRD financing and mobilised investment.

- Reduction in GHG emissions (tonnes per year)
- Renewable energy installed in repurposed sites (MW)
- Renewable energy production in repurposed sites (MWh per year)
- Decontaminated or rehabilitated land (hectares)

Support for workers

- Workers enhancing their market-relevant skills as a result of training (number of women or men trained)
- Partnerships established or strengthened between the private sector and providers of education to support learning opportunities (number of partnerships)
- Number of people accessing employment (number of men or women)

Support for regional economic development

- SMEs or entrepreneurs supported by the EBRD (number of SMEs or entrepreneurs)
- EBRD financing to SMEs or entrepreneurs (€ millions)
- Mobilised investment in new economic activities or sustainable infrastructure investments (€ millions)

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1247 The EBRD just transition initiative

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