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THE IMPERATIVE OF A JUST TRANSITION

A Flagship Report of the Impact Studio
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CONTENTS

Summary

With climate change and its negative effects looming large on the global horizon, setting up solid mitigation and adaptation policies in place is becoming more urgent than ever. The burden of the green transition to take place in this context, however, cannot be placed on the shoulders of the most vulnerable. Everything else being equal, the poor stand to be more affected by the climate crisis while contributing little to its causes but could also lose from a transition that would be ill-planned, if at all. Rather, this transition must be just, i.e. societies must achieve decarbonization while equitably redistributing opportunities and responsibilities among their populations in so doing.

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Disclaimer

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INTRODUCTION

Since 2020, the world has entered a new era, marked by a pandemic that mostly hit lower and middle classes around the globe, caused the deaths of more than 7 million people globally, and put the focus on rising inequalities and extreme poverty. Ever since, economic tensions triggered by global supply chains disruption and inflation as well as geopolitical crises shaking multiple corners of the planet have made the global outlook somber.

The worst may be yet to come. With climate change and its negative effects looming large on the global horizon, a transition to low carbon societies is becoming more urgent than ever. The burden of the energy transition, however, cannot be placed solely on the shoulders of the most vulnerable. Rather, this transition must be just, i.e. societies must foster and achieve decarbonization while equitably redistributing opportunities and responsibilities among their populations in so doing.

This report is in part a literature review that documents the history of the Just Transition, and what it implies for societies and economies around the globe. It also explores case studies of countries going through a Just Transition or confronting its imperative, and lists metrics and policies in its Annex to inform decision-making relating to investments and actions pertaining to the Just Transition.

This is the product of a unique collaboration, made possible by the Sciences Po's School of Management and Impact's newly launched Impact Studio. The Studio brings together professors and students to work on projects, programs and reports, allowing the students to learn and implement innovative solutions and initiatives. In the case of this flagship report, a visiting professor, Niels Planel, collaborated with a handful of students, Axelle Cazier, Hélène Chaubard-MacKinnon, Gabriela Cuervo Robert, Anaëlle Fotso Kamdem and Paula Popa, to draft this document while also benefiting from the advice of outside experts. In so doing, the students discovered the day-to-day professional expectations for such work. The result is a piece that reviews the literature of the Just Transition while listing "stories of Just Transition" that are the fruits of the students' creativity and research. Readers can also use the Annex, a unique matrix of Just Transition recommendations and metrics mined in key reports on the matter.

This report, the first of the Impact Studio, wishes to inform the view of non-experts and academics about the imperative of a Just Transition.

April 2024

1

Climate, Poverty, and Inequality: Transforming a Vicious Circle into a Virtuous One

THE JUST TRANSITION IN THE 1990s: A FOCUS ON COAL, A MAIN ENERGY SOURCE SINCE THE INDUSTRIAL REVOLUTION

The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil, in June 1992, set in motion a cascade of actions in favor of a global climate agenda over the last three decades.
Among others, it led to the adoption of the Rio Declaration and its 27 principles and to the creation of the United Nations Framework Convention for Climate Change (UNFCCC). The Convention's stated objective was to achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner"[1].

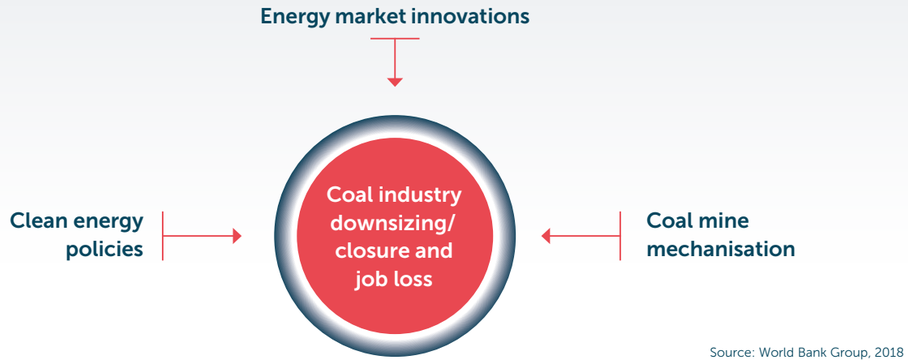
Yet, collective aspirations to regulate CO_2 emissions in order to preserve the climate system soon triggered labor unions' concerns regarding the future of the greenhouse-gas-emitting coal sector.
The disproportionate impact a climate action agenda could have on specific groups of people and communities were not reflected in the Rio Declaration, and the risk of massive job losses and their impact on workers and their communities in mining-dependent regions soon became a source of worries. Building on older debates on the tensions between environment preservation and jobs, it was not long before a call emerged to financially compensate potential job losses in the sector or to assist with reskilling or geographic relocation through, among others, the establishment of a "just-transition fund" in the mid-1990s (Morena, Krause, Stevis, 2020).

While the international community adopted new treaties and tools to tackle climate change in the early 2000s, the prevention of negative socio-economic outcomes from the phasing-out of coal was not the object of systematic planning.
Progress was achieved in the climate negotiations with the adoption of the Kyoto Protocol in 1997 and its entry into force in 2005 as well as with the emergence of new instruments to fund climate change policies such as the Climate Investment Funds (CIFs) in 2008; globally, however, several regions engaged in large scale mine closures without necessarily taking steps to mitigate their socioeconomic impacts, including job losses.

The World Bank estimated for instance that large-scale changes to coal industries across Europe and more recently in the United States and China resulted in as many as 4 million coal workers losing their jobs over the last half century
(WBG, 2018). The modernization and the downsizing of the sector led to the closure of less efficient mines, with ensuing job losses and socioeconomic impacts among families, communities and affected regions proving to be significant. Substantive efforts are only recently emerging in the European Union with the creation of a Euro 17.5 billion Just Transition Fund under the 2021-2027 EU programming round, with the stated aim to address employment, economic, social and environmental impacts that come with the shift away from carbon-intense activities. Economic reconversion and diversification of the concerned territories should translate into, i.a., up- and reskilling of workers, job-search assistance and active inclusion of jobseekers programs, the transformation of existing carbon-intensive installations when these investments lead to substantial emission cuts and job protection, investments in small and medium-sized enterprises, the creation of new firms, research and innovation, environmental rehabilitation, as well as clean energy[2] – activities that need to be properly planned to ensure a Just Transition.

FIGURE 1

The mechanisms behind coal industry downsizing/closure and job loss



Source: World Bank Group, 2018

The World Bank projects that economies in Asia, Eastern Europe, and Africa are likely to suffer similar, inevitable losses in the wake of expected coal mine closures across those continents.
It recommends a "Just Transition for all" that mitigates impacts on people and communities according to the following principles: (i) continuous dialogue and consultation with a wide variety of affected stakeholders to determine scope, scale, and timing of closure; (ii) adequate planning at the outset which is sustained through dialogue and participatory monitoring during the various stages of closure and transition; (iii) provision of temporary income support to workers and their families that is complementary to other existing social protection programs; and (iv) deployment of active labor market policies that offer services, programs, and incentives to encourage and enable re-employment among laid-off workers (also see Annex).

BOX 1

THE ROLE OF CIFS IN PHASING-OUT COAL

Lately, in 2021, the G7 Summit affirmed its support to a Just Transition and committed up to $ 2 billion to the CIFs' Accelerating the Coal Transition[3] and Integrating Renewable Energy[4] programs in concessional resources that were expected to mobilize up to $ 10 billion in co-financing including from the private sector to support the phasing out of the most polluting energy sources[5].

1. United Nations Framework Convention for Climate Change, 1992

2. Source: Transition funding sources, 2023
3. https://www.cif.org/topics/accelerating-coal-transition
4. https://www.cif.org/topics/renewable-energy-integration
5. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001128/Carbis_Bay_G7_Summit_Communique__PDF__430KB__25_pages_.pdf

THE IMPACT OF CLIMATE CHANGE ON POVERTY IN THE 2010s

It took another decade for the concept of Just Transition to resurface in international negotiations and become front and center in major efforts to tackle the climate crisis.

In 2010, the International Trade Union Confederation Congress adopted a resolution on "a sustainable and just development model for the 21st century" stating that "governments must ensure that their policies are respectful of the environment and that "just transition" strategies are put in place in order to provide a socially fair and environmentally responsible pathway to sustainable development" and that "Congress undertakes to promote an integrated sustainable development approach including a just transition that brings together social progress, environmental protection and economic needs within a democratic governance framework in which trade union and other human rights are respected and gender equality is secured"[6]. A few years later, in 2015, both the International Labour Organization (ILO) and the Conference of the Parties (CoP) made the Just Transition a global priority. In its Guidelines for a Just Transition, the ILO emphasized that "a just transition for all towards an environmentally sustainable economy, [...] needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty" (ILO, 2015)[7] while the Paris Agreement insisted on the Parties "taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities" (United Nations, 2015). The same year saw the adoption of the Sendai Framework for Disaster Risk Reduction, the Addis Ababa Action Agenda, and the Sustainable Development Goals, each of them calling for progress to be achieved in preserving livelihood, climate, and the environment.

A major step in the broadening of the debate beyond coal was to be found in the Intergovernmental Panel on Climate Change (IPCC)'s Fifth Assessment Report that comprehensively discussed the impact of climate change on livelihoods and poverty. In 2014, the scientific body stated with high confidence that climate-related hazards exacerbate other stressors, often with negative outcomes for livelihoods, especially for people living in poverty (IPCC, 2014). Furthermore, based on observed evidence, it affirmed with very high confidence that climate change and climate variability worsen existing poverty, exacerbate inequalities, and trigger both new vulnerabilities and some opportunities for individuals and communities. Finally, the IPCC did forecast, with medium confidence, that climate change will create new poor between now and 2100, in developing and developed countries, and jeopardize sustainable development. The majority of severe impacts are projected for urban areas and some rural regions in sub-Saharan Africa and Southeast Asia. Far from being distinct challenges to be tackled separately, it emerges from the IPCC's analysis that poverty will increase from the negative impacts of climate change, and that successfully dealing with the latter will prevent a rise in poverty in the 21st century. While observing that research on the matter is nascent and that important gaps remain to be filled, the IPCC concluded by observing that i) climate change adds an additional burden to poor people and their livelihoods, acting as a threat multiplier; ii) climate change may create new groups of poor people, not only in low-income countries but also in middle- and high-income countries, and neither alleviating poverty nor decreasing vulnerabilities to climate change can be achieved unless entrenched inequalities are reduced; and iii) climate change policy responses then reviewed by the IPCC often do not benefit poor people.

6.International Trade Union Confederation Congress – 2nd World Congress, Resolution on a sustainable and just development model for the 21st century, 2010.
7. The ILO produced a Just Transition Policy Brief series in order to deepen both the technical and policy understanding of the application of its 2015 Guidelines. This report captures key indicators from these briefs in its Annex. See https://www.ilo.org/global/topics/green-jobs/publications/just-transition-pb/lang--en/nextRow--0/index.htm for full list of briefs.

BOX 2

DEFINITIONS OF THE POOR, POVERTY, LIVELIHOODS, VULNERABILITY, AND EXPOSURE

"We use the term "**the poor**," not to homogenize, but to describe people living in poverty, people facing multiple deprivations, and the socially and economically disadvantaged, as part of a conceptualization broader than income-based measures of poverty, acknowledging gradients of prosperity and poverty. This livelihood lens also reveals how inequalities perpetuate poverty to shape differential vulnerabilities and in turn the differentiated impacts of climate change on individuals and societies."

In turn, the IPCC defines **poverty** in its glossary as "a complex concept with several definitions stemming from different schools of thought. It can refer to material circumstances (such as need, pattern of deprivation, or limited resources), economic conditions (such as standard of living, inequality, or economic position), and/or social relationships (such as social class, dependency, exclusion, lack of basic security, or lack of entitlement)".

"**Livelihoods** are understood as the ensemble or opportunity set of capabilities, assets, and activities that are required to make a living [...]. They depend on access to natural, human, physical, financial, social, and cultural capital (assets); the social relations people draw on to combine, transform, and expand their assets; and the ways people deploy and enhance their capabilities to act and make lives meaningful [...]. Livelihoods are dynamic and people adapt and change their livelihoods with internal and external stressors. Ultimately, successful livelihoods transform assets into income, dignity, and agency, to improve living conditions, a prerequisite for poverty alleviation [...]."

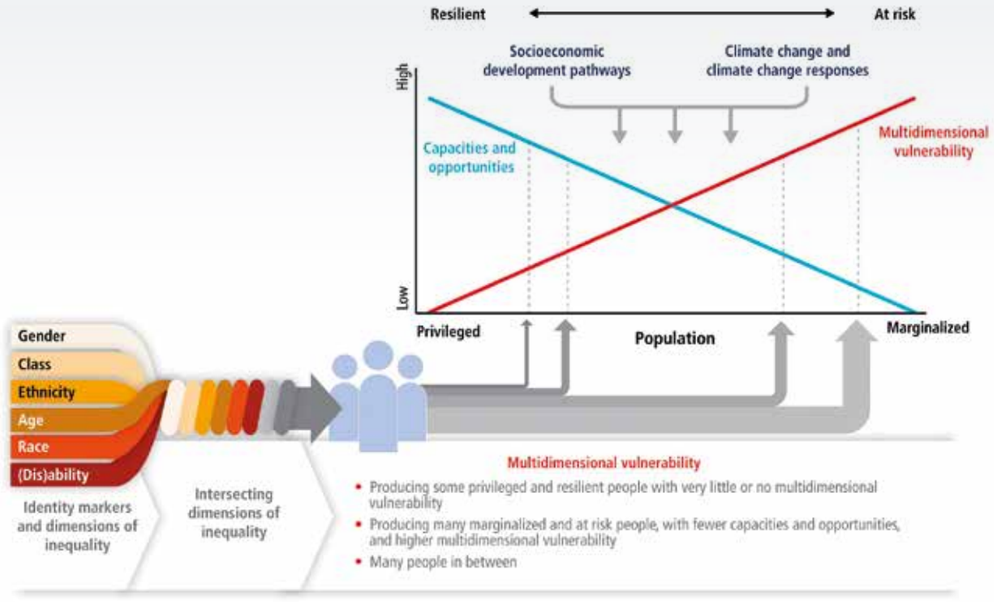
"**Vulnerability**, or the propensity or predisposition to be adversely affected [...] by climatic risks and other stressors [...], emerges from the intersection of different inequalities, and uneven power structures, and hence is socially differentiated [...]. Vulnerability is often high among indigenous peoples, women, children, the elderly, and disabled people who experience multiple deprivations that inhibit them from managing daily risks and shocks [...] and may present significant barriers to adaptation."

Finally, the IPCC defines **exposure** as "the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected".

Source: IPCC, 2014, and AR5 Climate Change: Impacts, Adaptation, and Vulnerability, Glossary, 2014

FIGURE 2

Multidimensional vulnerability



Source: IPCC, 2014

Ever since, additional research has supported the thesis of a larger distributional impact of climate change in poorer countries.

For instance, economist Richard Tol observes that three reasons tend to make them more vulnerable to it: i) they have a higher share of their economic activities in sectors, such as agriculture, which are directly exposed to the vagaries of weather; ii) poorer countries tend to be in hotter places; and iii) they also tend to have a limited adaptive capacity, which depends on a range of factors (availability of technology, ability to pay for those technologies, the political will to mobilize resources for the public good, and the government's competence in raising funds and delivering projects) that are worse in developing countries (Tol, 2021).

TABLE 1

Key risks from climate change for poor people and their livelihoods and the potential for risk reduction through adaptation

Climate-related drivers of impacts: Warming trend; Extreme temperature; Drying trend; Extreme precipitation; Damaging cyclone; Sea level	Level of risk & potential for adaptation: Potential for additional adaptation to reduce risk; Risk level with **high** adaptation; Risk level with **current** adaptation

Key risk	Adaptation issues & prospects	Climatic drivers	Timeframe	Risk & potential for adaptation (Very low – Medium – Very high)
Deteriorating livelihoods in drylands, due to high and persistent poverty. Risk of reaching tipping points for crop and livestock production in small-scale farming and/or pastoralist livelihoods (*high confidence*) [13.2.1.2, 13.2.2.1, 13.2.2.3]	Adaptation options are limited owing to persistent poverty, declining land productivity, food insecurity, and limited government support due to marginalization. Rural–urban migration is a potential adaptation strategy.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	
Destruction and deterioration of assets: physical (homes, land, and infrastructure), human (health), social (social networks), cultural (sense of belonging and identity), and financial (savings) due to floods in flood-prone areas, such as low-lying deltas, coasts, and small islands (*high confidence*) [13.2.1.1, 13.2.1.3, 13.2.1.5, Box 13-1]	Adaptation options are limited for people who cannot afford relocation to safer areas. Government support and private options (e.g., insurance) are limited for people with insecure or unclear tenure.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	
Shifts from transient to chronic poverty due to persistent economic and political marginalization of poor people combined with deteriorating food security (*high confidence*) [13.2.1.3, 13.2.2.4]	Adaptation options are limited due to exclusion from markets and low government support. Policies for adaptation are unsuccessful because of failure to address persistent inequalities.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	
Declining work productivity, morbidity (e.g., dehydration, heat stroke, and heat exhaustion), and mortality from exposure to heat waves. Particularly at risk are agricultural and construction workers as well as children, homeless people, the elderly, and women who have to walk long hours to collect water (*high confidence*) [13.2.1.1, 13.2.1.5, 13.2.2.4, Box 13-1]	Adaptation options are limited for people who are dependent on agriculture and too poor to afford agricultural machinery. Adaptation options are limited in the construction sector where many poor people work under insecure arrangements. Adaptation might be impossible in certain areas in a +4°C world.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	
Declining agricultural yields, primarily in already hot climates, with severe impacts on countries and communities highly dependent on agriculture. Declining yields may cause further deterioration of assets: financial (savings), human (health), social (social networks), and cultural (sense of belonging and identity) (*high confidence*) [13.2.2.2, 13.2.2.4]	Adaptation by changing livelihoods away from agriculture is limited owing to poverty and marginalization. Adaptation strategies such as early or late planting, inter-cropping, and shifting crops bring mixed benefits and have limitations, often depending on household resources and access to seasonal forecasts and longer term projections. In a +4°C world, adaptation in agriculture is very limited.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	
Reduced access to water for rural and urban poor people due to water scarcity and increasing competition for water (*high confidence*) [13.2.1.1, 13.2.1.3, 13.2.1.5, Box 13-1]	Adaptation through reducing water use is not an option for the large number of people already lacking adequate access to safe water. Access to water is subject to various forms of discrimination, for instance due to gender and location. Poor and marginalized water users are unable to compete with water extraction by industries, large-scale agriculture, and other powerful users.		Present; Near term (2030 – 2040); Long term (2080 – 2100) 2°C 4°C	

Source: IPCC, 2014

Major sectors are likely to be impacted by climate change, further threatening livelihoods around the world.

According to the World Bank, in the short run, rapid, inclusive and climate-informed development can prevent most (but not all) consequences of climate change on poverty, but absent this, climate change could result in an additional 100 million living in extreme poverty by 2030 (World Bank, 2016). There are several causes, including the facts that i) the poor are more vulnerable to spikes in food prices and more dependent on agricultural and ecosystem-related income, in a context where agriculture is the main sectoral driver explaining higher poverty due to climate change; ii) natural hazards, to which poor people are often more exposed and almost

always more vulnerable, will become more intense and frequent in many regions; and iii) the poor are strongly affected by diseases and health issues that climate change is likely to magnify. As observed, while the poor are more exposed to the adverse effects of climate change and more vulnerable to it, they also receive less support from friends and family and have more limited access to financial tools and social safety nets to cope with the climate crisis' diverse consequences. In this context, ending poverty and stabilizing climate change can be more easily achieved if considered together. Furthermore, immediate mitigation is an imperative to remove long-term threat from climate change vis-à-vis poverty eradication. Such action must be complemented with targeted adaptation interventions and a more robust safety net system. The World Bank recommends specific options, including: i) climate-smart agriculture and protected ecosystems; ii) land use regulations and better and more infrastructure for natural hazards; iii) better health infrastructure and universal health care; and iv) social safety nets and financial tools. (See Annex for further recommendations).

While climate change is likely to negatively impact global economic output, some recent studies have started to show a Just Transition can also offer job creation opportunities.

The ILO notes that, by 2030, the equivalent of more than 2 per cent of total working hours worldwide is projected to be lost every year, either because it is too hot to work or because workers have to work at a slower pace (ILO, 2019). Yet, early on, while the Just Transition captured pervasive tensions between preserving the climate and limiting economic losses, today, a better understanding of the impacts of climate hazards and extreme weather events resulting from changing temperatures shows that strong climate action could be a driver in employment generation. While estimates vary significantly, energy-related policies to achieve 2° Celsius path are projected to contribute to job creation over the medium to long term (see table 1).

TABLE 2

Change in employment

Global assessments	Region/country/sector	Low-carbon transition policies	Employment change
OECD (2011) (Chateau et al., 2011)	OECD countries	With just transition policies	-0.32% in 2030
OECD (2011)	OECD countries	No just transition policies	-2.00% in 2030
IRENA (2019)	Global/energy sector	Energy transition policies only	+2.00% in 2050
New Climate Economy (2018)	Global	Carbon pricing and sector policies only	65 million additional low-carbon jobs, 37 million net additional by 2030
EU (2018)	EU	Policies consistent with 2°C (1.5°C) path - carbon price with revenues used to reduce taxes	Up to 1.3 (2.1) million new jobs compared with baseline by 2050. 0.6% (0.9%) increase in total employment compared with baseline in 2050
OECD (2018) (Chateau et al., 2018)	OECD and non-OECD	Policies consistent with 2°C (1.5°C) path	0.3% (0.8%) reallocation of jobs (sum of jobs created and destroyed) compared with 20% past reallocation rates across OECD countries
ILO (2018)	Global/energy, transport and construction sectors	Energy-related policies to achieve 2°C path	24 million additional jobs, 18 million net additional, by 2030

Source: Robins and Rydge, 2019

BOX 3

A JUST TRANSITION MUST ADDRESS WOMEN'S HEIGHTENED VULNERABILITY TO CLIMATE SHOCKS AND STRESSES

According to the World Bank, extreme weather events, droughts, floods, rising sea levels and warmer temperatures, among others, impact groups in distinct ways, with women being more vulnerable to such shocks. Unequal access to jobs, income, resources, finance, and information reduce their adaptive capacity as well as their participation in mitigation solutions and disaster preparedness and response. Discriminations and social norms can be aggravating factors that contribute to lesser female representation in decision-making bodies at various levels across societies, which in turn prevents more inclusive and effective climate action. Meanwhile, sectors likely to see growth in green jobs (energy, manufacturing, construction, and transport) are traditionally male dominated.

With the right mix of gender-inclusive policies and interventions to foster participation, transitioning towards greener economies can create new opportunities for women as well. Challenges must be tackled heads-on through early gender entry points such as i) enhancing access to green jobs and skills; ii) providing adaptive social safety nets and livelihood diversification; iii) investing in resilience and disaster risk reduction, and iv) addressing gender-based violence in climate action. Gender objectives can be achieved in five key systems responsible for 90 percent of global greenhouse gas emissions: energy; agriculture, food, water, and land management; cities; transport; and manufacturing.

In the private sector, despite a slow start, action on climate and gender is currently accelerating through corporate initiatives and capital flows, and through collaborative leadership among private, public and voluntary actors innovating with the use of different instruments, indices and bundling of products. And despite very little of global climate finance currently reaching women, there is growing recognition that finance can be mobilized to address gender, inequality and tackle climate change simultaneously. Yet, the World Bank warns that private financing primarily flows to mitigation measures that have demonstratable returns for investors. In contrast, people-centered approaches, that are key to reducing women's vulnerability to climate change shocks and stresses, are often not monetized for a market context. A Just Transition involves solving the latter challenge.

Source: Placing Gender Equality at the Center of Climate Action. World Bank Group Gender Thematic Policy Notes Series. January 2023; Women, Business and the Law 2023. Washington, DC: World Bank, 2023.

2020 ONWARDS: **CONFRONTING INEQUALITY'S IMPACT ON CLIMATE CHANGE**, AND VICE VERSA

The poor in richer nations are also severely impacted by the adverse effects of climate change.

The 2003 heatwave in Europe, Hurricane Katrina in 2005, Superstorm Sandy in 2012 or massive droughts among several European countries in 2022 have hit the most vulnerable hard, revealing a lack of preparedness and adaptation measures to extreme weather events and showing the persistence of inequality across wealthier societies. According to Petra Tschakert, the reason is to be found in uneven power relations that make the poor and disadvantaged members of society distinctly more vulnerable than more affluent, privileged, and powerful groups and individuals, across the country spectrum of income levels (Tschakert, 2016). From the geographer's perspective, climate-related hazards and policies, combining with social exclusion and institutional neglect, are acting as a threat multiplier with regards to poverty and human precariousness. Without a Just Transition, these challenges will further exacerbate the socioeconomic conditions of the poorest segments across societies globally. Tschakert calls for the setting up of relevant social protection measures (see table 3 as well as Annex).

The adverse effects of climate change can not only derail the attainment of poverty reduction and development objectives but also deteriorate current trends and negatively impact, i.a., economic growth, food security, and health problems.

The UNDESA World Economic and Social Survey finds that, without the relevant policies to reduce the exposure and vulnerability of people to climate change, poverty and inequalities will only worsen (UNDESA, 2016). UNDESA defines exposure as the presence of people (including their livelihoods), ecosystems and species, or economic, social, or cultural assets in places that could be adversely affected by climate hazards, and vulnerability as the which encompasses two elements: (a) sensitivity or susceptibility to harm and (b) lack of capacity to cope and adapt; in this context, exposure and vulnerability are thus determined implicitly by the conditions of poverty, marginalization and social exclusion as they affect specific population groups. According to UNDESA, depending on individual circumstances and livelihood, particularly among poorer segments, there is an increased exposure and/or vulnerability to an array of risks, such as mud slides, periods of abnormally hot weather, water contamination, flooding and other climate hazards, land degradation, water scarcity, landscape damage, deteriorating ecosystems and other hazards. These feed a vicious circle, whereby vulnerable groups suffering from poverty and inequality are likely to experience greater losses in terms of lives and livelihoods through climate hazards, which in turn further aggravates poverty and inequality, limiting their capacity to cope and adapt.

TABLE 3

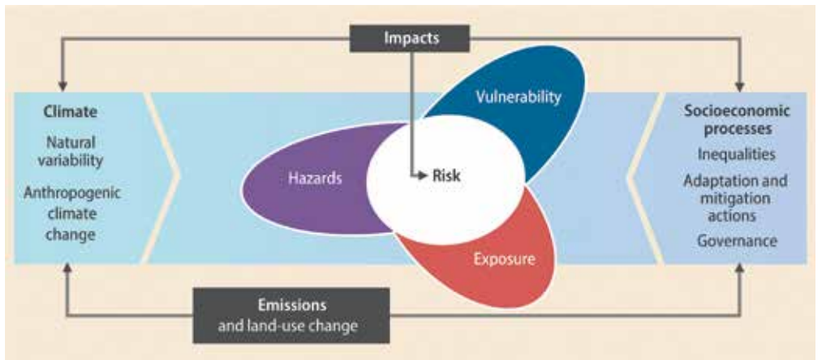
Types of social protection

Time frame	Social protection category	Social protection instruments	Role in crises and climate change adaptation
Short-term ↑ Coping ↑ Building adaptive capacity Long-term	Asset protection (social assistance)	• Social service provision • Basic social transfers (food/cash) • Pension and disability schemes	> Provides immediate protection and relief from poverty and deprivation > Protects the most vulnerable to climate risks
	Prevention of asset erosion (insurance and diversification mechanisms)	• Safety nets • Social transfers • Public works programmes • Livelihood diversification • Weather-indexed crop insurance	> Prevents damaging coping strategies as a result of risks to weather-dependent and climate-sensitive livelihoods
	Asset promotion (economic opportunities)	• Social transfers • Access to credit • Asset transfers/protection • Starter packs (drought/flood-resistant) • Access to common property resources	> Promotes resilience through livelihood diversification and security to withstand climate-related shocks > Promotes opportunities arising from climate change
	Transformation (addressing underlying social vulnerabilites)	• Promotion of minority rights • Anti-discrimination campaigns • Social funds	> Transforms social relations to combat discrimination underlying social and political vulnerability

Source: Tschakert, 2016

FIGURE 3

Human interface with the climate



Source: UNDESA, 2016

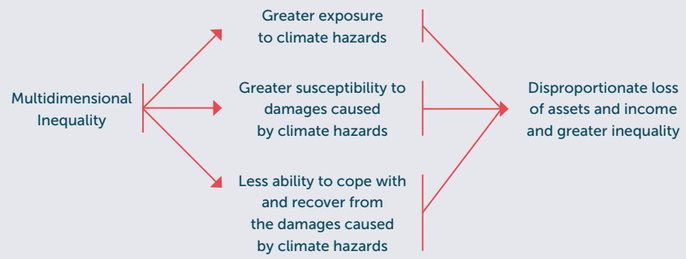
To overcome those structural challenges and foster adaptation and resilience to climate hazards, UNDESA thus recommends the following policies i) immediate assistance in the wake of climate hazards and interventions for disaster risk reduction, for example, through early warning systems, creation of shelters and infrastructure improvements; ii) policies for adaptation to a changing climate entailing, for example, introduction of new crop varieties and water management techniques; iii) policies centered on ecosystem management and on income diversification; and iv) sound development policies focused on reducing inequalities to achieve poverty eradication and social inclusion. These policies are to be developed in a coherent manner and through long-term strategies. UNDESA's research helps better understand that the improvement of the poor's ability to cope with climate change's adverse effects is directly linked to the reduction of structural inequalities.

BOX 4

REPLACING A VICIOUS CIRCLE BY A VIRTUOUS ONE

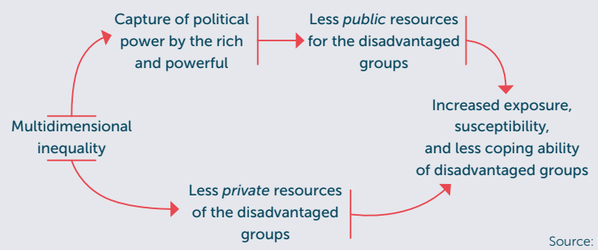
Building on the UNDESA 2016 Survey, some further research offered a unifying conceptual framework for understanding the relationship between climate change and "within-country inequalities", referred collectively as "social inequality" (Islam and Winkel, 2017). Islam and Winkel argue that this relationship is characterized by a vicious cycle, whereby initial inequality causes the disadvantaged groups to suffer disproportionately from the adverse effects of climate change, resulting in greater £subsequent inequality. The authors identify three main channels through which the inequality-aggravating effect of climate change materializes, namely (a) increase in the exposure of the disadvantaged groups to the adverse effects of climate change; (b) increase in their susceptibility to damage caused by climate change; and (c) decrease in their ability to cope and recover from the damage suffered.

Three effects of inequality on disadvantaged groups



The authors identified several types of inequalities: "On the one hand, there are inequalities based on demographic characteristics, such as gender, race, ethnicity, religion, and age. A second type of inequality is regarding assets and income. A third type of inequality is regarding public decision making (political power) and access to public resources, such as publicly financed health, education, housing, financing, and other services." In the authors' view, inequality reduction is thus an imperative; and "through the feedback effect, it may mitigate climate change itself. Thus, a virtuous cycle may replace the current vicious cycle".

Economic and political transmission channels of the effects of inequality on disadvantaged groups



Source: Islam and Winkel, 2017

The burden of the energy transition cannot rely disproportionately on the most vulnerable, who will suffer the most from climate change's adverse effects while contributing little to its causes; rather, this transition must be fair, i.e. commensurate to one's contribution to climate change.

A Just Transition means that societies must foster and achieve decarbonization while equitably redistributing opportunities and responsibilities among their populations in so doing. In contrast, sharing this burden unfairly may lead to strong opposition to climate policies from various segments of the society. In France, for instance, a carbon tax introduced in 2018 was perceived as unjustly targeting the middle and working classes, who are heavily dependent on their cars to go to work, especially in rural areas. The so-called 'Yellow Vests' movement resulted in weeks of social unrests, and in last resort, the French Government injected Euro 17 billion in various subsidies to appease the movement while renouncing to the introduction of the carbon tax. Overall, the ILO warns that if not carefully managed through Just Transition policies and processes, economic changes could result in increased social inequality, worker disillusionment, strikes or civil unrest and reduced productivity, as well as less competitive businesses, sectors and markets[8]. Meanwhile, the International Monetary Fund (IMF) cautions that, as the poorest tend to be excluded from the decision-making process, there is always a risk of underinvestment in actions that would be particularly beneficial to them. Policies need to be tailored to ensure they do not impose undue financial constraints on those who have the fewest resources. Policymakers must guarantee that mitigation and adaptation policies will benefit those most in need and will not be hijacked by the wealthiest or by political interests[9].

In 2023, the IPCC's Sixth Assessment Report notes that, while progress is being achieved, more remains to be done in mitigating and adapting to climate change.

According to the scientific body, *"human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals (high confidence)"*. The IPCC notes that human-caused climate change is already affecting many weather and climate extremes in every region across the globe, and notes that vulnerable communities who have historically contributed the least to current climate change are disproportionately affected. Thus, the 10% of households with the highest per capita emissions contribute 34–45% of global consumption-based household GHG emissions, while the middle 40% contribute 40–53%, and the bottom 50% contribute 13–15%. While the IPCC observes that policies and laws addressing mitigation have consistently expanded since the Fifth Assessment Report (2014), it warns that global GHG emissions in 2030 implied by nationally determined contributions announced by October 2021 make it likely that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C. And while adaptation planning and implementation has progressed across all sectors and regions, adaptation gaps exist, and will continue to grow at current rates of implementation. The IPCC also states that current global financial flows for adaptation are insufficient for, and constrain implementation of, adaptation options, especially in developing countries. It notes that continued greenhouse gas emissions will lead to increasing global warming, with the best estimate of reaching 1.5°C in the near term in considered scenarios and modelled pathways. Every increment of global warming will intensify multiple and concurrent hazards. The IPCC concludes with high confidence that *"prioritising equity, climate justice, social justice, inclusion and just transition processes can enable adaptation and ambitious mitigation actions and climate resilient development. Adaptation outcomes are enhanced by increased support to regions and people with the highest vulnerability to climatic hazards. Integrating climate adaptation into social protection programs improves resilience. Many options are available for reducing emission-intensive consumption, including through behavioural and lifestyle changes, with co-benefits for societal well-being"*.

The same year, the COP28 heralded a major change for energy systems.

During the conference in Dubai, Parties agreed to *"[t]ransitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science"*, in a move perceived by the United Nations Climate Change Conference to signal the *"beginning of the end" of the fossil fuel era "laying the ground for a swift, just and equitable transition"*[10]. The Parties left no room for confusion by insisting on *"[p]hasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible"*. Yet, only time will tell if the COP28 truly represented the dawn of an effective Just Transition.

8. https://www.ilo.org/global/topics/green-jobs/WCMS_824102/lang--en/index.htm#:~:text=A%20Just%20Transition%20means%20greening,and%20leaving%20no%20one%20behind.
9. Source: "Linking Climate and Inequality", IMF, September 2021. https://www.imf.org/en/Publications/fandd/issues/2021/09/climate-change-and-inequality-guivarch-mejean-taconet
10. COP28 Agreement Signals "Beginning of the End" of the Fossil Fuel Era, December 13, 2023. UN Climate Press Release. https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era

2

Enabling a **Just Transition**

ENABLING THE JUST TRANSITION TO MEET 21ST CENTURY CHALLENGES

The Just Transition has emerged as a key imperative to meet the challenges of the 21st century, and policies are being developed to enable this transition.
Governments, private sector, international organizations, labor unions, academia and NGOs are designing plans, recommendations, and tools to guide actions, while investments and development finance are being mobilized to fund the transition.

Lately, impact measurement methodologies are being developed globally.
Yet, climate finance and metrics are ahead of social impact's ones: Social impact appears more difficult to measure than CO_2 emissions because of its context-specific dimensions. From that perspective, the challenge in developing methodologies is in reconciling green growth with inclusive growth metrics, making the Just Transition an exercise in creativity. These measures can include, but not be limited to, industrial restructuring to allow for the phasing out of coal without leaving miners unemployed; upskilling of disadvantaged youth to allow the retrofitting of cars into electric vehicles, investments to provide affordable solutions to those worst affected by, and less able to cope with, carbon pricing policies; measures to mitigate and address energy poverty; and fighting inequality at the macro level to increase electoral participation of those being left behind, to achieve more balanced decision when tackling climate change. The Annex contained in this report lists various sectoral measures mined through the publication of seminal works and reports on the matter.

Pioneering institutions that have broadened the debate in the 2010s, such as the ILO and the UNFCC, have put the accent on jobs and employers/workers relationships.
Led by the early push from labor unions, these institutions have elaborated pro-workers measures and policies, where social dialogues and consultations play a major role (see figure 5; also see Annex).

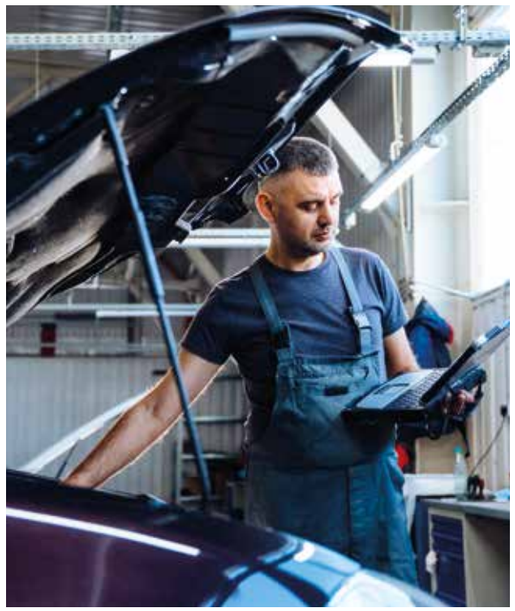
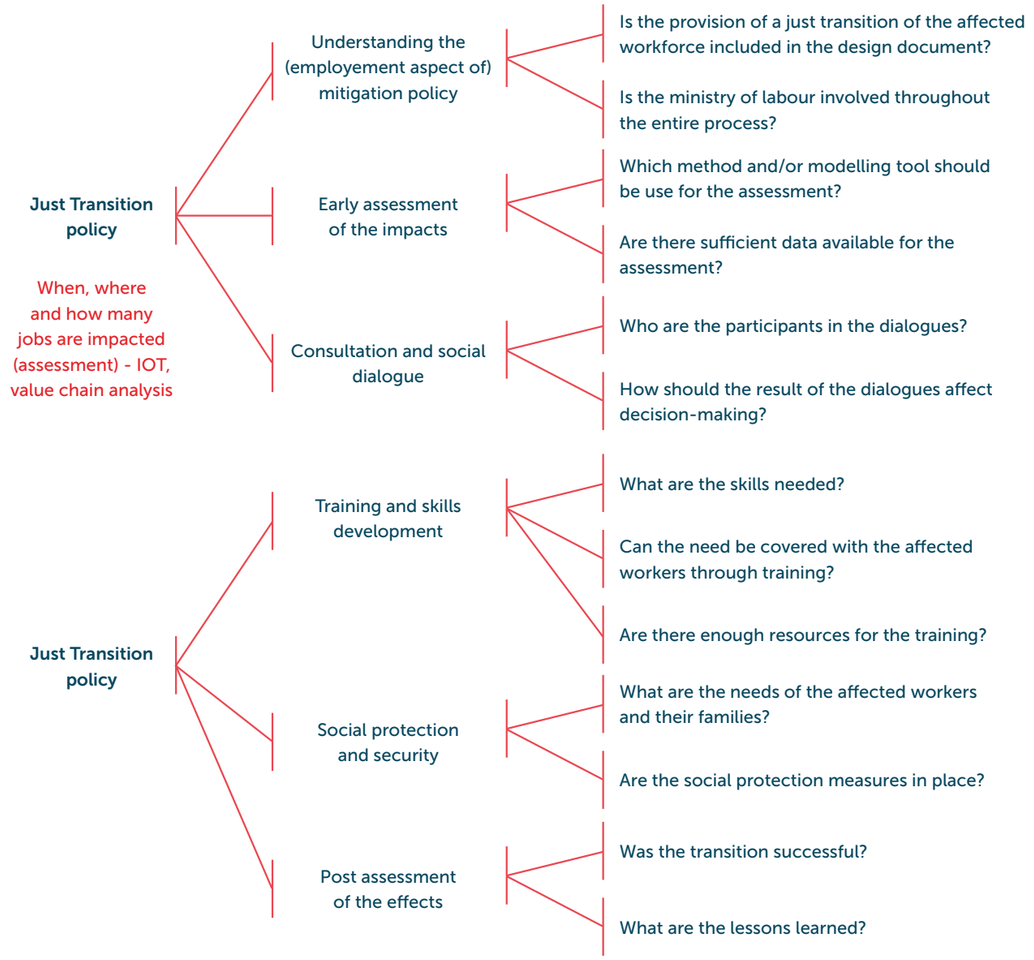


FIGURE 5

Just Transition policies



Source: UNFCCC, 2016

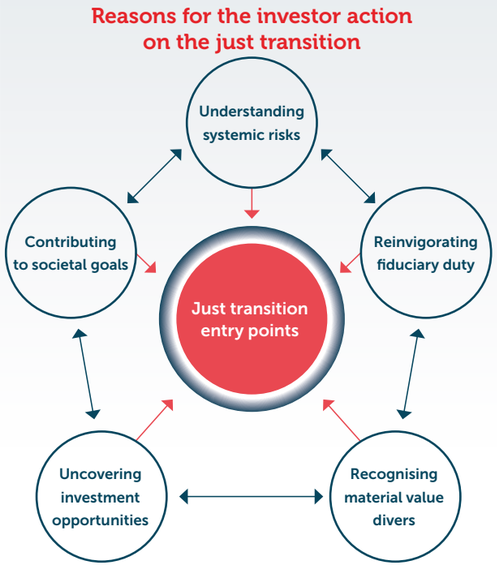
Additional work is now being developed to design a holistic Just Transition agenda.
For instance, examining the "inequality-environment nexus", the OECD also suggested setting up an integrated policy approach structured in four pillars, including measures to: i) mitigate the possible regressive impact of pricing environmental externalities for vulnerable households; ii) achieve inclusive green growth with investment in human capital, through active labour market policies, well-targeted income support measures, and upgrading skills to facilitate labour reallocation; iii) address systemic inequalities with sectoral and place-based policies that facilitate social dialogue, social capital investments, social protection, skills and education investments to ease structural adjustment of local economies; and iv) ensure efficient and responsive governance to manage the inclusive green transition (OECD, 2021).

FUNDING JUST TRANSITION PROJECTS AND PROGRAMS

The financial sector is being incentivized and mobilized to fund Just Transition policies.

According to the United Nations Principles for Responsible Investment, there are five strategic motivations for investors action, namely: i) broadening the understanding of systemic risks from climate change, by factoring in issues such as social exclusion and increasing inequality; ii) reinvigorating fiduciary duty by better capturing the interrelated environmental and social drivers of long-term performance and by taking better account of beneficiary interests in sectors and regions affected by the transition; iii) recognising material value drivers in terms of corporate practices in the workplace and the broader social license to operate, as business performance will be increasingly conditioned by the just transition; iv) uncovering investment opportunities that combine climate and social goals such as inclusive growth, identified through the lens of the just transition; and v) contributing to societal goals including existing responsibilities to respect international human rights and labour standards as well as new ways of realising the Sustainable Development Goals (UNPRI, 2018).

Reasons for the investor action on the just transition

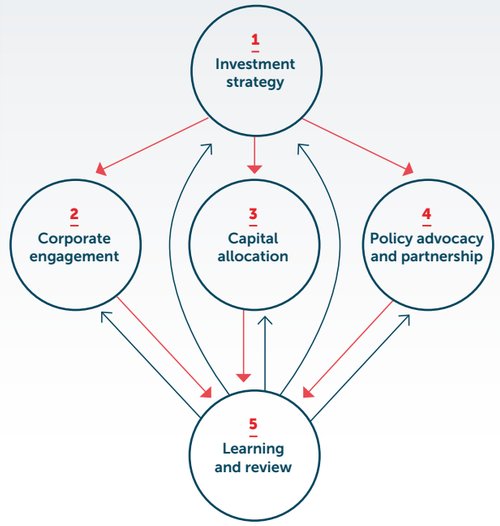


Conversely, according to UNPRI, there are five areas for action for investors: i) Investment strategy: Assessing exposure to the social dimension (including employment impacts) of the transition, pursuing dialogue with workers and other key stakeholders, and integrating just transition factors into investment beliefs and policies; ii) Corporate engagement: Including just transition factors in investor expectations, requesting disclosure, benchmarking performance, and pressing for improvement; iii) Capital allocation: Incorporating the social dimension into strategies for climate investment across all asset classes, including listed equities, bonds, private equity and real assets; iv) Policy advocacy and partnerships: Making the just transition a part of policy dialogue at sub-national, national and international levels as well as taking part in place-based partnerships, and v) Learning and review: Understanding emerging lessons and disclosing results so that the efficiency and effectiveness of investor action on the just transition continue to improve. As of 2024, however, no major initiative from the private sector is yet identified as making a significant contribution to the advancement of a Just Transition.

Meanwhile, several Development Finance Institutions (DFIs) are already committing resources to the transition.

This is the case of the CIFs, that has developed a framework through the Just Transition Initiative, in partnership with the Center for Strategic and International Studies (see table below), and which is set to invest USD 2 billion through its Accelerating the Coal Transition and Integrating Renewable Energy programs. This is also the case of the European Bank for Reconstruction and Development (EBRD): Since 2006, cumulative EBRD green finance has reached €34 billion across more than 1,900 projects and the institution is developing a framework for investment through its own "just transition initiative", that aims to ensure the benefits of a green economy transition while protecting vulnerable countries, regions and people from falling behind (EBRD, 2020).

The just transition: five action areas for investors



A FRAMEWORK FOR JUST TRANSITION DEFINITIONS

Empowerment Intention: Transformation	**2. NARROW TRANSITION** **Inclusive but focused approach** **Social Inclusion**: recognizes, includes, and empowers a diverse range of stakeholders throughout transition processes. **Distributional Impacts**: considers a narrow range of impacts for specific sectors and stakeholders. **Intention**: seeks transformation through inclusive and empowering processes.	**1. SYSTEMS CHANGE** **Inclusive process and broad impact** **Social Inclusion:** recognizes, includes, and empowers a diverse range of stakeholders throughout transition processes. **Distributional Impacts**: considers a broad range of impacts across sectors and stakeholders. **Intention**: seeks transformation through the overhaul of systems incompatible with sustainable development and social equity.
SOCIAL INCLUSION		
Participation Intention: Reform	**3. INCREMENTAL REFORM** **Less inclusive and focused approach** **Social Inclusion**: recognizes and includes select stakeholders in aspects of the transition process **Distributional Impacts**: considers a narrow range of impacts for specific sectors and stakeholders. **Intention**: seeks reform via changes within existing social and economic systems	**4. TOP-DOWN TRANSITION** **Less inclusive process but broad impact** **Social Inclusion**: recognizes and includes select stakeholders in aspects of the transition process. **Distributional Impacts**: considers a broad range of impacts across sectors and stakeholders. **Intention**: seeks transformation through consideration of a broad range of distributional impacts.
	Focused Intention: Reform	**DISTRIBUTIONAL IMPACTS** **Expansive** Intention: Transformation

Source: Just Transition Initiative, 2021

BOX 5

EXAMPLES OF ADAPTATION EFFORTS

"Examples of effective adaptation options include: cultivar improvements, on-farm water management and storage, soil moisture conservation, irrigation, agroforestry, community-based adaptation, farm and landscape level diversification in agriculture, sustainable land management approaches, use of agroecological principles and practices and other approaches that work with natural processes [...]. Ecosystem-based adaptation 17 approaches such as urban greening, restoration of wetlands and upstream forest ecosystems have been effective in reducing flood risks and urban heat (high confidence). Combinations of non-structural measures like early warning systems and structural measures like levees have reduced loss of lives in case of inland flooding [...]. Adaptation options such as disaster risk management, early warning systems, climate services and social safety nets have broad applicability across multiple sectors [...]."

Source: IPCC, Sixth Assessment Report, 2023.

Yet, a lot more remains to be done on the adaptation front.
In 2020, the global adaptation finance volume was USD 56 billion, about 8% of global climate finance, and this was mostly disbursed through public financing.

In 2019, IFC observed that investors across the world are increasingly eager to show that they are not solely motivated by profits but that social and environmental imperatives are considered in their investments (IFC, 2019).
This is all the more important that USD 269 trillion —the financial assets held by institutions and households across the world—is potentially available for investment. Creative ways to tap into this wealth need to be identified and put in effect to urgently fund mitigation and adaptation efforts while preserving, transitioning, or growing the workforce around the globe.

BOX 6

THE EUROPEAN UNION'S SOCIAL CLIMATE FUND, A POWERFUL TOOL AT THE SERVICE OF THE JUST TRANSITION

In 2022, the European Council and Parliament supported the establishment of the Social Climate Fund (SCF), which is part of the "Fit for 55 in 2030 package», the EU's plan to reduce greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. The SCF is set to start in 2026.

Its general objective is to contribute to the transition towards climate neutrality by addressing the social impacts of the inclusion of greenhouse gas emissions from buildings and road transport. The specific objective of the Fund is to support vulnerable households, vulnerable micro-enterprises and vulnerable transport users through temporary direct income support and through measures and investments intended to increase energy efficiency of buildings, decarbonisation of heating and cooling of buildings, including the integration and storage in buildings of energy from renewable sources, and granting improved access to zero- and low-emission mobility and transport.

Specifically, member countries will have to submit "Social Climate Plans", after consulting with local and regional authorities, economic and social partners as well as civil society, which will cover two types of initiatives: i) temporary direct income support measures to tackle the increase in road transport and heating fuel prices – with a limit of up to 37.5% of the total estimated cost of each national plan; and ii) long-lasting structural investments, including buildings renovation, decarbonisation solutions and integration of renewable energy, purchasing and infrastructure for zero- and low-emission vehicles, as well as the use of public transport and shared mobility services.

The fund will be initially financed through the revenues obtained from auctioning 50 million Emission Trading Systems (ETS) allowances (estimated at around €4 billion). Once the ETS extension enters into force, the SCF will be funded from auctioning ETS II allowances up to an amount of €65 billion, with an additional 25% covered by national resources (amounting to an estimated total of €86,7 billion).

Source: Proposal for a Regulation of the European Parliament and of the Council establishing a Social Climate Fund, European Council, June 30, 2022;
Deal on establishing the Social Climate Fund to support the energy transition, European Parliament, press release, December 18, 2022

3

Stories of **Just Transition**

THE JUST TRANSITION **AROUND THE WORLD**

The Just Transition is emerging as one of the most significant priorities of this era.
This section was drafted by the students to present "stories of Just Transition" in a handful of countries, small and large, from several regions around the globe. These are scenarios that chronicle what such a transition may entail, from Latin America to Asia, from advanced to developing countries. They offer concrete insights of the challenges and opportunities faced by nations over the years and decades to come.

CHINA — *Axelle Cazier*

China is currently the world's biggest energy consumer and importer, as well as a major producer of energy. In 2022, the Asian powerhouse accounted for more than a quarter of global consumption. Despite being a major global player in energy generation, it displays a notable reliance on fossil fuels, accounting for over 82% of its total energy mix. Renewable sources contribute only 16% to China's primary energy consumption while coal dominates the landscape, constituting 61% of the country's electricity production. Meanwhile, in 2021, industries accounted for a significant 49% share of China's final energy consumption, highlighting their major weight in the country's energy landscape. While a green transition is imperative for the country to combat climate change, the risks associated with it in terms of job losses or displacement are significant, and the Government must ensure this transition is well planned and fair.

Meanwhile, with up to 220 million Chinese workers potentially transitioning jobs by 2030 due to automation, decentralized governance and well-designed social protection programs, such as the Labor Market Program, can ensure basic income security and access to essential health care. Its goal includes job transition programs to secure employment and the deployment of active labor market policies that encourages re-employment among laid-off workers. It constitutes a promising strategy in addressing the PRC's new technology-based economic development model, with potential for replicability among workers and communities that may lose jobs with the country's future energy transition. Additionally, building roads is deemed essential to eliminating the physical isolation of remote villages, and integrating their members into the country's social and economic life. The Chinese saying "If you want to get rich, build roads first" is particularly illustrative of rural China's poverty alleviation approach.

Addressing China's vulnerability to climate-related risks, particularly in the agricultural sector, is also crucial for a successful transition. Thus, a key priority should be to support the 425 million Chinese farmers through community assistance, insurance, and technology to address climate-related risks and food insecurity. For instance, China's 'poverty alleviation employment base' initiatives exemplify how targeted policies can empower marginalized communities while providing enterprises with subsidies and loans. It is imperative that entrepreneurs take on a key role in local welfare initiatives, allowing them to capture valuable funds and help achieve green development in poor areas while promoting job generation among marginalized communities.

In addition, China has made progress in enhancing energy efficiency, observing a decline in emissions from the manufacturing and construction sectors. This achievement is coupled with strides in scaling up investments in energy storage and significantly increasing solar and wind power generation, with nearly 50 GW of solar power installed in the first four months of 2023 alone. Moreover, in 2021, China added 101 GW of renewable energy capacity, making a record-breaking $266 billion investment —the largest in the world. Interestingly, clean energy contributed a record $1.6tn to China's economy in 2023, accounting for a larger share of economic growth than any other sector. Despite progress, however, China still heavily relies on fossil fuels, reflecting the dual challenge of meeting growing power demand while transitioning to cleaner energy sources. Furthermore, banks' reluctance to lend to private companies, stemming from the phasing out of solar PV subsidies in the "531 policy" of May 2018, may slow China's energy transition. The government's proactive stance is manifest in its plans to increase its battery storage to 30 GW by 2025. The objective is to raise the share of renewable energy in total electricity generation to 17% by 2030 representing only an increase of one point of percentage – also pointing to the need for the country to be more ambitious in this regard. Moreover, considering that China aims for net zero by 2060, it implies that over the 30-year period from 2030 to 2060, the country will undergo a significant energy transition. Thus, China's need for a Just Transition is manifest and will require the government's full dedication, creativity and resources to tackle a challenge that will affect its economy and its people.

THE DISTRESSING SITUATION OF BARGNY' POPULATION

Situated along the coast of Senegal, Bargny is a town located 30km from Dakar, home to 60,000 residents within an area of 200 hectares. The community has been affected by rising sea levels, resulting in the collapse of 30 houses in 2013, with ongoing annual damages. In addition, the town faces environmental threats from a nearby cement plant (SOCOCIM), a coal-fired power plant (Sendou), and a new mineral port construction. Despite these developments, the town lacks a sewage system, risking submersion. Current challenges it faces include stagnant, polluted water in its canal, exacerbated by littering, and inadequate waste management. The absence of bins and limited truck access contribute to the town's environmental challenges, including the influx of plastic waste from the sea and the polluted water and air from the industries nearby.
The urgency to address these issues is evident for the well-being and survival of Bargny's community.
In response, a Sand Motor Project could be initiated to construct an artificial sandbank along Bargny's coast to counter the threats of sea level rise. In addressing untreated domestic water waste, a Sewage System Implementation in Bargny would represent a crucial step in improving sanitation infrastructure. Collaborative efforts with organizations like pS-Eau for financial appraisal and potential government support to ensure the project's viability and successful execution would be needed. Moreover, a "planted filters" project could represent a greener approach to wastewater treatment by incorporating elements such as graded gravel beds, aeration, and an efficient drainage network. The Just Transition for Bargny involves a multifaceted strategy, including preserving livelihoods by safeguarding the coastline and ensuring the continuity of the fishing-dependent community. The implementation of the sewage system, The Planted Filters Project, would not only enhance living conditions but also mitigate health risks linked to untreated water. Ultimately, fostering stakeholders' participation to empower residents for climate change adaptation through informed decision-making is essential. Such an approach would ensure their active involvement and ownership of proposed solutions, fostering resilience and cohesion in Bargny.

A. C.

INDIA — *Hélène Chaubard-MacKinnon*

India is currently the third-largest emitter of greenhouse gases in the world and also takes the third position on the World Risk Index, which assesses the disaster risk for 193 countries. More than 80% of India's energy needs are currently met by coal, oil and solid biomass. Coal itself accounts for 56% of these needs[11], of which approximately 15% is imported[12]. Importation of coal has seen a rapid decline over the past few years, as the country is able to mostly cover its needs domestically. During the COP26 in November 2021, India's prime minister Narendra Modi nonetheless committed to reducing the country's carbon footprint by 1 billion tons of emissions by 2030 and stated that net-zero emissions would be achieved by 2070. In this context, a key question is, what will happen to the 337,000 miners[13] – and potentially many more informal ones – working in the sectors responsible for the four billion metric tons of carbon dioxide equivalent per year[14]. Experts argue that about 40% of India's population has some form of coal dependency, whether it be via money collected through the District Mineral Foundation, direct or indirect employment.

Additionally, in terms of the general population, more than 80 % of India's population currently live in districts that are at risk of climate-induced disasters and natural catastrophes[15]. The population density contributes to poverty and contributes to enhaning the damage caused by climate change: Many workers are forced to leave their villages and less densely populated areas to seek work in large cities, where the temperature regularly rises above 48 degrees Celsius[16]. Internal migration and climate change fuel each other equally: Natural catastrophes force large communities to migrate, and in turn more densely populated areas in which they seek refuge make for enhanced consequences of climate change.

Another issue that cannot be neglected is the health impact which India has already started to face. Climate change will increase malnutrition and related health disorders such as malaria, and other vector-borne diseases will affect the poor most severely due to the environmental conditions, as well as the population density causing for faster spreading[17]. As for meteorological impacts, extremely wet monsoons that currently have a chance of occurring once in a hundred years are projected to occur every ten years by the end of the century. Thus, climate change may fuel a vicious cycle that threatens to drive more of India's population to slums, expose them to health issues, and ultimately to an even bleaker future.

Nevertheless, India has some solid assets to address these challenges. For instance, there has been a remarkable decline in poverty over the last 15 years, with over 400 million people exiting poverty during that period. Meanwhile, the generation capacity from renewable sources has almost doubled in the last 5 years[18], reaching 133 gigawatts. There remains a lot of work to be done, especially considering the importance of coal in India's mineral riches, which can paradoxically be found in India's poorest places. The net-zero goal for 2070 can therefore only be achieved with the proper planning and time for readjustment, in order to avoid impacting the economy negatively and reversing recent positive trends in poverty reduction.

11. "Gas, makes for a solid climate future", The Economic Times (Industry).
12. "Record Decline in the Share of Imported Coal in Total Consumption over Past Five Years", Ministry of Coal.
13. "Million coal workers at risk: China, India face biggest cuts by 2050", Subel Rai Bhandari for RFA.
14. "GHG emissions in India – Statistics & Facts", Statista.
15. "India: Helping People Build Resilience to Climate Change", The World Bank.
16. "Unequal risk: How climate change hurts India's poor most", Roli Srivastava for Thomson Reuters Foundation (News).
17. "India: Climate Change Impacts", The World Bank.
18. "The energy transition could make India even more unequal", The Economist.
19. "Energy sector employment has recovered strongly, after a turbulent few years in global labour markets", International Energy Agency.
20. "Jharkhand's Just Transition Remains on Paper as State Opens New Coal Mines, Fails to Shut Old Ones", IndiaSpend.

Furthermore, many States and cities in India are working on mitigation techniques. For instance, Jharkhand, India's main coal producing State, established its first "Just Transition" task force in 2023, which has vowed to ensure as smooth a transition to as many renewable energy sources as possible. This promise seems contradictory given the statement released by the National Foundation of India, that «for the next 40-50 years, coal is not going anywhere». In addition, it appears important to discuss comprehensive solutions considering the employment of mine workers if the coal mines are to be closed. While international evidence shows that solar energy requires much less workforce[19], some of the people facing layoffs could see opportunities within the renewable energy sector.

While India faces an unequal risk, this does not necessarily have to mean unequal opportunities. It will take time, financing, and resilience for the Government to achieve its goals, to invest in safer infrastructure, promote resilient agriculture, conserve groundwater and make flood-prone areas safer. While setting goals may be a first step, one must also remain realistic: Coal will continue to play an important role in electricity generation in India[20]. So far, it appears India is taking steps in the right direction. Central government ministries still seem a little hesitant to turn their goals into reality; this should not however be seen as lack of motivation but owes more to systematic issues, such as the costs it implies. Nevertheless, the current, significant decline of poverty and the state of the Indian economy offer opportunities to enact a Just Transition in a country where more than a billion people stand to be directly or indirectly impacted by climate change and its many consequences.

PHILIPPINES: STORIES OF DISPLACEMENT AND RESILIENCE

Ranking first in the 2022 World Risk Index (46.83) as the country with the highest risk of facing disaster in the face of climate change, the Philippines struggle to care for its children without the support of international organizations. Approximately 20% of Filipino children under the age of 18 live below the poverty line.
The lack of access to basic services (health, nutrition, education and adequate housing) forces children to look for work at an early age – with young girls being at a greater risk of being abused, exploited or subjected to child marriage.
Being exposed to frequent heavy floods, tropical cyclones, landslides, drought and forest fires, the Filipino community has often dealt with all sorts of environmental disasters. Rising sea levels and higher temperatures will however only exacerbate current risks.
The increase of disasters at home has greatly contributed to internal displacement, which in turn endangers children's livelihood. Many cannot go to school, and if they do have the means to, vital school supplies may be missing and they struggle to engage well with their studies, increasing the dropout rate. Losing a home to the extreme weather conditions and/or health difficulties in the family might also have a traumatic impact. Filipino children affected by the adverse effects of climate change are hardly given an opportunity to prosper later in life. This, in turn, impacts the country's development: children impeded in their education today will impact the workforce of tomorrow.
Advocating for the children does not equate to neglecting the rest of the Filipino community; it entails realizing how children are affected especially by the impact climate change has on the poor, as awareness building represents an initial, important step to trigger a Just Transition.

H. C.-M.

COLOMBIA — *Gabriela Cuervo-Robert*

Colombia is located in the north of South America where it has coasts on both the Pacific Ocean and the Caribbean Sea. Its territory is crossed by the Andes Mountains and because of its equatorial location, it is a country that does not currently experience big temperature changes. Indeed, seasons are marked by dry and rainy periods. Yet, even though Colombia only contributes to 0.22% of the global CO_2 emissions (which is 132 times lower than China's contribution)[21], climate change is likely to significantly increase poverty within the country. If no efforts are done by 2050, the World Bank projects that the country's GDP will be reduced by 1.5%-2.4%, which will affect mostly the poor[22]. As an example, it will create spikes in prices of basic goods and provoke wage losses among informal workers that will be twice as large as those of formal workers[23]. This is particularly important in a country where informality rate remains high, at 60% of total employment[24]. Thus, a Just Transition that ensures that no one is left behind is particularly needed in a country where the poverty rate is 39.8%[25] and the Gini coefficient is 51.5, making it one of the most unequal countries in Latin America[26].

Between 1990 and 2018, Colombia's total emissions grew by 34.7%, driven mainly by the energy, agriculture, transport and waste sector[27]. Thus, advancing a Just Transition involves reforming the coal and oil sector. Indeed, Colombia is currently the third-largest oil producer in Latin America, and this was partially achieved through the company Ecopetrol[28]. Yet, if Colombia wants to reach its target of emitting 268 Mt CO_2 eq by 2030, its oil production will need to drop by 17%[29]. This will therefore generate job losses among workers in the oil industry, affecting the most vulnerable Departments where this industry is key, such as Cesar, Boyaca and La Guajira. This is particularly alarming since this sector employs a total of 90,000 direct and indirect workers in Colombia[30]. Unions from this sector have understood the risk of climate change and the need to prepare a fair shift away from coal. This shift could be achieved through the diversification of mining through other minerals, strong severance and pension agreements, and retraining and reskilling of workers[31]. A strong dialogue between Government, major companies and unions is needed to kickstart a Just Transition.

The agricultural sector also plays a central role in decarbonization in Colombia. Indeed, land use, forestry and agriculture account for 59% of the country's greenhouse gas emissions[32]. Climate phenomena such as heat waves, drought and inundations could significantly decrease land productivity, which will generate spikes in prices of basic goods. This will mostly hurt the vulnerable, who spend a large share of their income on food[33]. In Colombia, some solutions to this issue could be: i. creating sustainable livestock lands that currently cover 16.3 million hectares; ii. reducing the expansion of grazing areas; and iii. sustainably intensify an additional 3.2 million hectares of agricultural land[34].

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In a nutshell, Colombia is a great example of the importance of having a strong dialogue between all parties to be involved in a Just Transition, but also of ensuring the reskilling of workers in CO_2-emitting industries. Indeed, even though the Just Transition in the coal and oil sectors will generate significant job losses, other industries[35] could compensate these losses. The Colombian government has stated that, with the right policies for a Just Rural Transition, the agricultural sector could generate 152,753 jobs, that may offer climate smart alternatives to workers in polluting industries. Yet, this sectoral transition will be challenging and it is thus crucial for the government to provide significant support to ensure that workers acquire the necessary skills to thrive in a greener economy.

FRANCE: FROM THE YELLOW VESTS TO THE FARMERS' STRIKE

Several strikes in France, such as the Yellow vests' in 2018 or the Farmers' in 2024 have shown that a Just Transition is needed in developed countries but hard to implement. A great example of this was seen during the Yellow Vests movement. The movement was created in response to an increase in fuel taxes. This policy mostly impacted the French that lived in the rural areas, whereas city dwellers, who have higher revenues and do not tend to use cars as much since they have access to public transport, were almost unaffected. Hence, it raised issues related to social justice and a fair transition. The topic of a Just Transition reappeared in public debates during the farmer's strike at the start of 2024.
In January, around 1,000 farmers and 500 tractors barricaded roads across France[36]. Farmers were demanding better prices for their products. Indeed, inflation, coupled with tougher environmental standards, have led consumers to demand cheaper products, forcing farmers to slash their profits[37]. Moreover, the agricultural sector also faces a problem regarding the capture of value: In France, farmers' prices have recently decreased by 9% while shelf prices have increased by 10%[38]. Finally, farmers have also raised issues concerning the international dimension of a Just Transition, claiming that an unfair competition resulting from cheap imports hurts them, in a context where the European Union encourages agricultural imports from countries that do not have the same, strict environmental standards[39].
These movements and strikes have shown that achieving a Just Transition indeed requires a significant look at the consequences that it will have on the most vulnerable. A national policy agenda as well as multilateral discussions must be promoted by the government to support the workers most impacted by the transition to a greener future.

G. C.-R.

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IVORY COAST — *Anaëlle Fotso Kamdem*

Ivory Coast can be described as the economic powerhouse of West Africa, accounting for 40% of the West African Economic and Monetary Union's GDP and exports. This economic dynamism, however, conceals numerous socio-economic and geographical disparities. For instance, 80% of the country's economic activity is concentrated in the economic capital, Abidjan, home to 21.7% of the population. It is also important to stress that it is estimated that 51% of GDP comes from the informal economy and that 90% of jobs also are informal. Thus, it appears imperative for the Ivory Coast to put in place multiple reforms and to allocate funding to support the implementation of public investment policies and promote the country's economic development and socio-geographic equality. This approach is part of the need for the Ivory Coast to consider its economic development through the prism of a Just Transition, which the International Labour Organisation defines 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." The challenge for the Ivory Coast is therefore to develop sustainably by ensuring that it combats geographical, gender and class discrimination.

Ivory Coast's economy is indeed threatened by the adverse effects of climate change. With almost 750 kilometers of coastline, Ivory Coast is particularly vulnerable to rising sea levels and coastal erosion. This is borne out by the case of Grand Bassam, one of the country's largest towns, where infrastructure has already been destroyed by erosion caused by climate change. The situation is all the more alarming given that most of Ivory Coast's touristic industry - which accounts for 10% of GDP - is located on the country's coasts. Acting quickly to address this challenge is key. Preventing rising sea levels and coastal erosion could be achieved by setting up a "plant barrier", as has been done in the Niayes region of Senegal, where coastal she-oak trees have been planted along a 180-kilometre stretch between Dakar and Saint-Louis. Additionally, global warming could also cause fish catches in Ivory Coast to fall by 40% by 2100, threatening the country's food and economic security.

Furthermore, the country needs to preserve its soil as the national economy depends mainly on agriculture. Ivory Coast is the world's top exporter of cocoa and second in cashew nuts. Nonetheless, the country has to spend the equivalent of 10% of its budget on food imports. For instance, in 2021, Ivory Coast spent a staggering €1.5 billion on food imports. Owing to a history of colonization, the Ivorian agricultural model is still based on cash crops for export rather than food crops. In 2018, the agricultural sector accounted for 40% of Ivorian exports. This figure rises to 62% if oil exports are excluded. The Ivorian agricultural sector employs 46% of the country's workforce and supports two-thirds of the population. Yet, cocoa and cashew nuts are not crops that a population can feed itself on. It is therefore essential for the country to adopt an intensive growth approach to increase the yields of existing food crop farms while preserving fragile ecosystems. This could for instance be done by favoring local seeds such as cowpea or sorghum, which are more resistant to climate change than wheat or rice, and the move to a more sustainable agriculture could be encouraged by international organizations. This measure would reduce the country's food imports while preserving ecosystems and limiting deforestation.

Finally, a transition cannot be deemed "just" without being inclusive, particularly from a gender perspective, in a context where the adverse effects of climate change in the Ivory Coast particularly affect women. With a lower school enrolment rate than men and the added burden of managing the household imposed on them by societal norms, women are less likely to find professional opportunities outside their community of origin. Women are also under-represented in decision-making bodies.

It is therefore essential for Ivory Coast to guarantee equal access to education for both women and men, and to support equal representation by promoting women's access to political, economic, and legal decision-making spheres. In turn, this will help with the shaping of Just Transition policies in Ivory Coast.

THE ALARMING SITUATION OF AFRICAN AMERICANS IN THE WAKE OF HURRICANE KATRINA

Building more resilient social housing with access to public transport and creating a fund to help disadvantaged neighborhoods adapt their homes to the consequences of climate change is key in the United States of America.
African Americans' socio-economic conditions in the US society are more disadvantaged than the national average due to a legacy of slavery, marginalization, and discrimination.
The community is now faced with the growing challenge of climate change and appears particularly vulnerable to its potentially catastrophic consequences. In the 20th century, as a result of redlining practices, a majority of African Americans were forced to settle in remote parts of urban areas. This is particularly worrying when one considers that African American households are six times less likely than their white counterparts to own a car.
As a result, the black community is four times more dependent on public transport to meet their daily needs. Despite these alarming facts, the public authorities have not fostered the development of public transport infrastructure.
In 2005, the tragic episode of Hurricane Katrina illustrated the risk climate change poses to African Americans in these conditions.
The white population in New Orleans was less affected by natural disasters because it could afford properties on higher grounds of the city that were better suited to such disasters thanks to higher, stronger foundations. Similarly, the white population was able to evacuate using its vehicles before the hurricane hit, whereas the black population, which relied on public transport, appeared less likely to own a car or even to know car owners. Many African American victims believed at the time that they would have received better help had they lived in the more suburban neighborhoods. Race and class played an important role in predicting who was likely to be affected by Hurricane Katrina.
Hence, building more resilient social housing and creating a fund to help disadvantaged neighborhoods adapt their homes to the consequences of climate change is key.
Such policies appear to be of major importance given the intersectional aspects (race, class, gender) in the vulnerability of the poor to climate change and will help reduce the effects of their structural marginalization as well as compensate for their historic omission from public debates and policies.

A. F. K.

ROMANIA — *Paula Popa*

Romania is a country that is highly dependent on the usage of fossil fuels, with over 70% of the total energy usage being dependent on it. The energy sector (electricity generation, transportation, heating) is the one responsible for the highest emissions (66%), followed by agriculture (17%), and industry (12%). Romania has a mostly carbon-intensive economy, "at 2.5 times the average for the EU"[40]. The country's path to a Just Transition future is indispensable as climate change poses an increasing threat to its economy, its people and the country's infrastructure. Rising temperatures, more frequent heatwaves, droughts, and floods make Romania highly vulnerable and will impact its growth and development. According to the World Bank, Romania is facing multiple challenges related to its institutional capacity, and the ability to properly manage funding that impacts the country's transition to a greener and more sustainable economic model. However, Romania has already managed to reduce its emissions by 53.2% from 1990-2018 according to Eurostat, meaning it only has an additional 3.9% reduction in order to meet the goals of "Fit for 55" in 2030. Another major issue Romania is facing is that its manufacturers' emissions intensity is 3 times higher than the EU27 sectorial average and that its transport sector remains strongly underdeveloped, negatively impacting Romania's prospective green transition.

As an EU member state since 2007, Romania is pursuing the Net Zero by 2050 long-term strategy in order to reach climate neutrality by that time. Moreover, Romania is a signatory of the Paris Agreement, which has been in force since June 2017. The country officially "supports the global cooperation to address climate change and implement the 2030 Agenda for Sustainable Development, the Paris Agreement on Climate Change and the United Nations Framework Convention on Climate Change"[41]. The country has also committed to key tenets of the European Green Deal, meaning it has to reduce its net greenhouse gas emissions by at least 55% by 2030. Romania must also develop a long-term renovation strategy "to achieve a near 0 energy building stock by 2050" (World Bank) according to the revised EU Directive on the Energy Performance of Buildings. However, currently, Romania has only 0.5% of building stock being renovated yearly and the country still needs to put emphasis on the importance of its commitments regarding sustainability and take aggressive action to be able to reach its goals by 2050.

In order to reach its climate commitments and follow the path to a just and sustainable transition, Romania has to follow certain recommendations while facing some challenges regarding its decarbonization. The World Bank has highlighted a few of the key action items, such as decreasing the country's dependence on fossil fuels and shifting to an electrified economy (implying massive electrification), decarbonization of Romania's transport sector, investment acceleration and encouragement of behavioral change from the population (choose using public transportation more instead of private vehicles, "adopt a more sustainable consumption behaviour", implement "energy-saving practices" in their day-to-day life, etc.) as well as providing necessary education on the matter. The World Bank has estimated that Romania needs to invest $356 billion by 2050 to develop a decarbonized energy sector, which is only "3% of Romania's GDP over the time horizon"[42]. In order to meet its net 0 2050 commitments, Romania needs to switch from fossil fuel to greener energy generation. 47% of power generation by 2050 could be from solar and wind sources, 7% from hydropower, 5% from green hydrogen and 1 % from other renewable sources. Coal-based energy generation must be phased out from 2032, while nuclear generation will be added, representing 13% by 2050. Besides, "Carbon Capture, Utilization and Storage will have to be deployed and scaled up rapidly to decarbonize natural gas-based power generation", amounting to 23% share until 2050. The rest of 4% will be represented by electricity imports. (World Bank Report). Moreover, as mentioned before, promoting investments as well as adhering to new technologies and decarbonizing the transport sector are crucial steps for Romania's sustainable future. Regarding the transport sector, Romania needs to improve its public transport system in order to encourage more people to use it rather than use their personal cars and increase emissions, replacing its vehicles with low and no-emission ones, invest in cycling infrastructure and develop High-Speed Rails that connect different points of the country.

Meanwhile, Romania also needs to support and manage the unskilled workers who will be more impacted by the shifts to a greener economy (estimates from 2018 say Romania was expected to lose up to 10,000 job opportunities regarding coal mining and related jobs in the just transition process[43]), due to some jobs going extinct. However, a Just Transition also implies the creation of new jobs, for which Romania needs to adapt, help, and support with upskilling and re-skilling of its workforce (by adopting its Territorial Just Transition Plan, Romania will receive €2.14 billion from the Just Transition Fund to support affected workers find new jobs and acquire new qualifications). The World Bank estimates that about 9% of all job announcements in Romania's labor market will be from the green sector.

THE NETHERLANDS' RESILIENCE

The Netherlands has long been battling the effects of extreme weather conditions, as a significant part of the country is under sea-level and prone to flooding. For the Dutch, climate change is a reality as well as an opportunity to create innovative solutions to the challenges they face. They are already pioneering efforts to increase their resilience with adequate infrastructure, to decarbonize their public transport, and to promote environmentally-friendly practices. For instance, following a devastating flooding in 1953, the Dutch deployed massive investments and created the Delta Works, a project of a total of 13 dams built to protect the population and the vulnerable coastline in case of rising water levels. Another fascinating innovation coming from the Netherlands is the world's first floating farm, created by a local entrepreneur and built in a "climate-adaptive way". Located in Rotterdam's port, the farm creates less dependency on logistics for the city, as in case of a flooding, the trucks that transport fresh food into the city every day would not be able to circulate, creating a risk of disruption in the supply chain. Moreover, the initiative promotes a more sustainable and resilient future for cities by having a localized source of food supply and, hence, a decrease in emissions. Moreover, in 2017, the country became the first in the world to run 100% of its trains on wind energy, meaning people could travel without emitting CO_2. Since 2019, Dutch busses have been powered by Hydrotreated Vegetable Oil, made from processed deep fryer oil and industrial fats, a fuel considered to be climate neutral. Public transport stations are also heated using green gas or electricity. In addition to a well-developed public transport sector, the Netherlands also has an extensive biking lane system that is used every day by the population instead of cars. A green transition is well underway in the country.

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Annex
Just Transition Metrics & Policies

Sector or Theme	Policies
PRIVATE SECTOR Sources: SEI, 2020; ILO/JTPB b.; ILO/JTPB m.; ILO/JTPB e.; ILO/JTPB j.	• Ensure tailored support to promote new and expanded SMEs; • Tailor SME-targeted assistance towards opportunities that generate significant, sustainable new employment opportunities; • Support diversification of SMEs dependent on carbon-intensive industries; • Help carbon-intensive companies to diversify core activities where plausible. The private sector should bear those costs that can and should reasonably be anticipated as part of its business. Such costs include those mandated by new environmental regulations, and the effects of carbon pricing pressures (whether imposed domestically or through international supply chains); • Costs associated with voluntary changes to reduce carbon intensity might be appropriate for concessional financial support; • Develop guidance and policy frameworks that facilitate economic regeneration and diversification, spur job creation, and improve access to public services, particularly for vulnerable groups. Use fiscal and economic development policies to provide such support; • Explore options for raising capital for regional investment in green industries and green infrastructure (e.g. issuing green bonds); • Provide re-skilling to workers affected by low-carbon transitions, and ensure that these programmes are also available for workers' families and the wider community. Also, create opportunities for other forms of personal support, such as job-seeking, mental health counselling, and financial planning; • Target support measures (such as SME initiatives, infrastructure investments, and policy reforms) to avoid higher cost burdens on the poor or other marginalized groups. Measures should actively aim to reverse trends of inequality. This means identifying and understanding pre-existing social inequalities (such as those based on gender, age, ethnicity or disability), and understanding the distributional impacts of transition and of different support measures; • Transition support measures should target not only direct workers from carbon-intensive industries but also their families, contractors, and other vulnerable groups; • Gender equality – and measures targeted at addressing gendered inequality – should be integrated into any package of transition support, including when designing support measures; evaluating employment and other economic opportunities; assessing livelihood impacts or environmental costs; and prioritizing outcomes from transition support; • Indicators used to assess the progress of just transitions should go beyond net job creation, diversity of manufacturing, and regional economic growth. Other indicators could relate to, for instance the kinds of jobs created, who has access to them, and levels of broader community resilience and innovation; • Enterprise development policies can substantially promote gender equality in the world of work by fostering opportunities for women to become entrepreneurs by starting their own green businesses and becoming green employers. Governments should ensure targeted incentives and funding, including through partnerships, to increase resilience and sustainability for both viable and vulnerable enterprises. Furthermore, targeted programmes should be established in sectors where a significant proportion of economic units are informal with a view to promoting formalization in the context of a just transition, it will be crucial to promote gender equality and foster the progressive formalization of micro and small enterprises in sectors such as waste management and recycling. The use of the cooperative model, among others, can be an effective tool for formalization. It is also essential to increase women entrepreneurs' access to new technologies and production methods that can boost productivity along with developing well-functioning markets and effective regulatory conditions that incentivize innovation and entrepreneurship;

Sector or Theme	Policies
	• Enhanced policy coordination, social dialogue and partnership at planning, design and implementation stages and well-developed and sound national and sectoral policies that increase relevance of skills development to green jobs can help to propel a just transition. This will also require reviewing and (re)formulating skills development policies, including means for validation and recognition of skills and all forms of prior learning jointly by governments, social partners and training institutions at all levels; • Systems for identifying and anticipating skills needs for green jobs can benefit from improved labour market information and institutionalized social dialogue; • A good mix of foundational, technical (hard) and core (soft) skills, including science technology, engineering and mathematics (STEM) skills, is vital to an inclusive just transition to a greener future, allowing everyone reap the benefits of newly created jobs and enabling the transition and job creation. Mainstreaming the green transition through the technical and vocational education and training (TVET) and lifelong learning systems will increase the chance of advancing a just transition; • Initial education for young people as well as continuing training for adult workers and job seekers should target specific green jobs and sectors, be inclusive and prioritize the skills needs of vulnerable groups. The use of digital technologies, extended financing, increased apprenticeships opportunities and the role of trainers and teachers and their pedagogical talent are important points in increasing the inclusiveness of training; • Public-private partnerships, with a particular attention on micro, small and medium enterprises (MSMEs) and collaborative peer learning in skills development and lifelong learning for green jobs, could drive the sustainable development agenda beyond 2030; • MSMEs in all sectors can benefit from and contribute to a just transition towards environmentally sustainable economies and societies for all, through elevating their capacity to change, connect, and compete with the involvement of social partners on decarbonization and decent job creation. • Solutions to support MSME participation in the just transition require a multipronged and systemic approach to not only uplift but empower MSMEs to access the resources and market opportunities that allow them to thrive in the Just Transition; • Services, information, and programmes targeted at and catered to green MSMEs can incentivize and support MSMEs to transition; • Governments and social partners must work together to enhance MSME productivity and resilience, and to create an enabling environment for inclusive and green MSME business growth; • Active labour market policies (ALMPs) can contribute to enabling a green business environment by equipping workers with relevant skills and satisfying employers' labour force needs through employment services;

Sector or Theme	Policies
MACROECONOMY Source: IPCC, 2023; UNGA, 2020; ILO/JTPB c.; ILO/JTPB d.	• Where implemented, carbon pricing instruments have incentivized low-cost emissions reduction measures but have been less effective, on their own and at prevailing prices during the assessment period, to promote higher-cost measures necessary for further reductions (medium confidence). Equity and distributional impacts of such carbon pricing instruments, e.g., carbon taxes and emissions trading, can be addressed by using revenue to support low-income households, among other approaches; • Removing fossil fuel subsidies would reduce emissions and yield benefits such as improved public revenue, macroeconomic and sustainability performance; subsidy removal can have adverse distributional impacts, especially on the most economically vulnerable groups which, in some cases can be mitigatsed by measures such as redistributing revenue saved, all of which depend on national circumstances; • Economy-wide policy packages, such as public spending commitments, pricing reforms, can meet short-term economic goals while reducing emissions and shifting development pathways towards sustainability; • Effective policy packages would be comprehensive, consistent, balanced across objectives, and tailored to national circumstances; • Financing the economic recovery through progressive taxation schemes; protecting workers and communities affected by the ecological transformation from the impacts on their livelihoods; and investing in areas such as energy, buildings, food and mobility, to capture the "triple dividend" of a cleaner environment, decent jobs and affordable goods and services; • Moving away from unsustainable consumption-driven growth and the extractive and waste economy; • Fighting against the premature obsolescence of consumer goods; • Fiscal policy needs to be adjusted with carbon pricing at the core. Carbon pricing should be introduced at large, be progressive and leveraged among those responsible for emissions, the income rich; • The revenues from carbon pricing schemes should be earmarked for just transition and labour market initiatives including skills training, social protection and job transition schemes towards green growth sectors; • Monetary policy plays a key role in addressing climate-related portfolio risks. Central banks can help financial markets to price climate risks by giving incentives – such as lower reserve requirements – for those banks more active on climate finance; • Foster finance and policy support to stimulate increased investment in sustainable and resilient infrastructure and the development of markets for goods and services relevant for green works (such as "grey-green" infrastructure, new or local farming technologies and nature-based solutions) in various sectors and reallocation of investments and subsidies from sectors that damage the environment; • Promote policy coherence and institutional collaboration to support green works as part of a just transition, particularly through public investments in adaptation and their integration into public employment programmes and social protection measures;

Sector or Theme	Policies
FINANCE Source: UN PRI, 2018	• Broadening the understanding of systemic risks from climate change, by factoring in issues such as social exclusion and increasing inequality; • Reinvigorating fiduciary duty by better capturing the interrelated environmental and social drivers of long-term performance and by taking better account of beneficiary interests in sectors and regions affected by the transition; • Recognising material value drivers in terms of corporate practices in the workplace and the broader social license to operate: business performance will be increasingly conditioned by the just transition; Uncovering investment opportunities that combine climate and social goals such as inclusive growth, identified through the lens of the just transition; • Contributing to societal goals including existing responsibilities to respect international human rights and labour standards as well as new ways of realising the Sustainable Development; • Assessing exposure to the social dimension (including employment impacts) of the transition, pursuing dialogue with workers and other key stakeholders, and integrating just transition factors into investment beliefs and policies; • Including just transition factors in investor expectations, requesting disclosure, benchmarking performance, and pressing for improvement; • Incorporating the social dimension into strategies for climate investment across all asset classes, including listed equities, bonds, private equity and real assets; • Making the just transition a part of policy dialogue at sub-national, national and international levels as well as taking part in place-based partnerships; • Understanding emerging lessons and disclosing results so that the efficiency and effectiveness of investor action on the just transition continue to improve;
COAL Sources: SEI, 2020; WBG, 2018; WWF, 2021	• Set a phase-out date for coal as early as possible, followed by an agreed and consensual timeline-based transition strategy; • Ensure timelines and strategies are based on high quality, quantitative analysis, guided by a commitment to sustainability; • Ensure adequate, targeted financial and policy support for the transition using EU as well as national funds • Aim for real economic diversification; • Engage all stakeholders in an ongoing process, especially at the local level; • Managing the social and labor impacts from coal mine closures is best achieved when multiple agencies participate in the policy development; • Meeting the substantial budget needs for mine closure is a challenge given the short-term, high costs required; • Genuine stakeholder consultation starting at the planning stage and continuing throughout the closure process can significantly reduce the possibility of social conflicts; • A systematic process to mitigate social and labor impacts that starts before any labor layoffs occur can result in a more orderly, less stressful, and ultimately lower cost divestiture process; • Pre-layoff planning and assistance can prepare workers for impending layoffs; • Post-layoff assistance, including temporary income support, can help sustain laid-off workers in a way that results in them staying in the labor market; • Active labor market policies offer services, programs, and incentives that can encourage and enable re-employment among laid-off workers; • Environmental reclamation is best addressed from the outset of mine planning; • Financial assurance mechanisms can be an effective tool to guarantee funding availability; • Actively encourage decarbonization; • Avoid the creation of carbon lock-in and more "losers" in these sectors; • Support affected regions; • Support workers, their families and the wider community affected by closures or downscaling; • Clean up environmental damage, and ensure that related costs are not transferred from the private to the public sector; • Address existing economic and social inequalities; • Ensure an inclusive and transparent planning process.

Sector or Theme	Policies
HEALTH Source: WBG, 2016; ILO/JTPB, i.; ILO/JTPB a.	• Increase R&D and eradication/control efforts toward health issues that affect poor people and are expected to increase with climate change; • Invest in health infrastructure and access; train health workers; • Implement or strengthen effective surveillance and monitoring systems to detect emerging health risks; • Increase health coverage to lower the share of expenses that are out of pocket; • Occupational safety and health (OSH) policy and practice, including risk assessment at all levels, should become a fundamental component of climate change concerns with adaptation measures integrated into policies and programmes; • All jobs should be decent, safe and healthy. To ensure a safe and healthy environment for all workers, OSH policies represent an integral dimension of a just transition. Governments, in consultation with social partners, can ensure that OSH risk assessments consider new and emerging hazards and risks arising from greening processes and identify adequate prevention and protection measures based on the hierarchy of controls; • Planning a just transition for people living with HIV in the world of work needs to follow the relevant international labour standards and the process of social dialogue involving governments, employers' and workers' organizations; • Including people living with and affected by HIV in the world of work is critical to leveraging their contributions and to strengthening climate action. To get it right, the voice, agency and empowerment of people living with HIV must be amplified; • Climate finance should be used to support countries in carrying out just transition planning, implementation, monitoring and evaluation and promoting decent work for all, including people living with HIV, in the green economy. • An integrated, multisectoral, gender transformative, inclusive and equity-based approach is critical in tackling HIV and AIDS in the climate change response and just transition;
AGRICULTURE AND FOOD SECURITY Source: WBG, 2016	• Adopt climate-smart technologies and agricultural practices, with support from agricultural extension; • Develop higher yielding and more climate-resistant crop varieties and livestock breeds, adapted to developing country contexts and climate conditions; • Develop transport infrastructure and facilitate market access (domestic and international); • Reduce non-climate stresses on ecosystems, including through conservation and ecosystem-based adaptation

Sector or Theme	Policies
SOCIAL PROTECTION Source: Tschakert, 2016; WBG, 2016; ILO/JTPB n.; ILO/JTPB f.; ILO/JTPB j.	• Building adaptive capacity through: - asset protection (social service provision, basic social transfers, i.e. food/cash, and pension and disability schemes); - prevention of asset erosion (insurance and diversification mechanism, including safety nets, social transfers, public work programmes, livelihood diversification, weather-indexed crop insurance) - asset promotion (economic opportunities, including social transfers, access to credit, asset transfers/protection, starter packs (drought/flood-resistant), access to common property resources; - transformation (addressing underlying social vulnerabilities, including promotion of minority rights, anti-discrimination campaigns, and social funds); • Develop market insurance for the middle class to concentrate public resources on poor people; • Enact well-targeted and easily scalable social safety nets designed to maintain incentives for long-term adaptation investments and grant portable benefits; • Manage the government's formal liability using reserve funds, contingent finance (such as Cat-DDOs), and insurance products, along with developing and scaling-up tools to share risks internationally • Facilitate flow of remittances and reduce cost burden on remitters; • Improve governance and give a role to poor people in the decision-making process; • The role of social protection goes beyond cushioning adverse impacts and providing compensation: National just transition strategies and policies also need i. to leverage the potential of social protection; ii. to incentivize sustainable and green decisions and investments, income diversification - and iii. to provide people with the resources and time to further develop skills and access new decent employment opportunities; • Governments and social partners need to ensure compliance with social security legislation and standards and to build on existing social protection systems, applying the principles of adequacy, comprehensiveness, sustainability and universality; • Governments, with the participation of social partners, need to invest in social protection with adequate allocations in national budgets and plans to finance a just transition; • In the short term, including labour mobility as part of regional mobility schemes could ensure that migrants are able to meet their essential needs and live in dignity while contributing to economic productivity of receiving countries. In the long term, policy outcomes should ensure migrant workers' rights including to social protection and contribute to sustainable development and climate resilience in the communities in which they live; • The participation of vulnerable workers in ALMPs can be enabled by providing them with income support, where feasible; • Developing countries with limited fiscal spaces can develop an integrated framework of ALMPs and income support progressively, starting with increased policy coherence, institutional coordination and partnerships;

Sector or Theme	Policies
REPRESENTATION, GOVERNANCE & DATA COLLECTION Source: IPCC, 2023; UNDESA, 2016; UNGA, 2020; ILO/JTPB h.; ILO/JTPB g.; ILO/JTPB f.; ILO/JTPB l.; ILO/ JTPB j.	• Engaging different stakeholders (including policymakers, experts and communities) is essential to obtaining the detailed information and critical feedback required to improve the design of model-based scenarios and the interpretation of results; • Meaningful participation of stakeholders assures the input of local political and expert judgment. The feedback of vulnerable population groups and communities is particularly important in facilitating an understanding of the factors that exacerbate people's vulnerability and exposure to climate hazards; • It is important when assessing adaptation options to ensure that adaptation policies are relevant to building climate resilience among people and communities; • Greater efforts to improve the production of the data and statistics necessary to document the socioeconomic impacts of a changing climate are urgently needed, along with the building of capacity to construct and use integrated assessments at the country level; • Building scenarios illustrating possible impacts of climate hazards and assessing policy options for building resilience can yield sound scientific evidence for application to policy decisions; • Institutionalizing the use of integrated analytical frameworks and of scenario results can both strengthen the policymaking processes by mobilizing technical expertise across sectoral ministries and contribute to improved policy coordination within the government, and in close collaboration with relevant stakeholders and researchers; • Effective climate governance enables mitigation and adaptation. Effective governance provides overall direction on setting targets and priorities and mainstreaming climate action across policy domains and levels, based on national circumstances and in the context of international cooperation. It enhances monitoring and evaluation and regulatory certainty, prioritising inclusive, transparent and equitable decision-making, and improves access to finance and technology; • Effective local, municipal, national and subnational institutions build consensus for climate action among diverse interests, enable coordination and inform strategy setting but require adequate institutional capacity. Policy support is influenced by actors in civil society, including businesses, youth, women, labour, media, Indigenous Peoples, and local communities. Effectiveness is enhanced by political commitment and partnerships between different groups in society; • Effective multilevel governance for mitigation, adaptation, risk management, and climate resilient development is enabled by inclusive decision processes that prioritise equity and justice in planning and implementation, allocation of appropriate resources, institutional review, and monitoring and evaluation. Vulnerabilities and climate risks are often reduced through carefully designed and implemented laws, policies, participatory processes, and interventions that address context specific inequities such as those based on gender, ethnicity, disability, age, location and income; • Regulatory and economic instruments could support deep emissions reductions if scaled up and applied more widely. Scaling up and enhancing the use of regulatory instruments can improve mitigation outcomes in sectoral applications, consistent with national circumstances; • Effective climate action is enabled by political commitment, well-aligned multilevel governance, institutional frameworks, laws, policies and strategies and enhanced access to finance and technology. Clear goals, coordination across multiple policy domains, and inclusive governance processes facilitate effective climate action. Regulatory and economic instruments can support deep emissions reductions and climate resilience if scaled up and applied widely; • Drawing on diverse knowledges and cultural values, meaningful participation and inclusive engagement processes—including Indigenous Knowledge, local knowledge, and scientific knowledge—facilitates climate resilient development, builds capacity and allows locally appropriate and socially acceptable solutions; • Ensuring that the design and implementation of national action plans are based on social dialogue and the participation of people living in poverty; • Persons with disabilities must be represented at all levels of just transition policy and programme design, planning, implementation, monitoring, and evaluation across all policy areas mentioned in the Just Transition Guidelines, including accessible social dialogue;
	• Ensure that just transition policies consider the specific rights, needs and characteristics of indigenous peoples. Social dialogue is indeed key in designing and implementing future polices and interventions in this field; • A just transition would ensure the inclusion of migrant workers of multiple backgrounds and vulnerabilities, recognizing their intersectional realities, being women, persons with disabilities, indigenous and tribal peoples who face distinct challenges related to climate change and its impacts; • A just transition will require engagement by sectoral employers' and workers' organizations, coordination across sectors through federations of employers' and workers' organizations, and engagement of and coordination between a wide range of relevant government ministries and international organizations; • Social dialogue, coordination and partnerships with relevant stakeholders are key to designing and implementing ALMPs that are conducive to a just transition;
INEQUALITY Source: UNGA, 2020; Chancel, 2022; IPCC, 2023	• Adaptation and mitigation actions that prioritise equity, social justice, climate justice, rights-based approaches, and inclusivity, lead to more sustainable outcomes, reduce trade-offs, support transformative change and advance climate resilient development; • Redistributive policies across sectors and regions that shield the poor and vulnerable, social safety nets, equity, inclusion and just transitions, at all scales can enable deeper societal ambitions and resolve trade-offs with sustainable development goals; • Attention to equity and broad and meaningful participation of all relevant actors in decision making at all scales can build social trust which builds on equitable sharing of benefits and burdens of mitigation that deepen and widen support for transformative changes; • Regions and people (3.3 to 3.6 billion in number) with considerable development constraints have high vulnerability to climatic hazards. Adaptation outcomes for the most vulnerable within and across countries and regions are enhanced through approaches focusing on equity, inclusivity and rights-based approaches; • Vulnerability is exacerbated by inequity and marginalisation linked to e.g., gender, ethnicity, low incomes, informal settlements, disability, age, and historical and ongoing patterns of inequity such as colonialism, especially for many Indigenous Peoples and local communities. Integrating climate adaptation into social protection programs, including cash transfers and public works programs, is highly feasible and increases resilience to climate change, especially when supported by basic services and infrastructure. The greatest gains in well-being in urban areas can be achieved by prioritising access to finance to reduce climate risk for lowincome and marginalised communities including people living in informal settlements; • The design of regulatory instruments and economic instruments and consumption-based approaches, can advance equity. Individuals with high socio-economic status contribute disproportionately to emissions, and have the highest potential for emissions reductions. Many options are available for reducing emission-intensive consumption while improving societal well-being. Socio-cultural options, behaviour and lifestyle changes supported by policies, infrastructure, and technology can help end-users shift to low-emissions-intensive consumption, with multiple co-benefits; • A substantial share of the population in low-emitting countries lack access to modern energy services. Technology development, transfer, capacity building and financing can support developing countries/ regions leapfrogging or transitioning to low-emissions transport systems thereby providing multiple co-benefits. Climate resilient development is advanced when actors work in equitable, just and inclusive ways to reconcile divergent interests, values and worldviews, toward equitable and just outcomes; • Increase green energy supply: i) for the bottom 50%, industrial policy, i.e. public investments in renewables (off or on-grid); social protection, i.e. increase transfers to workers in industries affected by the transition; ii) for the middle 40%, same as i) + financial incentives to encourage middle-class investments in green energy; bans on new fossil investments; iii) for the top 10% and top 1%: Wealth or corporate taxes with pollution top-up to finance i) and ii) and accelerate divestments from fossils; bans on new fossil investments; ... /...

Sector or Theme	Policies
	• Increase green energy access: i) for the bottom 50%, public investments in green energy access (e.g. clean cookstoves; construction of new zero carbon social housing; ii) for the middle 40%, subsidies for green housing construction; buildings regulations; penalty and bans on sales of inefficient housing; iii) for the top 10% and top 1%: wealth or corporate taxes with pollution top-up; fossil fuel subsidy removal; • Switch in energy end-uses (building, transport, industry): i) for the bottom 50%, develop public transport systems: low-carbon bus, rail, car-sharing strategies; energy retrofitting in social housing; cash-transfers to compensate increase in fossil energy prices; ii) for the middle 40%, same as i) + stricter regulations & taxes on polluting purchases (SUVs, air tickets); subsidies on green alternatives (elec. vehicles); iii) for the top 10% and top 1%: strict regulations on polluting purchases (SUVs, air tickets); wealth or corporate taxes with pollution top-up; carbon cards to track high personal carbon footprints and cap them; • Towards prioritizing the reduction of inequalities over the unsustainable quest for economic growth;
GENDER Sources: WBG 2023; ILO/JTPB b.	• Strengthen the understanding of the gender-climate nexus. Enhance evidence-led, inclusive approaches that move beyond "women as victims" narratives to highlight women as key contributors to local, national and global policy and finance action on climate, and to community resilience building and disaster risk reduction; • Build the evidence base through pilot interventions and evaluative work; • Use quantitative and qualitative approaches, with beneficiary feedback and gender-collection, to identify gender-smart climate solutions. Adding an intersectional lens and collecting data on additional characteristics, such as disability disaggregated data, can deepen the evidence base; • Ensure the gender-climate nexus is fully integrated and tracked, including in World Bank Group programming. This is important in terms of content and expenditure in World Bank Group strategy and programming, such as CCDRs and future efforts in areas, such as loss and damage funding, for countries affected most by climate disasters; • Continue to address the root causes of gender inequality that place women at greater risk of climate vulnerability. Strengthen gender-sensitive legal frameworks and focus on women's human capital, job quality and livelihood diversification, access to and ownership of assets, and voice and agency in the context of climate action; • Significantly scale up financing climate action. This includes devolved climate finance and dedicated funding amid mainstream public sectoral and macro budget categories. Ensure that capital flows to women's organizations and women-led initiatives, including those representing other disadvantaged group identities, such as Indigenous Peoples and climate migrants; • Explore innovative private sector financing instruments. Expand innovations such as ESG-related bonds on gender, sustainability, and blue and green bonds; carbon market mechanisms with gender and health co-benefits; and blended finance that explicitly includes gender and climate performance indicators ; • Increase concessional and blended finance mechanisms. This can be done leveraging established financing mechanisms that target gender or climate, such as We-Fi or CIF. Create dedicated blended finance funds with the aim of drawing private sector capital to gender-climate projects in areas perceived as high risk or low return, such as adaptation and resilience building; • Invest in women-founded or led green and climate businesses. This will support climate-friendly products and services that benefit women end users, or solutions that improve women's adaptive capacity. Investigate the potential for public-private partnerships in this space, linking public organizing and convening power with private capital and targeted value chain development; • Apply a gender lens across all climate programs and policies. Gender should be a fully integrated element to create climate response programs that are inclusive and drive toward mutually reinforcing objectives around gender equality, poverty reduction, and climate resilience. Doing so can advance attainment of Nationally Determined Contributions and Paris Alignment commitments in a gender-responsive and socially inclusive manner;

Sector or Theme	Policies
	• Apply a gender lens across all climate programs and policies. Gender should be a fully integrated element to create climate response programs that are inclusive and drive toward mutually reinforcing objectives around gender equality, poverty reduction, and climate resilience. Doing so can advance attainment of Nationally Determined Contributions and Paris Alignment commitments in a gender-responsive and socially inclusive manner; • Support participatory practices in climate dialogues. Create opportunities for the inclusion of women and marginalized groups to shape investment priorities as part of locally-led climate action; • Promote women's leadership and decision-making capacity. This should be done across the board, in climate policy, planning, and implementation; in governments, local community organizations, corporate boards and management; and in the broader climate science community; • Share best practices and replicate and scale effective solutions. These include green employment/ entrepreneurship, adaptive social protection, disaster response, and local resilience building. Target high-impact, high-emission sectors, such as agriculture, water, forestry, and land use; energy; cities; transport; and manufacturing, where considerable growth or job creation is expected, so that women and girls may benefit positively from these transitions. Programs should consider a rights-based approach to programming to increase transformational potential, and work to expand the time-horizon of action and goals; • Promote green employment and entrepreneurship. Encourage girls' education in green STEM and support the school-to-work transition to ensure equitable access to green jobs. Make sites of employment better for women, for instance by addressing gender-based discrimination and barriers to entry and retention through gender-responsive human resource policies that include childcare, GBV prevention, technical training, and mentorship opportunities; • Ensure gender-smart design in social protection and livelihoods diversification measures. Create programming to diversify livelihoods to reduce women's overrepresentation in natural resource-based sectors, and secure their tenure rights, natural resource management capacity, and use of area-based approaches, particularly those led by women and Indigenous People; • Strengthen policy and legal frameworks protecting women from violence. Use a GBV lens in the context of climate-induced migration, disaster response, and natural resources-based conflict to reduce GBV threats and enhance support measures in the context of displacement and mobility. Implement measures to reduce the risk of GBV in workplaces to encourage women's workforce participation as part of a just transition; • Integrate gender considerations into resilience building and disaster risk reduction. Ensure that disaster preparedness and response mechanisms are designed to reach women and children, as well as elderly people, people with disabilities, and members of disadvantaged sexual orientation and gender identity (SOGI) groups. Support women's leadership in disaster risk reduction and response, access to early warning system information, and capacity-building; • Ensure women's full and equitable participation and leadership needs in all steps of the formulation, implementation, monitoring and evaluation of just transition policies and programmes. Such policies must be based on sound statistical information grounded in international statistical standards and must fully consider the possibility that women face compounded inequalities and discrimination due to their personal characteristics such as race, ethnicity, indigenous identity, age, disability, HIV/AIDS status, migration and socio-economic status; • Integrate gender considerations into resilience building and disaster risk reduction. Ensure that disaster preparedness and response mechanisms are designed to reach women and children, as well as elderly people, people with disabilities, and members of disadvantaged sexual orientation and gender identity (SOGI) groups. Support women's leadership in disaster risk reduction and response, access to early warning system information, and capacity-building; ... /...

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	• Ensure women's full and equitable participation and leadership needs in all steps of the formulation, implementation, monitoring and evaluation of just transition policies and programmes. Such policies must be based on sound statistical information grounded in international statistical standards and must fully consider the possibility that women face compounded inequalities and discrimination due to their personal characteristics such as race, ethnicity, indigenous identity, age, disability, HIV/AIDS status, migration and socio-economic status; • Integrate gender considerations into resilience building and disaster risk reduction. Ensure that disaster preparedness and response mechanisms are designed to reach women and children, as well as elderly people, people with disabilities, and members of disadvantaged sexual orientation and gender identity (SOGI) groups. Support women's leadership in disaster risk reduction and response, access to early warning system information, and capacity-building; • Ensure women's full and equitable participation and leadership needs in all steps of the formulation, implementation, monitoring and evaluation of just transition policies and programmes. Such policies must be based on sound statistical information grounded in international statistical standards and must fully consider the possibility that women face compounded inequalities and discrimination due to their personal characteristics such as race, ethnicity, indigenous identity, age, disability, HIV/AIDS status, migration and socio-economic status; • Introduce the gender dimension of just transition plans, policies, and programmes in a more systematic way in nationally determined contributions (NDCs), national adaptation plans (NAPs), national biodiversity strategies and action plans (NBSAPs) and Net Zero initiatives and pledges. • Ensure climate finance support countries in carrying out just transition planning and implementation that leverages gender equality and women's representation and empowerment and promotes decent work for all women and men in the green and blue economy • Foster gender-responsive macroeconomic and growth policies to ensure the creation of green jobs: • Ensure just transition actions must promote equal employment opportunities and treatment across all green sectors, targeting both horizontal and vertical gender equality by industry and occupation; targeted industrial and sectoral policies and investments should create decent jobs for women in care, energy, transport, agriculture and waste and water management; • Develop policies on skills development for a green economy that focus on filling new jobs in in a gender-equitable manner through equal access to workforce training and related policy measures as well as in the design of workplaces and working arrangements that work for both women and men; • Implement national skills development and employment policies linked to broader development plans that incorporate education for environmental awareness with coherent skills strategies to prepare women and men workers, in particular young people, for a more sustainable world of work; curricula should take a gender-transformative and intersectional approach, and education efforts should be targeted at empowering women and girls and fostering their preparedness to participate in climate discussions; • To harness the power of women as agents of change for a just transition within organizations, policies should aim at achieving gender balance at all enterprise levels and encourage strategic senior management to implement green policies and practices. Active equal opportunity and gender-inclusive policies such as flexi-time, maternity, paternity and parental leave and returnto-work programmes ensure that women are not disadvantaged at work for having responsibilities at home.

Sector or Theme	Policies
LABOR Source: ILO, 2015	• Governments should i) provide stable policy signals based on social dialogue and a regulatory framework to enable sustainable enterprise development and decent work for all, social inclusion and the eradication of poverty in the transition to sustainable economies; ii) consider and promote those international labour standards most relevant to the just transition framework towards environmentally sustainable economies and societies for all, with a view to their ratification and full implementation; iii) integrate provisions for a just transition into national plans and policies for the achievement of the Sustainable Development Goals and national environmental and climate change action plans; etc (refer to ILO, 2015 for full list); • Governments and social partners should i) consider concluding agreements for the implementation of economic, social and environmental policies, including with a view to achieving the Sustainable Development Goals; ii) mobilize funding, support and assistance, facilitated where appropriate by international organizations, including through Decent Work Country Programmes; iii) share knowledge and best practices regarding environmentally sustainable macroeconomic and sectoral policies; etc (refer to ILO, 2015 for full list); • Governments should i) actively promote and engage in social dialogue, at all stages from policy design to implementation and evaluation and at all levels from national to enterprise level in line with applicable international labour standards most relevant to the just transition framework, to forge consensus on pathways towards environmental sustainability with decent work; ii) promote the creation, development and formalization of dialogue mechanisms and structures at all levels to discuss the best means to implement national social, economic and environmental goals; Social partners should i) raise awareness and understanding and provide guidance among their members about developments relevant to the just transition framework, sustainable development, decent work and green jobs for women and men; ii) play an active role in the formulation, implementation and monitoring of national sustainable development policies, articulating the pivotal role of employers' and workers' organizations in bringing about social, economic and environmental sustainability with decent work and social inclusion; iii) promote the active participation of their members in social dialogue at the enterprise, sectoral and national levels to assess opportunities and resolve challenges posed by the transition; (refer to ILO, 2015 for full list); • Governments, in consultation with social partners, should: i) integrate sustainable development and a just transition into macroeconomic and growth policies: ii) undertake collaborative efforts between governments, international organizations, employers' and workers' organizations to incorporate the just transition framework into macroeconomic policies; iii) adopt macroeconomic and growth policies that promote sustainable production and consumption patterns, create an enabling environment for sustainable enterprises and place full and productive employment and decent work for all at the centre of economic and social policies; • Governments, in consultation with social partners, should i) set goals for the continuous improvement in the social, economic and environmental; ii) sustainability of the sectors and design sectoral policies and programmes in line with the specific conditions of each sector and the types and sizes of enterprises operating in it; iii) foster effective social dialogue at the sectoral level to promote consensus building and social acceptance for the successful implementation of social, economic and environmental policies including, but not limited to, climate change; (refer to ILO, 2015 for full list); • Governments in consultation with social partners should i) provide an enabling environment for sustainable enterprises based on assessment; and social dialogue in line with the 2007 ILC conclusions and the 17 conditions defined in it, as referenced in the 2013 ILC conclusions, for businesses to enhance productivity, create jobs and promote decent work while complying with social, economic and environmental regulations; ii) consider that fiscal and tax reforms should have due regard to the best means to enhance compliance with environmental taxes and levies; iii) enhance the resilience of businesses, in particular MSMEs, to avoid disruption of economic activity and loss of assets, jobs and incomes; (refer to ILO, 2015 for full list); … /…

Sector or Theme	Policies
	• Governments and social partners should i) provide targeted business information and advice on green business practices, eco-innovation and regulatory systems and on how to achieve compliance, with particular attention to MSMEs and in easily accessible formats such as user-friendly toolkits; ii) for existing enterprises, provide technical support, advice and services to establish environmental management and compliance systems; and, for green technology start-ups, conduct awareness and education campaigns to foster a culture of eco-entrepreneurship and provide technical support, advice and services; iii) provide assistance to management and workers in transitioning business operations away from high-carbon, high-polluting and resource-intensive operations; such support should include technology transfer mechanisms on favourable terms, as mutually agreed, as well as support for innovation and sharing of good; • In alignment with the other policies for a just transition, governments and social partners should i) provide training opportunities for up- and reskilling (including for workers affected by the transition) and initial learning in green business practices and environmentally friendly technology and innovation; ii) consider providing financial and technical support to enterprises undertaking research and development in green technologies, and support cluster development and incubation; iii) consider support measures for enterprises and workers seriously affected by transitioning to environmentally sound economies and societies for all; (refer to ILO, 2015 for full list); • Refer to ILO, 2015 for full list of policy recommendations);
NATURAL DISASTERS AND RISK MANAGEMENT Source: WBG, 2016	• Increase financial inclusion and participation in banking to reduce the vulnerability of poor households' assets; • Improve households' and firms' preparedness and ability to act upon warnings (contingency plans, regular drills); • Improve access to risk information, invest in hydro-meteorological services —for observation and forecasting—and link with early warning and evacuation systems, and collect more data on disaster consequences; • Enact risk-sensitive and enforceable land use regulation and building norms; • Improve tenure to incentivize investments in housing quality and resilience, and enforceability of building norms; • Invest more and better in infrastructure by leveraging private resources and using designs that account for future climate change and the related uncertainty;

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