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The Inequalities- Environment Nexus

Tools for Catalyzing a Just Transition
A Handbook for Policymakers



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PATHFINDERS
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About this Publication

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About the Grand Challenge on Inequality & Exclusion

Inequality and exclusion are among the most pressing political issues of our age. They are on the rise and the anger felt by citizens towards elites perceived to be out-of-touch constitutes a potent political force. Policymakers and the public are clamouring for a set of policy options that can arrest and reverse this trend. The Grand Challenge on Inequality and Exclusion seeks to identify practical and politically viable solutions to meet the targets on equitable and inclusive societies in the Sustainable Development Goals. Our goal is for national governments, intergovernmental bodies, multilateral organizations, and civil society groups to increase commitments and adopt solutions for equality and inclusion. For further information on policy solutions to inequality, please visit the online portal, [InequalitySolutions.com](https://inequalitysolutions.com)

The Grand Challenge is an initiative of the Pathfinders for Peaceful, Just and Inclusive Societies, a cross-regional impact hub of 46 member states, as well as partners across international organizations, civil society, and the private sector committed to advancing the Sustainable Development Goal targets for peace, justice, inclusion, and equality (SDG16+). The Pathfinders is hosted at New York University's Center on International Cooperation.

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PART I
Ensuring a Just
Transition to a
Green Economy

Introduction

Why just transitions matter for people, planet, and the economy

A just green transition refers to the process of shifting an economy rooted in high levels of resource consumption, environmental degradation, and social inequity—towards one that is sustainable, environmentally- friendly, and inclusive for all stakeholders, particularly those who may be most affected by the changes. It emphasizes social equity, economic justice, and the protection of vulnerable communities and workers in the process of transitioning to a greener, more sustainable model. If done correctly, it can also be practical and support growth. Research by the International Monetary Fund (IMF), for example, indicates that green policies, particularly energy taxation, is particularly effective in decarbonizing economies, after they follow broad first-generation reforms designed to remove critical constraints to economic activity. Therefore, the choice is not between greening and growth, but between clean growth and dirty growth when it comes to the green transition.

Transitioning to a green economy is imperative for all countries, and many have already started their journeys. The process of planning and executing a transition presents a once-in-a-lifetime opportunity to ensure the movement towards an environmentally sustainable and climate-safe future that benefits society as a whole and occurs in a just and equitable manner. This means people in vulnerable situations—whether due to poverty, how they earn their living, where they live, or because of their identity—do not get left behind. Often, these are the same people who also stand to lose the most not only from climate change and environmental degradation, but also from the process of moving towards a more sustainable pathway. A transition towards a greener economy is fundamentally also a matter of justice: it can save lives and improve livelihoods, as well as address historic injustices. Importantly, a green transition can address people’s fears and uncertainties about potential negative effects on economies, livelihoods, and the environment, thus preventing backlash to the coming change and instead, widen political support.

Just transitions also offer enormous opportunities and potential value added to the economy. They include the creation of new high-value jobs in new green activities, sustainable action to drive innovation, new expertise, stronger competitiveness—all with growing potential for the medium- and long-term. In fact, a 2023 report by Arup and Oxford Economics estimates that new green industries could be worth USD 10.3 trillion to the global economy by 2050, equivalent to 5.2 percent of global gross domestic product (GDP) that year. There has never been a better time to invest in the green economy. Who will benefit from the wealth and opportunities created, however, will be determined by how these investments are shaped.

Box 1: Core principles of a just transition

Protect people and the planet: Addressing environmental inequalities and ensuring marginalized communities—which often bear a disproportionate burden of environmental impacts—are protected and benefit from environmental improvements. This includes addressing disparities in access to climate information and education, particularly among marginalized groups, to ensure equitable access to knowledge and resources for adaptation and mitigation strategies. This also entails assessing the potential for climate-induced displacement and migration; identifying vulnerable populations; and developing strategies to protect their rights, provide support, and facilitate resettlement.

Catalyze sustainable economic growth: Promoting economic growth that is environmentally sustainable and socially inclusive, rather than relying on unsustainable and environmentally harmful industries and/or practices. This might include policies that phase out mining and coal-based energy plants; limit deforestation and manage pollution; and ensure a sustainable blue economy, amongst others. This may include providing support for workers in industries that may face disruption due to the transition by offering reskilling opportunities, while also creating an economy with additional opportunities for new jobs in green sectors; addressing barriers to entry for women, youth, unemployed people, and informal workers; and ensuring equitable access to training and employment opportunities.

Ensure social equity and inclusion: Ensuring that the benefits and costs of the transition are distributed fairly across different social groups, including vulnerable and marginalized communities (such as women, Indigenous people, and others) and low-income individuals. It also requires involving workers in decision-making processes related to the green transition; and ensuring the protection of workers' rights and their access to decent and secure employment.

Establish transparency and accountability: Undertaking transparent and inclusive decision-making processes that involve various stakeholders, including government, civil society, business, and communities, to ensure that policies are effective, accountable, and responsive to diverse needs. It also entails addressing the grievances—whether social, economic, or territorial—that can increase the risk of conflict within or between communities, or potentially drive conflict.

Empower communities: Recognizing and addressing the specific challenges faced by different geographic communities, such as those disproportionately affected by environmental degradation or economic dislocation and identifying mechanisms to involve local communities in decision-making processes related to the green transition, as well as providing the necessary human capital and financial resources to localize green transition processes.

1 What is a Just Transition?

Origins of the just transition framework

While definitions sometimes differ, and it is vitally important to take into consideration context-specific analysis and strategies, the concept of a just transition refers generally to strategies, policies, or measures to ensure no one is left (or kept) behind in the transition to low-carbon and environmentally sustainable economies and societies. While the concept originated from trade union activism in the 1990s to address the loss of jobs resulting from the implementation of environmental regulations and policy, it has since expanded. It gained particular traction on the international stage in 2015, when it was referred to in the Paris Agreement, and the International Labour Organization (ILO) published its Guidelines, defining a just transition as: “greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.” A just transition was also incorporated into the 2030 Agenda for Sustainable Development, with the pledge of “leaving no one behind.” Since then, further commitments and strategies have been established internationally, as well as by numerous countries in their Nationally Determined Contributions (NDCs).

The ILO Guidelines also refer, among other principles, to the need for social dialogue; respect, promotion, and realization of rights at work; policies that address gender dimensions, promote the creation of decent jobs, and provide social protection and skills development; and international cooperation. However, in practice, approaches have varied in terms of how and to what extent they incorporate different dimensions of justice (distributive, procedural, and/or restorative). The extent and degree of the green transition also varies: in some countries, transformation is defined more in terms of justice, in others in terms of equity. Thus, approaches can run the gamut from compensating for job losses to catalyzing deeper changes within political and economic systems, which might include shifts to a low carbon future across sectors. They might also consider historical inequities or injustices.

2 Sectors Affected by a Green Transition

A just transition encompasses a range of initiatives and policies aimed at driving a country towards a more sustainable, environmentally-friendly, and economically viable future. As such, it impacts a wide range of policy areas and will require cross-sectoral coordination. For resource-rich countries, it is particularly important for addressing issues like deforestation, biodiversity conservation, sustainable agriculture, and climate change mitigation and adaptation. Some key sectors (non-exhaustive) affected by the green transition include:

- » **Energy:** This is often the most prominent sector affected. The transition can involve shifting from fossil fuels (coal, oil, natural gas) to renewable energy sources (solar, wind, hydropower, geothermal). It also includes improvements in energy efficiency. Clean and affordable energy policies involve ensuring all communities have access to reliable and affordable clean energy sources, and that they do not disproportionately burden low-income households.
- » **Forestry and land use:** Sustainable forestry practices, reforestation, afforestation, and protecting natural habitats are crucial components of a just transition.
- » **Extractives:** This sector encompasses activities related to the extraction of natural resources, including mining, oil, and gas production. In order to be on a more sustainable pathway, the transition could involve adopting sustainable mining practices, providing robust retraining and employment opportunities for affected workers, and implementing transparent revenue management systems.
- » **Transportation:** This involves transitioning from internal combustion engine vehicles to electric vehicles (EVs) and investing in sustainable public transport systems. This may include changes in infrastructure for charging stations and bike lanes (where they exist) and reducing pollution from transportation infrastructure in marginalized neighborhoods.
- » **Industry and manufacturing:** This sector is impacted by the need to adopt cleaner and more sustainable production processes. This could involve using cleaner technologies, reducing waste, and implementing circular economy principles.

- » **Infrastructure and housing:** This involves evaluating the resilience of infrastructure and housing in different communities to climate impacts, identifying areas with higher vulnerability, and developing targeted adaptation measures to protect vulnerable populations.
- » **Food security and agriculture:** This involves analyzing the impact of climate change on food production and access and adopting more sustainable agriculture practices, such as organic farming, agroecology, and regenerative agriculture. It may also involve reducing the environmental footprint of food production and distribution. Finally, it is important to identify communities that are most at risk of food insecurity and develop targeted interventions to ensure equitable access to nutritious food.
- » **Building and construction:** This sector is affected by the need for energy-efficient and sustainable building designs, including the use of eco-friendly materials, improved insulation, and renewable energy systems.
- » **Waste management:** Transitioning to a circular economy involves reducing waste generation, increasing recycling rates, and finding more sustainable ways to handle and dispose of waste.
- » **Water and waste management:** This sector focuses on conserving and protecting water resources, as well as implementing sustainable wastewater treatment and management practices.
- » **Tourism and hospitality:** Sustainable tourism practices, such as eco-tourism and responsible travel, are part of the transition. This involves minimizing the environmental impact of tourism activities.
- » **Finance, investment, and taxation:** This incorporates the need to shift investments away from high carbon industries towards green and sustainable projects. It can also entail designing taxation systems that redistribute the wealth generated from green transitions and finance basic public services, from health and education to public transportation and social protection. Some examples of financial instruments that support the green transition include green bonds, sustainable investment funds, and carbon taxes.
- » **Public health and well-being:** This entails prioritizing the health and well-being of communities by reducing pollution, improving air and water quality, and mitigating the impacts of climate change.
- » **Education and capacity building:** Providing training, education, and capacity-building programs to equip individuals and communities with the skills and knowledge needed to participate in and benefit from the green transition.
- » **Research and development:** Investing in knowledge development to drive innovation and technological advancement, as well as to further understand the distributional impacts of climate change phenomena and green transition policies.

3 Opportunities in a Green Transition

A just transition is a pivotal pathway toward a sustainable and equitable future.

The transition transcends environmentalism: it envisions a comprehensive shift in economic, social, and technological paradigms. Within this transformative journey lie abundant opportunities across diverse sectors, promising not only ecological protection but also economic prosperity and social equity. The ILO has written extensively on the opportunities presented by a move towards a greener economy. If managed carefully, it can lead to net gains in employment, including decent jobs, deriving from investments in environmentally sustainable production and consumption and management of natural resources. It can also result in improvements in job quality and incomes due to cleaner production processes, and greener products and services in sectors such as agriculture, construction, recycling, and tourism. Finally, it can provide for social inclusion through improved access to affordable and sustainable energy and payments for environmental services.

At the forefront of the green transition is the **booming renewable energy sector**. The escalating global demand for clean energy solutions positions renewable sources such as solar, wind, and hydropower as cornerstones of a sustainable energy future. This surge in demand not only propels innovation and technological advancements but also creates a vast array of employment opportunities. From research and development to installation and maintenance, the renewable energy sector becomes a fertile ground for job creation, fostering economic growth in the process.

Green infrastructure development is another key avenue for development. Investments in sustainable urban planning, energy-efficient buildings, and eco-friendly transportation systems open doors to both economic advancement and enhanced quality of life. Smart cities, with their emphasis on resource efficiency and environmental sustainability, become hubs of innovation, attracting investments, and creating job markets that prioritize environmental stewardship. Meanwhile, **clean technology**, spanning from energy storage solutions to carbon capture and sustainable transportation, is a burgeoning industry within the green transition. As nations globally commit to reducing carbon footprints, companies involved in clean technology find themselves at the

forefront of a rapidly expanding market. This not only ensures business growth but also contributes significantly to addressing pressing environmental concerns.

Embracing the principles of a **circular economy** presents yet another opportunity. Businesses that adopt sustainable practices in product design, manufacturing, and end-of-life management can thrive. The shift from a linear "take-make-dispose" model to a circular one, where products designed for reuse and recycling not only reduces environmental impact, but also fosters a more sustainable and resilient economy.

Sustainable agriculture is a vital facet of a just transition. As concerns about food security and environmental degradation mount, the agriculture sector is presented with opportunities for innovation. Organic farming practices, precision agriculture, and agroecological approaches not only contribute to environmental sustainability but also enhance the resilience of food systems.

Elsewhere in the financial realm, investors are increasingly seeking **environmentally responsible projects and companies**. Green bonds, sustainable investment funds, and eco-friendly financial instruments have become integral components of the financial landscape, providing avenues for investments that align with environmental and social values.

Education and training are pivotal in preparing a workforce equipped with the skills and knowledge required for a green economy. Institutions offering programs in green technologies, sustainability management, and environmental sciences find themselves in a position to meet the growing demand for qualified professionals committed to driving sustainable practices across industries.

In the realm of **tourism**, the shift toward eco-friendly travel options presents a burgeoning market. Eco-tourism, focused on minimizing environmental impact and promoting local conservation efforts, is gaining popularity. Businesses that cater to conscientious travelers can capitalize on this trend, offering sustainable and immersive experiences.

A just transition also underscores the importance of **social innovation**. Initiatives addressing social challenges, such as poverty, inequality, and access to basic necessities, become integral to the broader transition. Social entrepreneurs and impact investors find opportunities to make a positive difference by aligning with the principles of environmental sustainability and social responsibility. Taken together, the opportunities within a just transition are vast and multifaceted. Beyond the environmental benefits, the transition offers a roadmap for economic prosperity, social equity, and technological innovation. Embracing these opportunities not only ensures a sustainable future for our planet but also positions businesses and societies at the forefront of a resilient and equitable global landscape.

4 Gaps, Barriers, and Challenges

Despite the potential benefits described above, policies to promote a green transition do not necessarily have positive impacts on inequality or help address the needs of the most vulnerable. In fact, they risk harming vulnerable populations or placing an unfair burden on some groups over others. For example, green transition policies such as carbon pricing may lead to higher energy costs that can disproportionately burden low-income households, as they spend a higher percentage of their income on energy expenses. Transitioning to a green economy may also result in job displacement in industries heavily reliant on fossil fuels such as coal mining or oil production. These job losses will disproportionately affect workers in these industries, who may lack the skills or resources to transition to new, green jobs.

Hence, driving a just transition requires a series of concerted efforts from institutions to mitigate regressive impacts, shape incentives and create an enabling environment for inclusive green growth, and support those at greater risk of being left behind. Greening the economy often comes with policy gaps, market failures, institutional barriers, and even behavioral inertia, if these are not accounted for from the beginning through intelligent policy design. This is often felt through losses in jobs and increases in income inequality, increased economic instability and market disruptions, geographical specificities leading to geopolitical implications, technological gaps, and political and policy challenges. Each of these need to be accounted for and addressed.

Social equity and justice

- » **Job displacement:** In industries like coal mining or fossil fuel-based power generation, transitioning to renewable energy can lead to job losses. Without proper planning and support, this can negatively impact workers and communities. *Example:* The decline of the coal industry in regions like Appalachia in the United States has led to significant economic hardship for many communities.
- » **Income inequality:** The benefits of a green transition can be unevenly distributed. Without equity-sensitive policies, it is possible that wealthier individuals or corporations could disproportionately benefit from the transition. *Example:* In some cases, government subsidies for renewable energy have primarily benefited wealthier households who can afford to install solar panels.

Economic stability

- » **Transition costs:** The initial investment required for transitioning to green technologies and infrastructure can be high. This can be a significant barrier for some industries or regions. *Example:* Developing an efficient public transportation system or upgrading a power grid to accommodate renewable energy sources requires substantial upfront investments.
- » **Market disruption:** Existing industries and markets might resist the transition, leading to economic instability for those heavily invested in fossil fuels or other unsustainable practices. *Example:* The automobile industry has been resistant to transitioning to electric vehicles (EVs) due to concerns about lost revenue from traditional internal combustion engine vehicles.

Geographical considerations

- » **Resource availability:** Some regions might not have access to the necessary resources for certain green technologies, like rare earth metals for advanced batteries. *Example:* China is a dominant supplier of rare earth metals, and this has led to concerns about supply chain vulnerabilities in green technologies.
- » **Geopolitical implications:** Dependence on specific countries for green technology components can lead to geopolitical tensions and potential supply chain disruptions. *Example:* The European Union (EU)'s reliance on China for solar panels and batteries has raised concerns about supply security and geopolitical leverage.

Technological gaps

- » **Technological inequality:** Developing countries may not have access to the latest and most efficient green technologies, creating a technological gap that hinders their ability to transition. *Example:* Many nations face challenges in adopting renewable energy technologies due to a lack of access to cutting-edge infrastructure.
- » **Research and development:** Innovations in green technology may be slowed by a lack of investment in research and development. *Example:* Advancements in energy storage technologies have been slower than desired due to limited research and development (R&D) funding.

Political and policy challenges

- » **Regulatory hurdles:** Inconsistent or unclear regulations can slow down the adoption of green technologies and practices. *Example:* In some countries, complex permitting processes can discourage the construction of renewable energy projects.
- » **Policy reversals:** Political shifts or changes in government priorities can lead to policy reversals or a lack of consistent support for green initiatives. *Example:* The US has experienced shifts in policy and support for renewable energy depending on the administration in power.

Addressing these challenges requires careful planning, policy development, and international cooperation. A just transition necessitates a multi-stakeholder approach that includes governments, businesses, communities, and civil society organizations.

5 Approaches

How to ensure a just transition to a more sustainable economy and society

Overall, ensuring a just and equitable green transition requires a combination of policies, strategies, and stakeholder engagement. Many countries currently lack coherent and consistent policies that support greening objectives, which align with other stated development goals. One example is continuing subsidies for fossil fuels or agricultural inputs: while they provide an easy way to fulfill domestic and international demand for energy and agricultural products, they also undermine incentives for renewable energy or organic farming. Coherent policies must be embedded within a clear, long-term vision for a sustainable and just future.

Therefore, to overcome these challenges, the priority is initially to **identify and address policy gaps** that create distortions, trade-offs, or conflicts with green growth. This could involve undertaking reforms or removing harmful policies, and introducing or strengthening certain policies, such as carbon taxes, green standards, or subsidies for particular green sectors (i.e., feed-in tariffs, carbon pricing mechanisms, subsidies for electric vehicles and agroforestry initiatives, etc). It will also entail greater policy coordination and coherence across different sectors and levels of government.

Thereafter, these policies can be **tailored to overcome identified barriers** that may prevent certain groups from accessing or benefiting from the transition. This will involve minimizing adverse impacts, compensating for unavoidable trade-offs, and ensuring fair distribution of positive outcomes and opportunities. Tailored policies include investments in particular sectors and groups. For example, there may be a need for greater investments in education and (re)-training programs to equip the workforce with the skills needed for growing green industries, such as renewable energy, sustainable agriculture, and eco-tourism. Another example is social safety nets: these may need to be implemented to protect vulnerable populations during the transition, providing support for retraining, income replacement, or relocation, if necessary.

Market failures that prevent the efficient allocation of resources and the internalization of environmental costs and benefits must also be addressed. For example, negative

externalities, such as pollution or biodiversity loss, are often not reflected in the final prices of goods and services. This can lead to overconsumption and underinvestment in green alternatives. This may require mechanisms to correct the market by applying certain policy tools, such as the “polluter pays” principle. Markets for environmental goods and services could also be created, such as payments for ecosystem services. Market-based instruments, whether carbon pricing or subsidies, could also be used to incentivize the adoption of green technologies and practices. At the same time, local green businesses and startups could be encouraged to adopt green practices through incentives, grants, and capacity-building programs.

Meanwhile, a **lack of institutional capacity to design, implement, monitor, and evaluate green policies and programs** is also often a real impediment to the process of catalyzing a just transition. In this vein, weak governance, corruption, and a lack of accountability can undermine the effectiveness and legitimacy of green initiatives. This requires strengthening institutional capacities, passing relevant regulatory frameworks to provide a supportive environment for green investments whilst ensuring environmental and social safeguards, building human and technical skills by collaborating with scientific and research institutions, improving data and indicators, enhancing stakeholder participation and consultation platforms, and fostering greater learning and innovation.

A just transition also requires **adequate financing and investment** to be successful. This entails creating mechanisms to mobilize funds for green projects, including through public-private partnerships, the issuance of green bonds, and impact assessments.

In addition, all **green transition policies should involve local communities**—especially those affected by environmental changes or transitioning industries—in decision-making processes. This also includes conducting public consultations and engaging in transparent communication about any green initiatives in order to ensure those most affected by environmental or climate change are able to have a voice in decisions that impact their lives. Finally, **robust monitoring, reporting, and verification (MRV)** systems must be in place to track progress, ensure compliance, and provide transparency in green projects.

Country case studies: National policy approaches to the just transition

Around the world, countries have taken different national policy approaches in their green transition processes. **South Africa**, for example, began discussion on a cross-cutting **just transition strategy** in 2011 and included a chapter on it in its National Development Plan in 2012. This was followed by social dialogue, vulnerability assessments and engagement over specific issues deemed to be conflict-laden or problematic. The country’s transition strategy also received (pledged) international support during COP26.

By mid-2022, it had published its Just Transition Framework, which identified key principles for a just transition, at-risk sectors, and value chains (i.e., trade/environment; coal; automobiles; agriculture; and tourism). It also specified important policy areas (human resource and skills development, industrial development, diversification and innovation; social protection) and governance and financing requirements and solutions.

Examples of other countries that have taken this sectoral and cross-cutting approach include: **Chile**, which updated its nationally determined contribution (NDC) in 2020 to include a **social pillar on just transition** and the **Republic of Korea** and its **Carbon Neutrality Act** (2021) which requires the government to address “inequality that could arise in the societal transition to carbon neutrality.” To this end, it supports people and small businesses that are vulnerable to climate change and loss of jobs related to climate change, through for example, reemployment benefits.

Social dialogue processes

Other countries have, occasionally after a social dialogue process, employed specific measures to support displaced workers: **Uruguay, Canada, and Antigua and Barbuda** are key examples.

- » **Uruguay** worked with the ILO, and held negotiations regarding plant closures with relevant unions as they began retiring some of their fossil fuel-based energy plants in 2014. The consequent job losses were addressed mostly through early retirement, while the country sought to expand employment in renewables. It did this through consultations with stakeholders.
- » The province of **Alberta in Canada** engaged with workers, communities, and First Nations people after announcing its commitment to phase out coal by 2030. This resulted in a program for compensation of coal utilities for stranded assets, early retirement packages, financial assistance for workers to find jobs in other areas or to retrain, and even financial assistance for economic diversification in communities.
- » **Antigua and Barbuda** established retraining and employment schemes for affected workers in energy, construction, and transportation as part of its **Green Climate Fund (GCF)** country program. It is also investing in diversification and the creation of new jobs, with greater opportunities for women.

Corporate-led strategies

Still others have relied on corporate-led strategies. For instance, **Italy's National Electricity Board, Enel**, worked on a plan to move away from fossil fuels for electricity generation. They also included measures to protect workers through early retirement packages, retraining and relocation within the company. The **Scottish and Southern Energy (SSE)**, a leading generator of renewable energy in the UK, also adopted a transition strategy that could be deemed just by adopting twenty principles which would ensure “fairness for those impacted by the decline of high-carbon economic activity and increase opportunities of climate action.”¹


Inter-governmental coordination

Countries have also sought to establish specialized bodies and systems that facilitate dialogue between social partners and coordinate activities between different ministries, to ensure a just transition to a low-carbon, sustainable economy and society. Examples include **South Africa's Presidential Climate Commission** and **Costa Rica's** system for **Just Transition Governance**, which is led by three ministries (energy and environment, human development and social inclusion, and labor and social security). The latter also engages in tripartite and social dialogue, which includes women, youth, Indigenous peoples, and Afro-descendant communities, as well as unions, and employers.

Financial instruments

Finally, financing mechanisms can also go a long way towards ensuring a just transition. One example is the **Just Energy Transition Partnerships (JETP)**, which aim to bridge the gap between developed and developing nations in their transition towards clean energy. South Africa, Indonesia, and Vietnam are the first three countries to receive funding from a donor pool that includes the International Partners Group (IPG) and the Glasgow Financial Alliance for Net Zero (GFANZ) Working Group. The IPG consists of Japan, the US, Canada, Denmark, France, Germany, Italy, Norway, the EU, and the UK. JETP explicitly includes a social aspect, including the requirement for robust protection measures of the population that may be affected negatively by the transition. As a result, reskilling, upskilling, and creating new jobs for affected workers and communities are key components of the mechanism.

These are only some of the national-level policies countries are enacting to forward a just transition.



PART II
Frameworks to
Catalyze a
Just Transition

In the quest to transition to a green, job-rich, and inclusive economy, just green transition strategies stand to benefit from a holistic approach where every climate policy has the potential to be a social justice policy. This approach is anchored in three fundamental pillars, each ensuring that the shift to a green economy is sustainable, equitable, and inclusive.

Pillar 1: Distributional impact assessments (DIA)

The DIA are tools providing policymakers with information about potential adverse economic impacts in addition to benefits from new policies that are equitably distributed across income groups. By focusing on how policy impacts permeate through different strata of society, DIAs ensure that the collective shift towards environmental sustainability does not inadvertently exacerbate existing inequalities or create new ones.

Pillar 2: Intersectionality-based policy analysis (IBPA) framework

This IBPA is a lens that recognizes the multifaceted nature of inequality. While DIA's provide the general distribution of economic impacts, the IBPA can assess the variations of such impacts of climate change and environmental policies are experienced across various social intersections—including gender, ethnicity, age, and disability. By adopting an intersectional approach, this tool ensures that policies are designed and implemented with an acute awareness of these differential impacts, thus fostering a more inclusive and just transition.

Pillar 3: Social dialogue

Underlying this pillar is the principle where a just transition requires a collective endeavor and active participation from all sectors of society. This often involves inclusive negotiations, consultations, and information exchanges among government, employers, workers, and other key stakeholders. Tools in this pillar are crucial for building consensus, enhancing understanding, and ensuring that the voices of those most affected by the green transition are heard and considered in the decision-making process.

Box 2: How to assess winners and losers from the green transition

Assessing the winners and losers from a green transition process involves evaluating how different individuals, communities, industries, and regions are affected by the shift towards sustainability. This assessment helps to ensure that the transition is equitable and minimizes negative impacts on vulnerable groups. Crucial steps to conduct this type of assessment include:

Stakeholder mapping: Identify and categorize the various stakeholders involved in the transition.

- *Examples:* Workers, local communities, businesses, industries, governments, and environmental organizations

Data collection and analysis: Collect quantitative and qualitative data to assess the impacts. Examples: Surveys, interviews, economic modeling, environmental monitoring, and other research methods

Distributional analysis: Examine economic effects on different groups and evaluate how benefits and burdens of the transition are distributed among stakeholders.

- *Questions to consider:* Are the positive impacts shared fairly, or are certain groups bearing a disproportionate burden?
- *Factors to consider:* Job creation, job displacement, income changes, and changes in industry profitability

Vulnerability and horizontal inequality assessment: Involves assessing how the transition affects different social groups. It also requires identifying marginalized communities or vulnerable groups that may be disproportionately affected by the transition.

- *Examples:* Low-income communities, workers in declining industries, and regions heavily reliant on fossil fuels

Environmental impacts: Analyze positive and negative environmental consequences of the transition.

- *Examples:* Changes in pollution levels, resource consumption, and habitat preservation

Health impacts: Consider how transition affects public health.

- *Examples:* Assessing changes in air and water quality, exposure to toxins, and overall well-being

Equity analysis: Assess whether the transition exacerbates existing inequalities or contributes to a more equitable distribution of resources and opportunities.

Mitigation strategies: Identify strategies to address negative impacts on vulnerable groups.

- *Examples:* Targeted support, job retraining programs, community development initiatives, and environmental remediation efforts

Policy recommendations: Based on the assessment, formulate policy recommendations to enhance the justness of the transition.

- *Examples:* Adjustments to regulations, targeted investments, and the establishment of support mechanisms

Ongoing monitoring and evaluation: Monitor impacts of the transition and adjust policies and interventions on a continuous basis as needed. This ensures the process remains just and any unintended consequences are addressed.

Public engagement, social dialogue, and transparency: Involve stakeholders in the assessment process and communicate findings transparently. This builds trust to ensure the transition is perceived as fair and accountable

Together, these three pillars weave a robust framework for a just transition—which champions environmental sustainability while upholding the tenets of equity, inclusivity, and social justice. In this framework, every policy enacted and every step taken is critically assessed not just for its environmental impact, but also for its ripple effects on all segments of society. Together, the tools provide a comprehensive understanding of whether any green transition policy will be just and equitable.

Regular assessments using these tools will help policymakers identify areas for improvement and ensure the benefits of the transition are equitably shared by all.

Through this balanced approach, the just transition framework ensures the path toward a greener future is paved with fairness and collective responsibility. Without a built-in equality lens throughout the policymaking process, the 2030 Agenda pledge to “leave no one behind” will remain an aspiration, and policies might end up perpetuating rather than addressing intersectional inequalities.

Tool 1: Distributional Impact Assessments

The transition to a low-carbon, environmentally sustainable model is expected to bring about changes in lifestyles, opportunities, and a relocation of resources that, on average, will benefit societies at large. However, such a process will trigger a disruption in livelihoods across regions, activities, and cohorts unable to participate in the emerging green economy—including those linked to high carbon-sectors, and those affected by higher prices or income loss. To ensure no one is left behind, policies chosen to accelerate the green transition must undergo an assessment of their potential distributional consequences for the population. The potential risks and opportunities arising from a transition need to be understood and, where possible, quantified.

Distributional impact assessments (DIAs) allow policymakers to identify the communities, families, and individuals who are at risk—or stand to benefit—from the impacts of climate change and the transition to a green economy, and how these impacts are distributed across income groups. This data allows policymakers to identify trade-offs underpinning new policies, develop proactive measures to target at-risk groups, and use resources effectively to minimize unintended adverse consequences. DIAs can also function as an accountability mechanism, providing populations an opportunity to assess the performance of policies and demand prioritization of policies proven to be more inclusive.

DIAs can be undertaken as any step of the policy-making process. If conducted before a policy's approval, DIAs can guide proactive measures for a just transition. However, they can also be undertaken during and after the implementation of policies and programs to help monitor the process and assess their impact, to correct for any regressive outcomes.² DIAs are also an important tool to build public support and ensure transparency and accountability—as they provide critical information for unions, civil society, and citizens to understand the expected impacts and hold decision-makers accountable for their promises.

DIAs should be used in conjunction with **cost-benefit analyses (CBAs), which provide an assessment on the efficiency of a policy—by understanding the distribution of such**

costs and benefits across a society.³ Therefore, their primary goal is to understand the equity or inequality implications of the action, without necessarily comparing overall costs and benefits. Another important difference is that while CBAs quantify costs and benefits in monetary terms, DIAs are not limited to monetary metrics and also include indicators like the Gini coefficient, concentration index, or percentile ratios can also help visualize the distributional impact of a certain policy.

Types of distributional impact assessment tools

There are numerous types of tools that can be employed to conduct distributional impact assessments. The choice of the appropriate DIA tool depends on the specific policy or research question, the available data, and the level of detail required for the analysis. Often, a combination of tools is used to provide a comprehensive understanding of the distributional impacts of policies or economic changes.

Some examples of DIA tools include:

- » **Fiscal incidence analysis:** This analysis focuses on the equity implications of fiscal systems, and policies and design measures that promote social and economic fairness.
- » **Input-output (I-O) models:** I-O models help assess the distributional impacts of changes in economic activities within a region or a sector. They analyze the interactions among industries and how changes in one sector affect others and, subsequently, income distribution.
- » **Social accounting matrices:** SAMs provide a detailed representation of an economy's transactions, including production, income, and expenditure for different sectors and factors of production. They can be used to analyze how changes in final demand or production affect income distribution.

DIAs often use mathematical formulas and indices that quantify the level of inequality in income distribution. Many general economic analysis software tools, such as R, STATA, SAS, and Python, can be used to conduct distributional impact assessments. **Many organizations and government agencies provide online calculators and interactive tools that allow individuals to understand how a specific policy might impact their household.** Distributional impact analysis tools can provide insight into the differential impacts of policies across income levels as well as based on gender, age, ethnicity, and other groups as long as there is disaggregated data available (further explored below).

In assessing the role of the green transition in exacerbating or correcting vertical inequality (or, disparities in levels of income, and to a lower degree, in wealth), two types

of DIA tools are important. Firstly, the **distributional impact of fiscal policy through fiscal incidence analyses** can guide decisions on tax and public spending policies to ensure they are not regressive. Secondly, **the impact of the green transition on employment activities** can be assessed through tools such as I-O Models and SAMs.

Fiscal incidence analysis

Key objectives

Fiscal incidence analyses explore how much income distribution and poverty reduction is accomplished through fiscal policies, including taxes, subsidies, and government spending programs. It seeks to answer the following key questions:

- » What is the impact of the policy (or set of policies) on inequality? Does it increase or reduce levels of inequality?
- » Is equalizing pro-poor a tax or a transfer?
- » To what degree does a particular policy (or set of policies) contribute to a change in inequality and poverty?⁴

Process

Fiscal incidence analyses assess:

- » How different taxes (e.g., income tax, sales tax, property tax) affect individuals or households across the income spectrum. This analysis helps determine who bears the tax burden and whether the tax system is progressive, regressive, or proportional.
- » Which groups benefit from government transfers (e.g., social security, unemployment benefits) and subsidies (e.g., food or energy subsidies). The analysis can also include in-kind benefits like publicly provided services like healthcare and education.⁵

The net fiscal incidence of each income group is calculated by subtracting the total taxes paid from the total government benefits received. The results will then help assess whether the ultimate impact of the policies is regressive—with low-income groups having a relatively higher tax burden—or progressive, with high-income groups having a relatively higher tax burden.⁶

While fiscal incidence analysis can be conducted for a single policy, it is the combined impact of various measures that provide a more complete picture of whether a country's

fiscal approach is ultimately progressive or regressive. It also shows how different taxes and transfers can be jointly applied to be ultimately progressive even though one individual measure might increase inequality. This applies to green transition policies, since certain measures might be crucial for driving vital changes while potentially exacerbating inequalities. In these cases, policymakers can develop combinations of measures that can mitigate the negative, regressive impacts while taking advantage of the opportunities they offer.

Data

Data needed to conduct this analysis may include (but not limited to):

- » **Program beneficiary data:** Information on individuals or households benefiting from program. Example data includes identification numbers, demographic characteristics, and benefit amounts received.
- » **Socio-economic data:** Data on various socio-economic characteristics of the beneficiaries, such as income, education, employment, geographic location, household size, and other relevant variables.
- » **Benefit value data:** Information on the monetary value of benefits received by each beneficiary or socio-economic group. Example data includes the cash value of transfers, in-kind benefits, or indirect benefits (access to services).
- » **Poverty data:** Data on the poverty status or income levels of the population. This could be obtained from household surveys, national statistics, or other sources.

Employment impact assessments

Input-output models and social accounting matrices

The increasing frequency of natural disasters and changing weather patterns caused by the climate crisis are driving and will continue to drive dramatic shifts in the employment prospects for societies. In addition, increased investment in green sectors and away from fossil fuels, along with increased innovation is creating both **new job opportunities** and **risks** for those groups employed in traditional sectors.⁷ The sectors most directly impacted by a green transition—notably agriculture, forestry, fisheries, energy, resource-intensive manufacturing, recycling, building and transport, among others—provide jobs for more than half of workers across the world, many of whom are poor or highly vulnerable.

Employment impact assessments seek to quantify the potential changes in employment and/or analyze the effects on the types and quality of jobs that will be available as a result of public policy decisions or investments. These can vary from project-level assessments to an economy-wide analysis. In considering the role of public policy and finance in driving investment in green growth and green job creation, it is crucial to understand the impact of such strategies on employment. These impacts can be of three types:

- » **Direct impacts:** Higher or lower labor demand resulting from the expansion or reduction of certain industries/sectors.
- » **Indirect impacts:** Impacts that result from the interdependence of different industries, and the generation (or erasure) of employment related to the main sector.
- » **Induced impacts:** Effects of the changes in industries on consumption and investment across the economy.⁸

Understanding these impacts will help better target the needed support to transform the economy—including vocational training and entrepreneurship support, as well as adapted social protection mechanisms and adequate tax measures. **Quantitative analysis**, in collaboration with qualitative information and social dialogue mechanisms (see Tool 3), provides valuable insight to ensure policymakers can take advantage of opportunities of a green economy while mitigating the risks associated with such a monumental transformation.

Input-output models

Key objectives

Input-output analysis can help assess the impact of policies on employment by analyzing how changes in economic activities—such as those related to environmental or sustainability initiatives—affect various sectors of the economy and, consequently, employment.⁹ It seeks to calculate the direct, indirect, and induced employment effects that result from the changes in demand for goods and services in key sectors.¹⁰

Process

I-O models use an input-output table covering various industries to indicate the flow of goods and services between sectors. In the context of a green transition, the I-O table would include sectors that are directly related to green or sustainable activities, such as

renewable energy, energy-efficient construction, waste management, and sustainable agriculture.

The assessment of a specific policy or group of policies consists of adjusting the I-O table to reflect the increasing or decreasing demand for goods and services—and thus employment—in the identified sectors and analyzing how these in turn impact other employment sectors in the economy.¹¹

Table 1: Simplified input-output table¹²

	Agriculture	Food and Beverages	Land Transport	Final Demand	Total Output
Agriculture	1,323	2,290	6	1,911	6,467
Food and Beverages	333	1,390	17	8,074	11,670
Land Transport	34	261	480	5,794	10,775

In the table, the rows represent the total outputs of a sector, and the columns refer to the inputs—thus calculating how much additional jobs are needed from each sector as an effect of changes in economic activities.¹³

The calculation includes:

- » **Estimation of the direct employment effects of the policies:** This is through the direct creation of jobs under the analyzed sector.

Example: An expansion of the solar energy sector leads to job creation in solar panel manufacturing and installation.

- » **Calculation of the employment multipliers:** This is through indirect effects of generated demand for labor in other related sectors.

Example: Increased demand for a specific material increases labor demand in that sector.

- » **Calculation of additional employment multipliers:** This is through induced effects resulting from changes in consumption and investment.

Example: Citizens spend money saved in other services that produce more jobs.

Data

In order to complete the input-output table, I-O models require information on the flow of goods and services in different sectors. Data sources often include national statistical agencies, government reports, surveys, and industry-specific data. These models draw on information from the national accounts, budget data, flows of funds and labor force data as well as environmental data (carbon [CO₂] emission, water, land use, etc).¹⁴

Social accounting matrices (SAMs)

Key objectives

While I-O models focus on describing the interdependencies among different sectors in the economy, social accounting matrices (SAMs) have both economic, social, and institutional data. SAMs also provide a more comprehensive analysis on the broader social and economic implications of policies. By including data on income creation and production as well as information on the incomes of key economic actors—mainly government, enterprises, and households—and their spending, SAMs are better placed to demonstrate the distributional aspects of economic processes.¹⁵

Process

SAMs also present the analysis in a matrix format, but one that is more complex than an I-O table. The number of rows and columns changes depending on the purpose and scope required for each analysis. The rows and columns represent different economic actors and sectors, while the cells provide the value of their interaction (e.g., employment creation or revenues).¹⁶

SAMs involve complex data and modeling, and there are several software tools and packages that researchers and analysts use to construct, analyze, and model SAMs. The choice of software depends on the specific requirements and preferences of the user. Some commonly used software for SAM analysis includes R, MATLAB, GAMS, TROLL, or IMPLAN. Other tools like Excel can also be used despite being less specialized.

Data

SAMs require detailed, comprehensive, and up-to-date data. The quality and accuracy of the data are critical for the reliability of the analysis and modeling based on SAMs. In many cases, national statistical agencies provide valuable data sources, but additional surveys and primary data may be required.

Challenges

Conducting distributional and economic impact assessments can be a challenging process. First, they require high-quality and detailed data on income, wealth, and other relevant socio-economic variables that are representative of the population. This level and the required types of data may not be available in certain contexts, or the departments gathering and managing the different data might not coordinate effectively to share knowledge and produce transferrable analysis. In addition, the kind of analysis they provide is complex, as it seeks not only to associate a specific policy to its direct impact, but also analyze the interaction between different policies and strategies and its ultimate result. This analysis is further complicated by the fact that impacts might change and evolve over time, at different paces for different policies.

The role played by the informal sector also poses a significant challenge in developing accurate analyses. Though it is possible to incorporate predictions and estimates that include the informal sector, data on the informal sector is scarce and might not be at the level of disaggregation or accuracy needed. The characteristics of workers in informal activities are often different to those in the formal sector—whether it is because of the size of the businesses, the access to social protection programs, or the capacity for taxation. It is also difficult to capture the impacts on the informal sector due to the porosity between the informal and formal sectors, with workers not necessarily residing in one but moving between the two. Thus, **complementing purely quantitative distributional impact assessment tools with qualitative methods** such as focus groups or interviews is recommended.

Tool 2: Intersectionality- Based Policy Analysis Framework

When addressing climate issues, we must recognize that inequalities are often interconnected and reinforcing. Focusing on a single aspect of inequality, such as income, while overlooking others hinders the accurate assessment of how policies will be experienced by different groups in a population, and who occupies specific income groups. As noted in the previous section, the adverse effects of climate change and energy transition policies are not evenly distributed across culturally-defined groups in a given population (horizontal inequalities).

In addition to income-level, other factors influence health or food security risks, employment prospects, access to decision-making bodies, basic services, and housing—such as a person’s gender, ethnicity, religion, age, or disabilities.¹⁷ Global research shows that marginalized groups—whether people living in poverty and/or rural and remote areas, the elderly, women,¹⁸ children, informal workers, and people with disabilities, among others—already bear a disproportionate burden of the adverse effects of climate change.

Horizontal inequalities include the disparities in economic, social, political dimensions, or cultural status among groups defined by culture or identity (i.e., ethnicity, religion, gender, or region). It is crucial to understand the horizontal inequalities that green transition policies might affect, as research indicates horizontal inequalities heighten the likelihood of political instability, social unrest, and even conflict.

To address this challenge, the **Intersectionality-Based Policy Analysis (IBPA) Framework** offers a comprehensive approach to equity-driven policy analysis.¹⁹ By providing insights into how different individuals and groups experience a given policy, IBPA sheds light on how policies construct relative advantages and disadvantages regarding socioeconomic status, access to opportunities, and resource allocation. Rather than favoring one group over another, this framework demonstrates how universal policies (i.e., transition to a climate-resistant, job-rich, green-based economy) coupled with targeted measures can ensure that no one is inadvertently excluded from opportunities or adversely affected without compensation.²⁰ Beyond addressing potential adverse impacts, this analysis presents an opportunity to identify and amplify the positive outcomes of green transition policies. **By understanding who stands to benefit, decision-makers can proactively design policies that restore balance, improve lives, and correct inequities.** This proactive approach can serve as a powerful tool for effective policy communication and stakeholder buy-in, fostering wider acceptance and support for sustainable development initiatives.

Box 3: An intersectional approach to policymaking through Canada's gender-based analysis plus (GBA+)

Introduced in 2011, GBA+ is a federal policy tool and analytical process which provides a rigorous method for the assessment of systemic inequalities. It was designed to assess how diverse groups of women, men, and gender-diverse people may experience policies, programs, and initiatives passed in Canada. GBA+ is a gender and diversity approach designed to consider many factors in addition to sex and gender, such as race, ethnicity, religion, age, and disability, in the design and implementation of policies. Depending on the issue, the tools used range from descriptive statistics, interviews, and community forums to discuss findings. Methods used depend on the community and project context.

The GBA+ Responsibility Centre ensures that GBA+ is integrated into decision-making processes by requiring that every budget proposal, Cabinet Memorandum, and Treasury Board submission undertake a rigorous assessment of the potential implications of all policies, programs, or initiatives on diverse populations of Canadians. The Centre tracks and retains analyses for all cabinet and budget documents. It also provides advice and guidance to decision makers within the Department and equips the Department to undertake GBA+ through the provision of training, resources, and support.²¹

Process²²

Embracing an integrated approach to intersectional group-based distributional analysis across the entire policymaking process and throughout government structures is paramount for achieving equitable and inclusive policy outcomes. This entails clearly defining the scope of the policy, program, or initiative under consideration from the beginning, and understanding its objectives, target audience, and intended outcomes. It is useful to engage stakeholders impacted by the policy in an intersectional distributional analysis. This approach ensures that the diverse experiences and needs of different population groups, given their intersecting identities, are considered at every stage of policy development, implementation, and evaluation.

Map stakeholder impacts

It is recommended to include stakeholders in the policymaking process, whether at concept stage, design, implementation, and evaluation, to understand the various ways a policy might impact different groups. Engaging with representatives from diverse groups—particularly those historically marginalized—help gain insights into their experiences and perspectives. This can help identify potential impacts that may not be apparent from data alone.

- » **Identify stakeholders:** Determine who will be positively and negatively affected, considering direct, indirect, and induced impacts.
- » **Map the characteristics of stakeholders:** Gather demographic and socioeconomic information.
- » **Assess regional impacts:** For localized policies, identify affected communities and businesses.
- » **Create worker profiles:** Understand the impact on workers, their dependents, and local businesses.
- » **Identify beneficiaries:** Determine who stands to gain from the policy's implementation, as well as who should benefit from the policy.
- » **Consider differentiated impacts:** How might factors like age, gender, and income influence the distribution of benefits and burdens?
- » **Apply an intersectional lens:** Understand how multiple social identities intersect to create unique situational contexts and impacts of the policy.
- » **Map vulnerabilities:** Identify and prioritize the most vulnerable groups for targeted support.

Analyze potential impacts

In this part of the process, it is important to analyze how the policy, program, or initiative may affect different groups of people based on their intersecting identities. Key components include considering both positive and negative impacts, including potential unintended consequences and evaluating horizontal inequalities. When conducting the evaluation, the economic impacts on various groups relative to the average, as gauged by a DIA, are compared. For instance, if the bottom 10 percent of the income distribution experiences a 5 percent income reduction from a given policy, and a secondary gender-disaggregated analysis reveals that women stand to lose eight percent of their income, then the policy is shown to unintentionally increase gender inequality.

The specific tool of analysis depends on the specificities of the policy and the data available. Possible tools include disaggregated data analysis, intersectionality-sensitive indicators, regression analysis, difference-in-differences analysis, propensity score matching, qualitative data analysis, and microsimulation models.

- » For large-scale, long-term policies, like those related to the budget, **microsimulation models serve as the primary tool for distributional analysis.** These models essentially represent a set of relationships between key variables, allowing for the estimation of policy effects on households, individuals, or other “micro units.”
- » To isolate the effects of the policy from changes that would have occurred without it, microsimulation models typically compare a “baseline” scenario (excluding the policy) against a “counterfactual” scenario (including the policy). These models can be either “static,” where relationships between variables remain unchanged after policy implementation, or “dynamic,” where relationships can change as households are predicted to adjust their behavior.

Microsimulation models provide a powerful tool for understanding the distributional impacts of policies, particularly for large-scale initiatives. However, it is important to recognize their limitations and use them in conjunction with other analytical approaches to gain a comprehensive understanding of potential impacts.

Collect data

Disaggregated data plays a crucial role in uncovering the nuanced impacts of policies on diverse groups. Breaking down data into smaller subgroups based on demographic characteristics allows the identification of potential disparities and inequities that might otherwise remain hidden.

Challenges in data disaggregation include data limitations, availability, breadth, and privacy concerns. Trust and trustworthiness are a continuing barrier to participation in data collection, there is often a general sense of distrust in government among groups

facing exclusion that could result in them being underrepresented in ongoing data collection. Hence, the main reason for the limited use of disaggregation by protected characteristics is data scarcity. Even when data exists, sample sizes may be too small, especially for specific analyses. Over-disaggregation can lead to small sample sizes, making it difficult to draw statistically significant conclusions. The choice of variables should be guided by the specific context and objectives of the analysis, considering factors beyond common demographic characteristics. Unintended consequences include reinforcing stereotypes or overlooking intersectional identities. Balancing these considerations is crucial for effective data disaggregation.

However, even partial disaggregation can provide valuable insights. Where disaggregated data is not available, engaging with academic literature, civil society organizations, and community members can provide valuable insights.

Box 4: Tracking equality in the United Kingdom

In 2008, the United Kingdom (UK) government set out to harmonize standards for the collection and reporting of statistics on ethnic, national, and religious identity. In 2020, an Inclusive Data Taskforce was established to improve inclusiveness of the government's approach to collecting, analyzing, and reporting data and evidence on equality and inclusion. Measuring ethnic identity, national identity, and religion is challenging, but is instrumental to understanding the nature of inequality and to monitoring policies and programs aimed at addressing it. The Office of National Statistics (ONS) provides training and capacity building to support civil society and other public sector actors to use this data to help drive social change. The National Council for Civil Society Organisations advocates using "publicly available data to gain new insights into the inequalities and disparities in the communities we serve." ONS data have been used by civil society organizations to highlight inequalities on the basis of race and ethnicity in health, income and employment, housing, and education.

Additional challenges

Achieving results with IBDA requires strong buy-in from all institutions and clear communication on the concept and objectives of IBDA tools. It can be useful to establish a dedicated IBDA structure (possibly within the Ministry of Finance) to ensure it is mainstreamed across departments and policies, which requires managed collaboration with implementing and monitoring units. Because of its data requirements, IBDA does require a robust information system for managing data and enough capacity in terms of staff and knowledge to conduct the analyses.

Tool 3: Social Dialogue

Green transitions will inevitably cause severe disruptions that disproportionately impact workers in declining sectors, their communities, people living in climate-vulnerable areas, and those with the least resources to cope with repeated shocks. **Fear is therefore a significant obstacle.** Government initiatives imposed on people without their input, compounded by the impacts of climate disasters and the disruption of the transition itself, could lead to a further decline of trust. If people's livelihoods are shut down without a clearly communicated plan for transition, this fear and anger will spread to their communities, leading to a “greenlash” or social unrest.

Social dialogue, as defined by the International Labour Organization, includes all types of negotiation, consultation, and exchange of information (typically between representatives of government, employers, and workers) on issues of common interest—usually related to economic and social policy. **Social dialogue emerges as a vital mechanism for aligning actors from the real economy, government, and civil society, fostering consensus, and driving ambitious collective action.**²³ Recognizing the influence of trusted figures in communities, their involvement becomes crucial in delivering and implementing on the ground. As trust and hope are the antidotes to fear and anger, it is paramount to engage key stakeholders (especially those facing the most risk) for building trust and securing genuine commitment. The green transition expands the traditional areas of negotiation among social partners, and will require new expertise and technical capacities to include the green agenda in their activities and negotiation agenda.

Table 2: Recalling green transitions and their impact on people, communities, and businesses

Stakeholders	Impact	Reason for social dialogue
Workers in declining sectors	Job displacement due to the shift away from traditional, carbon-intensive industries	Address concerns about job security, retraining, and transitioning to new green industries, ensuring workers are not left behind and have a voice in shaping their future
Communities dependent on fossil fuels	Economic distress and potential loss of livelihoods in regions heavily reliant on industries like coal or oil	Develop plans for economic diversification, job creation, and community development—ensuring a just transition that supports affected communities
Disaster-vulnerable communities	Increased resilience measures needed to protect against climate-related risks and disasters	Involve affected communities in decision-making, ensure their needs are addressed, and build community-level adaptation and mitigation strategies
Low-income and marginalized groups	Disproportionate exposure to environmental risks and limited resources to cope with transitions	Ensure policies are inclusive, consider the needs of vulnerable populations, and provide support mechanisms to address equity concerns
Environmental organizations	Potential conflicts between conservation goals and economic development during the transition process	Find common ground between environmental priorities and economic objectives—allowing for mutually beneficial outcomes
Business and industries	Opportunities for growth and innovation in green technologies and sustainable practices	Facilitate collaboration, share best practices, and align business strategies with broader societal and environmental goals
Government and policymakers	Responsibility for designing and implementing policies driving the green transition	Gather input from various stakeholders, ensure policies are well-informed, and gain buy-in for effective implementation
Civil society and advocacy groups	Influence public opinion and policy decisions through advocacy efforts	Engage in constructive discussions, share expertise, and hold stakeholders accountable for the transition's success

Below are some ways in which social dialogue can support the green transition.²⁴

- » **Facilitating communication:** Social dialogue tools provide a platform for stakeholders with varying interests to communicate effectively.

Example: Create a structured platform and encourage open, constructive discussions—which includes government agencies, environmental organizations, businesses, labor unions, and local communities.

- » **Promoting consensus:** This would be between workers (and their communities), employers, and governments on the best way to manage the transition to a green economy.

Example: Social partners have regular meetings to discuss the challenges and opportunities of the green transition, along with information sharing about climate change, transition policies, the likely tradeoffs, and impacts, and who it will affect. At the same time, negotiating agreements with representative bodies on how best to mitigate adverse effects, which can help identify shared goals and values that can form the basis for consensus-building.²⁵

- » **Creating mechanisms:** This would ensure workers and communities are empowered to have a voice in designing and implementing green transition policies.

Example: Social partners participate in developing national climate action plans, creating buy-in and support amongst key stakeholders and frontline affected communities to confront challenges.²⁶

- » **Conflict resolution:** Conflicts are inevitable when multiple stakeholders with different interests are involved. A social dialogue tool can facilitate structured discussions, mediation, and negotiation processes to resolve conflicts and find common ground.

- » **Negotiating agreements:** This would retrain and redeploy workers from declining sectors to growing sectors.

Example: Social partners negotiate agreements to fund training programs for workers laid off from coal-fired power plants and create new green jobs, ensuring affected communities and those currently excluded from formal employment can access these jobs.

- » **Supporting data-driven decision making:** The tool can be used to collect and analyze data related to the green transition, providing evidence-based insights that can guide policy development. This can complement the data collected during DIAs and IBPAs and also help ensure that policies are well-informed and supported by empirical evidence.

- » **Developing schemes:** This would support the development of green infrastructure and adoption of new green technologies and processes from businesses.

Example: Social partners work together to develop a carbon pricing system that would incentivize companies to reduce their emissions.

Governments need to be willing to engage in a social dialogue when designing policies. The ILO has underlined lessons learned from previous crises governments have undergone, which include the importance of:

- » Reaching out to social partners at the earliest possible stage during a crisis response.
- » Proactive and swift outreach from social partners to bring concerns at the grassroots level to the attention of the authorities.

Typology of social dialogues

Social dialogue is a priority instrument in effectively managing the transition toward a **new employment and social landscape in a decarbonized economy**. The primary goal of social dialogue is to promote trust and build consensus through democratic engagement across relevant stakeholders around specific issues. While the principle of social dialogue was invented first for the labor, employment, and economic fields, it has also been adapted to other policy areas and sectors, yielding similar results regarding ownership, commitment, accountability, and the delivery of bigger rewards with less conflict and more trust.

Social dialogues typically take the following forms:²⁷

- » **A bipartite process** between workers' associations and employers' organizations.
- » **A tripartite process** between government, workers associations and employers' organizations.
- » **A multi-stakeholder process** between government, workers' associations, employers' organizations, and other key stakeholders such as civil society, academia, community leaders, and interest groups.
- » **Collective bargaining agreements**, which can be bipartite or tripartite, are commonplace to determine working conditions and terms of employment and regulate relations between employers and workers and between the associations.

In matters pertaining to just transition, a social dialogue might be between the government, representatives of affected workers, affected businesses, local communities, representation of excluded and disproportionately affected groups such as informal sector workers, rural populations, women, youth, minority ethnicities, and religious groups, along with climate and environmentalist specialists, multilateral and international organizations and representation across sectors such as education, health, and welfare.

Social dialogue is exemplified in the Nordic model,²⁸ where tripartite cooperation is pursued across political dividing lines, and is the primary governance strategy of national economies. The Nordic model emerged from a realization that governments, employers, and workers had problems too large to resolve alone. Each required the cooperation of the other to achieve a better outcome. The welfare system, relatively low levels of inequality and industrial peace as we see today are, to a large extent, products of successfully sustained and institutionalized dialogue negotiations between the three parties rather than a prerequisite. There is, however, no prescribed one-size-fits-all approach to social dialogue, nor is there a standard model of dialogue that can be applied uniformly across countries or exported from one country to another. Adapting social dialogue to the national situation is critical to ensuring effective representation in the process and its outcomes.

Process

When applying social dialogue mechanisms to the green transition, it is essential to keep the following cross-cutting principles in mind:

- » **Inclusivity:** Social dialogue should include all stakeholders, including workers, employers, governments, civil society, and community organizations.
- » **Transparency:** Social dialogue processes and its corresponding information should be transparent and accessible to all stakeholders.
- » **Accountability:** Social partners should be accountable to their constituents for the outcomes of social dialogue processes.

Social dialogues are not necessarily a straightforward process. It is a process of gaining and giving, investing, and then potentially getting returns. The context and certain conditions highly influence the quality, effectiveness, and value of social dialogue along three themes: **strong stakeholders, credibility, commitment from stakeholders, and institutional support to facilitate the social dialogue.**

It is important to investigate the following questions under each theme before setting up social dialogue processes to ensure successful discussions.

1 Are there **strong stakeholders**?

- » Are there strong independent worker and employer organizations, as well as civil society present, with the capacity and information needed to participate in a social dialogue?
- » Is there adequate democratic space and freedom of association, and a climate free from violence, pressure, and threats against leaders and members of participants?
- » Are all impacted groups adequately represented in the dialogues? *For example, low unionization levels among informal sector workers severely limit the coverage of informal workers (who are often lower income, women, youth, and marginalized groups).*

2 Are the **stakeholders credible and committed**?

- » Do the parties have the necessary societal legitimacy to engage in negotiated topics?
- » Are institutions committed long-term to engage with all sides and build up trust? *It is vital to recognize that constructive dialogues are fragile, and trust can be eroded by failing to deliver on deals and promises.*
- » Are the information, knowledge, and resources transparently available for stakeholders to participate substantially in the negotiations and make informed decisions? *For example, transparent wage and economic statistics have been found to promote trust and foster political will during social dialogue processes.²⁹*
- » Are the issues under consideration within reach, and can parties deliver what they promise?
- » Where an agreement cannot be reached, are partners willing to continue to talk to each other to build trust and restore confidence?

3 Is there **sufficient institutional support**?³⁰

- » Are there robust institutional frameworks to support social dialogues?
- » Is there a strong and efficient administration?
- » Are funding and resources adequately allocated for the setup and follow-up of social dialogues?
- » Are there existing labor dispute prevention and resolution mechanisms such as institutions that facilitate collective bargaining that can be built upon for a green just transition?
- » Are there institutions that produce statistics and other necessary information for key stakeholders?
- » Do the arbiters have adequate negotiation and cooperation skills to facilitate social dialogues?

Key considerations to prevent a “greenlash”

A prevalent misconception is the perceived dichotomy between prioritizing economic growth and safeguarding national interests through climate policy. This false division overlooks the inherent potential of a green just transition—an avenue not only for environmental stewardship, but also for the cultivation of a job-rich, equitable, and sustainable economy aligning the welfare of both people and planet. However, governments worldwide have faced substantial backlash against pro-climate initiatives.

Rapid policy advancements often meet resistance, driven by the public’s apprehension. In some instances, these valid concerns are manipulated by political entities aiming to rally support. Studies indicate that when horizontal inequalities exist in the shadow of political exclusion, societies are more prone to political instability and social unrest. These conditions can severely undermine the execution of a green just transition. To navigate these complexities and foster an environment conducive to positive change, policymakers must contemplate the following:

- » **Anticipating conflicts:** What frictions are foreseeable due to green transition policies, and how can these be mitigated early in the process? How can social dialogues be leveraged to address conflicts?
- » **Vulnerable groups:** Which demographics are at risk of adverse effects, and how might they be mobilized either for or against the transition?
- » **Potential adversaries:** Who are the opposing voices, actors, and interest groups resistant to change, and what are their motivations?
- » **Perception management:** How a policy is perceived by the public can significantly impact its success. What are the anticipated reactions to policies, and what are the prevalent concerns or misconceptions that need to be addressed?
- » **Communication strategies:** How will the transition plan be effectively communicated? How can policymakers use strategy communication campaigns to emphasize the benefits, opportunities, and positive outcomes inherent in a green just transition?
- » **Stakeholder engagement:** What strategies will ensure key stakeholders are not only on board but actively participate in co-producing solutions they can advocate for within their communities?
- » **Setting the narrative:** Present climate change as a challenge we can manage and adapt to, rather than an insurmountable crisis is vital. This approach encourages proactive engagement rather than fear-driven reactions.

In conclusion, social dialogue is essential in steering the green transition towards a just and equitable future. It bridges the gap between various stakeholders—workers, employers, governments, civil society, and communities—facilitating open communication, promoting consensus-building, and inclusive decision-making. It is crucial in building trust, fostering commitment, and mitigating the risk of "greenlash." This approach acknowledges that a green transition is not just an environmental or economic challenge but also a social one, requiring careful management of human impacts.

Moreover, social dialogues play a vital role in conflict resolution, aligning policies with grounded realities and ensuring that transitions are environmentally sustainable, socially inclusive, and economically beneficial. They can collect information on the impacts on communities and workers and enable the creation of tailored solutions sensitive to different communities and sectors' unique contexts and needs. This approach is not a one-size-fits-all solution but a flexible framework tailored to specific national and local contexts.

As the world moves towards a decarbonized economy, the lessons from social dialogue in labor and economic fields can be adapted to manage this transition effectively.

Conclusion

The integration of distributional impact assessments, an intersectionality-based policy analysis framework, and social dialogue presents a comprehensive strategic framework for prioritizing both people and the planet in green transition policies. By incorporating these three pillars, policymakers can ensure that equity and inclusion are woven into the fabric of climate-related policies. This approach not only fosters environmental sustainability but also promotes fairness and inclusivity, thus paving the way for a more just and equitable transition to a green economy. By embracing this strategy, we can strive towards a future where the benefits of environmental progress are shared by all, leaving no one behind in the pursuit of a more sustainable world.

Endnotes

- 1 **SSE**, "SSE's Just Transition Plan: From Principles to Action," April 2023, <https://www.sse.com/sustainability/sse-s-just-transition-plan-moving-from-principles-to-action>.
- 2 **European Commission**, "Distributional Impact Assessment." n.d., <https://ec.europa.eu/social/main.jsp?catId=1594&langId=en>.
- 3 **Department of the Prime Minister and Cabinet, Australian Government**, "Distributional Analysis: Guidance Note," March 2020, <https://oia.pmc.gov.au/sites/default/files/2021-06/distributional-analysis-guidance-note.pdf>.
- 4 **Nora Lustig** (ed.), *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty* (Washington D.C.: Rowman & Littlefield Publishers / Brookings Institution Press, 2016).
- 5 **Ibid.**
- 6 **Ibid.**
- 7 **ILO**, "How to measure and model social and employment outcomes of climate and sustainable development policies: training guidebook," *ILO*, 2017, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_613934.pdf.
- 8 **Ibid.**
- 9 **Climate Investment Funds**, "Just Transition Planning Toolbox - Module 3: Analyzing impacts and opportunities," 2023, <https://www.cif.org/just-transition-toolbox/module-3>.
- 10 **ILO**, 2017.
- 11 **"Economic Impact Assessment: An overview," Adept Economics**, April 2019, <https://adepteconomics.com.au/wp-content/uploads/2019/04/Resource-Economic-Impact-Assessment.pdf>.
- 12 **ILO**, 2017.
- 13 **Andrew Jarvis, Adarsh Varma, and Justin Ram**, "Assessing Green Jobs Potential in Developing Countries: A Practitioner's Guide," *ILO*, 2011, https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_153458/lang--en/index.htm.
- 14 **"Economic Impact Assessment."**
- 15 **ILO**, 2017.
- 16 **Ibid.**
- 17 **Şen Hüseyin**, "Social accounting matrix (SAM) and its implications for macroeconomic planning," *Bradford University*, 1996, <https://www.staff.ncl.ac.uk/david.harvey/AEF873/Development/SAM.pdf>.
- 18 **Columbia | CGEP**, "How the Unequal Effects of Climate Change Broke Economists' Favorite Tool," *Center on Global Energy Policy at Columbia University SIPA | CGEP*, February 1, 2023, <https://www.energypolicy.columbia.edu/publications/how-unequal-effects-climate-change-broke-economists-favorite-tool>.
- 19 **"Noah Kaufman**, "How the Unequal Effects of Climate Change Broke Economists' Favorite Tool," *Center on Global Energy Policy at Columbia University*, October 27, 2022, <https://www.energypolicy.columbia.edu/publications/how-unequal-effects-climate-change-broke-economists-favorite-tool>.
- 20 **Olena Hankivsky et al.**, "An Intersectionality-Based Policy Analysis Framework: Critical Reflections on a Methodology for Advancing Equity," *International Journal for Equity in Health* 13, no. 1 (December 1, 2014), <https://doi.org/10.1186/s12939-014-0119-x>.

- 21 **“Gender Tool Kit: Energy Going Beyond the Meter,”** *Asian Development Bank*, 2012, https://www.adb.org/sites/default/files/institutional-document/33650/gender-toolkit-energy_o.pdf.
- 22 **Roshni Menon**, “Canada’s Gender-Based Analysis Plus assesses policy impact on diverse populations,” *NYU Center on International Cooperation*, June 4, 2023, <https://www.sdg16.plus/policies/canadas-gender-based-analysis-plus-assesses-policy-impact-on-diverse-populations>.
- 23 **The** following is adapted from thinking put forward by: “Gender Equity and Social Inclusion Mainstreaming Checklist for Screening Climate Finance Proposals,” *USAID Climate Ready Knowledge Products*, May 2021, https://www.climatelinks.org/sites/default/files/asset/document/2021-06/2021_USAID-Climate-Ready_GESI-Mainstreaming-Checklist-for-CF-Proposals.pdf; Anna Kaijser and Annica Kronsell, “Climate Change through the Lens of Intersectionality,” *Environmental Politics* 23, no. 3 (October 11, 2013): 417–33, <https://doi.org/10.1080/09644016.2013.835203>; “Intersectionality-Based Policy Analysis Tool - Make Way,” *Make Way*, March 15, 2023, <https://www.make-way.org/toolkit/intersectionality-based-policy-analysis-tool/>; “INTERSECTIONALITY RESOURCE GUIDE AND TOOLKIT: An Intersectional Approach to Leave No One Behind,” *UN Women and UN PRPD*, February 2022, <https://www.unwomen.org/sites/default/files/2022-02/Intersectionality-resource-guide-and-toolkit-large-print-en.pdf>
- 24 *NYU Center on International Cooperation*, June 6, 2023, <https://www.sdg16.plus/policies/uk-office-of-national-statistics-developed-guidance-on-harmonized-measures-of-identity>.
- 25 **ILO** includes all types of negotiation, consultation, and exchange of information, typically between representatives of government, employers, and workers.
- 26 **Liv Tørres**, “Social Dialogue as a Tool,” *NYU Center on International Cooperation*, January 31, 2023, <https://cic.nyu.edu/resources/social-dialogue-as-a-tool-to-fight-inequality-recover-after-a-pandemic>.
- 27 **Ronald Janssen**, “A business case for social dialogue: How workplace representation and collective bargaining deliver better business performance,” *Global Deal*, July 2021, https://www.theglobaldeal.com/resources/The%20Business%20Case%20for%20Social%20Dialogue_FINAL.pdf.
- 28 **Ronald Jassen**, “Supporting transitions and securing jobs: Social dialogue shaping a stronger recovery from the pandemic,” *OECD*, February 23, 2022, <https://www.oecd.org/coronavirus/policy-responses/supporting-transitions-and-securing-jobs-social-dialogue-shaping-a-stronger-recovery-from-the-pandemic-83b6b310>.
- 29 **“SocialDialogue.org,”** <https://www.socialdialogue.org>.
- 30 **“The Nordic Model,”** *NFS*, <https://nfs.net/en/what-we-do/the-nordic-region/the-nordic-model/#:~:text=It%20is%20based%20on%20a,the%20rest%20of%20the%20world>.
- 31 **Many** countries, like Brazil, Colombia, and Costa Rica, are now publishing public sector information, boosting transparency.
- 32 **The** Just Transition Platform (JTP) is an example of institutional support for social dialogues. It is a tool that ensures stakeholders are provided with guidance, knowledge, and financial resources. “The Just Transition Platform,” *European Commission*, <https://ec.europa.eu/>

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