

# THE WORLD BANK'S APPROACH TO JUST TRANSITION FOR ALL

## METHODOLOGY FOR ENERGY TRANSITION IN COAL REGIONS

ENERGY AND EXTRACTIVES GLOBAL PRACTICE  
UNECE | CMM & JT GROUP OF EXPERTS WORKSHOP  
KRAKÓW, SEPTEMBER 28, 2021



# A Just Transition for All in Coal Regions

## A Just Transition for All

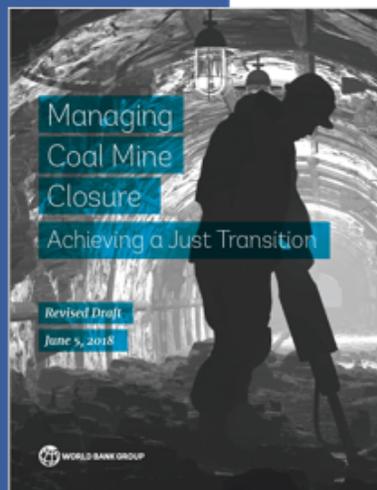
Focus on regional transformation and revitalization through early assistance to:

- Design transition strategies around reskilling workers and repurposing land and assets, and
- Design / implement transition pilot projects using a combination of public / private capital that can be taken to scale across many years within these regions. The result being socio-economic transformation.

A Modern World Bank Approach Builds on strong lessons learned:

- 11 World Bank Lending Operations across two decades in Poland, Romania, Russia, Ukraine (\$3 Billion lending)
- Additional case studies in China, Netherlands, U.K and USA
- Recognizes the shifting global energy mix and a powerful combination of market forces and policies

- EEX is coordinating across the Bank with EFI, HD, SD, INF, IFC among others



Institutional governance includes coordination across many stakeholders and inclusive growth processes.

Early planning and preparation, underpinned by adequate resources and strong social programs, is essential before decommissioning any assets.

Local implementation capacity must be coordinated with government at all levels and a diversity of other stakeholders to identify, scope / assess, finance and take-to-scale successful transition projects.

World Bank assistance leverages *human, physical* and *natural capital* within coal regions, aligning public and private sector investments towards regional socio-economic transformation. Sustained commitment and investments are needed across 10 – 20 years.



Regional transition projects are designed in alignment with the World Bank's *Just Transition for All* in coal regions methodology across three phases: (a) Pre-Closure, (b) Closure, and (c) Regional Transition; and three pillars: (i) Institutional Governance, (ii) People and Communities, and (iii) Environmental Remediation and Repurposing of Land & Assets.

# Closing Coal Production: A Just Transition for All

The World Bank's global initiative *Support to Energy Transition in Coal Regions*, considers broad energy, economic, social and environmental objectives. World Bank lessons learned: (a) greater emphasis should be placed on reskilling, retooling and repurposing *human / natural / physical* capital that has built up over decades in coal regions, and (b) greater need for private sector investments within public-private partnerships and stand-alone project financing. Early public sector investments into environmental remediation can lead to re-purposing of lands and assets; creating new investor opportunities for transition projects.

**The World Bank's three-by-three assessment methodology dashboard supporting energy transitions in coal regions.** Each cell defines an overall objective and contains many discrete activities.

	<b>Pillar 1 Institutional Governance</b>	<b>Pillar 2 People and Communities</b>	<b>Pillar 3 Environmental Reclamation and Re-purposing Land &amp; Assets</b>	
<b>Phase 1: Pre-Closure Planning 10- 18 months</b>	Strengthen policies, institutions, inclusive processes, and build vision / strategies for macro-economic & socio-economic transformations	Pre-layoff social protection assessments & planning, labor profiles, user-needs	Assessing land & assets, preparing for reclamation and re-purposing, resourcing ENV remediation costs	Grants, Reimbursable Advisory Services (RAS), and initial MPA or small IPF concessional lending
<b>Phase 2: Closure 2+ years</b>	Coordinating closure /decommissioning activities between enterprise and agencies	Social assistance to workers & communities, re-skilling, Active Labor Market Policies	Implementation of appropriate technical standards, transfer of assets, mitigation of methane	Grants, RAS, MPA including other MDBs and/or bilateral development agencies
<b>Phase 3: Regional Transition 10+ years</b>	Special Purpose Entity coordinating transition project implementation, managing funding sources	Longer term re-skilling, education, Active Labor Market policies, preparing workers for Future Jobs	ENV remediation of select land & assets by private / public sector, re-permitting and repurposing for private investors to sustain regional transformation	Grants, MPA including other MDBs and/or bilateral development agencies, NGOs, private sector

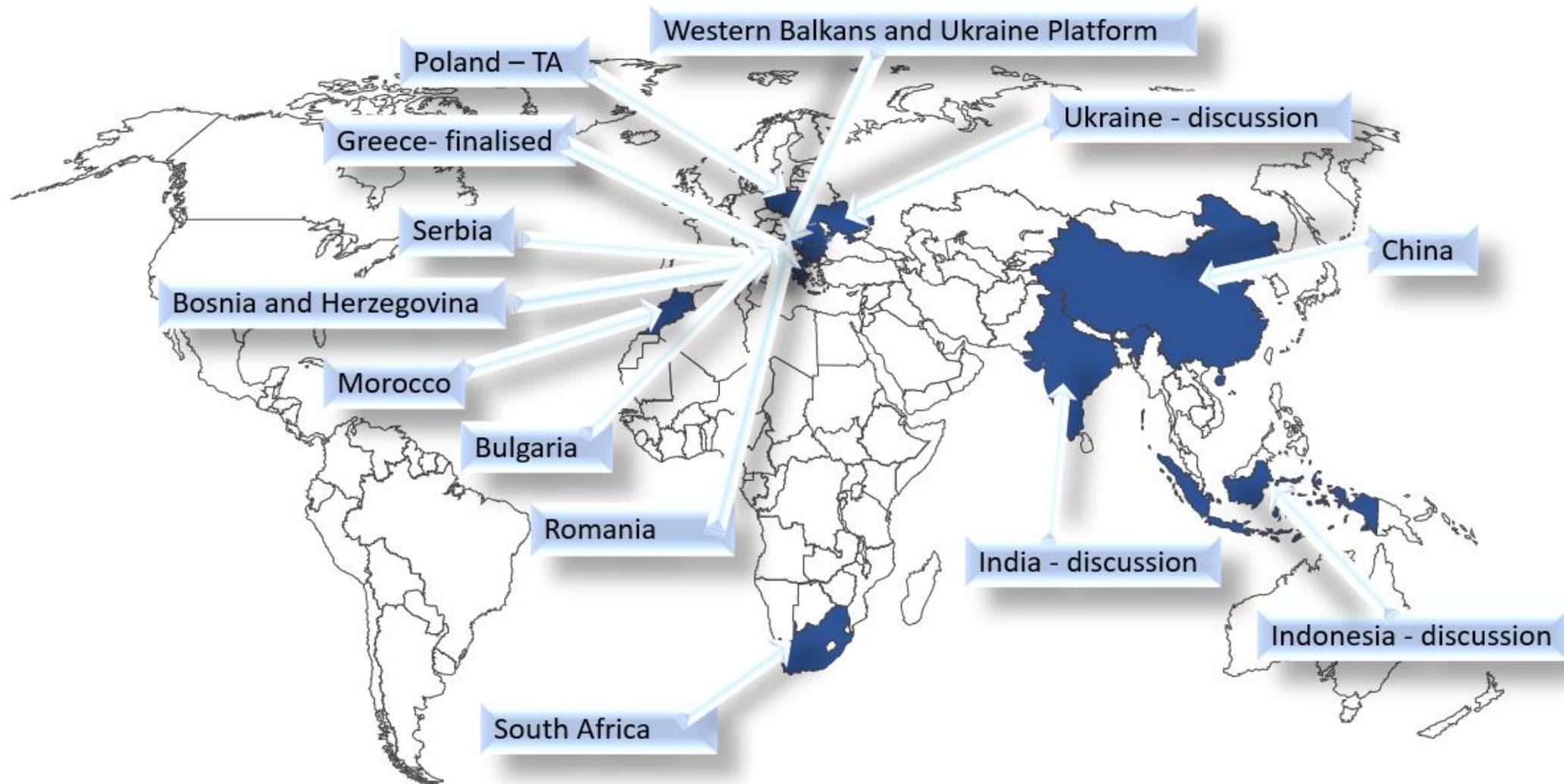
# The World Bank's three-by-three Methodology Dashboard for Energy Transitions in Coal Regions- a Just Transition for All – detailed version

A great many policies, programs and institutional capacities are assessed for areas to be strengthened and gaps to be addressed through World Bank assistance.

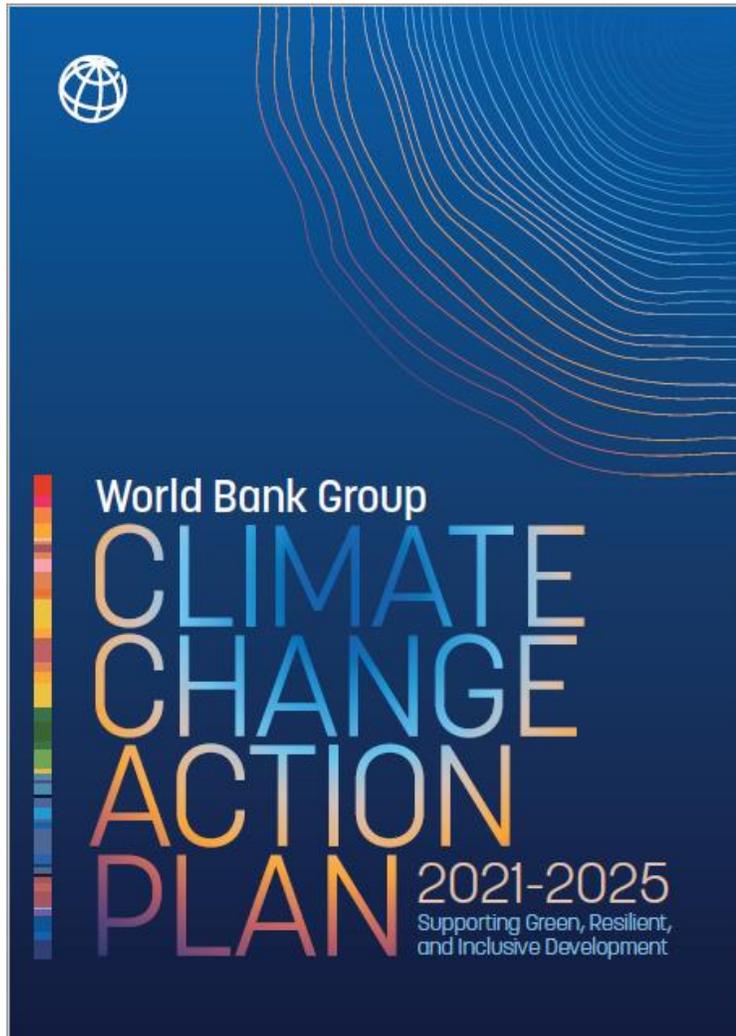
Extensive stakeholder engagement throughout

	<b>Pillar 1</b> <b>Institutional Governance</b>	<b>Pillar 2</b> <b>People and Communities</b>	<b>Pillar 3</b> <b>Environmental Reclamation and Re-purposing of Land and Assets</b>
<b>Phase 1:</b> <b>Pre-Closure Planning</b> <b>10- 18 months</b>	<ul style="list-style-type: none"> <li>• Institutional Governance and Policies</li> <li>• Stakeholder engagement</li> <li>• Spatial Planning</li> <li>• Coordination across stakeholders</li> <li>• Political Economy, Stakeholder mapping &amp; engagement</li> <li>• Regional economic planning</li> <li>• Energy transition planning</li> </ul>	<ul style="list-style-type: none"> <li>• Worker's policies &amp; rights</li> <li>• Assessment of short to medium term workforce transition</li> <li>• Strengthening Social Protection Programs and Service Delivery Capacity</li> <li>• Identification of Social Transition Projects</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment of lands and assets for partial environmental remediation and repurposing</li> <li>• Roles &amp; Responsibilities of State and Enterprise</li> <li>• Transfer of Surface / Sub-Surface data and assessment of legacy infrastructure</li> <li>• Fugitive Methane Abatement Plan</li> </ul>
<b>Phase 2:</b> <b>Closure</b> <b>2+ years</b>	<ul style="list-style-type: none"> <li>• Introduction of improved HSE and Technical Closure Standards</li> <li>• Special Purpose Entity SPE</li> <li>• Feasibility studies of transition projects</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of social protection programs for workers and communities</li> <li>• Roll out of Re-skilling and Re-Education / Active Labor Market Policies</li> <li>• Mobility assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Physical closure / decommissioning to Technical Standards</li> <li>• Spatial planning / repurposing options</li> <li>• Transfer of lands and assets to government / SPE entities</li> </ul>
<b>Phase 3:</b> <b>Regional Transition</b> <b>5-10 years</b>	<ul style="list-style-type: none"> <li>• SPE coordination between government agencies and investors</li> <li>• Market soundings of potential investments</li> </ul>	<ul style="list-style-type: none"> <li>• Long term education for jobs of the future</li> <li>• SME business / skills development</li> <li>• Access to financing capital</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental reclamation of prioritized lands and assets</li> <li>• Pre-permitting of lands and assets to incoming investors</li> <li>• Introduction of new private sector investors</li> </ul>

# World Bank global engagements on Just Transition



# World Bank Group Climate Change Action Plan 2021–2025 : Supporting Green, Resilient, and Inclusive Development



## Prioritizing Key Systems Transitions

Prioritizing action in key systems:

- energy
- agriculture
- food, water, and land
- cities
- transport
- manufacturing

that must be transformed to address climate change, achieve a resilient and low-carbon future, and support the protection of natural capital and biodiversity.

**The Climate Action Plan places a strong emphasis on supporting a “Just Transition for All” away from coal.**

# Activities within Western Balkans and Ukraine Platform

The Platform Initiative for Western Balkans and Ukraine is a joint effort of the Principals, who are working together on cooperation with partners in the Western Balkans and Ukraine to deliver knowledge to coal regions and governments, principally through face-to-face meetings and the Coal Regions in Transition Learning Academy. Knowledge to be delivered pertains to planning and preparing for transition.



In addition, the Platform Initiative will bring financial resources to assist selected regions in identifying and implementing pilot projects. The Platform Initiative will also support other forms of peer learning. The establishment of the Platform Initiative aims to facilitate the development of transition strategies and projects to kick start the transition process in the coal-dependent regions.

- Knowledge-sharing platform meetings
- EU-Western Balkans and Ukraine coal regions twinning
- Coal Regions Learning Academy
- Technical assistance for pilot coal regions
- Financing transition projects and programs

## EXAMPLES OF KNOWLEDGE EXCHANGE ON JUST TRANSITION FOR ALL: PL-UA

Poland / Ukraine knowledge exchange is a complex undertaking involving two governments and as many as eight coal regions, and multiple development initiatives and funding sources.



- preparatory workshops in Ukraine to introduce the basics of the energy transition in coal regions,
- study visits in Poland that enable knowledge sharing and learning through case studies with tours to related facilities (five visits of four-day learning)
- post-study visits workshop to follow up and systematize the knowledge
- evaluation of draft ideas for future strategic direction based on lessons learned

# EXAMPLES OF KNOWLEDGE EXCHANGE ON JUST TRANSITION FOR ALL: USA-BiH

## USA / Bosnia and Herzegovina

- Exchange started with one coal municipality in June 2021
- Exchange topics decided in advance by the municipality: 6 topics in total
- First exchange in June 2021 tackled the first 3 topics: **reskilling and retraining; building solar SMEs; accessing finance for local business development**
- 3 separate Appalachian organizations delivered learnings on the 3 topics above
- Next exchange in September 2021 will focus on the remaining 3 topics: **district heating; business zone development; and land repurposing**
- 4 more municipalities have asked to join the exchange program and they will be accommodated in the September 2021 meeting
- Should funds be available, we'd like to consider some study tours in 2022.

# Learning Academy for WBUA Coal Regions in Transition

The *Learning Academy* will deliver to participants high-quality, non-degree / non-certification, learning courses using the World Bank three-by-three Framework.

The objective of the *Learning Academy* is to introduce to cohorts the many dimensions associated with designing and implementing an effective transition strategy, and how best to sustain kick-start projects through to successful outcomes.

Broad thematic areas are expected to include:

- understanding and adopting lessons learned from other coal regions,
- organizing diverse stakeholders into effective decision-making bodies,
- inclusive growth processes,
- technical aspects of social and environmental protection,
- energy sector transition and the opportunities for low carbon energy alternatives,
- preparation of business plans and budget planning, accessing capital, and effective public-private partnerships.

	Institutional governance	People and communities	Environmental Reclamation and Re-purposing of Land and Assets
Horizontal	A starter: the context and its key elements	Getting it right. Just coal transition process on a timeline from pre-closure to regional transition	People, environment and physical assets – building and exploiting transition synergies [Case studies]
Sectoral	Funding: How to prepare “bankable” transition projects	Shielding measures for local communities	Recultivation and protection of health & environment



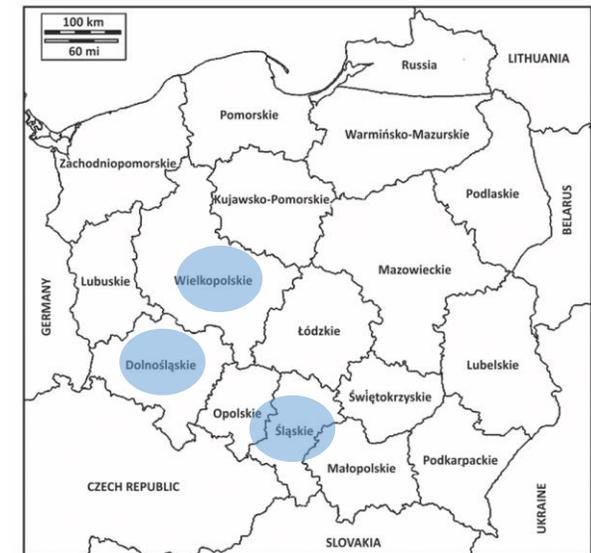
# Supporting Polish Coal Regions in Transition

World Bank Technical Assistance funded by the European Commission – DG ENER

*Development Objective: To improve capacity and knowledge of various levels of government in preparing for a managed energy transition in Polish coal regions*

**Aims:**  
*Create complementarity to current efforts by the authorities to prepare their Territorial Just Transition Plans  
Focus on medium to long term institutional capacities to manage a Just Transition in Poland.*

- **Component 1:** A National Approach to Land Reclamation and Repurposing
- **Component 2:** Technical Assistance to Territorial Just Transition Plans
- **Component 3:** Technical Assistance to Wielkopolskie – Greater Poland
- **Component 4:** Technical Assistance to Dolnośląskie – Lower Silesia
- **Component 5:** Technical Assistance To Śląskie – Silesia
- **Component 6:** Capacity Building for Selecting Coal Region Pilot Projects
- **Component 7:** Communication and Outreach



# Ukraine Just Transition engagement

## Knowledge Exchange On Just Transition For All:

### Themes of the sessions:

- Strategic dimension of regional transformation
- Tools supporting the implementation of the transformation process
- Transformation as an opportunity to increase the innovation and attractiveness of the region – experiences from the cities
- New technologies - economic potential and environmental aspects, practical solutions, planning the transformation process

Supplemented by **deep dive thematic workshops** in Ukraine to introduce the basics of the energy transition in coal regions



WORKSHOP ON

TECHNICAL COAL MINE CLOSURE STANDARDS, MITIGATION OF ABANDONED MINE METHANE AND ENVIRONMENTAL REMEDIATION AND RE-PURPOSING OF LAND AND ASSETS

## Proposed Technical Assistance on pre-closure planning for successful coal mine closure and regional transition in Ukraine coal regions:

Component 1: High-level roadmap for coal region economic transition following coal mine closure

Component 2: Pre-closure Planning Assistance



Ukraine responded to the recent call for Expression of Interest for Climate Investment Funds Accelerating Coal Transition (CIF ACT) Investment Program

# THANK YOU

FOR MORE INFORMATION, PLEASE CONTACT:

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## Regional transition: Creating added value for post mining lands and assets

Without planning for closure and assessment of re-development risks, the post-closure phase is often limited to land reclamation, comprising recontouring the land, installation of simple drainage systems, and decontamination of land surfaces

However by implementing good practices that serve as the basis of the global coal mine closure standards, the highest value of the closed mine and the associated surface resources can be ensured

Re-purposing of the mine site and potential use of the land and other resources such as remaining gas and water resources if present, offer a considerable future value. For example, the void space may be used for storage of natural gas, or for carbon dioxide sequestration, storage facilities, data centers, tourist attraction etc

Use of a **Land Repurposing Methodology (LRM)** with the help of GIS application LURA is key to an organized assessment of the potential and planning for the highest use of the land

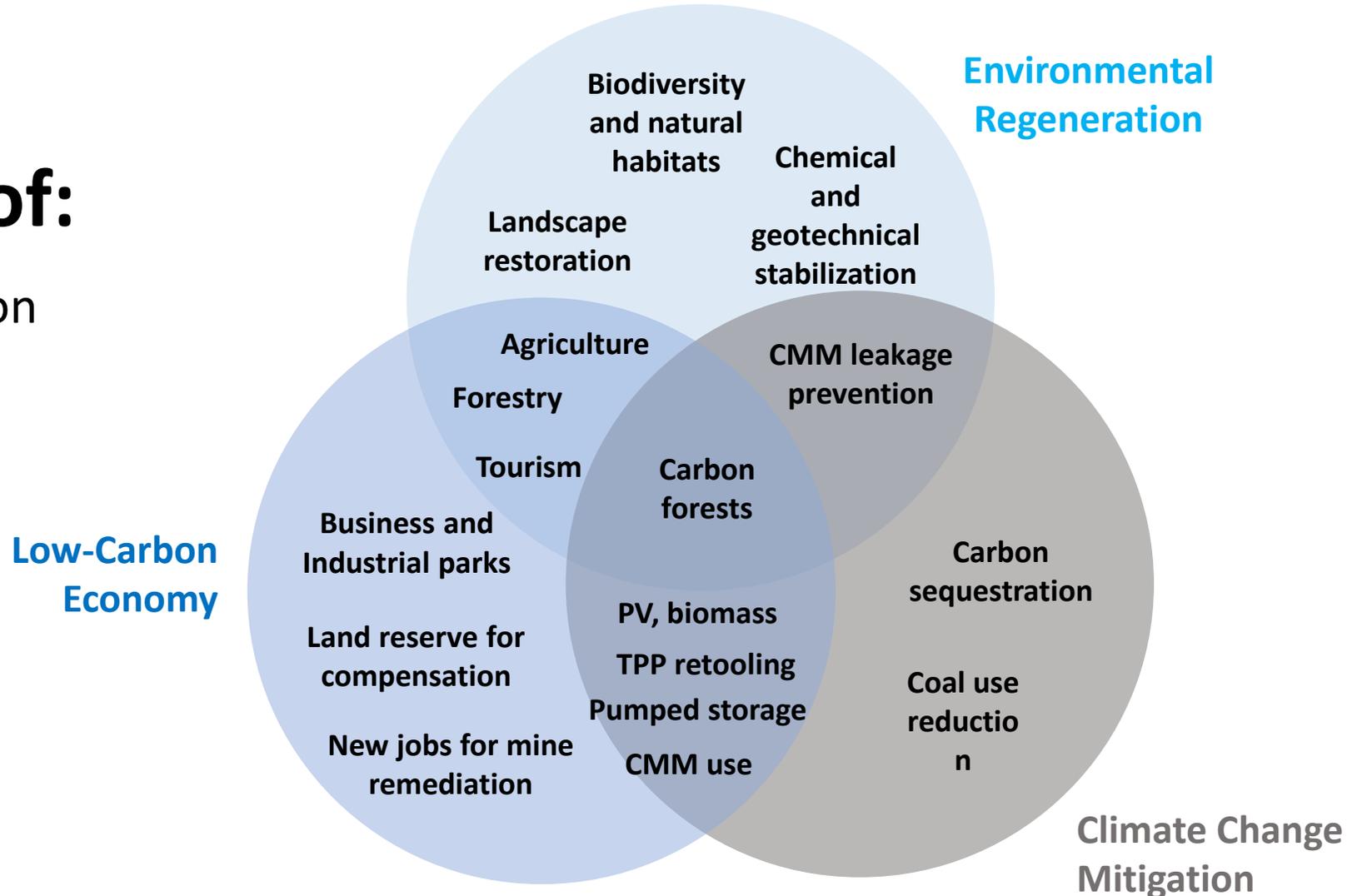
### **Land Repurposing Methodology (LRM):**

1. Stocktaking and site inventory
2. Clarification of the legal, regulatory and permitting situation
3. Site investigation and monitoring
4. **Land classification methodology – LURA**
5. Land repurposing master plan (LRMP)

# IT'S ALL CONNECTED!

## Land Repurposing Lies at the Nexus of:

- Environmental Regeneration
- Climate Change Mitigation
- Low-Carbon Economy



# Land Classification: What is LURA

LURA GIS-Cloud based easy to use application for land classification

Projects / PPC Mavropigi mine

PPC Mavropigi mine

Area Cells size

Width (km) 0.5

Height (km) 0.5

Create Grid

Finalize Cancel

Use the predefined criteria to rate each cluster

Projects / PPC Mavropigi mine / #1 - First ratign

PPC Mavropigi mine

Show Overall Report

Segment	Coordinates	Land Use Segment Rating
2	Ing: 21.722680447089, lat: 40.479222051785	Forest, natural habitats
	Ing: 21.722680447089, lat: 40.474720761941	Agriculture
Area Size	Ing: 21.718164819445, lat: 40.474720761941	Industry, energy production
0.15 km <sup>2</sup>	Ing: 21.718164819445, lat: 40.475151337412	Business, recreation, tourism
	Ing: 21.720506868866, lat: 40.479552713701	
	Ing: 21.722680447089, lat: 40.479222051785	

Use Advanced Criteria for Rating  
 Area segment is unusable

Attach file to area segment

Scores

Copy scores from other segment

Location

- Distance to infrastructure and utilities ...
- Distance to human settlements ...

Geotechnical stability

- Expected residual ground settlement ...
- Slope stability – seismic risks ...
- Impact of groundwater rebound (applies especially to interior dumps) ...

Topography and hydrography

- Surface gradient and relief ...
- Surface drainage ...
- Hydrological risks – extreme precipitation events and flooding ...

Environmental risks

- Contamination of dumped materials ...
- Current / manifest environmental impacts of ongoing Lignite production (which could continue for 30 more years): dust, emissions, noise, vibrations. ...
- Proximity to operating TPPs, including after potential repurposing, lignite bunkers, fly ash ...

Theme Average Score

Geolocate and subdivide the mine land for rating

# THANK YOU

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