International Labour Organization

Submission to the COP30 Presidency Roadmap on the Transition Away from Fossil Fuels in a Just, Orderly and Equitable Manner

A decent work perspective

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1. Introduction

The International Labour Organization (ILO) is mandated to promote social justice and internationally recognized human and labour rights, based on the principle that social justice is essential to universal and lasting peace. As the only tripartite UN agency, the ILO brings together governments, employers and workers to develop labour standards, policies and programmes that advance decent work for all.

The ILO has played a leading role in advancing the social and employment dimensions of climate and environmental action. It promotes a just transition towards environmentally sustainable economies and societies for all, ensuring that climate and environmental action contribute to decent work, social inclusion and poverty eradication. This approach is grounded in the Decent Work Agenda and its four pillars: employment, social protection, rights at work and social dialogue.

The *Guidelines for a just transition towards environmentally sustainable economies and societies for all* (the ILO Just Transition Guidelines, 2015), endorsed by the International Labour Conference in the 2023 *Resolution concerning a just transition towards environmentally sustainable economies and societies for all*, provide a comprehensive policy framework to guide countries in aligning climate, economic and social objectives. The importance of a just transition is reflected in the Paris Agreement, which recognizes the imperative of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.

Regarding a transition away from fossil fuels in a just orderly and equitable manner, the ILO, building on its mandate and technical expertise, supports countries in the areas of employment, skills, social protection, labour rights and social dialogue. At the global level, the ILO collaborates with partners such as the International Renewable Energy Agency (IRENA) and the International Energy Agency (IEA) to generate evidence on employment impacts, job quality and policy pathways. At regional and country levels, it implements technical cooperation initiatives supporting just energy transition processes, including in fossil fuel-dependent regions.

This paper is a response to the call to submit contributions to the COP30 Presidency Roadmap on the transition away from fossil fuels in a just, orderly and equitable manner. This submission brings a decent work perspective, focusing on key barriers, challenges and policy levers to support a just transition. It builds on the ILO submission to the fourth dialogue of the Just Transition Work Programme (JTWP) and draws on findings and lessons from the ILO's work at global, regional and country levels, particularly since the adoption of the 2023 Resolution.

2. Barriers and levers for a just, orderly and equitable transition away from fossil fuels

The transition away from fossil fuels presents both significant opportunities and complex challenges for labour markets, workers, enterprises and economies. Delivering this transition in a just, orderly and equitable manner requires addressing interrelated barriers while activating key policy levers across the world of work. Drawing on ILO evidence and experience, this section highlights critical challenges and enabling factors across core dimensions, including employment dynamics, skills development, enterprise development, job quality and labour rights, and social dialogue. It underscores that positive outcomes are not automatic but depend on integrated and coherent policy approaches that align climate, economic and social objectives. It emphasises that a transition that delivers decent work is essential not only for social justice, but also for sustaining public support and ensuring the long-term success of transition pathways.

Employment dynamics: job creation, losses, and mismatches

The transition away from fossil fuels is reshaping labour markets across all regions, creating significant opportunities for employment, while also generating transformations in labour markets that require substantial adjustments. Evidence indicates that the expansion of renewable energy and its use across economic sectors can drive strong job creation and support job-rich economic growth[1]. At the same time, the transition will lead to job displacement in fossil fuel industries and related supply chains, particularly in regions and communities where these activities are concentrated[2].

While global projections point to net employment gains, with up to 37.2 million additional jobs by 2030 under a net-zero scenario[3], these gains are not automatic and depend on deliberate and well-coordinated policy action. Without such measures, there is a risk that the benefits of the transition will remain unevenly distributed, both across and within countries. Employment opportunities in clean energy and related sectors are still highly concentrated in a limited number of countries and only a small share in regions such as Africa[4], while many developing economies face structural constraints that limit their ability to capture these gains.

A central labour market related challenge lies in the temporal and spatial misalignment between job creation and job losses. New employment opportunities in clean/renewable energy and other emerging industries that result from transition measures often arise in different locations, and at a different pace, than job losses in fossil fuel sectors. Evidence from country experiences, such as coal-dependent regions where renewable energy investments are located elsewhere, highlights these mismatches and their implications for workers and communities[5]. This can lead to significant regional imbalances, particularly in fossil fuel-dependent areas, where workers, communities and local economies are exposed to risks of unemployment, income loss and economic decline.

These dynamics are further compounded by structural labour market challenges. Workers in declining sectors may face barriers to accessing new opportunities due to limited mobility, lack of relevant skills, or weak labour market intermediation systems, including insufficient labour market information and skills anticipation mechanisms[6]. In addition, many of the new employment opportunities, particularly in decentralized energy systems and parts of the renewable energy value chain, are characterized by high levels of informality or precarious working arrangements, limiting sector contribution to decent work and inclusive growth[7].

The distributional impacts of the transition also raise important equity concerns. Without targeted measures, existing inequalities may be reinforced, with women, youth, informal economy workers, and communities in vulnerable situations facing greater barriers to accessing new employment opportunities. At the same time, insufficient attention to the social impacts of job displacement can undermine public support for transition policies and slow down implementation.

Addressing these challenges requires a proactive and integrated policy approach. Anticipatory labour market policies are essential to manage employment transitions, including job placement services, targeted support for displaced workers, and measures to facilitate labour mobility where appropriate.

Equally important are territorial and place-based strategies, which aim to support economic diversification and the creation of alternative employment opportunities in fossil fuel-dependent regions, as illustrated by initiatives such as the EU Coal Regions in Transition platform and national just

[1] With renewable energy employment reaching 16.2 million jobs globally in 2023 (IRENA and ILO, 2024)
[2] ILO, 2024; IEA, 2023 Net Zero scenario.
[3] ILO, 2024
[4] IRENA and ILO, 2024
[5] ILO, 2024; Scheja and Kim, 2024
[6] ILO, 2024
[7] IRENA and ILO, 2024

transition strategies (e.g. South Africa, Chile). Maximizing the employment potential of the transition also depends on aligning climate and energy policies with broader economic, industrial and employment strategies, ensuring that investments in clean energy translate into local job creation and inclusive development outcomes. Deliberate measures are needed to ensure that new employment opportunities are accessible to all, including through targeted interventions to promote inclusion and address structural barriers in labour markets.

In this context, the transition away from fossil fuels can become a powerful driver of decent work and inclusive growth, but only if employment impacts are anticipated, managed and embedded within a comprehensive just transition framework.

Employment dynamics: summary of barriers and levers

Key barriers:

a) Concentrated employment losses in fossil fuel-dependent regions and sectors

b) Temporal and spatial mismatches between job losses and job creation

c) Unequal distribution of opportunities

d) Risks of exclusion of vulnerable groups, including women, youth and workers in the informal economy

Key levers:

- Employment generation potential in emerging sectors and related activities
- Active labour market policies, including employment services and transition planning
- Territorial approaches targeting fossil fuel-dependent regions
- Economic diversification strategies to create alternative sources of employment
- Targeted inclusion measures to ensure equitable access to new jobs

Impact on the structure of economies and industrial development potential

The transition away from fossil fuels entails significant economic restructuring, linked to policy efforts aimed at reducing economic dependence on extractive industries and fostering more diversified and resilient economies, with differentiated impacts across countries, regions and sectors. In fossil fuel-dependent regions, the decline of extractive and carbon-intensive activities can lead to economic contraction, job losses and reduced fiscal revenues, with ripple effects across local economies, supply chains and communities. Evidence from coal-dependent regions and fossil fuel-based industrial clusters shows that the transition can affect not only direct employment, but also indirect jobs and local economic ecosystems, including informal economic activities and community livelihoods[8].

At the same time, the transition presents a major opportunity to drive industrial transformation, economic diversification and value creation. The expansion of renewable energy, energy efficiency and low-carbon technologies is generating new demand across multiple sectors, including manufacturing, construction, transport and services, with strong employment growth projected particularly in construction and manufacturing linked to clean energy deployment[9]. If supported by appropriate

[8] ILO, 2024; Carbon Trust, 2023
[9] ILO, 2024; IEA, 2025

policies, this can foster the development of new domestic value chains, stimulate innovation and support structural transformation towards more sustainable and resilient economies.

However, these opportunities are not evenly distributed. Many developing countries face structural constraints, including limited access to finance, technology and markets, which restrict their ability to move beyond primary production and capture higher value-added segments of emerging industries. Global investment patterns show that clean energy investment remains highly concentrated in a small number of economies, with limited capital flows to most developing countries[10]. In addition, the absence of coherent and integrated industrial policy frameworks, or misalignment between climate, industrial and employment policies, can limit the capacity to translate investments in clean energy into broader economic and employment gains[11].

Realizing the development potential of the transition requires strategic and coordinated policy approaches. Industrial policies can play a central role in fostering domestic manufacturing, supporting innovation, developing the energy infrastructure, and promoting backward and forward linkages with the local economy. Experiences from countries pursuing industrial strategies in the context of the greening of economies (such as efforts to develop local value chains in renewable energy, electric mobility or green hydrogen) illustrate the importance of aligning investment, industrial and skills policies to maximise local economic benefits[12]. Economic diversification strategies are particularly critical in fossil fuel-dependent regions, where alternative engines of growth are needed to offset losses and support long-term resilience.

Aligning climate action with industrial development and employment objectives is essential to ensure that the transition contributes not only to decarbonization, but also to inclusive and sustainable economic development.

Impact on the structure of economies and industrial potential: summary of barriers and levers

Key barriers:

- Risk of economic decline in regions dependent on fossil fuels
- Limited access to finance, technology and markets, especially in developing countries
- Weak or fragmented industrial policy frameworks

Key levers:

- Opportunities for industrial development
- Industrial policies fostering domestic value chains (e.g. renewables, clean tech, critical minerals)
- Investment in local manufacturing and value addition
- Alignment of climate, energy, industrial and employment policies
- Leveraging the transition for job-rich economic diversification

Skills development: a critical enabler and potential bottleneck

Skills development is a central pillar of the transition away from fossil fuels and a key determinant of whether this transition can deliver on its potential for job creation, economic diversification and social

[10] IEA, 2025
[11] ILO, 2024
[12] ILO, 2024

inclusion. Evidence shows that the shift towards renewable energy, energy efficiency and their utilisation across economic sectors is generating demand for new occupations across all skill levels, with particularly strong growth in medium-skill jobs linked to construction, manufacturing, installation and maintenance activities[13].

At the same time, skills shortages or inadequacy represents one of the most significant bottlenecks to a just, orderly and equitable transition. The shift away from fossil fuels entails profound changes in occupational structures, requiring workers in declining sectors to transition to new roles, often with different skill profiles. In many contexts, skills mismatches between displaced workers and emerging job opportunities hinder labour market transitions, slow down project implementation and limit the ability of countries to fully capture the benefits of the energy transition. Evidence from countries undergoing coal phase-down shows that workers are often not located where new jobs are created and may lack the required competencies, constraining labour reallocation[14].

These challenges are compounded by unequal access to education and training systems, particularly in developing countries and among vulnerable groups. Limited availability of relevant curricula, training programmes, weak links between training institutions and industry needs, and insufficient anticipation of future skills requirements contribute to persistent gaps. In many countries, labour market information systems and skills forecasting capacities remain underdeveloped, constraining evidence-based planning and timely policy responses[15].

Without targeted interventions, these constraints risk reinforcing existing inequalities. Women, youth, older workers and those in informal economies often face additional barriers to accessing skills development opportunities and transitioning into emerging sectors. At the same time, the occupational structure of new energy-related jobs, often concentrated in technical, manual and STEM-related occupations where women and certain groups remain underrepresented, may further entrench disparities if proactive inclusion measures are not put in place[16].

Addressing skills challenges requires integrated and forward-looking policy approaches that align skills development with climate, energy and industrial strategies. Embedding upskilling and reskilling into national transition planning is essential to ensure that workforce development keeps pace with structural economic change. This includes strengthening skills anticipation systems, developing sector-specific training programmes, and fostering closer dialogue and collaboration between governments, employers, workers' organizations and education and training institutions. Examples include national skilling initiatives for green jobs and the strengthening of sectoral skills bodies to align training systems with emerging labour market needs[17].

Reskilling and upskilling programmes play a critical role in supporting workers affected by the transition, enabling them to access new employment opportunities and reducing the risk of long-term unemployment. At the same time, investments in apprenticeships and continuous learning systems are necessary to prepare new entrants to the labour market and to support lifelong learning in rapidly evolving sectors.

Ensuring inclusive access to skills development is equally important. Targeted measures are needed to address barriers faced by underrepresented groups, including through tailored training programmes, financial support mechanisms, and policies that promote equal access to emerging occupations.

[13] ILO, 2024
[14] ILO, 2024; IEA, 2025
[15] ILO, 2024; IEA, 2025 Blueprint for Action
[16] ILO, 2024; IRENA and ILO, 2024
[17] ILO, 2024; IEA, 2025

Examples include targeted training programmes for women in renewable energy and incentives for participation of underrepresented groups in technical occupations[18].

In this context, skills systems act both as an enabler of the transition (unlocking employment opportunities and supporting productivity and innovation) and as a potential constraint where investments are limited and gaps persist. Strengthening skills development systems and institutions, aligned with broader just transition strategies, is therefore essential to ensuring that the transition away from fossil fuels delivers equitable and sustainable outcomes for workers, enterprises and economies.

Skills development: summary of barriers and levers

Key barriers:

- Skills mismatches between jobs in fossil fuel sectors and the requirements of jobs in emerging sectors
- Limited access to cutting-edge training, especially in remote locations and rural areas
- Weak labour market information and forecasting systems, particularly in developing countries

Key levers:

- Integrated skills strategies aligned with energy, industrial and employment policies
- Reskilling and upskilling programmes for affected workers sustained by social dialogue at national, subnational and sectoral level
- Strengthening labour market intelligence systems
- Inclusive access to training, especially for vulnerable groups

Enterprises and MSMEs: challenges and opportunities

Enterprises, and in particular micro, small and medium-sized enterprises (MSMEs) which account for about 70 per cent of employment worldwide, are key actors in the transition away from fossil fuels, both as drivers of innovation and as providers of employment and essential services. In emerging areas such as decentralized renewable energy systems, MSMEs play a critical role across the value chain, including in distribution, installation, maintenance and service delivery, with significant potential to expand energy access and support local economic development. Evidence shows that decentralized energy systems, such as off-grid solar and mini-grids, can generate employment directly while also enabling indirect job creation through productive uses of energy in micro-enterprises and local economies[19].

At the same time, enterprises, especially MSMEs, face multiple constraints that can limit their ability to contribute to and benefit from the transition. These include limited access to finance, technology and markets, as well as capacity constraints that hinder their ability to adapt to new regulatory requirements and invest in new business models. High levels of informality in many sectors further restrict productivity, access to support mechanisms and the ability to create quality jobs, particularly in decentralized renewable energy value chains and related services[20].

Compliance with environmental regulations and participation in emerging green markets may also entail significant costs, particularly for small businesses with limited resources. Evidence from the European Union suggests that initial compliance costs for SMEs in the context of green and digital transition policies can be substantial, highlighting the importance of proportionate regulation and

[18] IRENA and ILO, 2024
[19] IEA, 2023; ILO, 2024
[20] ILO, 2024; IRENA and ILO, 2024

targeted support measures[21]. Without adequate support, these challenges risk excluding smaller enterprises from the opportunities associated with the transition and concentrating benefits among larger firms.

Large enterprises play a critical role in the transition, particularly through their capacity to mobilize investment, drive technological innovation and operate at scale. In energy-intensive sectors, they are central to renewable energy deployment, energy efficiency improvements and industrial decarbonization, with important spillover effects across supply chains, including for MSMEs.

The transition also entails significant adjustment challenges for large industrial actors, especially in carbon-intensive sectors, including high capital requirements, technological upgrading and workforce reskilling needs. Coherent policy frameworks, social dialogue and responsible business conduct are essential to support a just transition while strengthening linkages with smaller enterprises and local economies.[22]

Unlocking the potential of enterprises requires the creation of an enabling environment for sustainable business development. This includes improving access to finance, strengthening business development services, facilitating market access, and supporting innovation and technology adoption. Policies that promote formalization are particularly important, as they can enhance productivity, improve working conditions and enable enterprises to scale up their activities.

Harnessing the role of MSMEs, including through social and solidarity economy approaches, can contribute significantly to job creation, local economic development and inclusive access to clean energy solutions, provided that appropriate support measures are in place. Community-based energy models have demonstrated their potential to expand access to affordable energy while strengthening local ownership and participation[23].

Enterprises and MSMEs: summary of barriers and levers

Key barriers:

- Limited access to finance, technology and markets
- High compliance costs and regulatory complexity
- High levels of informality in emerging sectors
- Weak enabling environments for sustainable enterprises

Key levers:

- Targeted support to MSMEs, including finance, capacity-building and market access
- Policies supporting formalization and productivity
- Coherent and predictable policy frameworks to support investment and innovation
- Development of local clean energy value chains
- Promotion of social and solidarity economy models

[21] European Parliament, 2024

[22] ILO, 2024a

[23] ILO, 2013; ILO, 2024

Job quality, labour rights and working conditions

Ensuring that the transition away from fossil fuels generates not only jobs, but decent work, is a fundamental dimension of a just, orderly and equitable transition. While the expansion of renewable energy and related sectors is creating new employment opportunities, evidence indicates that these jobs do not systematically match the quality of those in fossil fuel industries in terms of wages, stability and working conditions. Comparative analysis shows that jobs in fossil fuel sectors often remain better paid and more stable than some jobs in renewable energy, particularly in installation and lower-skilled segments[24].

In several segments of the green economy, particularly in parts of the renewable energy value chain and decentralized energy systems, jobs are often characterized by informality, precarious employment arrangements, limited social protection and occupational safety and health risks. Informal employment remains prevalent in off-grid and small-scale energy services, limiting access to labour rights and decent working conditions[25]. In addition, gaps in the labour rights protection and limited unionization in some sectors can further weaken working conditions.

Gender inequalities and other forms of exclusion persist in emerging industries. Women represent a minority of the renewable energy workforce overall and are significantly underrepresented in technical and leadership roles, reflecting structural barriers to access, progression and equal pay[26]. Without targeted action, these patterns risk being reproduced or exacerbated in the transition.

Addressing these challenges requires embedding decent work considerations at the core of transition policies and investments. This includes promoting compliance with international labour standards, strengthening occupational safety and health frameworks, and ensuring adequate wages and working conditions across supply chains. In sectors linked to critical energy transition minerals and energy infrastructure, particular attention is needed to address occupational risks, informality and human rights concerns[27].

Extending social protection systems, including to workers in the informal economy, is also critical to support income security and facilitate transitions between jobs. Evidence shows that gaps in social protection coverage significantly limit the ability of workers and households to cope with job displacement and income shocks associated with the transition[28]. Promoting formalization and strengthening labour market institutions can further contribute to improving job quality and ensuring that the benefits of the transition are broadly shared.

A transition that delivers decent work is essential not only for social justice, but also for sustaining public support and ensuring the long-term success of transition pathways.

Job quality: summary of barriers and levers

Key barriers:

- Lower wages and precarious conditions in parts of the renewable energy sector
- Persistent informality and lack of social protection
- Gender inequalities and limited access to quality jobs

Key levers:

[24] IRENA and ILO, 2024
[25] ILO, 2024; IRENA and ILO, 2024
[26] IRENA and ILO, 2024
[27] ILO, 2024
[28] ILO, 2024

- Embedding labour standards in transition policies and investments
- Strengthening occupational safety and health frameworks
- Promoting formalization and social protection coverage
- Addressing gender and inclusion gaps

Social dialogue and stakeholder engagement

Social dialogue and stakeholder engagement are fundamental enablers of a just, orderly and equitable transition away from fossil fuels. The transformation of energy systems has wide-ranging implications for workers, enterprises and their communities, and requires inclusive governance processes that ensure that those affected have a voice in shaping transition pathways. Evidence shows that social dialogue contributes to more effective, equitable and sustainable policy outcomes, particularly in contexts of structural economic change[29].

Where social dialogue mechanisms are weak or absent, transition policies risk being poorly designed, lacking legitimacy, and facing resistance from affected stakeholders. Insufficient consultation with workers, employers, local communities and other groups can lead to unintended negative impacts, delays in implementation and reduced effectiveness of policy measures. Experiences from large-scale energy projects and industrial transitions highlight that lack of engagement with affected communities can generate opposition and slow down transition processes[30].

Conversely, well-functioning social dialogue can play a critical role in anticipating and managing change, facilitating consensus-building, and designing policies that are responsive to real needs and circumstances. Workers' and employers' organizations bring valuable knowledge of sectoral dynamics and labour market conditions, while broader stakeholder engagement ensures that diverse perspectives, including those of women, youth, Indigenous Peoples and local communities, are taken into account.

Institutionalizing social dialogue at national, sectoral and local levels is therefore essential. This includes strengthening tripartite mechanisms, ensuring access to information, and building the capacity of workers' organisations and Employer and Business Membership Organizations (EBMOs) to engage effectively in transition processes, including at sub-national level. Examples from just transition planning processes and international cooperation initiatives demonstrate that early and continuous engagement of stakeholders improves policy coherence, implementation and social acceptance[31].

Meaningful stakeholder engagement, grounded in principles of participation, transparency and inclusiveness, can enhance the effectiveness, legitimacy and sustainability of transition strategies, while helping to build the social consensus needed to accelerate implementation.

Social dialogue: summary of barriers and levers

Key barriers:

- Weak or absent social dialogue mechanisms
- Limited participation of workers, employers and communities in decision-making, design and implementation of energy transition strategies
- Lack of trust and social acceptance

[29] ILO, 2023; ILO, 2024
[30] ILO, 2024
[31] ILO, 2024

Key levers:

- Institutionalized social dialogue at national, sectoral and local levels
- Meaningful stakeholder engagement, including affected communities
- Strengthening governance frameworks for participatory transition planning

3. Experiences and lessons learned relevant to transition roadmaps

Experiences across countries show that transition pathways are context-specific, reflecting different development levels and priorities, economic structures and degrees of dependence on fossil fuels. At the same time, emerging practice points to a set of common policy building blocks that underpin effective and inclusive energy transition roadmaps.

a) Industrial and sectoral policies

Effective approaches typically combine industrial and sectoral policies with measures that promote both decarbonization and economic transformation. This includes scaling up renewable energy and clean technologies, while also supporting broader economic diversification strategies that extend beyond the energy sector. For example, Chile's Just Transition Strategy in the energy sector integrates coal phase-out plans with measures to support local economic development and new industries. Similarly, countries such as South Africa and Namibia have formulated national strategies to develop local value chains in areas such as renewable energy and green hydrogen, aiming to capture greater domestic value and employment benefits. In Germany, the coal phase-out includes a comprehensive structural policy framework for affected regions, including long-term public investment in infrastructure, innovation and economic diversification through the coal regions support programme.

b) Skills and active labour market policies

These efforts are closely linked to skills and active labour market policies, which play a central role in enabling workers and enterprises to adapt to structural change. Integrating skills development into transition planning, supported by labour market forecasting tools and sectoral diagnostics, helps anticipate future workforce needs. Targeted upskilling and reskilling programmes are essential to support workers in accessing new opportunities and to address skills gaps in emerging sectors. For instance, in South Africa, the Just Energy Transition Implementation Plan envisages the creation of a JET Skills Desk and three provincial skills zones focused on renewables, electric vehicles, and green hydrogen. In Indonesia, support to public employment services is helping match workers affected by coal transition with new job opportunities. In India, sector skills councils for green jobs support the identification of skills needs and the development of training programmes aligned with renewable energy and circular economy sectors. In Canada, federal and provincial initiatives under sustainable jobs frameworks place strong emphasis on workforce development, including skills mapping, training support and transition pathways for workers in emissions-intensive sectors.

c) Sustainable enterprise development

Creating enabling environments for MSMEs and local businesses supports job creation and facilitates the expansion of clean energy and related services. This includes improving access to finance, promoting entrepreneurship and innovation, and supporting the formalization of economic activities. Programmes such as the Skills for Energy in Southern Africa (SESA) initiative have demonstrated how strengthening training systems and partnerships with industry can support enterprise development

and workforce readiness in renewable energy sectors. Recognizing the territorial dimension of the transition is also critical, as demonstrated by initiatives such as the European Union's Coal Regions in Transition, which support regional economic diversification and local development. In Australia, regional transition authorities and place-based initiatives, particularly in coal-dependent regions, aim to support economic diversification, local enterprise development and investment attraction.

d) Social protection systems

Income support and transition assistance for displaced workers, as well as the extension of social protection to workers in the informal economy, are essential to mitigate adverse impacts. In several countries, social protection measures are being integrated into broader transition and reform processes, including to address the distributional impacts of fossil fuel subsidy reforms and structural economic change. In Indonesia, fossil fuel subsidy reforms have been complemented by targeted cash transfer programmes to cushion impacts on vulnerable households, illustrating how social protection can support equitable and socially acceptable transition processes[32]. In Germany, coal phase-out policies have been accompanied by comprehensive social measures, including income support, early retirement schemes and job transition assistance for affected workers.

e) Social dialogue and stakeholder engagement

The effectiveness and legitimacy of transition strategies depend on strong social dialogue and stakeholder engagement. The involvement of workers' and employers' organizations, alongside broader participatory processes, helps ensure that policies are grounded in local realities and build social consensus. For example, South Africa's Presidential Climate Commission and tripartite dialogue platforms have played a central role in shaping just transition policies and ensuring stakeholder engagement at national and local levels. In Spain, social dialogue has been central to the implementation of coal transition agreements, including the negotiation of Just Transition Agreements with trade unions and employers to support affected workers and regions. In Indonesia, tripartite advisory forums have been established in coal-dependent regions to bring together government, workers, employers, and civil society actors in shaping just transition measures at the provincial level.

f) Labour rights and decent work

Integrating labour rights and decent work principles into transition policies is essential to ensure that new jobs contribute to sustainable and inclusive development. This includes promoting compliance with labour standards, improving working conditions and ensuring that employment generated through the transition provides adequate wages, security and opportunities for advancement. In countries such as Canada, South Africa and Chile, just transition policies increasingly emphasize fair working conditions, worker protections and inclusive labour market outcomes as part of broader transition strategies.

4. Capacities, technology, finance and international cooperation

Capacity development, technology and finance, together with international cooperation are key for advancing a just energy transition, especially considering the specific constraints faced by developing countries.

[32] World Bank, 2019; International Energy Agency, 2023

Capacity development

Effective implementation of transition pathways requires strengthened institutional and human capacities at national, sectoral and local levels. This includes enhancing the ability of governments, social partners and labour market institutions to anticipate and manage impacts, design integrated policies, and implement just transition strategies, as reflected in several countries' efforts to strengthen evidence-based policymaking through employment impact assessment and social dialogue. Capacity development is particularly important for strengthening labour market information systems, skills anticipation mechanisms, and public employment services, as well as for supporting social dialogue processes and inclusive policy design. Building such capacities is essential to ensure that transition measures are coherent, evidence-based and responsive to country-specific contexts.

Technology

Access to technology and the ability to adapt and deploy it effectively are critical enablers of a just transition. Beyond the diffusion of clean energy technologies, this includes strengthening domestic capabilities to participate in and benefit from emerging value chains. Technology development and transfer, supported by international cooperation, can help bridge gaps between countries and support industrial development, job creation and productivity growth. At the same time, aligning technology deployment with skills development and enterprise support is essential to ensure that technological change translates into inclusive economic opportunities.

Financing

Adequate and predictable financing is essential to support the economic and social dimensions of the transition. This includes investments not only in energy infrastructure and clean technologies, but also investments in the social enablers of a just, orderly and equitable transition, including skills development, social protection systems, and enterprise support, in addition to regional economic diversification. In many developing countries, limited fiscal space and high cost of capital constrain the ability to mobilize such investments. Scaling up public and private finance, including through international climate finance and innovative financing mechanisms, is therefore critical to ensure that countries can implement transition strategies that are both ambitious and socially inclusive.

International cooperation

Enhanced international cooperation is central to enabling a just, orderly and equitable transition. This includes support for capacity development, technology transfer and financing, as well as knowledge-sharing and policy exchange across countries. International partnerships can play an important role in aligning climate, development and employment objectives, while supporting countries with different starting points and capacities. Ensuring that international cooperation frameworks explicitly integrate social and employment dimensions will be key to supporting inclusive and sustainable transition outcomes.

5. Conclusion

Social justice, decent work and social dialogue as key elements and enablers of a just, orderly and equitable transition away from fossil fuels. Ensuring that transition pathways are inclusive and development-oriented requires that policies explicitly aim to generate decent work, protect workers and

enterprises, support economic diversification and reduce inequalities. When aligned with these objectives, the transition away from fossil fuels can contribute not only to climate goals, but also to broader sustainable development outcomes. A transition that delivers decent work is essential not only for social justice, but also for sustaining public support and ensuring the long-term success of transition pathways. Achieving this will require sustained investment in institutional capacities, strong coordination across policy areas, and meaningful engagement of social partners to translate commitments into effective and context-responsive action.

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