Knowledge Package

Outline of Topics and Scope

WORLD BANK GROUP

EGPS
Extractives Global Programmatic Support

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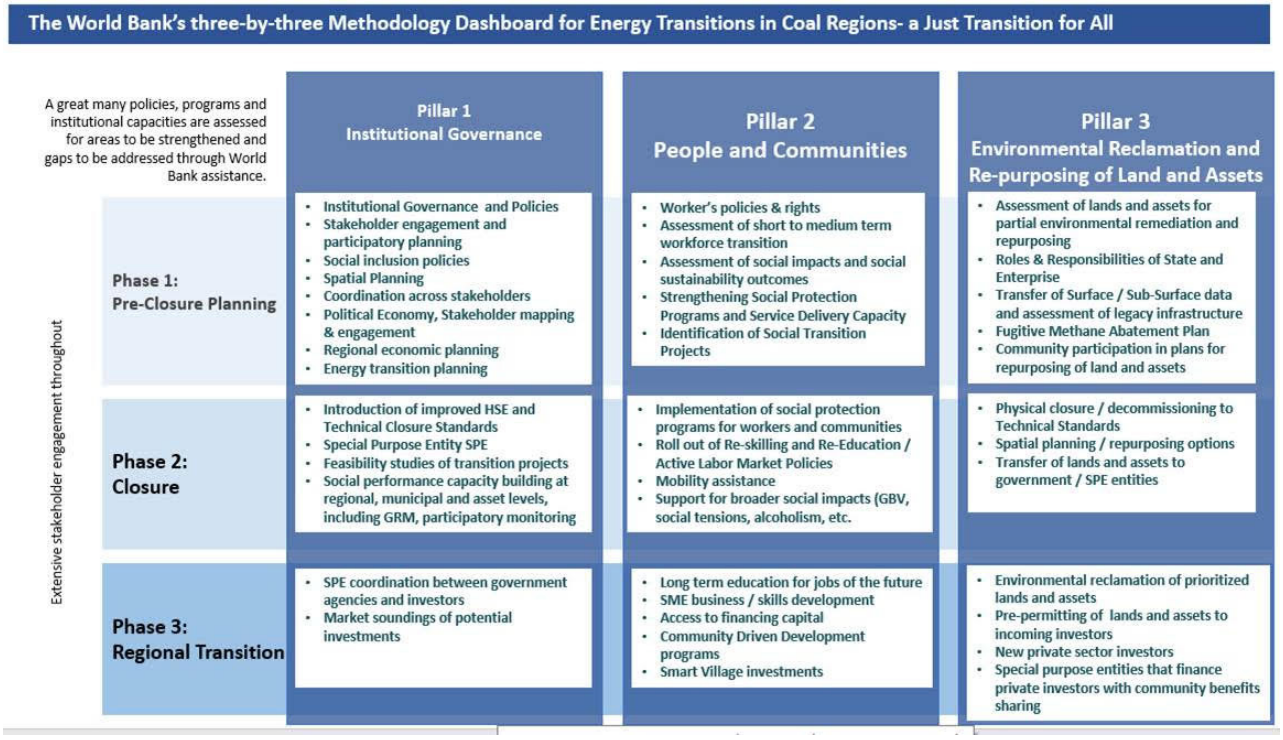
Outline of Topics and Scope

Informed by the World Bank 3x3 matrix structure and content[1], eight topics have been selected and related issues identified. The issues should be refined and adapted in light of the literature review.

The eight topics are hereby presented per pillar of the 3x3 matrix.



1 *World Bank support to energy transition in coal regions: client engagement note Revised Draft 19th December, 2020*

PILLAR 1

Strengthen Institutional Governance

Strategy development

Design of regional transition strategies.

Mapping and assessment of multi-sector scope and impacts of transition

Formulation of regional transition plans

Alignment of regional transition strategies and plans to local, national and supra-national policies and plans

In addition to the above issues strategy coordination and monitoring could be included if relevant literature will be found.

Governance and institutions

Leadership for transition

Institutional governance: mapping of roles and responsibilities

Institutional capacity: assessing needs and developing capacities

institutional structures: design of operational entities

Stakeholder engagement and communication

Developing strategies and plans for stakeholder engagement, consultation and coalitions

Implementation of stakeholder engagement and consultation:

- Awareness raising and information dissemination
- Transparent and inclusive decision-making

PILLAR 2
People and Communities

Workers and transition

Mapping of workforce (direct and indirectly affected workers)

Assessment of workforce skills/competences and employment preferences. Matching with labour market needs (short and longer term)

Assessment of labour support services

Identification and planning of workforce assistance (incl. active labour market) measures, e.g.:

- Retirement schemes
- Re-skilling/re-education and training
- Mobility support
- Fiscal measures (e.g. employment subsidies)

Implementation of workforce assistance measures:

- Pre-closure/lay-off planning and measures to assist workers
- Closure/lay-off (short-term) assistance for workers
- Post-closure/lay-off (medium-term) assistance for workers

This knowledge pack could include longer-term adjustment of education curricula / programmes

Communities and transition

Mapping of affected communities (including vulnerable groups)

Assessment of social issues and mitigation requirements

Assessment of social / community support services

Identification and planning of social/community assistance measures

Implementation of social/community assistance measures

This knowledge pack could additionally include projects for social cohesion and resilience, community development and cultural considerations.

Enterprises and transition

This knowledge pack looks at various aspects for stimulating enterprise/economic activity in the region. It also includes diversification/reorientation of those enterprises in the supply chain of mining.

Conception, design and development/implementation of measures and projects to support enterprise development and strengthening:

Entrepreneurship / SME development
Inward investment (investment attraction and support)
Social enterprise

PILLAR 3
Land and environmental remediation for re-purposing post-mining lands and infrastructure assets

Environmental rehabilitation of mining sites and infrastructure

Mapping of land and infrastructure

Assessment (baseline) of environmental rehabilitation requirement and obligations (e.g. technical standards and regulatory processes)

Physical closure of mines (to technical closure standards)

Implementation of environmental rehabilitation actions, e.g.:

- Remediation: clean-up of the contaminated area
- Reclamation: stabilization of the terrain and return of the land to a useful purpose
- Restoration: rebuilding of natural ecosystems
- Rehabilitation: establishment of a stable and self-sustaining ecosystem

Monitoring of environmental regulation compliance

Repurposing of mining sites and infrastructure

Mapping of land and infrastructure

Assessment (baseline) of re-use potential

Formulation of repurposing plans

Conception and design of repurposing projects, e.g.:

- Landscape/nature/habitats (green space)
- Culture/heritage/recreation and leisure (tourism)
- Industrial
- Renewable energy
- Commercial/residential

Financing options for repurposing projects (public, private, PPP)

GLOSSARY

Brownfield redevelopment refers the process of site development – remediation, reclamation, rehabilitation and repurposing – to restore the physical, environmental, economic, and social/ community aspects of a brownfield site.

Carbon neutrality refers to a state in which the activities of an individual, an organisation, a city or a country result in net-zero CO_2 emissions. For a given set of activities to be carbon neutral, either the activities themselves must have zero CO_2 emissions, or the same amount of CO_2 released by the activities must be permanently sequestered (i.e. removed). Carbon sequestration can be achieved by making use of a so-called natural carbon sink, which are the natural ecosystems (e.g. forests, soil, oceans) which have the ability to absorb more carbon than they emit. To date, no artificial carbon sinks are able to remove carbon from the atmosphere on the necessary scale. Offsetting emissions made in one sector by reducing them somewhere else through investment in renewable energy or energy efficiency could contribute to carbon neutrality.

Civil society refers to the wide array of non-governmental and not for profit organizations that have a presence in public life, express the interests and values of their members and others, based on ethical, cultural, political, environmental, scientific, religious, or philanthropic considerations.

Clean energy technologies refer to any processes, products or services that reduce negative environmental impacts of energy production through emissions reduction, energy efficiency improvements and sustainable use of resources (use of renewable and clean sources of energy such as geothermal, hydropower, solar, wind, and sustainable biomass).

Coal phase-out is the cessation of coal extraction and related utilisation activities, as part of a broader fossil fuel phase-out and transition to carbon neutrality.

Decommissioning of infrastructure refers to the removal of redundant infrastructure (equipment, buildings, material) when a coal mine or a power generation facility has reached the end of its service life. The level of decommissioning work, together with site clean-up, will depend on potential future reuse options.

Energy transition refers to the (global) energy sector's shift from fossil-based systems of energy production and consumption — including oil, natural gas, and coal — to renewable energy sources like wind and solar. The need to reduce energy-related CO_2 emissions to limit climate change is at heart of energy transition. Adoption of renewable energy and energy efficiency measures are needed to achieve the required carbon reductions.

Future proofing refers to processes for anticipating future developments and events and taking actions to prepare to minimise possible negative consequences and maximise possibilities to seize opportunities. In the context of energy transition, 'future proofing' often refers to making investments that are resilient towards the effects of climate change and/or aligned with and adaptable to expected trends and changes in energy production and consumption, including climate neutrality. Future proofing investments in emerging post-transition sectors provide, therefore, a safeguard for long term employment and productivity potential of the local or regional economy.

Governance model refers to the arrangement put in place by public authorities to deliver its coal transition strategy in a way that is effective within the broader prevailing governance context. Successful governance models rely on close cooperation among the various governance levels (local, regional, national) and the various actors (public, private, social) in the concerned coal region(s).

Inclusion, also known as social inclusion, is the process and outcome of improving the terms on which individuals and groups, who might otherwise be excluded or marginalized, take part in society. An inclusive approach to energy transition is one that recognises and addresses in a meaningful way the disproportionate effects of the transition on certain groups and individuals. It may also encompass an approach whereby transition is recognised as an opportunity to improve the well-being of those that are already excluded or marginalized.

Industrial reconversion refers to conversion of former industrial areas, including post mining areas, and related activities into alternate socio-economic uses. Regions with a historical legacy of mining and industrial heritage have an opportunity to use the industrial infrastructure as an asset for future economic activity (e.g., industrial zone, cultural centre, or business and technology park).

Just transition encapsulates the principle that the transition to a climate neutral economy should happen in a fair way, whereby the benefits and costs of transition are distributed equitably, and where those that stand to lose economically or socially from the transition are adequately supported to ensure that no one is left behind. Consequently, just transition focus on jobs and livelihoods, and on advancing social and economic justice. It also incorporates the principle that transition processes should be based on dialogue and cooperation between workers, employers, communities, and governments to draw-up and drive the concrete policies, plans, and investments to achieve transition.

Legacy infrastructure relates to physical structures, utilities and machinery that were previously used in the extraction, preparation and transportation of coal and which are no longer utilised due to the cessation of mining activities. These can represent both assets and liabilities; their status being dependent on their condition, maintenance, investment, and future plans for a site or a locality.

Mine closure is the process undertaken when the operational stage of a mine is ending or has ended, and the final decommissioning and mine rehabilitation is due to commence or is underway.

Mine closure liability is the situation of being legally responsible for a mine closure, which usually falls on the mine operator who should prepare and execute a mine closure plan. Government may face a risk of having to assume the liability for mine closure if an operator fails to or is incapable of closing the mine in a responsible manner.

Mining communities are communities, towns, or larger urban areas where miners and/or former miners and their families live. Mining communities are usually created around a mine or a quarry and are often characterised by a mono-industrial economy (an economy dominated by a single industry or company). They also often have strong local identity and display a place attachment to their community – a cultural and emotional bond between person and place.

Mining heritage relates to heritage values of former mining places, such as specific cultural and social values and meanings. Upon closure, the mining industry often leaves behind a large number of tangible and intangible assets which are a reminder of the past importance of mining and which contribute to regional identity. Physical mining heritage, such as buildings, machinery and equipment, are often transformed into cultural attractions of historical value that attract visitors to the region.

Multi-level governance (MLG) refers to models for both the decision making and implementation of policies and strategies that rely on interactions between different levels of government (i.e., local-regional-national). Effective multi-level governance models can enhance cooperation across levels of government, enabling synergies among different actions that can improve implementation of transition strategies and better achieve national and sub-national policy goals. Multi-level governance enables synergies between the priorities, powers, functions and regulations of differing levels of government.

Participatory methods refer to ways for active involvement of 'the public' in decision-making processes. The public can be citizens, stakeholders in a particular project or policy, experts, and other concerned parties. Participatory methods are considered to be integral to achieving a just transition in coal regions, as they can empower affected communities, enhance transparency, accountability, and responsiveness, and improve public policies and services. There are various participatory methods, including focus groups, consensus building conferences, thematic workshops and social dialogue activities. These methods can form the basis for partnership-based planning and co-creation of a transition strategy.

Perpetual obligations are ongoing actions, such as pumping of mine water, that need to be continued indefinitely after cessation of mining activities. Such obligations depend on the type of coal mine and on specific regulatory requirements.

Public-private partnerships (PPPs) are long-term contractual agreements between a government entity and a private party for the provision of a public asset or service, in which the private party bears significant risk and management responsibility. This may relate to infrastructure assets (such as bridges, roads) or social assets (such as hospitals, utilities) and their associated services.

Reclamation are actions performed during or after a mining operation to shape, stabilize, revegetate or otherwise treat the land in order to return it to a safe, stable condition consistent with the establishment of a productive post-mining use of the land and the safe abandonment of a facility in a manner which ensures the public safety, as well as the encouragement of techniques which minimize the adverse visual effects.

Regional mine closure planning applies a regional land use approach to mine closure that goes beyond site-specific plans and aligns site-specific rehabilitation and repurposing targets to regional land use needs and capacities within an overarching planning context. Such an approach should lead to more focussed and co-ordinated efforts, as rehabilitation can be aligned to wider considerations of land productivity, ecosystem functionality, urban and rural development, or renewable energy drivers.

Rehabilitation planning is planning for restoration of land on which mining has taken place to prepare it for its intended post-closure land uses, which may be to restore the landscape to its pre-mining land uses (environmental rehabilitation). Rehabilitation planning may include measures relating to physical mine closure, environmental reclamation and rehabilitation (including the removal of mine equipment), securing the stability of remaining dumps and impoundments, water management and surface stability at closed underground mines, and monitoring and managing any post closure environmental and human health impacts.

Remediation is an action of remedying something, i.e. reversing or stopping environmental damage. Often used in context of contaminated soils or water. Remediation may include activities carried out to clean up or mitigate contaminated land or water.

Renewable energy is energy that is produced by natural resources—such as sunlight, wind, rain, waves, tides, and geothermal heat—that are not depleted or are naturally replenished within a short time span (i.e., within a few years or on a 'human timescale'). Biomass (organic material from animal or plant matter) is also defined as a renewable energy source but for it to make an effective contribution to reducing greenhouse gas emissions, it must be produced and managed in a sustainable way.

Repurposing refers to the beneficial reuse of a closed mining or other industrial operation, whether through value-added changes or reuse of the land (e.g., energy generation or residential use), reuse of infrastructure at its present location or at another site, or derivative business opportunities that create new economic activity.

Revitalisation refers to policies and processes implemented to return and sustain the economic, environmental and social dimensions/contribution of the former mining (or industrial) sites for the benefit of the local community. Conducting revitalisation is aimed at preserving the mining cultural heritage, while introducing new economic and social functions. Successful revitalisation can attract visitors and investors, increase attractiveness of the region and revitalise local communities.

Social dialogue refers to negotiations, consultations or simply exchange of information between, or among, representatives of government, employers, and workers, on issues of common interest typically relating to economic and social policy. It can exist as a tripartite process, with the government as an official party to the dialogue or it may consist of bipartite relations only between labour and management (or trade unions and employers' organisations), with or without indirect government involvement. Social dialogue processes can be informal or institutionalised, and often it is a combination of the two. It can take place at the national, regional or at enterprise level. It can be inter-professional, sectoral or a combination of these.

Social impacts refer to socio-economic and cultural aspects of mine closure. Some of the common social impacts of closure include changes to the affected community's economic structure (e.g., loss of employment and business opportunities) and dynamics (e.g., demographic changes, departure of employees). In the context of coal phase out, social impacts can also encompass gender dimension (e.g., gender-related economic and employment inequalities), health and well-being of miners.

Smart specialisation is an approach that combines industrial, educational and innovation policies to suggest that countries or regions identify and select a limited number of priority areas for knowledge-based investments, focusing on their strengths and comparative advantages. In the EU Member States, smart specialisation is a place-based innovation policy concept used to support regional prioritisation in innovative sectors, fields or technologies. Regions impacted by coal phase out are under pressure to identify and develop new areas of specialisation, and to support local economic actors to exploit latent economic specialisms and diversify their local and regional economies.

Stakeholder engagement refers to the to the process by which an organisation leading the transition away from coal engages with and involves those who are concerned or affected by the decisions that are made. Stakeholder engagement goes together with partnership building,

both of which allow stakeholders to pool their resources to solve common problems. Effective stakeholder engagement can enhance the quality of decisions and outcomes, strengthen public trust, and enhance broad acceptance. If implemented properly, stakeholder engagement fosters legitimacy, especially through improving transparency and inclusivity. The inclusion of a broad and diverse set of stakeholders, including citizens, is considered a key element to successful stakeholder engagement.

Stranded assets are now generally accepted to be those assets that at some time prior to the end of their economic life (as assumed at the investment decision point) are no longer able to earn an economic return (i.e. meet the company's internal rate of return), as a result of changes associated with the transition to a low-carbon economy (lower than anticipated demand / prices). Or, in simple terms, assets that turn out to be worth less than expected as a result of changes associated with the energy transition.

Structural change refers to a qualitative transformation and evolution of economic systems. It is represented by a change in the relative weight of significant components of the economy such as production, consumption, employment, and population, and is seen in a shift or change in the ways a market, industry or economy functions or operates. Structural change is often sparked by technological innovation, new economic developments, changes in resource availability, changes in supply and demand of resources, and changes in the political landscape. In coal regions, structural change is associated with a transition from a carbon-intensive economy, where coal-related activities play a major role in the local economy, to a carbon-neutral economy, which utilises clean technologies and processes.

Welfare support is a government intervention intended to ensure that members of a society can meet their basic needs. Welfare support is usually part of an integrated portfolio of interventions that constitute the broader social protection (social security) system. In the context of a coal phase out, welfare support measures will be typically needed for workers that have lost or are about to lose their jobs. Welfare support can come in various forms, including income replacement benefits, early retirement options, or assistance in seeking alternative employment.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