

Knowledge Package

Stakeholder engagement



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Knowledge pack**Stakeholder engagement****Introduction**

Stakeholder engagement and participatory policymaking processes are necessary for just transition. Participatory approaches to policymaking empower citizens, enhance government transparency, accountability and responsiveness, and improved public policies and services. Similarly, early and continuous stakeholder engagement is a core to the legitimacy and inclusiveness of a coal transition process. This knowledge pack is relevant mainly to Pillar 2 (People and Communities) of the World Bank's 'Just Transition for All' three-by-three matrix. It is relevant to all three phases of support: Pre-closure Planning, Closure, and Regional Transition. There is necessarily a degree of overlap between this knowledge pack and others developed, including governance and institutions, strategy development and communication as well as workers and transition.

Within transition processes, special attention must be given to guaranteeing public information dissemination and equal participation. The resources presented in this knowledge pack reflect a range of regional transition experiences in Europe and internationally, underlining the role of stakeholder engagement as both a pre-condition and catalyst for progress.

A wide variety of methodologies can be applied when conducting participatory processes, ranging from conventional focus groups to more innovative approaches such as visual thinking techniques. Methods such as focus groups, consensus conferences and social dialogue activities can enable policy co-creation by engaging civil society, and building social acceptance. The selection of an appropriate method that suits the regional context, the nature of the problem and the participants' characteristics is fundamental to successful stakeholder engagement. Providing relevant information to the public promotes governance transparency and builds consensus amongst communities, businesses, and other stakeholder groups.

Abstracts

Brouwer, Herman, Jim Woodhill, Minu Hemmati, Karèn Verhoosel, and Simone van Vugt. 2015. The MSP Guide – How to design and facilitate multi-stakeholder partnerships. Wageningen: Wageningen Centre for Development Innovation.

This guide is a useful resource for policymakers aiming to use participatory processes and stakeholder engagement in regional strategy development. It supports the process of designing and implementing a multi-stakeholder partnership, and elaborates on conditions and methods which promote success. It incorporates international examples, such as the 2013 multi-stakeholder partnership built by the Dutch government in Nigeria to restore the oil-polluted Niger Delta.

Some tools are designed to help stakeholders to better comprehend transition issues, and to create a collaborative working environment. Others seek to influence stakeholders' mental models and feelings, aiming to tap into 'creative and empathic reservoirs' to promote the understanding of similarities and differences. Other tools deal with coordinating multi-stakeholder partnerships, managing group dynamics and addressing power issues, conflict and inclusion. This array of tools can be employed to engage with various stakeholders groups, maximising the opportunity for comprehensive input and engagement.

Key terms: stakeholder engagement; participatory methods; policymakers; social dialogue; inclusiveness

Civicus. 2015. Participatory Governance Toolkit.

This 2015 toolkit developed by Civicus, a global alliance of civil society organisations, provides resources and information on the different steps and methods of public participation and scrutiny, to facilitate the practice of participatory governance. Participatory governance is understood to be an approach which empowers citizens to participate in public decision-making to tackle democratic deficits. The toolkit emphasises that participatory governance approaches contribute to strengthening government transparency, accountability and responsiveness, and improving public policies and services.

This toolkit contains a range of resources of use in successfully designing and implementing participatory governance processes, relating to several categories of participatory governance practice. These include access to relevant public information and transparency-related issues, civic education and collective deliberation, citizen advocacy and techniques to promote

productive public dialogue, informed choices and accountability, sensible policy planning, public resources monitoring and evaluation, and government oversight.

Key terms: accountability; transparency; inclusiveness; public dialogue; civil society; participatory governance

Horizon 2020 project Online S3. 2018. *Toolbox on smart specialization*. Brussels: European Commission.

A precondition for Member States and regions receiving support from EU Cohesion Policy is to have developed a research and innovation strategy for smart specialisation (RIS3). RIS3s encourage Member States and regions to identify the activities, areas or technological domains which give them a comparative advantage. The use of participatory methods and collaboration from stakeholders is also recommended.

The Online S3 project was launched in 2016 and has since developed an e-policy platform, augmented with a toolbox of applications and online services, to assist national and regional authorities in elaborating their smart specialisation agendas. The Online S3 Platform hosts 28 tools covering the complete RIS3 process. Of the six phases for the development of a RIS3 Strategy, three phases advocate the engagement of stakeholders: governance, strategy formulation and priority setting. Tools or methods which are specifically focused on participatory processes and stakeholder engagement include collaborative vision building, Delphi foresight strategies, and focus groups.

Key terms: regional development; participatory methods; stakeholder engagement

Steyaert, Stef, Hervé Lisoir, Janice Elliott, Sara Heesterbeek, Carolyn J. Lukensmeyer, and Nikki Slocum. 2005. *Participatory methods toolkit: a practitioner's manual*. King Baudouin Foundation and the Flemish Institute for Science and Technology Assessment.

This 2005 manual provides a hands-on toolkit for designing and managing participatory processes. It is aimed at less experienced decision-makers managing or organising participatory processes, though is also of relevance to more experienced practitioners looking to learn new methods or refine their skills.

The manual is divided into two parts. Firstly, participatory approaches are explained and championed, based on their value with regard to supporting transparency, legitimacy, democracy, expertise and equality. Guidelines for designing and implementing participatory methods are provided, with a focus on problem definition, the recruitment of participants

and the functions of the moderator. Secondly, various approaches to conducting participatory processes, such as focus groups and consensus conferences, are presented. This concludes with explaining the conditions that determine the suitability of each approach, such as the complexity and sensitivity of the problem or the financial resources available, accompanied with tips and examples on how to conduct them.

Key terms: policymakers; transparency, accountability; participatory process; participatory methods; stakeholder engagement

Ilčíková, Lenka. 2019. Local community participation in the Transformation Action Plan for the Slovakia's Upper Nitra Coal Region. CEE Bankwatch Network

This 2019 case study, stemming from the European Climate Initiative, describes the process by which local communities successfully participated in the Transformation Action Plan of Coal Region Upper Nitra, Slovakia. Concrete steps towards the better integration of local communities, as a means of achieving the region's development goals, are proposed. This resource is highly relevant to policymakers intending to use participatory governance methods in coal transition regions.

The case study explores the interactions between civil society, local authorities and the European Commission following the Slovak's government decision to phase out coal-generated electricity in 2018. The author concludes that participatory processes have had a positive overall effect on the region. Nevertheless, she identifies a series of weaknesses that need to be tackled, such as a lack of equal footing between various actors, and insufficient transparency with respect to the information provided to the public and workers affected by the transformation. A key takeaway from this study is that special attention should be afforded to inclusive participation, particularly with hard to reach groups.

Key terms: transparency; coal region; just transition; inclusiveness; equal participation; civil society; participatory governance; policymakers

Matti, Cristian, José Manuel Martín Corvillo, Blanca Juan Agulló, and Carles Padilla Carmona. 2019. Participatory processes for decision-making in policy learning: a methodological proposal. EIT Climate-KIC.

This working paper proposes a methodology to conduct participatory problem-solving exercises for complex questions such as environmental issues. The methodology presented is based on the experiences of the authors during five years of conducting participatory processes in the

Transitions Hub project. This paper is aimed at policymakers, and has the potential to be used as a standard to be replicated in other environments facing multifaceted problems, such as coal regions in transition.

The proposed methodology consists of five main stages that have been systematised, refined and validated. These include problem identification and definition, co-creation methods, workshop design, and knowledge analysis and dissemination. The main innovation in the approach is the introduction of visual thinking techniques intended to improve the results and outcomes of participatory processes. These visual thinking tools facilitate the pooling of different stakeholders' perspectives around a common challenge, therefore easing the identification of a satisfactory solution for the problem.

Key terms: visual thinking; co-creation; participatory process; stakeholder engagement; policymakers

European Commission. 2020. Toolkit–Governance of Transitions–Design of governance structures and stakeholder engagement processes for coal regions in transition, by Maria Yetano Roche. Brussels.

This toolkit was developed by the Initiative for Coal Regions in Transition (CRiT), a European Commission-funded support platform. It provides guidance and examples on the design of the optimal governance model to support a transition process in coal regions, the implementation of stakeholder engagement and participatory processes, and the role of social dialogue and civil society in the transition process. The toolkit is designed for the use of regional and local authorities, governmental agencies responsible for regional development, and civil society organisations.

The governance of regional transformation is both multi-level and multi-actor and it must engage stakeholders and civil society in order to promote legitimacy and impact. Good governance should begin at an early stage with the establishment of a sound governance model, so that stakeholders can understand the organisation and nature of regional leadership, the need for transition, and the intended pathways to change. Stakeholders should be included early in the transition process; this is particularly important for regional stakeholders who do not (initially) support transition. The toolkit also stresses the importance of including broader civil society in the conversation and arriving at labour-related decisions through social dialogue.

Key terms: inclusiveness; social dialogue; civil society; stakeholder engagement; participatory governance

Focussed bibliography

Shortlisted documents (abstracts)

Brouwer, Herman, Jim Woodhill, Minu Hemmati, Karèn Verhoosel, and Simone van Vugt. 2015. *The MSP Guide – How to design and facilitate multi-stakeholder partnerships*. Wageningen Centre for Development Innovation.

http://www.mspguide.org/sites/default/files/case/the_msp_guide_3rd_ed_2019_wcdi_brouwer_woodhill.pdf

Civicus. 2015. *Participatory Governance Toolkit*.

<https://www.civicus.org/index.php/es/centro-de-medios/recursos/manuales/611-participatory-governance-toolkit>

Horizon 2020 project Online S3. 2018. *Toolbox on smart specialization*. Brussels: European Commission.

<http://www.s3platform.eu/toolbox/>

Ilčíková, Lenka. 2019. *Local community participation in the Transformation Action Plan for the Slovakia's Upper Nitra Coal Region*. CEE Bankwatch Network.

<https://bankwatch.org/wp-content/uploads/2019/09/Transformation-Action-Plan-Upper-Nitra.pdf>

Matti, Cristian, José Manuel Martín Corvillo, Blanca Juan Agulló, Carles Padilla Carmona. 2019. *Participatory processes for decision-making in policy learning: a methodological proposal*. EIT Climate-KIC

<https://www.climate-kic.org/insights/participatory-processes-for-decision-making-in-policy-learning/>

Steyaert, Sterf, Hervé Lisoir, Janice Elliott, Sara Heesterbeek, Carolyn J. Lukensmeyer, and Nikki Slocum. 2005. *Participatory methods toolkit: a practitioner's manual*. King Baudouin Foundation and the Flemish Institute for Science and Technology Assessment.

https://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Dokumente/Dateien/Toolbox/LK_A_Participatory_Methods.pdf

European Commission. 2020. *Toolkit–Governance of Transitions–Design of governance structures and stakeholder engagement processes for coal regions in transition*, by Maria Yetano Roche. Brussels.

https://ec.europa.eu/energy/sites/default/files/documents/governance_of_transitions_toolkit_-_platform_for_coal_regions_in_transition.pdf

Additional documents

Anczewska, Marta, Juliette de Grandpré, Nikos Mantzaris, Georgi Stefanov, and Katie Treadwell. 2020. *Just Transition to climate neutrality–Doing right by the regions*. WWF.

https://regionsbeyondcoal.eu/wp-content/uploads/2020/03/WWF_Just-Transition-to-Climate-Neutrality.pdf

Center for New Democratic Processes. 2017. Rural Energy Dialogues.

<https://jefferson-center.org/rural-energy-dialogues/>

EIT Climate-KIC. 2020. Visual toolbox for system innovation.

<https://transitionsclub.climate-kic.org/publications/visual-toolbox-for-system-innovation/>

Europe Beyond Coal Coalition. 2019. Seven Golden Rules for open and inclusive just transition planning at the regional level.

<https://beyond-coal.eu/wp-content/uploads/2020/03/Seven-Golden-Rules.pdf>

Everingham, Jo-Anne, Svobodova, K., Mackenzie, S., Witt, K. 2020. Participatory processes, mine closure and social transitions. Centre for Social Responsibility in Mining. Brisbane: University of Queensland.

https://www.researchgate.net/publication/342413023_Participatory_processes_mine_closure_and_social_transitions_Centre_for_Social_Responsibility_in_Mining_Participatory_processes_mine_closure_and_social_transitions_2_Authors

Kvam, Reidar. 2017. Meaningful stakeholder consultation. Inter-American Development Bank.

<https://publications.iadb.org/publications/english/document/Meaningful-Stakeholder-Consultation.pdf>

Popp, Rebekka. 2019. A Just Transition of European Coal Regions—Assessing Stakeholder Positions Towards the Transition Away from Coal. E3G.

<https://www.e3g.org/publications/summary-a-just-transition-of-european-coal-regions/>

Reitzenstein, Alexander, and Rebekka Popp. 2019. A role model for European coal phase out? Five lessons from the German Coal Commission. E3G.

<https://www.e3g.org/publications/a-role-model-for-european-coal-phase-out-five-lessons-from-the-german-coal/>

Römmele, Andrea, and Henrik Schober. 2013. The Governance of Large-Scale Projects: Linking Citizens and the State. Nomos Publishers.

Sales Rosa, Josianne Claudia, Angus Morrison-Saunders, and Luis E. Sánchez. 2018. Improving Stakeholder Engagement in Closure Planning through an Ecosystem Services Approach.

https://www.researchgate.net/publication/331792003_Improving_Stakeholder_Engagement_in_Closure_Planning_through_an_Ecosystem_Services_Approach

Sartor, Oliver. 2018. Implementing coal transitions—Insights from case studies of major coal-consuming economies—A Summary Report of the Coal Transitions project. IDDRI and Climate Strategies.

https://coaltransitions.files.wordpress.com/2018/09/coal_synthesis_final.pdf

Stanley, Michael, John Strongman, Rachel Perks, Helen Ba Thanh Nguyen, Wendy

Cunningham, Achim Schmillen, and Michael McCormick. 2018. Managing Coal Mine Closure: Achieving a Just Transition for All. World Bank.

<https://documents1.worldbank.org/curated/en/484541544643269894/pdf/130659-REVISED-PUBLIC-Managing-Coal-Mine-Closure-Achieving-a-Just-Transition-for-All-November-2018-final.pdf>

UK Research and Innovation (UKRI). Sciencewise. UK Government.

<https://sciencewise.org.uk/how-we-can-help/guidance-materials/>

Warren, Mark E. Participedia. Social Sciences and Humanities Research Council of Canada (SSHRC).

<https://participedia.net>

Weller, Sally A. Just transition? Strategic framing and the challenges facing coal dependent communities. 2019. Environment and Planning C: Politics and Space.

<https://journals.sagepub.com/doi/full/10.1177/2399654418784304>

GLOSSARY

Brownfield redevelopment refers to 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 CO₂ emissions. For a given set of activities to be carbon neutral, either the activities themselves must have zero CO₂ emissions, or the same amount of CO₂ 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 CO₂ 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 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.

