



Economic Commission for Europe**Committee on Sustainable Energy****Thirtieth session**

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Item 7 of the provisional agenda

Future work of the Committee on Sustainable Energy**Responding to the challenges of a just transition in the United Nations Economic Commission for Europe sustainable energy subprogramme****Note by the secretariat****I. Defining Just Transition**

1. The concept of a just transition has its origins in the labour movement of the United States of America in the 1970s. The negotiations between labour unions and industry as nuclear disarmament took place led to concerns that employment would decrease dramatically. Those concerns led to a movement that promoted planning for a transition that would ensure that workers and communities were not subject to widespread unemployment. In the 1980s, concern that new environmental regulations could threaten a reduction of jobs and opportunities for economic growth reinforced the view that a just transition was needed.

2. More recently, changes in global environmental policy have accelerated and many United Nations Economic Commission for Europe (ECE) member States have advanced plans for achieving carbon neutrality that incorporate closure of coal mines and retiring coal fired power plants as a part of the path to reach declared goals. Although coal use will continue as a fuel for power production and a source of energy and feedstock for industrial use, the need to decarbonize drives new policy and regulations bringing a wide range of changes to the energy economies of the ECE region. These changes are reflected in corporate investment patterns that emphasize decarbonization. The use of carbon capture, use, and storage (CCUS) will be adopted by some member States to reach carbon neutrality goals, but many plan deep cuts to fossil fuel use. The actions taken by member States are shaped, in part, by the need to ensure continued, safe, and secure energy production and stable supply chains required for industrial output.

3. What a just transition still has at its centre today are the needs of workers and communities that will be impacted disproportionately by changes in the energy economy that accompany closure of coal mines, power plants and other fossil fuel-related industry and services. Just Transition for All is defined by opportunities for sustainable development, decent work, greening of industry and creation of green jobs. Such an outcome will be achieved by properly closing and repurposing coal mines and power plants and in some cases redesigning and reinvesting in the industrial ecosystems that have developed with fossil fuel as a primary energy resource at its centre.

4. Ensuring a Just Transition shares activities that are key to twelve of the seventeen Sustainable Development Goals (SDGs) adopted by UN Member States as part of the 2030 Agenda for Sustainable Development. The Annex shows the impacts of coal mine closure and the industries that coal mines serve categorized by SDG. Potential mitigants and remedies for the greatest impacts are suggested as are the continuing needs in these regions. Requirements that must be met to achieve the goals of a Just Transition for All are listed in the final column of the table in the Annex.

II. Energy transition, COVID and climate change have exposed weakness in governance, institutions, communities, and demonstrated the need for increased resilience

5. Energy transitions are occurring throughout the ECE region at different rates depending on the subregional economic and political response to the need to decarbonize. These localized responses range from mine closures and the end of coal production to consolidation of older mining enterprises coupled with modernization and expansion of coal extraction and power production. Coal use is expected to continue in the region as member States balance their need to secure reliable energy supply, protect the social fabric of communities, and reduce GHG emissions.

6. Experience with energy transitions and funding for the hardships that the transition brings also vary across member States. The ECE region has undergone many subregional episodes of mine closures and restructuring of the power sector. The history of these closures and the transition that followed provides important lessons. Foremost among these is that communities and workers need ongoing support underpinned by institutional governance. There is a clear need for a legal and regulatory framework that facilitates funding of the ongoing needs of the affected areas. Communities need access to funds that will allow for reclamation and repurposing of mined lands without fear of future unexpected hazards and pollution of critical water supplies and areas where food is produced and people live.

7. COVID-19 infections and the continued impact of COVID-19 has strained institutions and has exposed weaknesses that must be addressed—they parallel some of the issues faced during the energy transitions. The last two years have shown that no region within the UN system was prepared for an international disaster with the breadth and duration presented by the global COVID-19 pandemic. The pandemic, although in many ways unprecedented, shares some of the same attributes that energy transitions have caused: loss of jobs, shrinking economies, supply chain fragility, institutional weaknesses, and lack of preparedness.

8. Climate change is affecting the region as evidenced by extreme weather events that have caused uncontrolled wildfires, flooding, severe economic damage from cyclones including destruction of critical infrastructure, and failure of power grids. Hot and cold weather phenomena have impacted large areas in member States and have resulted in multiple deaths. Environmental degradation leads to greater impediments to local and regional economic recovery from the pandemic and the economic trauma of energy transition. It is clear that addressing climate change is an imperative. Decarbonization therefore is necessary and must be addressed at every level of government to ensure stable progress.

9. The coincidence of energy transitions that are underway, the global COVID-19 pandemic, and the increasing impacts of a changing climate has strained the institutions and economies of many member States. Each of these events has resulted in an urgent need for action in the region. Each of these events requires additional investment to realign with new economic paradigms, rebuild infrastructure, fund programmes that support people in communities in a way that increases resilience. The governments of ECE member States are facing unprecedented stress and the need for intergovernmental coordination and cooperation has never been greater.

III. The reason that the ECE Committee on Sustainable Energy is an appropriate partner

10. The diversity in energy strategies is broad within the region, but many member states have developed a plan for closure of coal fired plants and the mines that supply the fuel. Other countries have already closed some mines and have plans to close more as soon as practicable, yet others are still developing coal mines meaning coal will likely remain an important component of the energy mix for some time into the coming decades. In each case, there will be a need to share experience, employ critical technology more widely and provide for a debate on social issues.

11. Some of the past experiences in energy transitions which were initiated as coal mines were closed had undesirable outcomes. The need for social protection and reduction of the uncertainty related to the future of coal mine related communities has been documented widely, but these issues remain and will occur again without a concerted effort to engage with the affected community and develop plans that fit with the needs and culture of workers and their families. Local government is the focal point for these needs and support of these institutions is critical. Often major transitions bring about undesirable outcomes due to a lack of comprehensive assessment of future potential of a community or subregion. In the past, a future has been prescribed rather than organically produced by the community. The Appendix offers an example of a project that is being proposed for the mining areas of Ukraine.

12. Although extraction of fossil fuels is continuing in the region, transitions are taking place and will continue to occur in the future as alternate modes of energy production are being introduced, industrial consumption of coal diminishes, and substitutes for coal are being developed in chemical and industrial processes.

13. Other subsidiary bodies must be involved in the work that will be required for analysis and development of mined land repurposing training, fora, documentation, and support. The issues of transition are technical as well as social, requiring technical support for closure of mines, retrofitting and/or re-powering industrial hubs to reduce carbon emissions, providing guidance and advice for resource management and employing hydrogen as a part of the new decarbonized energy mix.

14. The ECE Group of Experts on Coal Mine Methane¹ through its work is engaged with the coal mining sector and is involved in review and adoption of mine closure standards. Earlier guidances produced by the Group of Experts have laid out best practices for use or abatement of coal mine methane (CMM) and abandoned mine methane (AMM). Additional guidance will be produced related to monitoring, reporting and verification of methane emissions reductions in the coal sector. Taken together these guidances can be used for planning and repurposing mined lands which can be redeveloped into modern industrial sites.

IV. Recommendations

15. The Committee on Sustainable Energy should explore ways to urge and support member States to catalogue the needs of the coal mining related communities that will be impacted as regional energy transition occurs. These needs will be wide ranging and will offer opportunities for the subsidiary bodies of the Committee to provide assistance to member States and subregions if requested.

16. The Committee on Sustainable Energy is requested to support the Group of Experts on Coal Mine Methane in developing a programme for a meeting or Forum that convenes with the institutions from coal mining affected communities to discuss issues related to mine closure, methane capture, mine land repurposing and redesign and re-investment of energy centred industrial hubs.

¹ The change of name of the Group of Experts on Coal Mine Methane to Group of Experts on Coal Mine Methane and Just Transition has been submitted to the Committee on Sustainable Energy for consideration at its thirtieth session.

Impacts of coal mine closure and the industries that coal mines serve categorized according to Sustainable Development Goals

<i>Sustainable Development Goal</i>	<i>Potential Impact of Energy Transition</i>	<i>Mitigants and Remedies</i>	<i>Continuing Needs</i>	<i>Required for a Just Transition for All</i>
1. No Poverty	Loss of jobs creates poverty.	Planning and reinvestment.	Care is needed to not create poverty in a community by sudden decrease in employment.	Post mine closure redevelopment.
2. Zero Hunger	Loss of jobs and degraded post-mining environment reduced food growing capacity.	Planning, repurposing, resource management, strong environmental legislation and enforcement, preservation, and development of agriculture sector when appropriate.	Prevent food insecurity among workers their families and industrial communities that are impacted by energy transitions.	Strong economy with job opportunities and potential for local agriculture.
3. Good health and well being	Lack of health care for unemployed and social protection.	Strengthen social policies that support worker protection, resilience, and economic vitality.	Prevent health care pressures due to unemployment and insufficient social protection.	Strong social protection that provides healthcare, income security and social services for displaced workers and their families.
6. Clean water and sanitation	Improper or incomplete mine and power plant closure, hazard remediation, reclamation can lead to environmental degradation	Strong environmental legislation and enforcement. Education and training that leads to a broader understanding of the importance of water conservation	Continued monitoring and remediation as many impacts are not apparent or harmful until years after closure. Government programmes are needed to address ongoing needs.	Good practices for maintaining clean water and preventing degradation from mining related impacts.
7. Affordable and clean energy	Cessation of coal mining may reduce access to local affordable sources of energy.	Legal and regulatory framework that ensures reliable and affordable energy services.	Access to affordable energy is necessary for maintenance of a vibrant economies and communities.	Ensure that modern clean energy access is maintained and increased as needed for sustainable development of the region.

<i>Sustainable Development Goal</i>	<i>Potential Impact of Energy Transition</i>	<i>Mitigants and Remedies</i>	<i>Continuing Needs</i>	<i>Required for a Just Transition for All</i>
8. Decent work and economic growth	Closure of mines, power generation facilities and co-reliant industrial complexes reduces regional income and employment opportunities.	Training, re-skilling, up-skilling, re-location when needed, and programmes that bring new jobs to satisfy the local need for reemployment.	Job creation, training, and educational services that are funded and organized by local regional and national governments.	Studies show that creation of new jobs in the region is imperative for achieving a just transition. Employment is at the heart of a just transition.
9. Industry innovation and infrastructure	Closure of mines and related industry may remove support for research and development programmes that produce important innovations, support and funding for infrastructure.	Planning for closure of coal and other fossil fuel extraction and energy production with the goal of supplanting the loss of jobs with a sustainable energy markets and economy.	Sustainable economic progress is possible through innovation and re-investment in communities and essential infrastructure. Planning that emphasizes protection against investment in projects that will become stranded infrastructure is essential.	Sustainable industrial and commercial opportunities must be created through well planned and continuing investment in training and education which leads to innovative approaches to providing economic and social progress in a carbon constrained future.
10. Reduced inequalities	Inadequate reinvestment reduces employment, industrial and commercial output and regional economic regression ensues.	Regional economic development programmes that centre on reinvestment and redevelopment of local economies.	Changes in the energy economy should not adversely impact development progress but should be aligned with goals for decarbonization.	Maintain balance in economy so that economic inequalities are not created by mine closures and retirement of industry and infrastructure which disadvantages a region.
11. Sustainable cities and communities	Unemployment impact increase need for adequate and affordable housing, transportation, and municipal services.	Community leadership and discourse to prevent urban dislocation, programmes that put job creation at the forefront of needs to prevent increase in the urban poor population.	Modernizing cities and communities in ways that make them more liveable and resilient in the face of worker re-location and or regional population shifts.	Diversified economic support for development of sustainable population centres and resilient communities.
12. Responsible consumption and production	Inadequate planning at coal mining sites improper closure and rehabilitation, lack of industrial equipment recycling and repurposing leads to loss of valuable assets and access to natural resources.	Adequate planning for economic shifts that impact the mining and energy production sectors. Taking care of communities and people must be the prime focus of transition.	Changing economies need to manage resources and promote a circular economy and decarbonization.	Reduction of wastes and repurposing of mining areas is key to sustainable development. Reporting by corporate entities on progress towards achieving this.

<i>Sustainable Development Goal</i>	<i>Potential Impact of Energy Transition</i>	<i>Mitigants and Remedies</i>	<i>Continuing Needs</i>	<i>Required for a Just Transition for All</i>
13. Climate action	Methane may continue to escape from improperly closed coal mines.	Standards for mine closure that incorporate capture use and/or abatement of methane.	Development of regulations, enforcement and monitoring that ensures methane emissions reductions.	Attention to climate action that will ensure climate justice for workers and communities in a region undergoing energy transition.
16. Peace and justice	Social unrest develops with closure of mines, power generation facilities and co-reliant industrial complexes.	Frequent opportunities for open dialogue are important. Economic disruptions are impermanent but may have lasting impacts on communities. Solutions to problems and issues must address and incorporate the needs of the community through an inclusive process.	Development of an inclusive system of community government and strengthening of institutions that encourage exchange of viewpoints and protect the rights of the disadvantaged.	Prevention of social unrest due to unemployment, lack of community services and social protection.
17. Partnerships for the goals	Communities undergoing energy transitions lack of investment, governance and partnering opportunities.	Actively seek and develop partnerships at all levels of government. Many share the same issues and opportunities for exchange of information and experience can be used to further mutual goals for communities and people.	Public private partnerships have proven to be a useful tool for advancing improvements in living conditions in communities and are key to environmental and social progress. Funding and regulatory facilitation are key.	Development and funding for key science and technology assistance programmes which promote the best available technology and sufficient finance to ensure sustainable redevelopment of areas hardest hit by economic disruptions caused by decarbonization and transition.

Appendix

Project Proposal

Modernization of the Coal Mining Regions in Ukraine – Clean Environment, Innovative Economy, Just Society, Better Life

A Pathway towards Low-Carbon Energy and Greener Equitable Economies

Social Component

1. Programme data and partner institutions

1.1 Programme

Programme title	Modernization of the Coal Mining Regions in Ukraine – Clean Environment, Innovative Economy, Just Society, Better Life <i>A Pathway towards Low-Carbon Energy and Greener Equitable Economies</i> <i>Social Component</i>
Support area	Coal mining ecosystem Social pillar
Objective	Development of a plan for modernization of the targeted coal mining region, in accordance with the objectives of the 2030 Agenda and the local stakeholders' needs and capabilities
Country of implementation	Ukraine
Programme type	“Just Transition” of the coal sector
Programme start	2022
Programme end	2023

1.2 UNECE data

Name of Organization	United Nations Economic Commission for Europe
Institution	United Nations (UN)
Legal structure	UN (International Organization)
Non-profit (y/n)	Y
Department	Sustainable Energy Division
Full postal address	Palais des Nations 8-14 avenue de la Paix CH - 1211 Geneva 10

1.2 UNECE data

Country	Switzerland
Contact	
Title (prefix)	Mr.
First name	Michal
Surname	Drabik
Telephone	+41 22 917 3966
Email	cmm.energy@un.org

2. Background

The commitment to keep global warming to well below two degrees Celsius compared to pre-industrial levels requires decarbonization in all economic sectors and reduction of emissions of all potent greenhouse gases. In practice, this means modernization of the energy sector with a focus on gradual phasing out coal and finding innovative solutions for industries that rely on it and therefore constitute its “ecosystem”, such as e.g., steel or cement. It also implies a rapid mastering of growing atmospheric concentrations of methane and the role increasing concentrations of methane plays in climate change.

The more profound the targeted country’s transition towards low-carbon energy and green economy, the more competitive its national economy will become. However, any proposed changes must be economically feasible, as well as socially acceptable for the targeted country, its affected regions and, in particular, for the local community, which is the most affected by these changes.

While it can be expected that decarbonization efforts will create new opportunities and employment in all economic sectors, it will surely have also certain disruptive effects on high-carbon regions and energy-intensive industries. As can be observed in most coal producing countries, fears of job losses, disruptive structural and cultural changes, economic decline, and negative implications for elections, influence the social debate more strongly than the benefits of the low-carbon transition. The latter are numerous and include e.g. job creation in low-carbon sectors, improved air quality, and competitiveness in new industry sectors. What can change this balance and boost efforts for greening the economies is the concept of “just transition”.

A “just transition” is an integrated approach to sustainable development, which brings together social progress, environmental protection and economic success into a framework of democratic governance. Effective “just transition” strategies require local, bottom-up participation of all affected stakeholders and commitment by governments to guarantee their buy-in and provide planning security. Adapting to a decarbonizing world is a deep structural shift not just for the involved industries and installations, but also for their workers as well as dependent communities and regions.

It has to be remembered that the proposed changes should focus not only on the broadly understood economic needs of people, but must also take into consideration other substantial needs related to their sense of identity and belonging to a given community, adherence to a given culture and heritage, etc. From the historical perspective, for centuries coal mining has been, in most countries, much more than an occupation. It was a craft that for generations had been proudly passed from father to son, but most of all, it has been a way of life characterized by a certain well-developed and widely known ethos. Coal mining was a “subculture” with its own traditions, legends, heroes, saints, holidays, music, fashion, language, cuisine and so on. It was a social glue that kept people of given regions together. In certain cases, up until the 20th Century coal mining and the sense of belonging to a region based on that activity defined people’s identities more than their national affiliation. In Silesia, for instance, a region that for centuries has been at the crossroads of three cultures and states, people oftentimes felt more Silesian, in the sense of being a part of a big and distinct mining community, rather than Polish, Czech, or German, regardless of under which jurisdiction they were living at any particular moment of history. It is a true culture in its own right and as such should be protected as certain languages, minorities, or tribes are protected, which constitute a testimony of human history and are a living prove of cultural diversity. The fact that the “world” which gave rise to that culture is coming to an end, does not mean that the culture itself is not worth preserving. To the contrary, letting it vanish would be a sad repetition of the history, in which blinded by the power of innovation and, most of all, greed, people let countless of precious cultures vanish with all their rich heritage that is now generally unknown and forgotten.

2. Background

Nevertheless, it is not only the culture itself that needs to be protected, but the people who constitute it and who carry it on. The challenge is to offer them a different life which would, on the one hand, give them pride and a sense of material security, and on the other hand, an opportunity to remain themselves culture-wise.

Nowadays, just transition has become a very popular subject that is being promoted through hundreds of projects and publications and by countless organizations and activists. However, all those initiatives have one thing in common: they all offer a solution. They all claim to know what needs to be done to go through the transition process successfully. Whilst the remedies vary, they may not offer the needed cure and they do not necessarily match the current realities, industries and regions with their outmoded social strata. The decision makers, scientists, and academicians are convinced that they know best what the affected people need, and that they are capable of showing them how to get that.

This project proposal is an expression of disagreement with such thinking and therefore, takes a different approach. While it is necessary to approach affected communities with a certain offer, or a hint indicating what and how they could change to find themselves in better and new economic and environmental circumstances, those suggestions should not offer any preconceived solutions. They should rather inform people about the challenge that they face and the changes that are happening around them, and guide them, but not lead, in a thought process allowing them to identify themselves their objectives and the means of achieving them.

“Just transition” is a truly complex, complicated and long-term journey, which must allow people to make their choices, own the process, and take responsibility for the outcomes. It is a task of teaching people how to fish, rather than of serving them fish on a golden platter. If the efforts are to render good and sustainable results, those results need to be accepted and appreciated by the communities. If the communities are to survive and thrive, they need to learn how to take care of themselves. They need to learn how to be proactive and innovative so that they can offer to the world services or products the delivery of which they have or can develop expertise in, and which the world needs, without maybe even knowing it yet, or at least without realizing that it is they who can deliver those services or products in the most efficient way. We, in turn, as those who are to facilitate that process, have to learn how to listen to what they have to tell us, rather than telling them, what is good for them.

3. Objectives

Content and goal of the programme.	<p>The project seeks to assist Ukraine in determining how to transform its coal mining sector, in an efficient, socially-just and socially-driven, and thus sustainable manner. Delivering on an effective “just transition” is to lead to:</p> <ul style="list-style-type: none"> • An innovative and cleaner Ukrainian mining sector characterized by a sustainable and competitive mode of production based on responsible use of resources and by alignment with the 2030 Agenda • Better quality of life of communities located in coal mining areas • Reduced inequalities that hinder balanced and sustainable development of the society and the country’s economy, and help to avoid regional desertification; and • A replicable framework for socially and environmentally sensitive modernization of coal mining regions. <p>It intends to develop a universally applicable strategy for social engagement, as well as replicable forward looking business models that are sensitive to the local capabilities and needs, at the same time providing the targeted country and the financial/lending institutions with tools to modernize the legacy industry localities and regions in accordance with the requirements of the green economy.</p>
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4. Programme concept

4.1 Starting situation in the country of implementation/targeted region

The present situation and the programme context.

- In most cases coal mines, power-generating plants, metallurgical processing plants, manufacturing and shipping facilities are integrated into dense, interrelated businesses, which will also be a part of the upcoming transformation of the coal industry
 - Nearby population centres provide the workforce for such complexes and thus render themselves vulnerable to secondary impacts on the local economy and expose their communities to a degraded local environment
 - Many heavy industry complexes were constructed prior to the emergence of carbon-constrained economies and are now relics of economies that no longer exist
 - Modernization of the energy sector cannot be avoided, particularly in light of states' voluntary environmental pledges, nor can it be further delayed as the energy infrastructure in many cases is at the very end of its life cycle
 - Decarbonization efforts will create new opportunities and employment, but will also have disruptive effects on affected countries, regions, and industries. Regional desertification must be avoided by developing forward looking, innovative approaches targeting all levels of society
 - Fears of disruptive changes influence the social debate more strongly than the benefits of the low-carbon transition
 - Local communities tend to be subjects, rather than objects of the ongoing, oftentimes overly centralized debates on the future and the required change of the coal mining regions
 - Focusing on worldwide trends and outside pressures rather than on capabilities and needs of the targeted regions and communities puts in question social acceptability, feasibility, and sustainability of the proposed solutions
 - Domestic capacities for conducting a large-scale transition of the important sectors of the economy are limited due to low public awareness, political considerations overly preoccupied by the elections' calendar, insufficient expertise, scarce financial resources, and inflexible regulatory frameworks
 - There is a need for an outside multi-stakeholder involvement providing the necessary support.
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4.2 Target group

Actors who will benefit from the measures or with whose assistance the results targeted by the programme may be achieved.

- State, regional, and communal authorities responsible for economic affairs, as well as for development and implementation of energy, environmental, and social policies
 - Coal mine owners and operators and all affected businesses, often SMEs
 - Coal mine employees
 - Clean-energy project developers
 - CMM/CBM/AMM projects developers
 - Coal mining regulators and authorities
 - Population of the targeted region
 - Local, regional, and global NGOs interested in structural change
 - Universities/academia.
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4.3 Outline of the results chain

The programme's underlying results chain (how outputs and the outcome are causally linked, or how they build on each other to achieve the programme's desired impacts).

The work under the project will comprise numerous workshops, meetings, and consultations with the targeted local communities that will allow identification of stakeholders; collect information from them; inform them about the worldwide trends that are likely to arrive to their localities; learn about their needs and expectations; assess their capabilities, know-how and potential for re-training; and jointly identify the available options, as well as assess costs of, and develop the timeframe for each proposed solution. The objective is to develop a conceptual framework for transition of the coal mining sector in the targeted region, closely tailored to the needs and capabilities of the local population.

A set of follow-up workshops/consultation meetings will seek to identify ways of implementing the framework and of developing awareness-raising and ownership-building campaigns for the affected populations in mining areas.

4.4 Project structure

Phases in which the project is to be developed.

- Identifying key stakeholders and solidifying their commitment and ownership
 - Development of a strategy/theoretical framework for transition of coal mines in the targeted region (conceptualizing a coherent ecosystem of interrelated, specifically profiled actors, policies, and programmes constituting a core of the "new" region)
 - Identification of practical aspects to implement the theoretical framework for transition of the coal mining sector to the specific technical, economic and social characteristics encountered in the targeted region
 - Development of a case-specific campaign raising awareness about consequences, opportunities, and potential benefits of the transition of the selected coal mines for the targeted population and the region
 - Development of a case-specific strategy for effective ownership-building among the targeted community promoting a just transition and a framework for a socially equitable transition.
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 4.5 *Expected outcome*

Concrete changes in the partner countries that are to be direct outcomes of the programme.

- Increased awareness and know-how of Ukraine and its targeted region of mechanisms driving structural change in coal mining areas and ensuring a just transition for all
 - Greater sense of belonging and ownership of the transition process among the targeted population
 - Less anxiety related to the transition among local population and social unrests in the targeted region
 - Enhanced capacities of the local private sector, academia, and civil society to develop and implement innovative business models and technology options to facilitate “just transition”, as well as modernization and decarbonization of the fossil-based energy sector
 - Recognise the new identity and economic profile of the targeted region aligned with the principles of the green economy and just transition
 - Local understanding of the principles of less wasteful and more sustainable resource management
 - Theoretical basis and social approval for modernization and repurposing of coal mines in accordance with the requirements of the green economy
 - Proposals developed for:
 - more modern and “greener” energy policy for the coal region involved in the project
 - more efficient, more competitive and sustainable, as well as less environmentally harmful economies of the targeted region.
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 4.6 *Long-term expected outcome*

Concrete changes in the partner countries that may be expected as the long-term results of the programme.

- New “greener” economic profile of the targeted region
 - Greater competitiveness and sustainability of the local economy in the targeted region
 - Lowered/discontinued fossil-fuel subsidies for the targeted region
 - Reduced GHG emissions in the targeted region
 - Better air quality in the targeted region
 - More flexible local workforce better suited for the requirements of the green economy
 - Lower unemployment in the targeted region
 - Less social exclusion in the targeted region
 - Better quality of life in the targeted region.
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4.7 Ensuring sustainability after the end of the programme

How the (ongoing) benefit of programme results will be ensured after the end of the programme.

The project is a starting point for the modernization of a selected Ukraine's coal mining region and prepares the ground for development and implementation of innovative business models for transition. A set of separate projects will follow, each financed separately, and oriented towards the refinement and implementation of the proposed measures. Which proposals prove to be feasible and receive support from broad population of the targeted region will be replicated, which prove to need refinement, will be refined, which will necessitate a better adjustment to local circumstances, will be adapted. Outreach will ensure a widening circle of impact. Proposed relevant educational structures in schools and technical universities, as well as educational policies introduced in alignment with the developed vision for the transformation of the targeted region. These will target a new generation of work force that will actively strengthen that region rather than desert it in the medium and long-term.

4.8 Outputs (specific programme deliverables)

The expected specific results (services, products) of the programme.

- A report outlining a conceptual framework for transition of the coal mines adapted to the need and capacities of the targeted coal mining region
 - A report analysing the practical aspects of framework implementation adapted to the local circumstances
 - A case-specific awareness campaign about consequences, opportunities, and potential benefits of the transition of the selected coal mines for the targeted populations and the region
 - A case-specific strategy for effective ownership-building among the targeted community allowing for socially peaceful implementation of a just transition for all.
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4.9 Rationale on involving regional and national implementing partners

It is a key priority of the project to enhance national and regional capacities, promote value chains, and support civil society.

Ukraine is the target country. Local community and civil society actors in the targeted region will be invited to not only engage in regional transformation, but to actually lead it, taking ownership of the resulting change and thus ensuring its sustainability. The project will help:

- National regulators in the targeted country to develop policies and regulations providing framework for transition of the coal mining industry and regions
 - Local authorities to develop long-term socio-economic strategies allowing for sustainable and socially responsible adaptation, including repurposing and redevelopment of the local coal mining infrastructure, to the requirements of a green economy
 - Local authorities to develop strategies for retaining workforce and attracting SMEs into the region and kick-start educational strategies for retraining and re-employment to pre-empt regional desertification
 - Operators of local coal mines to adjust to the proposed economic model of the targeted region
 - Local population to develop a new reality (in terms of new economic model of the targeted region requiring new set of skills and resulting in new division of labour redefining to some extent social roles of the
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4.9 Rationale on involving regional and national implementing partners

inhabitants), at the same time preserving cultural identity and heritage of the community embedded in people’s beliefs, traditions, and values.

5. Mainstreaming of programme

5.1 Integration of programme in strategies of the target country

How the programme responds to the needs of the partner country, how it is integrated in national strategies, and how it can be incorporated into planned or existing measures or projects of the partner country.

Partner country have already signed up to UNFCCC resolutions and agreed to the necessity to phase out coal. It is actively seeking partners who could provide assistance with the necessary modernization of the coal sector. Its question is how to ensure a just transition for all and at the same time guarantee, on the one hand, energy security at an affordable price, and on the other hand, preservation of the local culture and identity. The project is thus aligned with the country’s needs and international commitments. The proposed stakeholders’ consultations and joint efforts to develop a framework for a community-led transition of the targeted region will help the country to design publicly-supported and sustainable national energy policies, with long-term socio-economic strategies closely tailored to the peoples’ needs and state capacities. Work will be designed to complement and integrate into national programmes that have specific environmental, gender, and SDG targets.

5.2 Specific contribution to the implementation of the country's NDC

The programme’s contribution to the implementation of the target country's NDC (elements/sectors of the NDC and/or which processes/institutions related to NDC implementation are targeted concretely and how).

The project is directly related to the commitments of the Paris Agreement and the 2030 Agenda (SDG 7). A replicable and flexible transformational model will present the country with tools for developing a strategy for undergoing through the socio-economic transition process in a peaceful manner ensuring public support for, and sustainability of the implemented measures. The proposed project aims lay foundations for building sustainable local economies sensitive to regional particularities that are in harmony with the broader needs and capabilities of the targeted country, its population, and its international commitments. Apart from coal mining, sectors that are indirectly targeted are utilities, cement, steel, and chemical, which are all energy intensive industries built on coal mining operations, as well as the whole ecosystem of local SMEs which are based in the targeted region and provide services intrinsically linked with the coal sector and its employees.

6. Budget (in EUR)

6.1 Planned funding requirements of overall programme

Personnel (EUR)	570 000
External services (EUR)	150 000 (Consultants, outside contractors)
Investments (EUR)	0
Other funding requirements (EUR)	150 000 (Workshops / consultation meetings)
Appraisal mission (EUR)	0
Operational & administrative costs (EUR)	130 000 (UN fees)
= Total (EUR)	1 000 000

6.2 Costs per year

2022 (EUR)	425 000 (285 000 staff + 75 000 workshops + 65 000 operational and administrative costs)
2023 (EUR)	575 000 (285 000 staff + 75 000 workshops + 75 000 awareness raising campaign + 75 000 strategy for an effective ownership-building + 65 000 operational and administrative costs)
= Total funding volume (EUR)	1 000 000

6.3 Planned allocation of funds

	Expected costs (EUR)
UNECE (Programme Coordination) (P-staff)	630 000 (480 000 for staff - 1 time 20 000 x 12 x 2 + 150 000 for workshops / consultation meetings)
UNECE (Programme Support) (G-staff)	90 000 (for staff on 25% - 15 000 x 12 x 2 x 0.25)
Outside contractor for development of a campaign raising awareness about consequences, opportunities, and potential benefits of the transition of the selected coal mine(s) for the targeted population and region	75 000
An outside contractor for development of a strategy for an effective ownership-building among the targeted community allowing for socially peaceful implementation of the developed conceptual framework for transition	75 000
Total	870 000
UN Operational costs	130 000 (15% = 13 % UN PSC, 1% coordination levy, 1% consultants fee)
Sum Total (EUR)	1 000 000