

Gender-Just Transitions – An Overview

WHY ECONOMIC TRANSITIONS CAN ONLY BE JUST IF WE APPLY A GENDER EQUALITY LENS



On behalf of

Federal Ministry for Economic Cooperation and Development

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IIED is an independent policy and action research organisation with a mission to build a fairer, more sustainable world, using evidence, action and influence in partnership with others. Gender equality and equity are fundamental to IIED's mission. With our partners we want to produce research that considers how gender intersects with factors such as age, ethnicity, class, caste, disability status, sexual orientation, gender identity and wealth to inform strategies for sustainable development. We also want to have a diverse and fulfilled workforce: people who are thriving in their career, as well as in their family and personal life. The Gender Equality Champions' Network at IIED drives these aims forward, while focusing on integrating them into all aspects of our work.

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LISTINGS

List of Acronyms

AfDB	African Development Bank	
ASEAN	Association of Southeast Asian Nations	
BIPoC	Black, Indigenous and People of Colour	
CEPAL	Comisión Económica para América Latina y el Caribe (Economic Commission for Latin America and the Caribbean – ECLAC)	
CIF	Climate Investment Funds	
COBSEA	Coordinating Body on the Seas of East Asia	
CSIS	Center for Strategic & International Studies	
EBRD	European Bank for Reconstruction and Development	
EEB	European Environmental Bureau	
EGD	European Green Deal	
FA0	UN Food and Agriculture Organization	
GDP	Gross domestic product	
GI-ESCR	Global Initiative for Economic, Social and Cultural Rights	
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	
IDRC	International Development Research Centre	
IIED	International Institute for Environment and Development	
IFPRI	International Food Policy Research Institute	
ILO	International Labour Organization	
IRENA	International Renewable Energy Agency	
IUCN	International Union for Conservation of Nature	
MDB	Multilateral development bank	
NAP	National Adaptation Plan	
NDC	Nationally Determined Contribution	
OECD	Organisation for Economic Co-operation and Development	
SEI	Stockholm Environment Institute	

STEM	Science, technology, engineering and mathematics	
UNDP	UN Development Programme	
UNEP	UN Environment Programme	
UNFCCC	UN Framework Convention on Climate Change	
UNU-INRA	-INRA UN University Institute for Natural Resources in Africa	
UNU-WIDER	DER UN University World Institute for Development Economics Research	
WECF	Women Engage for a Common Future	
WEDO	DO Women's Environment & Development Organization	
WEF	World Economic Forum	
WIEGO	Women in Informal Employment: Globalizing and Organizing	

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BINARISM

In a general sense, binarism refers to a duality: a binary system classifies two components as a pair of opposites. The gender binary system which prevails worldwide differentiates between men and women. Trans or intersex persons are regarded as a deviation from the norm. With the gender binary system, a power relationship is constructed between the sexes within society and specific roles and capabilities are associated with being a man or being a woman (BMZ, 2023).

GENDER

In the Pocket Guide to Gender Equality under the UNFCCC "the term 'gender' refers to socially constructed characteristics, from the roles individuals take on in society to physical attributes that affirm notions of 'masculine' and 'feminine'. While not immutable nor universal, gender shapes expectations, attributes, roles, capacities and rights of individuals around the world. [...] Understanding relationships, power dynamics, and differentiated roles between people is key to understanding gender" (Burns and Daniel, 2020).

GENDER JUSTICE

A gender justice approach focuses on structural power dynamics. It aims to transform gendered power relations, and it works towards "a world where all people, whatever their sex or gender identity, are free from fear and the threat of violence, and enjoy equal rights, freedoms, and access to opportunities and resources" (CARE, 2022).

GENDER-JUST TRANSITION

UN Women (2021) describes gender-just transitions as "a transformative approach that can achieve greater gender equality and set economies on more equitable and environmentally sustainable paths".

GENDER-TRANSFORMATIVE

The FAO (2022) defines gender-transformative approaches as gender integration approaches that address structural barriers to gender equality including gender norms, power asymmetries and discriminatory social structures.

GREEN AND JUST RECOVERY (FROM COVID-19)

A green and just recovery will "better address the immediate challenges of the COVID-19 pandemic, but it will also tackle the immediate and longerterm challenges of climate breakdown". It aims to "secure a just transition to an inclusive economy for all workers and remedy long-running environmental and social injustices for those disproportionately affected by the climate crisis — those living in the Global South more generally, and the poorest and most marginalised communities everywhere" (C40 Knowledge Hub, 2020).

INCLUSIVE GREEN ECONOMY

"An inclusive green economy is one that improves human well-being and builds social equity while reducing environmental risks and scarcities. An inclusive green economy is an alternative to today's dominant economic model, which exacerbates inequalities, encourages waste, triggers resource scarcities, and generates widespread threats to the environment and human health" (UNEP, n.d.).

INFORMALITY

"A term used to describe the collection of firms, workers, and activities that operate outside the legal and regulatory frameworks" (Loayza, 2016). Worldwide, the majority of workers are informally employed, and their work activities are not protected, regulated, well-recognised or valued (OECD and ILO, 2019).

In this paper the focus is on gender equality and the relevance of just transitions to women. It is fully acknowledged that gender is non-binary, and that socio-economic discrimination affects many people in sexual and gender minorities. Just transitions need to address the inequalities experienced by different people in accessing services and employment due to ability/disability, ethnicity, gender and sexuality. Such intersectionality compounds the inequalities imposed on different people by socio-economic and cultural factors in society. Transitions should be just for everybody, and gender equality is universal.

INTERSECTIONALITY

This concept "describes the ways in which systems of inequality based on gender, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination 'intersect' to create unique dynamics and effects [...] All forms of inequality are mutually reinforcing and must therefore be analysed and addressed simultaneously to prevent one form of inequality from reinforcing another" (Center for Intersectional Justice, 2022).

JUST TRANSITION

The ILO (2022) explains that a just transition "means greening the economy in a way that is fair and inclusive of everyone concerned, creating decent work opportunities, and leaving no one behind".



EXECUTIVE SUMMARY

Executive Summary

Just transition means "greening the economy in a way that is fair and inclusive of everyone concerned, creating decent work opportunities, and leaving no one behind" (ILO, 2022). Both in the Global North and Global South, this transition process is intrinsically gendered. Understanding the impacts of changes on different gendered groups will be key. This includes understanding the dynamics of who makes decisions, who provides the labour and who is impacted. This paper provides an evidenced argument for a gender-just transition.

A gender-just transition is "a transformative approach that can achieve greater gender equality and set economies on more equitable and environmentally sustainable paths" (UN Women, 2021). As economies transition, windows of policy change and development can be used to usher in the reforms necessary to – as stated in Sustainable Development Goal (SDG) 5 Target 5.a – "give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources". A gender-just transition represents the opportunity to align pathways to low-carbon economies and societies with substantive steps towards gender equality.

The absence of a gender equality lens in the design and assessment of past economic changes and policies led to gender-blind approaches and hence inequalities. Without a gender equality lens, just transitions will not be just for women, girls and marginalised groups in all their diversity. Structural factors in conventional carbon-intensive economies impose a low representation of women in better-paid employment and leadership roles as well as reduced access to resources. Shifts to a green economy alone will not correct this. Investing in low-carbon sectors, including the care economy, and generating green jobs can be done according to a paradigm for gender equality and women's economic empowerment, and can build resilience to climate impacts. There is a need for quantitative and qualitative data and further research to understand the gender equality dimension of today's transitions to low-carbon economies and the nexus between sustainable transitions and gendered power asymmetries. Within work on just transitions, research regarding the definition and measurement of outcomes for women and marginalised groups is at an early stage. This represents a significant gap requiring attention. Discrimination based on gender is only one form of discrimination. Intersecting factors such as race, ethnicity, religion or belief, health, status, disability status, age, class, caste and sexual orientation and gender identity must also be taken into account in gender-just transitions. However, the data on intersectional discrimination and just transitions is even thinner, which is why the study focusses on women. Nevertheless, it should be emphasised here that the study is based on an inclusive and non-binary understanding of gender and that a just transition can ultimately only be considered just if it thwarts structural discrimination in its entirety.

The analysis of existing just transitions policies, strategies and processes reveals the failures to date in incorporating gender equality considerations and enabling women and girls in all their diversity to benefit equally. Just transition strategies are not succeeding even in terms of a narrow approach to incorporating gender, related to green jobs and the care economy, never mind integrating the broader feminist critiques of just transitions, which relate to global justice and challenging the root causes of inequality. The paper explores how just transition processes can be designed with a gender equality lens by examining what gender-just transition policies and actions can look like. The importance of the care economy and addressing informality emerge strongly throughout this discussion.

A just transition will differ based on socio-economic conditions within different contexts. The paper delves into the importance of context-specific gender norms, values and practices. It concludes that gender considerations need to be more explicitly integrated into just transition planning and policies while being responsive to the different socio-cultural circumstances, gender norms and power asymmetries within different contexts. The paper provides recommendations how best to support gender-just transitions, and it outlines different pathways to achieving a gender-just transition in practice. There are a range of broad areas that must be considered in any genderjust transition. Domains of focus include:

- Economic empowerment: e.g. attention is paid to formal and informal sectors and to women achieving equal economic security.
- Safety nets: e.g. social protection systems support different groups of women, provide equal access to benefits and minimise the risks for women of transitions to inclusive green economies.
- > **Centring care:** e.g. redistribution of resources and recognition of the value of care work.
- > Local environment: e.g. just transitions regenerate natural environments and incorporate women's stewardship plus recognition of the impacts on women of human-nature relations.
- > **Collective action:** e.g. inclusive coalitions design just transitions and work together to challenge institutional barriers.
- > Engagement and agency: e.g. participation in design, review and evaluation of just transitions, challenging social norms that act as barriers to engagement and agency.
- > **Policy agenda:** e.g. gender equality should be included as a policy objective of just transitions, and the policy agenda should include international dimensions of green transitions.
- > **Structural enablers:** e.g. women have access to the assets they need to benefit from just transitions, and economies provide the structures and institutions for gender equality.
- > **Norms and discrimination:** e.g. norms change to promote gender equality and improve the wellbeing, protection and agency of women.

A holistic gender-just transition makes use of both compensatory policies and adjustment assistance to tackle the social, economic and political impacts of transitions and has the claim to use an intersectional lens to understand and address the differentiated impacts of transitions on communities based on gender, age, ethnicity and other factors.

The following recommendations provide examples of genderjust transition policies that can be applied in planning.

- Understand and address the nuanced needs of communities. Feminist tools including gender audits, gender impact assessments and gender analysis can improve the understanding of gendered impacts and interventions.
- Sovernments and industry should strive to improve women's wellbeing in the workplace. In a transition from fossil-fuel-based economies, women tend to pick up jobs with precarious working conditions that offer low wages, unfavourable hours, poor benefits and limited career growth.
- Blanket just transition policies from countries of the Global North will not be appropriate for countries of the Global South, as inequities are based on cultural, political and socio-economic factors.
- Gender-just transition policies must strive to reduce the burden of care for women. Public policies to address this could improve child and elder care within society.
- Designing inclusive planning processes is crucial in ensuring meaningful participation. Carefully designed processes for consultation consider power asymmetries and gender norms to ensure that different actors have voice and agency to speak up.
- In conjunction with promoting social dialogue, it is important to recognise and strengthen institutions that represent women and marginalised groups. Allocating a dedicated share of resources to institutions that support women, including trade unions, grassroots women's organisations and women's activist groups.

Transitions to low-carbon societies and economies are emerging. Making these processes happen in gender-just ways means understanding the structural causes of inequalities and building intersectional coalitions of people for collective action. Engaging in the deliberation, design and implementation of gender-just transitions across developing and developed economies is an urgent task for all of us. This paper seeks to inform and to argue for gender-just transitions.



INTRODUCTION

1. Introduction

"The success of a gender just transition depends on the state, business, labour, communities and other stakeholders being included in the policy discussions on equal footing [...] Discussions on a gender just transition must begin now."

Nokwanda Maseko, economist working in South Africa, 2021

The just transition discourse has been gaining momentum and popularity in international arenas in recent years; in parallel, the gender equality dimension of climate and environmental policies has also become increasingly high profile (OECD, 2022; Walk et al., 2021). While these two agendas are not well integrated, there is growing recognition that a just transition should necessarily be gender just.

This paper provides an overview of what 'just transition' means and what a gender-just transition could look like in developing and emerging economies. The paper makes the case that just transitions need to be designed in a gender-just way and provides evidence in support. An overview of what is understood by just transition in the Global North and South is provided. The paper assesses which and how sectors will transition and what this means concretely for women as economic actors – informal- and formal-sector workers, entrepreneurs, and consumers.

So far, most inquiry into, and investments in just transitions have focused on energy transitions, and especially on formal workers in the coal sector (Koning and Smith, 2021; Walk and Braunger, 2022b). A review of existing policy frameworks for just transitions and other socio-economic restructuring processes has found that the term 'just transition' is mentioned most frequently in relation to more recent policy documents designed for a transition away from fossil fuels, and coal specifically (Pinker, 2020). This language is particularly popular in policy processes related to Canada and Germany's coal phase-outs which focus on the compensation of formal workers in the coal sector. This has serious gender implications, as in most instances men hold the vast majority of these jobs, so these just transition processes de facto end up focusing on male workers (Koning and Smith, 2021).

While understandings and applications of just transition language have broadened beyond the coal/fossil fuel industries in recent years, the language is still applied most readily to areas that are reliant on fossil fuels, and the importance of gender is still undervalued. "For the most part, existing policies focus on compensating workers and communities directly affected by fossil fuel transitions, rather than on broader gender and social equality concerns" (Pinker, 2020).

Gender-just transitions aim to create synergies between greater gender equality, social justice and environmental sustainability (UN Women, 2021). However, a fragmented evidence base impairs the development of shared understanding on how best to deliver gender equality outcomes through environmental and low-carbon transitions and through just transition processes. This evidence gap is particularly significant in developing economies where informality dominates many sectors and value chains (Ohnsorge and Yu, 2021). This paper makes the case for pursuing gender-just transitions by examining the conceptual and practical bases and identifying promising examples.

Gender equality gains are in a state of flux. The direct and residual effects of the COVID-19

pandemic have exacerbated existing inequalities for women and girls across every sphere – from health and the economy to security and social protection. While there has been progress by women towards social and economic empowerment over the last decades, such as increased school attendance of girls or a growing number of women in parliaments and leadership positions, many challenges remain.

Discriminatory laws and social norms remain pervasive. Women continue to be underrepresented at all levels of political leadership. Globally, a fifth of women and girls (aged 15 to 49) report experiencing physical or sexual violence from an intimate partner (UN Women, 2022a). The global gender gap (measured in terms of economic opportunity, political empowerment, educational attainment, and health and survival) is only slowly closing despite all the transitions the world has invested in over the last decades for example, globalised markets, freer movement of people, social media and information technologies (WEF, 2021). In too many places it is difficult, if not impossible, for women to access the same economic opportunities as men. Women get lower pay for the same jobs; legal and cultural barriers restrict women's access to jobs; and financial services and resources, assets and property ownership favour men (EBRD, n.d.; World Bank, 2022). Gender-just transitions need to be designed with due contextual understanding of gender inequalities.

While current and future transitions towards sustainable societies represent opportunities for climate and environmental protection, they are also opportunities to strengthen gender equality. However, evidence from other economic and social transitions (such as transition economies, technological advances, land reform and globalisation) indicates that very deliberate and purposive strategies need to be in place for positive gender equality outcomes to result. The business case for investments in gender equality as 'smart economics' has been made and repeated (see for example World Bank,

BOX 1. DEFINING THE CONCEPTS

What is a just transition? The ILO (2022) explains that a just transition "means greening the economy in a way that is fair and inclusive of everyone concerned, creating decent work opportunities, and leaving no one behind".

What is a gender-just transition? UN Women (2021) describes a gender-just transition as "a transformative approach that can achieve greater gender equality and set economies on more equitable and environmentally sustainable paths".

2007). This instrumental argument for gender equality was won, but in so doing, the more intrinsic rights-based case for gender equality has been upstaged by economic efficiency theory (Alessio Robles, 2020). In practice it can be seen that equality among women and men in access to economic resources, levels of education and access to the labour market is inhibited by structural discrimination against women in the form of patriarchal, cultural and social norms. To be effective, gender-just transitions will need to address the intersectional structural barriers that inhibit the rights of women and marginalised groups such as LGBTQI+ persons or people with disabilities to overcome these limiting factors.

The just transition agenda emerged from the context of the Global North, so there is a need to investigate the relevance of this framework for the Global South. For example, in the Just Energy Transition Partnerships, G7 countries are exploring together with partner countries from the Global South how low-carbon transitions in energy sectors of developing and emerging economies can meet social justice objectives (European Commission, 2021). It is important to understand what gender-just transitions might look like in the context of the Global South. For instance, the gendered aspects of the distribution

of benefits and costs in transitions from informal to formal value chains need to be understood. This paper reviews and systematises evidence. First, it explores the historical antecedents of just transitions and implications for different parts of the economy (Chapter 2). Second, it discusses gendered implications of past economic transitions and sets out the reasons for applying a gender equality lens to transitions (Chapter 3). Third, it clarifies what is understood by genderjust transitions, assesses some cases, considers feminists critiques of transitions to low-carbon economies and discusses what gender-just transitions could look like in terms of policies and actions in developing economies (Chapter 4). Finally, it reflects on, and makes recommendations for, how gender-just transitions might be achieved in different contexts (Chapter 5). Figure 1 sets out the logical flow of the paper.

FIGURE 1. The logical flow of the paper

The just transition concept Historical antecedents and implications for different parts of the economy Chapter 2

Gender equality in transitions Gendered implications of transitions and reasons to apply a gender equality lens to transitions Chapter 3

What is understood by gender-just transitions? How well gender is incorporated into just transitions; feminist critiques of transitions; what gender-just transitions look like Chapter 4

Achieving gender-just transitions in different contexts Importance of context and recommendations for a holistic gender-just transition Chapter 5



2. The just transition concept

This chapter begins by outlining the historical evolution of the concept of a 'just transition'. It then examines how economies will need to change in a green transition.

2.1. Historical development of the just transition concept

The origins of just transition strategies lie with labour unions and environmental justice movements in North America looking to protect workers from polluting industries that were harming them and community health (Climate Justice Alliance, n. d.). A just transition was then advocated to protect the rights of workers in 'brown' carbon-intense industries facing phase-out and closure due to shifts away from fossil fuels.

The "historically accepted approach is a tripartite process of workers, employers, and governments that negotiate an economic transition in response to the transformation. Building upon social dialogue and stakeholder engagement, they ensure that all parties share the costs and opportunities associated with the transition" (GIZ, 2021). The concept of a just transition has grown in popularity and recognition and is now a mainstream idea. The International Labour Organization (ILO), a global proponent of a just transition, published Guidelines for a just transition in 2015 (ILO, 2015b). The same year, Parties to the UN Framework Convention on Climate Change (UNFCCC) agreed to "take account of 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", as stated in the Paris Agreement (UNFCCC, 2015).

The term 'just transition' has been used to refer both to how states manage the impacts of low-carbon pathways on workers and to how low-carbon futures are ensured to be equitable by prioritising the interests of disadvantaged groups (Pinker, 2020). More recently, just transitions are conceived as the socially just design of green transition processes and the inclusion of vulnerable and marginalised groups.

As Montmasson-Clair (2021) sets out, the justice elements relevant to transitions include procedural justice through inclusive processes; distributive justice of the direct impacts of transition processes; and restorative justice to rectify harm and/ or disenfranchisement of communities. Another justice element is described by environmental justice that emphasises how carbon-intensive economic development has privileged social elites at the cost of the wellbeing of vulnerable groups. A broader and more radical approach to just transitions demands social and economic restructuring to address the roots of inequality (Eisenberg, 2019; Pinker, 2020). This has strong coherence with gender-transformative approach whereby the socio-economic process seeks to address the causes of gender-based inequalities and works to transform harmful gender roles, norms and power relations (UNICEF, n. d.).

Other concepts exist to describe sustainability transitions. For example, green growth refers to

"fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies" (OECD, n. d.), while an inclusive green economy is one that improves "human well-being and social equity, while significantly reducing environmental risks and ecological scarcities" (UNEP, n. d.).

While green growth has not prioritised justice in the distribution of costs and benefits of transitions, nor gender equality outcomes, just transitions and an inclusive green economy both focus on justice and equity respectively, centring social concerns to the outcomes of the transitions. More recent negotiated and political moves towards greening productive sectors, involving governments, workers, social movements, international organisations and funders, have started to explore the aspects that constitute just outcomes. In countries of the Global South, changes to informal components of economies are a key dimension of any just transition and an indicator for understanding the feasibility of these transitions (Anderson and Fisher, 2022). Today, there is recognition that just transitions will be plural and differentiated according to countries' circumstances. Shifts away from fossil-fuel-based and carbon-intensive development are both context specific and complex. They will require changes to the global system where currently climate policy alignment between the Global North and the Global South is weak. Understanding and resolving the political economy challenges and implications of low-carbon transitions is central to democratising just transitions to achieve inclusiveness and justice (Denton et al., 2021).

2.2. How will economies have to change in a green transition?

Whole economies and the way they are governed and regulated will need to change to achieve low-carbon and environmentally sustainable economies. The projected escalation of climate risks requires change to be radical (far-sighted, far-reaching and socially just) and not just incremental (Söderholm, 2020).

The carbon-intensive sectors, such as hydrocarbons and energy generation, terrestrial transport, shipping, aviation, manufacturing, agriculture and forestry are crucial to low-carbon economy transitions. They need to cut emissions and drive technological developments (CICERO, n. d.).

Sustainable technological change is required to shift quickly and durably to low-carbon societies

and economies. The state has a key role in designing appropriate policy mixes to enable the benefits of transition to reach people in informal sectors and to correct unjust distributional impacts (Söderholm, 2020).

All industries and sectors need to move in green directions and to create jobs and invest in the skills and innovation required. The ILO estimates that 24 million jobs worldwide could be created by the green economy by 2030 (ILO, 2022). Indeed, recent analysis by the World Economic Forum indicates that a wider than originally thought range of skills and jobs across many sectors will be necessary for transitions to low-carbon societies and economies (Kimbrough, 2021). Table 1 sets out what happens to jobs and workers under a green transition.

CHANGES TO JOBS	NARRATIVE	SECTORS	
Job creation	More low-carbon-intensive prod- ucts, services and infrastructure can lead to higher demand for labour across sectors. The supply chains for these sectors will also expand. As the incomes generated are spent across the economy, they create further employment.	 Renewable energy Energy efficiency in manufacturing, transportation, building construction and operations Organic and climate-smart agriculture Protection and restoration of ecosys- tems and biodiversity Climate-proofing infrastructure 	
Job substitution	Some jobs may be phased out or reduced in number and not replaced. This will be in polluting and energy- and non-renewa- ble-resource-intensive economic activities that are transitioned away from. Greater energy, resources and water efficiency will lead to substantial job losses in primary sectors. There are indirect and induced job elimination effects because of the expansion of low-carbon-intensive products, services and infrastructure.	 Large-scale hydrocarbon extraction Non-renewable energy generation Internal combustion engine transport manufacture, servicing, etc. 	
Job transformation and redefinition	In greening processes many existing trades and workers will take on transformed and redefined workplace practices, skill sets, work methods and job profiles.	 Construction and built infrastructure maintenance: plumbers, electricians, metal workers, joiners and general construction workers Automobile workers produce more fuel-efficient and electric-powered cars Farmers will use more climate-appro- priate growing and rearing methods 	

TABLE 1. Changes to jobs and workers under a green transition⁴

¹ Main sources: IRENA (2021), Kimbrough (2021) and WEF (2016).



3. Gender equality in economic transitions

This chapter discusses two main issues related to gender equality in economic transitions. First, it explores how women are affected by economic transitions. Second, it considers why it is necessary to examine transitions with a gender lens.

3.1. Gendered implications of economic transitions

While we look ahead to gender-just transitions, we need to be cognisant of the impacts of other large-scale changes to economies. Women's employment in the industrial sector remains low, and female participation in the services sector tends to be concentrated in occupations like nursing, teaching and non-technical jobs such as secretarial services. Maseko (2021) shows that in 2019 45 % of women in South Africa were employed in community, social and personal services and in private households, as compared to 18 % of men. And 25 % of women were employed in manufacturing, construction and financial services, compared to about 42% for men. Women in Africa, for example, are still vastly underrepresented in many occupations, especially in the scientific and technological fields (World Bank, 2021a).

We can see that gendered shifts in future employment pose problems of inequality. Women represent 32 % of the workforce in the renewables sector compared to 22 % in the oil and gas sector. Across the sector they are predominantly found in administrative (45 %) and non-STEM (science, technology, engineering and mathematics) positions (35 %) that tend to be lower paid (IRENA, 2021). Of the new jobs that the ILO anticipates a sustainable energy transition will create by 2030, three-quarters are anticipated to be held by men and only a quarter by women (IRENA, 2021).

Women face both vertical segregation (not accessing managerial jobs) and horizontal segregation (certain duties and not others) regarding specific roles. If this is not addressed by policies, changes in employment will focus on male-dominated, medium-skill positions, where women will have access to only a small number of new jobs unless they are trained in relevant fields. Addressing the requirement to build capacity in key skills for the transition based on gendered needs and opportunities is key to achieving a gender-just transition.

Socio-economic transformations can become a threat to gender equality. Issues of distributive justice and access to resources, assets, jobs and other opportunities are important. A case in point is land reform in sub-Saharan Africa, which some have seen as an opportunity for elite capture – often by men. While land tenure laws recognise gender equality as a key principle, cultural norms and practices relating to inheritance rights discriminate against women's rights to own, control or inherit land (IIED, 2021). For transitions to be effective in terms of achieving gender equality, accountability structures are needed to make sure that women's rights are protected and promoted.

Women often lose out when economic integration, technological change and increases to access to information occur. The World Bank (2011) reported that economic integration, technological change and greater access to information did not benefit women, who face gender gaps in endowments, agency and access to economic opportunities. The World Bank report acknowledged that globalisation made cognitive skills more important and drove up the demand for female labour. However, women who face gender gaps including in skills and in access to resources and market systems are left out.

The potential of ICT (information and communication technology) and digital tools to respond to development and climate-related needs is currently constrained by structural factors such as connectivity, understanding the utility of such tools and access to mobile phones. More than 60% of the world's population remains offline, and these people are disproportionately rural, low-income, older, illiterate and female. Inability to read and write is a critical barrier to overcome. In terms of age and gender, the gap between the online and offline populations of women suggests material, social and cultural barriers (Sprague et al., 2021).

Another example can be found in some eastern European countries, in which economic transition that followed the end of the Soviet bloc hegemony has changed the nature of men's and women's economic participation. Women have endured both higher unemployment rates than men and lower wage levels. In these transitions, gendered differences have emerged in the work that men and women perform in different sectors, resulting in vertical and horizontal gender segregation for women where they are largely excluded from many managerial positions and allocated to jobs considered less appropriate for men (EBRD, n. d.). Differences in economic participation and remuneration disadvantage women. The World Economic Forum Global Gender Gap Report 2020 (WEF, 2020) provides evidence that, despite decreases in the educational attainment gender gap in sub-Saharan Africa, South Asia, and Latin America and the Caribbean, large differences in economic participation and remuneration between men and women remain, and this is also seen in countries of the Global North. Alessio Robles (2020) explains this in terms of patriarchal gender norms and feminised jobs (jobs assigned to women due to gender discrimination). She points out that economic transitions based on exporting labour-intensive manufactured goods benefit from gender inequalities and access to women's cheap labour. Lower production costs enhance competitiveness and attract investment. Under such circumstances, women increase their share in the underpaid formal labour market, feminising manufacturing markets as for example in the garment and textile industries.

In many low-income countries women are seen as secondary earners and primary caregivers. The feminised and precarious occupations that women take up may be threatened if measures towards gender equality are carried out.

Women are more disadvantaged in the economy and less likely than men to cope with economic risk and shocks. As UN Women (2020) reports, economic crises hit women harder because women tend to earn less than men. They often have fewer savings to buffer shocks, and they disproportionately work in informal sectors and have less access to social protections. Moreover, women are more likely to carry out unpaid care and domestic work, and therefore more likely to have to drop out of the labour force, reducing their economic welfare. They also make up the majority of single-parent households.

Economic transitions were precipitated by the COVID-19 pandemic, which has affected countries and people in very different ways.

Pre-existing gender gaps have amplified the crisis asymmetrically between men and women. The sectors hit hardest by lockdowns (and coincidentally rapid digitalisation) are those where women are more frequently employed (WEF, 2021).

Women were far more likely to lose their jobs than men during COVID-19 restrictions,

and less likely to return to paid employment. Women's disproportionate engagement with informal sectors resulted in greater redundancies as COVID-19 measures forced companies to downsize or close. Even if women kept their jobs, they were more likely to experience reductions in wages relative to men (Abraham, Basole and Kesar, 2021; O'Donnell et al., 2021).

BOX 2. HOW WELL DO JUST RECOVERIES FROM THE COVID-19 PANDEMIC INCORPORATE GENDER?

Some research has investigated whether lessons can be drawn from COVID-19 green recovery processes as a parallel to just transition processes. The pandemic brought large-scale economic and social shifts – as transitions to low-carbon economies inevitably will. So insights from COVID-19 green recovery processes may be useful to inform just transition policies.

UN Women has monitored responses taken by governments worldwide to tackle the COV-ID-19 pandemic in its COVID-19 global gender response tracker (2022b). This allows us to assess how well 'just recoveries' have incorporated gender concerns. UN Women identifies four main areas for consideration that were significantly impacted by the pandemic:

Violence against women and girls (the 'shadow pandemic')

Over half of the gender-sensitive measures focused efforts on addressing violence against women and girls. While the scope and breadth of actions varied, all countries faced challenges in implementation; for example, violence hotlines collapsed due to insufficient staffing to meet demand.

Women's rising economic insecurity (a 'livelihoods crisis')

The social protection and jobs response "has largely ignored women's rights and

needs" (UN Women, 2022b). Of more than 3,000 social protection and labour market measures adopted in response to COVID-19, only 12% have targeted women's economic security. These also faced operational difficulties, such as slow enrolment of informal workers declared eligible for emergency cash support.

Increasing demand for unpaid care work (a 'care crisis')

Similarly, of the 3,099 social protection and labour market measures adopted in response to the pandemic, only 7% provided support for rising unpaid care demands. Both men and women increased their unpaid care burden. However, women had to manage the majority of this workload, which negatively impacted on their employment, income, health and wellbeing.

Exclusion of women from decision-making processes

Governments rushed to respond to the pandemic and to rapidly roll out response measures. This meant that decision-making was concentrated in male-dominated executive structures, and consultations with others, for example civil society, was often sacrificed. When governments move into 'crisis mode' or 'emergency politics' they close ranks and rely on executive networks, often side-lining women's voices. >

Governments also created special COVID-19 task forces, but these mainly relied on pre-existing male-dominated networks, largely excluding women from these bodies.

Overall, the UN Women report provides a damning picture of how COVID-19 recoveries performed in relation to gender outcomes. "The global response to the economic fallout of the pandemic has been far ranging but has largely left women behind" (UN Women, 2022b). Holmes and Hunt (2021) also argue that the social protection measures responding to the pandemic were inadequate in how they recognised and addressed the gendered impacts of the crisis. Crucially, their case study analysis found that the extent to which response measures addressed gendered needs depended on their design and implementation prior to the crisis.

UN Women's report (2022b) provides a useful basis for drawing learning and highlights some of the enabling factors associated with a greater number of gender-sensitive measures in different contexts, including strong democratic institutions, higher representation of women in parliament and strong feminist movements. These key areas and challenges, and the enabling factors for stronger gender inclusion and consideration, are all relevant to inform just transition policies for a low-carbon economy. This type of assessment of gender integration into recovery processes is also useful for developing ways to assess the gender justice of just transitions.

3.2. Why apply a gender equality lens to just transitions?

Transitions to low-carbon societies and economies represent watershed moments and huge opportunities to address gender inequalities.

There is growing acceptance that unlimited economic growth as part of the low-carbon agenda ignores the fact that growth has ecological limits (Rockström et al., 2009). There are also significant challenges with simply decoupling growth from carbon emissions and retaining growth as a policy goal. No low-carbon growth agenda will fully transform the economy in terms of gender equality. Indeed, Tandon (2012) warns against women transitioning into capitalist system value chains that are flawed ecologically and in terms of gender inequalities. Rather the value chains themselves need to transform fundamentally. Economic growth has deepened inequalities and led to multiple crises such as biodiversity loss and the climate crisis. Feminist critiques highlight the gendered nature of the changes included in policy approaches to just transitions such as Green New Deals (Anderson and Fisher, 2022). While there are positive examples where gender mainstreaming has achieved benefits, experience shows that the transition to gender equality through gender mainstreaming faces several limits (Unmüßig, 2013). These include lack of political will and the limits of the concept in terms of challenging structural determinants of gender discrimination. Investments in transformative gender equality aligned to low-carbon transitions could provide ways

to overcome these limits, resulting in better gender equality outcomes.

Past economic transitions show that the absence of a gender equality lens in policy making led to gender-blind approaches and hence inequalities. The same applies for other policy fields. Box 3 discusses gender equality in existing climate change policies in terms of the gaps and opportunities for gender-just transitions.

BOX 3. GENDER EQUALITY IN CLIMATE CHANGE POLICIES: GAPS AND OPPORTUNITIES FOR GENDER-JUST TRANSITIONS

Policies that address gender justice through low-carbon transition policies and strategies – including Nationally Determined Contributions (NDCs), carbon pricing and National Adaptation Plans (NAP) – can all impact populations differently, depending on how the policies address gender. But they can also provide opportunities to build on existing good practices of gender integration in sectors to support just transition being responsive to gendered needs.

Gaps

In the latest round of enhanced NDCs, countries were encouraged to consider the gender dimensions of climate change following the Enhanced Lima Work Programme on Gender and its Gender Action Plan (IUCN, 2021). A review of the NDCs found that 78% mention gender and approximately 56% integrate gender into their mitigation and adaptation commitments (WEDO, 2020). The regions and groups of countries with the least NDC gender inclusion are the Middle East and North Africa, Eurasia and the highly industrialised economies, while Latin America and sub-Saharan Africa have done the most work to include gender (IUCN, 2021).

Within the NDCs, gender is most associated with agriculture (mentioned in 33% of NDCs), energy (25%) and health (21%) and appears least in sections about transport (10%), the green economy (10%), tourism (7%) and the blue economy relating to ocean resources (2%) (IUCN, 2021).

Gender dimensions in most of the NDCs do not link to capacity development or to financing, which are key to a gender-just transition. Women are commonly characterised as a vulnerable group, as opposed to stakeholders or agents of change (WEDO, 2021). Evidence from reviews of NAPs in sub-Saharan Africa found that gender activists are present in discussions but less likely to see their positions reflected in the final NAP (Holvoet and Inberg, 2014). In the case of Bangladesh, while adaptation policy recognises gender vulnerability, planning and implementation to address the issue are missing, a common occurrence across much gender mainstreaming work (Shabib and Khan, 2014).

The gendered impacts of low-carbon transition policies have not been studied adequately. For example, there is evidence from the World Bank (2021a) on how carbon pricing policy may have impacts distributed differently across genders. A growing body of work and policy best practices look at the social implications of putting a price on carbon, but the gender dimension has largely been unaddressed. The focus has instead been on different sectors, geographic regions and income levels.

In the case of South Africa's carbon tax, some analysis holds that the tax will diminish the welfare of poorer households, although there is no explicit mention of gender in this analysis (Were, 2020). In the case of large-scale hydropower, there is evidence of projects in Laos and Vietnam >

leading to displacement of populations, which makes it harder for women to maintain livelihoods or find new jobs in comparison to men (Hill et al., 2017). Rural people especially women - displaced by large dams often have highly sustainable land-based livelihoods, perhaps definitionally considered 'informal economy', without needing paid jobs. In India, there is evidence that land loss from a large hydro project led to increased alcoholism and domestic violence (Levien, 2017). While the gendered impact of largescale hydropower development has been well documented, these studies have not been adequately highlighted in discussions around the development of low-carbon or just transition policies.

Gender equality plans do exist across different regions and countries, with many gender plans or policies drafted in the last two decades (CEPAL, 2019; Government of Uganda, 2007; Republic of Ghana, 2015). However, the challenge is that these policies are developed by departments or ministries of women or gender or social inclusion, which typically are not considered core stakeholders in other sectors like energy, transport and climate change. Thus, there are few synergies between policies and programmes in core sectors and gender equality. This will affect how just transitions are approached.

Opportunities

There has been a shift towards discussing 'gender-transformative' policy and programming approaches to address structural gender barriers, as opposed to focusing solely on visible gender gaps (McDougall et al., 2021; Söderström, 2015). Gender-transformative policies focus, amongst others, on gendered power dimensions and social norms – who is included in decision-making, how decisions are made and priority areas for investment (IDRC, 2019). Reviews of gender-transformative programmes have found that they address and achieve shifts in gender attitudes and improvements in gender relations relatively well and simultaneously contribute to other development outcomes (McDougall et al., 2021).

From the perspective of intersectionality in low-carbon transitions, emissions trading schemes and carbon taxes have cost implications for disadvantaged groups such as Indigenous Peoples, but they can both be designed in ways that compensate fairly for these impacts, using revenues from within or outside the pricing policy (Chalifour and Bubna-Litic, 2012; World Bank, 2021a). In the case of carbon pricing, the focus is on shifting consumption, production and investment behaviour across the society. The World Bank (2021a) notes that allowing both men and women to effectively participate and thereby influence carbon pricing policy design will encourage a more nuanced policy that can more effectively change consumption patterns, production and investment decisions. Support for more equitable distributional outcomes, especially for women and disadvantaged groups, can lead to gender-just outcomes. Supporting greater gender analysis related to the policies and strategies is key. The NAPs demonstrate examples as more adaptation planning engages with the Green Climate Fund's Readiness Programme, which integrates gender considerations as an entry point (Dekens and Dazé, 2019). A lack of coordination, limited capacity for gender analysis, absence of monitoring and evaluation, and missing intersectionality approaches to address other forms of inequality remain gaps that can limit gender-just transitions if not addressed.

How just transitions are defined, designed and implemented will determine their success for women and girls. As Sharpe and Martinez-Fernandez (2021) set out:

"[S]pecific policies and investments are needed to get gender equitable outcomes. These include policies to ensure that just transition measures for new jobs and social protection cover women workers in the energy value chain, including clerical and service workers, and in energy regions more broadly. They also include measures to break down sectoral and occupational segregation, so that women can get the skills, training, and opportunities they need to get good new jobs in low emitting sectors. Sectors with majority female employment such as care continue to have worse wages, more precarity, and worse conditions than sectors dominated by men."

Anderson and Fisher (2022) have reviewed feminist proposals for just transitions and examined the gender justice implications of current strategies and plans. The authors have developed an outcomes framework that identifies gender equality spheres of action where the transformative potential of low-carbon transition pathways can be assessed and strengthened.

Thinking through what just transitions would be like using a gender equality lens means answering questions such as the following (Anderson and Fisher, 2022):

- > What roles/jobs do women take in formal and informal sectors? What roles are envisaged for them in the transition?
- > Who participates and has power and agency in the household and community and in democratic decisions that allow such shifts to take place?
- > What roles are valued and paid for?

- How does working in the informal economy support women in undertaking their other roles and what would change if these roles were formalised?
- > What is the full life cycle of low-carbon sectors/technologies proposed in the industrialised economies?
- > How are women and Indigenous Peoples enrolled in the full life cycle of these sectors/ technologies?
- How do intersectional identities shape the way different groups of women are positioned within agendas for low-carbon transitions?
- > What are the opportunities for solidarity, self-determination and collective action to shift away from the patriarchal extractive system?
- > How are historically marginalised voices centred in debates about just transitions in postcolonial economies and how are powerful voices decentred?
- > How is global racial justice included in the just transitions agenda?

These questions can be used in setting gender equality aims and outcomes for just transitions.



4. What is understood by gender-just transitions?

This chapter addresses three questions. First, it asks whether just transitions that are planned or decided upon have sufficiently emphasised or included gender equality objectives. Second, it discusses different feminist critical perspectives on transitions to green economies and Green New Deals. Third, it looks at gender-specific policies and actions that would comprise a gender-just transition.

4.1. How well do current just transition policies incorporate gender?

In recent years, just transition discourse has gained momentum and popularity in international arenas (Walk et al., 2021). Simultaneously, the gender dimension of climate and environmental policies has also become widely recognised (Walk et al., 2021). However, the two have largely remained separate in policy-making, and gender justice has not been integrated into just transition discourse, planning or strategies.

That said, the ambition and conviction that a just transition should be gender-just have grown more widespread (Walk et al., 2021). For example, in 2021 the UN Secretary-General urged governments and others to foster a just transition that is gender-transformative, and recent decisions and declarations in the UN climate negotiations "have underscored the importance of the just transition framework and its gender-transformative approach as an essential tool for climate action and social justice, including for promoting gender equality" (ILO, 2022). However, both research and practice lag these convictions and declarations. There is a lack of literature and evidence on the gendered dimensions of just transition processes. The social effects of sustainability transitions, particularly on women, remain largely under-researched (Walk et al., 2021). There is a need for quantitative and qualitative data and further research to understand the gender dimension of today's transitions to low-carbon economies (Walk et al., 2021) and for further research on the nexus between sustainability transitions and gendered power asymmetries (Braunger and Walk, 2022).

The lack of research on the effects of transitions on women means that there is "little scientific basis for gender-sensitive transition policies" (Walk et al., 2021) and limited understanding of what would count as gender justice in just transitions. Work to understand how to define and measure outcomes for social groups including women is at an early stage within work on just transitions (Anderson and Fisher, 2022). This represents a significant gap requiring attention. Most literature on gender and just transitions focuses on the role of women in historical energy transitions, particularly coal transitions in countries of the Global North (Atakhanova and Howie, 2022; Aung and Strambo, 2020; Bennett, 2004; Braunger and Walk, 2022; Koning and Smith, 2021). Or else it suggests varied possibilities of making transitions more gender-just (GI-ESCR, 2021; Heffernan et al., 2021; Heidegger et al., 2021; Lahiri-Dutt et al., 2022; Walk et al., 2021). There is limited evidence of gender equity increasing in the context of a transition from fossil fuels to renewable energy. Because the majority of transitions are in very early stages, most of the framing is around what should be done, rather than what is being or has been done. There is little literature on the integration of gender into current just transition policies or analysis of existing efforts. This lack of evidence of gender being incorporated into existing just transitions is a significant gap. There is a strong need for gender analysis to be conducted of just transitions processes that are under way, so that they can be assessed, monitored, adapted and improved to become gender just. There is also a major gap in research looking at intersectionality and just transitions. Little evidence exists that uses an intersectional approach to examine just transitions, considering other factors beyond gender. However, "transition will not affect all women equally. Factors such as ethnicity, age, ability, immigration status, and sexuality would cause some women to experience more negative outcomes than others" (Lahiri-Dutt et al., 2022). Overlooking these intersectional dynamics means that gender is often considered to be binary, focusing only on women and men and excluding for example people with other or no gender identities. An intersectional and inclusive approach means that all people in their diversity must be included in discussions of gender-just transitions.

Research indicates that renewable energy transitions do not automatically tackle the structural dynamics or intersectional power asymmetries related to socio-cultural and socio-economic contexts. If these are not addressed early on, the same structural inequalities will simply be replicated in new energy systems. This demonstrates the "need to develop energy projects and interventions with the explicit purpose of including marginalized groups in the planning and implementation of energy transition programmes" (Johnson et al., 2020).

These gaps in research on gender-just transitions are accompanied by gaps in policy and practice. As explained by the ILO (2022), "the recognition of the gender dimension in green job opportunities and the inclusion of gender-specific policies within just transition plans and strategies has yet to be realized on a wide scale". As it stands, gender equality is absent from many governmental just transition plans (IndustriALL, 2022). This is visible in European environmental and gender policies as they are siloed from each other, which prevents gender integration into transitions towards sustainability. For example, the European Green Deal and the Gender Equality Strategy have not been designed in an integrated way (Heidegger et al., 2021).

There is a need for more systematic adoption of gender-just approaches to just transition plans, policies and programmes (ILO, 2022). In addition, national and regional policies such as the Just Transition Framework in South Africa (Presidential Climate Commission, 2022) and the Just Transition Mechanism in the EU (European Commission, n.d.) are still in their early stages, so it remains to be seen how well gender will be incorporated over time (Anderson and Fisher, 2022).

Anderson and Fisher's (2022) research corroborates that just transitions, although still broadly in their early stages, have generally not been successful at promoting gender justice so far. They assessed programming documents addressing gender and informality in the context of just transitions from a range of international and multilateral organisations and found generally high gender ambition across documents, with frequent use of transformative approaches. However, the tools and trackers designed to assess practice are less ambitious and less consistent with transformational approaches. There were significant gaps where gender equality outcomes are not considered in programming documents, with gaps in evidence and examples especially in the area of gender-transformative approaches. This demonstrates that while strategies are ambitious and aim to be transformative, they mostly do not take a decolonial or systemic approach, and the outcomes are not considered gender-transformative.

Another gendered gap in just transition literature, programming and discussions links to the overwhelming focus on countries of the Global North and formal workers. Walk and Braunger (2022a) note that there is little literature on coal transition in countries of the Global South, where coal phase-out is uncertain. CSIS and CIF (2021) observe that just transition initiatives have primarily focused on the Global North.

Ohnsorge and Yu (2021) note that gaps in evidence and understanding of gender outcomes of just transitions are particularly salient in developing economies, where informality dominates many sectors. Jobs in the informal sector are not subject to national labour legislation, income taxation, social protections or employee benefits, so informal workers are especially vulnerable to climate shocks and other forms of crisis. Women tend to be more dependent on informal labour (such as through domestic work, home-based employment and working for family businesses). To compound matters, women engaged in informal labour tend to be more vulnerable than men in the same informal sectors (CSIS and CIF, 2021).

While there are few examples to assess how well existing just transitions incorporate gender considerations, a look at those can help to understand gaps and opportunities. We have identified examples of just transition strategies and processes that are critiqued for not giving adequate attention to gender justice, these include transition processes in Canada and the United States, the European Green Deal, Germany's coal phase-out and the ILO just transition guidelines (ILO, 2015b). In addition, the literature provides a small number of more positive examples of where gender has been integrated into just transition processes, including in South Africa, Spain, Antigua and Barbuda, multilateral development banks and in trade union action. We now discuss both sets of examples.

JUST TRANSITION EXAMPLES CRITIQUED FOR NOT BEING GENDER-JUST

TRANSITION PROCESSES IN CANADA AND THE UNITED STATES

Pinker (2020) looks at a range of new just transition planning processes and highlights the failures of Canadian and United States transitions to address gender considerations. According to the research, in Canada just transition programmes are likely to reinforce inequality. They are narrowly targeted at specific workers, for example compensation and re-training opportunities that are available only to laid-off coal workers who meet specific criteria. Such measures exclude certain coal workers and people working in sectors indirectly connected to the coal industry, who are also at risk of losing their jobs in a transition away from coal.

Women and migrants are overrepresented in indirect, supportive roles, such as lower-paid service work and unpaid care work, so they are not covered by proposed just transition policies relating to worker compensation, retraining, and so on (Mertins-Kirkwood, 2018; Piggot et al., 2019; Pinker, 2020). These policies are based on a narrow understanding of just transition and can therefore exacerbate existing inequalities.
In the US, clean energy job creation is exclusionary, with women workers and Black, Indigenous and People of Colour (BIPoC) underrepresented. The US transition planning was noted to have "some significant gaps with respect to equity and justice" (Pinker, 2020). While there have been efforts to support disadvantaged workers through green jobs programmes, this has mostly been training for entry-level jobs instead of addressing structural barriers to participation in the energy sector, such as via holistic transition planning processes looking at how fossil fuel transitions can address historic inequality in the energy sector.

THE EUROPEAN GREEN DEAL

There are a range of strong critiques of the European Green Deal (EGD) with regards to gender. One of the principal critiques is that it is gender blind and that none of the new strategies and laws proposed under its framework are based on robust gender analysis. This entails the risk of perpetuating existing gender inequalities (Heidegger et al., 2021).

Heffernan et al. (2021) offer further comprehensive assessment and critique. Their overall assessment is that there is high risk that the EGD will not bring about systemic transformational change to ensure economic, social and gender justice in the transition to a green economy. They argue for a feminist EGD and that "the EU must adopt a broader and more holistic concept of sustainability and a just transition centred around care, solidarity, equality, and nature protection". Some of Heffernan et al.'s (2021) main points are the following:

- > The EGD is siloed from the gender equality strategies of the European Commission, and EGD communication does not refer to gender at all. European Union (EU) policies for the transitions to inclusive green economies should shift to gender-transformative policies that deliver on both climate and equality targets.
- Most of the EGD policies lack deep gender and intersectional analysis of existing inequal-

ities. The EGD should instead seek to tackle the root causes of inequality, rebalance power structures and centre marginalised people, using an intersectional approach.

- > The EGD's just transition principle has a narrow focus on (mostly male) workers in old fossil fuel industries and coal regions, meaning that the benefits will likely accrue to mainly men in coal- mining areas "instead of taking a deeper look at which social groups need specific attention during the transition".
- The EGD does not consider care work. For sustainability transitions to be gender-just, it is critical to acknowledge the fundamental role unpaid and paid care work plays in the economy. The transition should recognise and value this work, which has not been recognised and valued as work before and is mostly provided by women and marginalised groups.
- The EGD does not consider the impacts that changes in consumption, production and trading patterns have on countries of the Global South. The EU economy has an environmental and climate footprint affecting people in developing economies, and a feminist EGD requires us to reflect on Europe's role internationally in neo-colonial processes. A just transition should stop harmful practices and halt labour and resource extraction and exploitation of workers and communities in the Global South.
- > The EGD does not challenge growth ideologies and still focuses on GDP (gross domestic product) growth. Transforming the EU's economic system should involve reframing its core policies away from green growth and shifting to a new economic model measured in terms of its ecological and social achievements, and focusing instead on "values of inclusion, care and wellbeing for people and planet".

GERMAN COAL COMMISSION

In 2018, Germany established a Commission on Growth, Structural Change and Employment, otherwise known as the Coal Commission. In early 2019, the Coal Commission issued a roadmap for the phase-out of coal-fired power generation in Germany by 2038 (German Federal Ministry for Economic Affairs and Energy, 2019; Litz, 2019). A simple review of the roadmap for a just transition away from coal reveals that it has no mention of gender and no integration of gender considerations. Where it does mention "alleviating hardship for those concerned", it references only just transition for employees based on active labour market policies. Even an analysis conducted of the roadmap for a just transition from coal to renewables (Agora Energiewende and Aurora Energy Research, 2019) did not use a gender lens or consider gender.

In addition, within the Coal Commission there was low representation of women (10 of the 31 members), and women's interests were also underrepresented. Braunger and Walk (2022) describe an example of this: "the trade union representatives in the commission mainly represented the interests of current employees, especially from industry, and were less concerned with how wellpaid and secure jobs, e. g. in the female-dominated service sector, can be created in the future".

ILO JUST TRANSITION GUIDELINES

The ILO's Guidelines for a just transition (ILO, 2015b) are now well established and used widely. The ILO considers these guidelines to "offer an

important pathway for ensuring gender-transformative climate action" and has emphasised that "just transition and the promotion of gender equality are intrinsically linked and mutually reinforcing" (ILO, 2022), explaining how the guidelines indicate the need for just transition strategies to incorporate strong gender dimensions.

However, Walk et al. (2021) outline serious critiques of the ILO guidelines, which have seven guiding principles, one of which focuses on gender. Walk et al. (2021) challenge gender equality being limited to a single guideline, arguing that it should not be treated as a single aspect of the transition, but instead it should run through all aspects of the transitions and therefore be integral to all guidelines; and they propose how gender can be better integrated into each of the guidelines. In addition, the principle itself focuses only on the gender dimension of environmental challenges and overlooks the gendered impacts of both environmental degradation and also the transitions themselves.

More generally, the ILO guidelines adopt a narrow understanding of just transition, because their perspective "merely focuses on carbon-intensive regions and fails to address other important aspects of just transitions" (Walk et al., 2021).

JUST TRANSITION EXAMPLES SHOWING POSITIVE PROGRESS ON INCORPORATING GENDER INTO PLANNING

SOUTH AFRICA'S JUST TRANSITION FRAMEWORK

At COP26, South Africa, the governments of France, Germany, the United Kingdom and the United States, and the European Union established the Just Energy Transition Partnership to support South Africa's just transition to a low-carbon economy (UN Climate Change Conference UK 2021, 2022). The partnership document features a provision focused on the protection of women and vulnerable workers in a just transition (ILO, 2022).

South Africa's Presidential Climate Commission (2022) developed its just transition framework through extensive consultations with diverse stakeholders to create a shared vision, principles and a governance framework for guiding transition in the country. The resulting policy framework defines policy measures to minimise the negative social and economic impacts of a transition to a low-carbon future and is designed to meet the needs of all those impacted.

The results of the highly consultative process yielded policies that centre on distributive, restorative and procedural justice principles. They consider the risks and opportunities for workers and communities of all genders and ethnicities and for class inequality. Policies have been developed around building capabilities, transforming economic and social policies, raising public awareness and promoting inclusive decision-making processes. On restorative justice, historical damages are also brought to the fore, with policies considering the needs of individuals and communities that have historically been harmed or disenfranchised by the environmental and economic impacts of mining.

South Africa's framework includes tangible actions, include skilling women, people with disabilities and young people to benefit from future industries and finding ways to better integrate children, youth and women into policy-making for the just transition at national, provincial and local levels. The framework notes, however, that the major economic, social and environmental decisions required for a just transition in South Africa will require social partners to forge a consensus and commitment around the transition and to agree the pace of decarbonisation, the scaling up of low-carbon energy and the value chains that support it, and mobilisation of climate finance at scale.

While this process and the resulting framework are positive examples of how national just transitions can emerge, realisation of the just transition objectives will need strong political commitment and responsive adaptive management of the strategy.

SPAIN'S JUST TRANSITION STRATEGY

Spain adopted a national Just Transition Strategy (Government of Spain, 2019) and is considered an interesting example of incorporating gender-specific provisions (ILO, 2022). The strategy states that policies must ensure women can take advantage of opportunities arising from the transition and includes objectives around reducing gender inequalities. In 2021, the Women's Institute of Spain's Ministry of Equality signed a protocol with the Institute for Just Transition to jointly develop actions to support women within the framework of just transition agreements. The protocol also recognises the active and equal contribution of women as agents of change (ILO, 2022).

ANTIGUA AND BARBUDA

Antigua and Barbuda developed its NDC with the support of the NDC Partnership, an initiative considered to be a good example of supporting gender-transformative climate action through a just transition (ILO, 2022). The NDC Partnership allows different actors (including countries, UN organisations, MDBs and other intergovernmental organisations, and civil society organisations) to use their resources and expertise to support countries in developing and implementing their NDCs. Antigua and Barbuda's NDC includes specific targets for a just transition supporting gender-transformative action and specific targets at the intersection of the two (ILO, 2022).

MDB JUST TRANSITION HIGH-LEVEL PRINCIPLES

The multilateral development banks (MDBs) made a commitment at COP26 to support a just transition through the MDB Just Transition High-Level Principles (European Investment Bank, n. d.). The principles emphasise the importance of using a gender lens to minimise negative socio-economic impacts and maximise opportunities for women in the transition to a low-carbon economy. The principles include reference to inclusive planning, implementation and monitoring of just transitions with the aim of advancing gender equality (ILO, 2022).

TRADE UNIONS

Trade unions are exploring and advocating ways to enhance the focus on gender within just transition processes. Koning and Smith (2021) list several examples of this including South African unions, who have designed a just transition in agriculture focused on women workers; Brazilian unions working in alliance with women's organisations to drive a gender-responsive approach to just transitions; and India, where the Self-Employed Women's Association (SEWA) is working with International Trade Union Confederation (ITUC) on just transition for informal women workers in coal regions. European trade unions are also in the early stages of exploring how to incorporate a focus on gender in regional just transition processes.

4.2. Feminist critiques of transitions to low-carbon economies

There are many theories and propositions as to how the gendered dimensions of transitions might play out and some fragmented areas of research and practice across geographies and sectors. A range of feminist critiques and frameworks exist, and we outline some of the main concerns that they emphasise. Here, we draw on work by Cohn and Duncanson (unpublished), who outline eight feminist critiques of Green New Deals, and by Anderson and Fisher (2022), who summarise three main theoretical approaches for gender equality outcomes of transitions to low-carbon economies.

Feminist concerns can be considered to lie on a spectrum, ranging from those with a narrow focus to those with broader, more holistic considerations. This spectrum is represented in Figure 2.



FIGURE 2. Spectrum of feminist critiques of just transitions

WOMEN'S LABOUR/JOBS CRITIQUE

The narrow focus critiques of transitions to low-carbon economies concentrate on labour, in terms of both the type of green jobs created in the transition and the role of care work in green economies.

Structural barriers limit women's participation in green jobs. Plans to create clean energy jobs and support workers in brown industries facing phase-out pay little attention to the gender and ethnicity of the groups who will likely benefit. The inclusion of women in the creation of green jobs is often overlooked in discourse around just transitions. Unless targeted action is taken, good quality green jobs will provide limited opportunities for women workers.

Recent analyses of the renewables sector shows that women held at most 32 % of jobs in clean energy globally and continue to be employed most often in lower-paid administrative and non-technical jobs (Emmons Allison et al., 2019).

Women face barriers in accessing and advancing in the STEM sector because of exclusionary social norms and practices hindering their access to formal training or development of technical skill sets needed to work in the industry. According to the ILO (2015a): "Due to pre-existing gender inequalities [...] there has been concern that green investments may not necessarily guarantee equal access to green and decent jobs for women, nor provide the services and key resources that might position them effectively for green and decent job opportunities." Ensuring women can access STEM education and technical training is crucial to ensure they can enter and compete in the job market for renewable energy (Emmons Allison et al., 2019).

Besides barriers around training, skills and experience, new roles for women in the workforce arising from green energy transitions tend to be part-time and casual with wages lower than men's (Bennett, 2004). In addition, many green jobs will be created in sectors with historically limited female representation (ILO, 2015a). Women are well positioned in some of the sectors where there will be green job opportunities, such as agriculture, waste management, forestry and tourism. However, according to UN Women and the African Development Bank (AfDB) (2021), they are underrepresented in the key areas of the green economy that will offer the best paid and secure green jobs, such as energy (wind and solar), transportation and construction.

The barriers that limit women's full access to green jobs include social norms around the sectors deemed (in)appropriate for women; barriers to women's and women-led businesses' access to land, finance and technology; gender segregation in education and the labour market; laws that limit women's access to certain tasks and jobs; and structural inequalities placing the burden of unpaid care work on women, effectively depriving them of opportunities for other jobs (UN Women and AfDB, 2021).

Transitions to low-carbon economies are critiqued for overlooking unpaid care work, which is dominated by women. In effect, unpaid care work is not considered a job and so is excluded in discussions of the transition (Nenning, 2022). Feminists denounce the absence of unpaid care work in discussion of transitions to low-carbon economies – work that effectively subsidises our current economic system (ActionAid, 2020; Rodriguez Acha, 2016).

The important reproductive and domestic roles held by women are often neglected, which carries a high risk of overlooking the way transition activities may increase the care burden for women. Critiques emphasise that it is crucial to make unpaid care work visible and valued in a just transition (Heffernan et al., 2021; Nenning, 2022).

Transitions to low-carbon economies are also critiqued for overlooking paid care work and the

care economy, including health care, education, childcare and elder care (Heidegger et al., 2021). This demonstrates the need to rethink our understanding of 'green jobs'; rather than limiting 'green jobs' to the energy and environmental management sector, the category should include jobs in the care economy (Cohn and Duncanson, unpublished).

Both paid and unpaid care work tends to be low carbon and 'green' by nature and so can be included in considerations of 'green jobs' (ActionAid, 2020; Heffernan et al., 2021). Importantly, investing in the care economy is critical for tackling inequalities, as women and BIPoC dominate in the sector. It is a feminised and racialised sector with low pay and poor conditions, and its value goes unacknowledged (Heidegger et al., 2021).

UN Women and the AfDB (2021) also highlight the caring role that women play on behalf of the environment: "Women across Africa play a critical role as managers of natural resources, contributing to the environmental sustainability and resilience of their communities. This work is often unpaid and done on a voluntary basis." They argue that sustainability transitions can reduce gender inequality by assigning value to women's unpaid work of caring for the environment.

EXTERNALITIES OF THE TRANSITION/GLOBAL JUSTICE CRITIQUE

The critical lens can be widened to incorporate consideration of the negative impacts on women of the low-carbon transition, the full life cycle of low-carbon technologies, and the impacts of the Global North's transitions to low-carbon economies on countries of the Global South. Transitions to low-carbon economies have negative impacts on women. There are a range of invisible gendered impacts that are often overlooked, with just transition discourse focusing predominantly on the creation and loss of different types of jobs. In reality, transitions to low-carbon economies will have varied and complex impacts on women. As Bennett (2004) explains, with transitions "things change but systems adapt so that women remain unequal". Historical energy transitions have had complex interacting implications for women. Research on the gendered implications of energy transitions demonstrates how these implications vary greatly and are highly context specific. Here we discuss some of the observed impacts from historical coal transitions; however, these are merely illustrative examples of some of the range of gendered impacts that transitions to low-carbon economies might surface.

Coal transitions in some contexts can increase women's employment, as observed for example

in historical transitions in the United Kingdom and Kazakhstan, which were accompanied by a general shift from industrial to service-oriented economies (Atakhanova and Howie, 2022; Aung and Strambo, 2020). However, these opportunities for women tended to be part-time and casual, with wages lower than men's (Bennett, 2004). This increased labour force participation had many gendered consequences, including violence against women and a double labour burden on women. Increased domestic violence associated with coal transitions relates to women gaining employment and men losing employment, which brings a loss of 'masculine identity' as women become main wage earners (Aung and Strambo, 2020; Bennett, 2004). The rise of women's employment created a double burden for women as they become increasingly responsible for both productive and reproductive work (Aung and Strambo, 2020). Women remain responsible for domestic work and childcare despite uptake of waged work.

Just transitions must not only ensure that women experience the benefits of the transition but also minimise costs of the transition through targeted interventions. The benefits and costs of energy transitions are often inequitably distributed, with women experiencing the costs more severely than men (MacDonald, 2018).

A decolonising global justice perspective considers what transitions to low-carbon economies mean for countries of the Global South. Transitions to green economies that focus only on clean energy and green jobs ignore many elements of the green energy product life cycle, including the mining of minerals for batteries and e-waste disposal. These tend to happen in countries of the Global South and negatively affect vulnerable communities, causing, for example, land grabs, dispossession and pollution – which disproportionately affect women. For example, lithium mining for green technologies is reported as causing water stress and pollution for people living near mining sites in the Andes mountains (Cohn and Duncanson, unpublished).

This feminist perspective argues that just transitions cannot be narrowed to a region or country but must take a global perspective, while also being sensitive to local contexts, especially in relation to gender norms.

CHALLENGING GROWTH IDEOLOGIES/CAPITALISM CRITIQUE

The broadest, most holistic critiques of transitions to green economies are systemic and question the concepts of economic growth, capitalism and human-nature relations.

Does a just transition necessarily imply green growth? There are many critics of the idea of green growth, and some advocate for degrowth as an alternative to the idea of infinite economic growth (Hickel, 2021; Kallis, 2011; Martinez-Alier et al., 2010; Muraca, 2012). Some feminist thinkers argue that growth has limits and that relying on growth simply will not work as it will not enable us to reduce carbon emissions sufficiently to avoid climate collapse (Cohn and Duncanson, unpublished; Di Chiro, 2019). They highlight the difficulties of decoupling growth from carbon emissions, particularly in the timeframe required to address the climate crisis. They also argue that green growth has insufficient focus on social justice, and that inequalities and environmental harm are inherent products of economic growth. For all these reasons, a 'green growth' approach is deemed insufficient to achieve gender justice.

Transitions to low-carbon economies don't challenge capitalism and the root causes of today's multiple intersecting crises. Some feminist critiques argue that just transitions don't go far enough to challenge our dominant economic system and the colonial, extractive, exploitative, violent histories and practices it is built upon (Cohn and Duncanson, unpublished; Muchhala, 2021). By prioritising interventions around green jobs, such transitions remain stuck in the current paradigm of capitalism – the system that created the climate, ecological and inequality crises we face and that sees nature as a resource and separate from humans.

For some feminists, a transformation is required that will fundamentally restructure the economy to prioritise care for humans and ecosystems. "This perspective takes care as a central ethic; it recognizes that care is at the heart of what we all need to survive and thrive" (Cohn and Duncanson, unpublished). This perspective emphasises that transitions that don't try to tackle capitalism are never going to be a route to gender justice. There are many feminist perspectives on transitions to low-carbon economies, just transitions, green growth and Green New Deals. This section of the chapter has summarised some of the main concerns. These are not all discrete, as there are overlaps between critiques, and they are not all mutually reinforcing, as some contain contrasting worldviews and assumptions. In addition, the feminist literature also highlights the importance of taking an intersectional approach to understanding gender impacts and outcomes of just transition processes.

4.3. What do gender-just transitions look like?

In answering the question of what gender-just transitions look like from the perspective of South Africa, Maseko (2021) asserts that "Women's economic exclusion, lack of power and the resulting exclusion from decision-making will not change simply by moving to more sustainable production processes and using renewable energy. Rather, steps must be taken, and processes put in place to ensure that women are not left behind by the transition. The transition must therefore be gender just".

Having parallel initiatives to green parts of the economy, while the main agenda remains carbon-intensive growth, separates national climate action from economic development funding priorities; it relegates just transitions to the lower tier and makes investments in gender-just transitions unlikely (Maseko, 2021). A gender-just transition involves implementing gender-specific policies and actions to ensure women benefit from the just transition. An effective gender-just transition must be holistic and ambitious in its approach to gender justice to be truly effective, incorporating social, environmental and economic justice (Montmasson-Clair, 2021). Johnson et al. (2020) argue that just transitions cannot achieve gender and social equity unless they address structural drivers of inequality within socio-cultural and socio-economic contexts.

We outline below, first, a set of broad action areas for consideration and, second, specific examples of illustrative gender-related policies and actions.

BROAD ACTION AREAS FOR CONSIDERATION

A range of broad areas must be considered in any gender-just transition. Anderson and Fisher (2022) propose a framework of focus areas:

- Economic empowerment: e.g. attention is paid to formal and informal sectors and to women achieving equal economic security.
- Safety nets: e.g. social protection systems support different groups of women, provide equal access to benefits and minimise the risks for women of transitions to inclusive green economies.
- > **Centring care:** e.g. redistribution of resources and recognition of the value of care work.
- > Local environment: e. g. just transitions regenerate natural environments and incorporate women's stewardship plus recognition of the impacts on women of human-nature relations.

- > <u>Collective action</u>: e.g. inclusive coalitions design just transitions and work together to challenge institutional barriers.
- Engagement and agency: e.g. participation in design, review and evaluation of just transitions, challenging social norms that act as barriers to engagement and agency.
- > Policy agenda: e.g. gender equality should be included as a policy objective of just transitions, and the policy agenda should include international dimensions of green transitions.
- Structural enablers: e.g. women have access to the assets they need to benefit from just transitions, and economies provide the structures and institutions for gender equality.
- Norms and discrimination: e.g. norms change to promote gender equality and improve the wellbeing, protection and agency of women.

SPECIFIC EXAMPLES OF ILLUSTRATIVE GENDER-RELATED POLICIES AND ACTIONS

We describe below a range of examples of gender-specific policies and actions, informed by Cohn and Duncanson (unpublished). This is a non-exhaustive list of illustrative policies and actions for a gender-just transition, and we structure it based on the feminist critiques of transitions to low-carbon economies discussed above.

POLICIES AND ACTIONS TO ADDRESS THE WOMEN'S LABOUR/JOBS CRITIQUE

- Participation in decision-making processes for the transition so that women can voice their needs and views, both within formal decision-making bodies and as participants in public consultation processes. This also includes strengthening institutions (trade unions, grassroots women's organisations, women's activist groups) to represent women.
- Access to high-quality employment via labour market policies, including protecting women from the impacts of precarious work; improving working conditions in female-dominated jobs such as in the care economy and service sector; provision of workplace and career flexibility for those with caring responsibilities; support to manage the double/ triple burden of care work for those taking up productive work; supporting women's mobility into a variety of occupations especially in male-dominated sectors; creating decent jobs that are accessible to women in existing low-emitting sectors such as renewable energy and public transport.
- Access to training and education opportunities for women, including providing upskilling and retraining programmes, relocation support and job placement programmes, as part of transition planning; and improving access to STEM education and technical training for women and girls specifically.
- Career support schemes, including counselling services, mentorship and career development opportunities specifically for women and other unrepresented groups; women's

networking groups attuned to women's career trajectories; provision of advice as women progress in their careers.

- Social protection coverage must be suitable for women in green jobs, including within the care economy.
- > Valuation of care work and investment in the care economy, including stronger recognition of the value of paid and unpaid care work and informality; investment in the care economy to improve work conditions and access to quality care services; creation of well-paid, high-quality, unionised jobs in the care sector; challenging gender norms around gendered caring responsibilities; ending the stigma that men face for choosing caring occupations.

POLICIES AND ACTIONS TO ADDRESS THE EXTERNALITIES/GLOBAL JUSTICE CRITIQUE

- > Assess and address how the transition to green economies might impact on existing gender injustices, including violence against women and girls or increasing the burden of unpaid care work. For example, provide women with resources to facilitate the transition; ensure jointly titled land in the case of resettlement; challenge norms around gendered caring responsibilities; support measures to prevent domestic abuse and provide support to survivors.
- > Planning for just transition includes analysis of potential impacts beyond country or regional borders, in terms of the full life cycle of green energy solutions and their impacts on women and girls.
- Support local decision-making power to ensure that decisions about establishment, development or removal of extractive industries involve local democratic processes. If resettlement occurs, ensure it is to environmentally and socially appropriate locations for people's livelihoods and communities.
- Respect the people at sites of extraction by providing adequate compensation for people

displaced by extractive industries or biofuel plantations, ensuring the fair distribution of benefits of extractive activity, and protecting workers' rights.

- > Impose regulation on corporations regarding e-waste disposal, in consultation with waste pickers and responding to their concerns and priorities to minimise the exposure of vulnerable groups to pollution.
- Challenge power dynamics that prioritise clean energy for the Global North over human rights in the Global South; recognise and expose the negative effects of 'just transitions' for women and marginalised communities and groups in countries of the Global South.
- Prioritise solidarity, reparations and climate justice and the need to address root causes of climate injustice in discussions and planning of just transitions.
- Facilitate discussions on reducing energy use, rather than simply seeing 'green energy' as a panacea that allows humanity to continue with status quo energy consumption without consequence.

POLICIES AND ACTIONS TO ADDRESS THE CHALLENGING GROWTH IDEOLOGIES/ CAPITALISM CRITIQUE

- Pursue policies and politics of degrowth, recognising the contradiction of simultaneously striving for economic growth and addressing the climate crisis fully and in time.
- Replace GDP as a measure of economic prosperity with indicators that include human and environmental wellbeing.
- Acknowledge the interconnected nature of the climate, ecological and inequality crises and pursue interconnected solutions, including redistributing wealth through fairer public finance and tax systems.
- Challenge the dominant economic system and the colonial, extractive, exploitative, violent histories and practices it is built on; recognise capitalism as the system that created the climate, ecological and inequality crises we face.

> Advocate transformation to fundamentally restructure the economy to prioritise care for humans and ecosystems and redress the harms of colonisation and empire. For example, adopt alternative economic visions and models such as 'doughnut economics' (Raworth, 2017), cancelling debt burdens in countries of the Global South and providing reparations for historical and contemporary harm.

ACHIEVING GENDER-JUST TRANSITIONS IN DIFFERENT CONTEXTS

5. Achieving gender-just transitions in different contexts

This chapter considers two questions: What role does context play in achieving gender-just transitions? And how can gender-just transitions be integrated into different sectors? First, we examine the importance of informality, context-specific gender norms, values and practices and power asymmetries to how just transitions will play out in practice. Second, we offer recommendations for a holistic approach, outlining different pathways to a gender-just transition.

5.1. The importance of context and country/region-specific circumstances

Gender-just transitions will differ across different contexts based on socio-economic conditions and underlying drivers of gender inequality, such as ideologies, gender norms and power asymmetries. For this reason, a process of just transition requires an understanding of the intersectional reality that creates marginalisation and oppression (Lahiri-Dutt et al., 2022). Moreover, informality is a crucial but often overlooked element of just transitions and particularly important for gender-just transitions in countries of the Global South.

INFORMALITY

The majority of workers in the world are informally employed, and their work activities are not protected, regulated, well-recognised or valued (OECD and ILO, 2019). Gaps in evidence and understanding of gender equality outcomes of just transitions are particularly significant in developing economies where informality dominates many sectors and value chains (Anderson and Fisher, 2022).

Women tend to concentrate in the informal economy for several reasons, including the

In addition, the conceptualisation of justice is divergent according to context. While just transitions are essentially expressions of desires about justice for a low-carbon future (Barnes, 2022), what is considered fair varies considerably among different social groups.

In this section we briefly explain why just transitions differ in different contexts, focusing on the importance of informality, gender norms and power asymmetries.

flexibility, the ability to maintain roles alongside caring responsibilities, the lower education levels required and expectations of traditional gender roles (OECD and ILO, 2019). Informal workers generally have lower earnings and face higher risks than formal workers, as they tend to have fewer economic opportunities and legal protections (Chen, 2012). Women disproportionately occupy lower-paid informal roles and receive less income than men performing the same roles (OECD and ILO, 2019). However, the informal economy and its workforce must be recognised and valued for their significant contribution to the global economy. The experiences of women in the informal economy must be taken into consideration for a gender-just transition.

To achieve a gender-just transition, a range of interventions are necessary to address concerns associated with informality, and these need to be tailored to meet women's constraints, needs and priorities. Policy responses to informality include creating more formal jobs, registering informal enterprises, regulating informal jobs, extending state social protections to the informal workforce, and increasing the productivity of informal enterprises and therefore the income of the informal workforce (Chen, 2012). However, formalisation processes that do not account for gender-specific risks can have negative impacts on women, and women's needs are often overlooked in approaches to formalisation that do not consider gender (OECD and ILO, 2019). UN Women (2021) has emphasised the importance of investing in universal gender-responsive social protection systems that extend safety nets to informal workers, "especially women who are clustered at the bottom of the labour market hierarchy". Other interventions include improving the measurement of informal employment in official labour force statistics and supporting organisations of informal workers and promoting their representation in rule-setting and policy-making processes (Chen, 2012).

GENDER NORMS, VALUES AND PRACTICES

Gender norms can result in discriminatory practices towards women as they stem from rigid societal perceptions of roles that are 'appropriate' for women. Gender norms are nuanced and differ in different contexts. It is therefore necessary to understand the impacts of gender norms in different contexts to design interventions that can systematically dismantle the limiting structures for women built around these norms.

The most prevalent gender norm globally is the perception of women as carers in the domestic sphere of family, household and community. This rigid gender norm often limits women from being recognised beyond their role as carers, with society failing to include them in leadership positions within just transition processes.

For example, while Indonesia is a high emitter of greenhouse gases with intentions to decrease emissions, rigid gender norms around women's roles act as a roadblock to a whole-of-society approach to achieve this transition (Aung et al., 2020; Herbert et al., 2021). Although women in urban Indonesia have proven adept at managing household energy and understanding energy use and efficiency, they continue to be underrepresented in energy policy decision-making as the energy sector remains an arena for male technocrats (Mang-Benza, 2021).

Women's own views of themselves, limited by gender norms, also act as a barrier. In the 1970s, after coal mine closures in the UK and US led to significant layoffs, women in former mining households felt responsible for taking on paid work to make up for lost household income. However, as women's traditional roles were within the household, some women were hesitant to go beyond their traditional gender roles to take on paying jobs (Braunger and Walk, 2022).

Interventions to include marginalised groups in just transition processes must be nuanced and attuned to their needs. For planning just transitions, negative and limiting gender norms must be understood, in consideration of intersectionality and how different women's experiences are shaped by factors of age, class, and ethnicity. For instance, Indigenous women suffer disproportionately from the impacts of climate change as their ecosystem-based livelihoods are highly susceptible to climate change impacts (Pimentel, 2022).

Global examples of women's organisation around transitions also show that women assert their agency within their locality and community, seeking actions to enhance their own and their community's livelihoods. Supporting women's collective action for a just transition that considers the needs of families and communities is therefore crucial. In the coal mining regions of Appalachia in the US, women turned to activism oriented around social welfare to advocate for the needs of male miners who became unemployed through mine closures or suffered from physical disabilities from working in mines. In the UK, mine closures propelled women's activism to protect miners and their communities (Braunger and Walk, 2022; Mang-Benza, 2021; Walk et al., 2021).

POWER ASYMMETRIES

Examining power provides insight into why different actors may or may not be able to participate in the transition process. Power speaks to an individual or a social group's ability to mobilise resources and institutions as well as their willingness to gain access to skills and resources to assert themselves in the transition process (Braunger and Walk, 2022).

At the global level, power and positionality separate the Global North's and South's capability to transition. In countries where people are more deeply reliant on fossil fuels for their economy, low-carbon transitions are harder (Piggot et al., 2019). For instance, although many countries in Europe are in a position of power, preparing to phase out of coal, countries in Asia such as Indonesia, the Philippines and Vietnam are more reliant on coal to power their development. For countries of the Global South, higher levels of poverty, levels of development, gender norms and lack of welfare systems, for instance, limit their power to transition (Pasaribu and Lahiri-Dutt, 2022).

Distinctions in country socio-economic conditions have direct impacts on the livelihoods of communities. One major difference between the Global North and the Global South is the labour market. The history of the just transition movement is rooted in workers' rights, driven by unionised labour in the Global North. There has thus been much emphasis in the Global North's just transition plans on community economic revitalisation, upskilling workers and placement of redundant employees (Aung and Strambo, 2020).

As discussed above, much labour in developing economies is informal, with women making up large segments of the informal labour market and among the lowest in status in the labour hierarchy. In these contexts, the same types of intervention that are prioritised in countries of the Global North would not directly apply, especially as many informal workers in countries of the Global South lack formal or societal recognition as citizens, community members or workers. These latter groups of workers include, for example, informal waste workers in India and Pakistan, who often belong to the most marginalised social groups (including rural migrants or members of lower castes or religious minorities). Such people have few job opportunities beyond the precarious jobs they tend to occupy (COB-SEA, 2019), so they would need different types of intervention to amend their social status.

Gender norms create power asymmetries between individuals that limit formal representation and negotiation power in institutions. Previous examples demonstrate how limiting norms may prevent women from breaking away from traditional gender roles or being represented in institutions (such as trade unions) to advocate for their interests (Braunger and Walk, 2022). In the US, despite the integral role that women played in protecting the rights of coal miners, they lacked the power to influence politics as they were not formally recognised in trade unions (Braunger and Walk, 2022). In the workplace, limited power translates to lower pay, limited career development opportunities and lower job security (Elliz, 2021; Mphokane, 2008; World Bank, 2021b). Overall, gender norms and power asymmetries shape women's lives and affect the pathways to and outcomes of gender-just transitions. These structural issues can impact on social, economic and political areas, and just transition planning processes should seek to address such impacts.

5.2. Recommendations for a holistic gender-just transition

As discussed previously, gender should be more explicitly integrated into just transition planning and policies, while there is also a need for responsiveness to socio-cultural circumstances. The following section brings these learnings together and makes recommendations for holistic gender-just transitions in different contexts.

CATEGORIES OF JUST TRANSITION POLICY

Current just transition policies can be broadly categorised into two types: compensatory policies and adjustment assistance. Both categories represent common just transition approaches. While compensatory policies provide compensation for monetary losses including lost wages and pensions or more intangible assets such as environmental and cultural damage, adjustment assistance policies focus on providing those affected by a transition with technical support such as reskilling in new fields for unemployed workers or monetary help such as funds for entrepreneurs (Piggot et al., 2019).

We recommend a third kind of policy comprising holistic adaptive support, combining elements of the other two, as set out in Figure 3.

Common interventions, primarily in countries of the Global North, have focused on compensatory and adjustment assistance approaches that include financial compensation, worker retraining and relocation support (Piggot et al., 2019). For example, Finland's Ministry of Economic Affairs and Employment used an adjustment assistance approach in the 1980s in providing entrepreneurship training to ex-mineworkers to revitalise mining communities. In Utrecht, South Africa, a former mining community worked with local government to revitalise their community through tourism (Aung and Strambo, 2020).

The holistic adaptive approaches we recommend use both compensatory and adjustment assistance policies to tackle the social, economic and political impacts of transitions including gendered impacts. These holistic approaches should involve use of an intersectional lens to understand and address the differentiated impacts of transitions on people and communities based on gender, age, ethnicity and other factors.

To aid policy planning for gender-just transitions, we now provide examples of how the first two FIGURE 3. Categories of just transition policies

COMPENSATORY POLICIES ADJUSTMENT ASSISTANCE Provide compensation for Supports workers, comobligations and include munities and others in the compensation for lost wages transition process and could and pensions and community include programmes for compensation for lost tax reskilling, social support revenue or environmental and economic diversification HOLISTIC ADAPTIVE SUPPORT Provides a combination of compensatory and adjustment assistance and seeks to address all social, impacts of transitions

types of policy have been used in different contexts and indicate how more holistic approaches could promote gender justice in such contexts.

RECOMMENDATIONS FOR GENDER-JUST TRANSITION POLICIES IN CONTEXT

Compensatory and adjustment assistance policies can be combined and tailored to plan for a holistic gender-just transition that seeks to understand and address more nuanced needs. Feminist tools including gender audits, gender impact assessments and gender analysis can improve understanding of gendered impacts and interventions. Interventions resulting from these studies could include adjustment assistance policies that target members of underrepresented groups, such as interventions through health, social and counselling services as well as job search support and training centres. Compensatory policies could cover lost wages for unpaid care work or provide training or schooling for women who have missed opportunities due to care burdens.

Governments and industry should also strive to promote policy change to improve women's wellbeing in the workplace. Several studies show that, in a transition from fossil-fuel-based economies, women tend to take up jobs with precarious working conditions that offer low wages, unfavourable hours, poor benefits and limited career growth. Reasons for this include lack of appropriate capabilities, care burdens at home and discrimination in the job market (Aung and Strambo, 2020; Bennett, 2004).

Interventions could include efforts to close gender pay gaps and compensation for care needs such as childcare and maternity leave. These could couple with stringent protection in the workplace from all forms of harassment so that the workplace provides a safe environment for women to thrive, as well as protection from precarious jobs that expose women to quick dismissal and to working unfavourable hours without benefits.

The following recommendations provide examples of gender just-transition policies that can be applied in planning.

REDUCE CARE BURDENS AND PROMOTE ECONOMIC OPPORTUNITIES FOR WOMEN

Women carry the double burden of care and productive work and face numerous social hurdles in planning and participating in just transition processes. These hurdles result from entrenched traditions of patriarchy in all domains of society, at state, workplace, community and household levels. In domains such as the workplace, impacts of patriarchy are overt, with the mining and construction industries notorious for their discrimination against and harassment of women (Hill, Madden and Collins, 2017; Lahiri-Dutt, 2022; Moyo, 2010).

Gender-just transition policies must strive to reduce the burden of care for women. Public policies to address this could involve improved public child and elder care. At the workplace, better benefits, job and career growth opportunities, mentoring and fair pay, particularly in male-dominated sectors such as mining, construction, technology and engineering, could also reduce the strain of the double burden on women.

STRENGTHEN SOCIAL DIALOGUE AND PARTICIPATION IN TRANSITION PROCESSES

In planning the pathway towards gender-trans-

formative change, it is important to understand and leverage all people's agency in contributing to and overcoming patriarchy in society. Social dialogue is needed to expose the way limiting structures such as negative gender norms impede women's participation in STEM sectors or systematically undervalue women's care and community work. Through such conversations society will come to see the invisible structures of patriarchy in society. In South Africa's case, the state organised consultation processes to unpack different pathways to a just transition, initiating social dialogue that highlighted systemic injustices in society (Strambo et al., 2019).

STRENGTHEN INSTITUTIONS THAT REPRESENT WOMEN AND MARGINALISED GROUPS

Together with promoting social dialogue, it is important to recognise and strengthen institutions that represent women and marginalised groups. Allocating a dedicated share of resources to institutions such as trade unions, grassroots women's organisations and women's activist groups can strengthen the support these institutions provide for women. These organisations could push for enhanced social and financial support mechanisms to manage the financial and psychological effects of transitions. They could call for more dedicated resources for peer-to-peer exchanges and mentorship programmes that have had success in supporting women's career development (Eftimie, Heller and Strongman, 2009; Walk et al., 2021; World Bank, 2021b).

DESIGN INCLUSIVE PLANNING PROCESSES

Designing inclusive planning processes is also crucial to ensure meaningful representation. Carefully designed consultation processes consider power asymmetries and gender norms to ensure that different actors have the voice and agency to speak up and be heard.

A good example of careful design comes from the New Zealand climate change planning process. In this case a special consultation process, headed by the trade union representing teachers (the

New Zealand Educational Institute Te Riu Roa) was established to reflect knowledge from the Maori Indigenous People's relationship with nature in just transition policy. The process involved discussions to identify central themes around climate change based on traditional Maori values and knowledge. The result was stronger representation of Maori perspectives in just transition processes and the trade union's advocacy of integrating Indigenous knowledge and sustainability within school curricula (Smith, 2017).

ENSURE A HOLISTIC ADAPTIVE RESPONSE

Overall, we recommend that just transition policies provide holistic adaptative support using both compensatory measures and adjustment assistance to tackle the economic, social, political and cultural impacts of transitioning towards an inclusive green economy. Interventions should seek to increase women's and marginalised groups'representation in decision-making and design processes and provide space for those without power to voice their perspectives.

To facilitate transformative changes requires a whole-of-society response. Society will need to engage in social dialogue to recognise and dismantle the invisible structures that bar the path to a just society.



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