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PATHWAYS FOR JUST TRANSITIONS

Gender Responsive Policies & Place Based Investment

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About the Authors

This publication was produced by the Just Transition Initiative team, a collaboration between the Center for Strategic and International Studies (CSIS) and Climate Investment Funds (CIF). Lead authors for this study are Ben Cahill (CSIS) and Mary Margaret Allen (CSIS), with substantive input from Hugh Searight (CIF) and Neha Sharma (CIF).

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This study was made possible with strategic input from Sarah Ladislaw (CSIS), Mafalda Duarte (CIF), Mike Ward (CIF), Anne Kuriakose (CIF), Ezgi Canpolat (CIF), and Joseph Dickman (CIF).

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Enablers, Objectives, and Tools

Climate change poses an unprecedented threat to the planet, requiring rapid economic and social transformations that will affect workers and communities and have broader impacts on society. Governments, labor groups, investors, civil society, and environmental organizations are increasingly using the principles of just transitions to address the social implications of climate policy and ensure that potentially affected workers and communities are supported through the transition.

Definitions of just transitions vary depending on the perspectives and priorities of various stakeholders, and it is important to recognize this spectrum and foster greater understanding within and across various stakeholder groups.[1] However, policymakers and communities engaged in just transitions also need practical policy advice. There is ample theoretical guidance about how to pursue just transitions at a societal level but few concrete examples of communities that have successfully put all the mechanisms in place.

Past economic transitions and low-carbon energy interventions are imperfect analogies for the pace and scale of transformation necessary to respond to climate change. While important lessons can be distilled, experiences to date provide only a partial and disjointed policy roadmap. Few replicable policies have successfully addressed the full range of social and economic impacts often discussed in the context of just transitions.[2]

Instead, just transitions have generally focused on discrete groups—often workers and their communities—and on jobs and direct economic losses.[3] The need to address immediate pressures—the closure of a coal mine or manufacturing facility, for example—can force policymak-

ers to resort to familiar and more targeted tools rather than transformative policy strategies that address a broader range of impacts.

Given the urgency of the climate challenge and the need to address important questions of justice and equity, it is essential to make the tools and strategies for just transitions more accessible and relevant to policymakers. This paper summarizes a number of core policy objectives and strategies to help advance just transitions.

Based on a literature review undertaken for the Just Transition Initiative, **Table 1** below identifies several cross-cutting enablers, policy objectives, and more specific tools that will be relevant to a variety of countries and regions as they seek to implement just transitions. A brief explanation of each element in the table is provided in the appended **Just Transitions Glossary**.

TABLE 1: JUST TRANSITIONS ENABLERS, OBJECTIVES, AND TOOLS

Cross-Cutting Enablers			
Political economy analysis • Power-mapping: key actors, influence, and preferences	**Stakeholder engagement** • Consultation: interviews, surveys, discussion groups, negotiations • Public outreach: transparent communication strategies	**Capacity building** • Skills development and knowledge sharing between institutions and communities	**Impact analysis** • Identifying pre-existing and potential inequalities and vulnerabilities • Social and environmental impact assessments

Objectives	Tools
Promote decent work and labor protections: employment that delivers fair income, workplace security, equality of opportunity for women and men, and the ability to organize.	• Social dialogue • Social protections (unemployment insurance and benefits, workforce redeployment, non-financial transition assistance) • Skills development (vocational training and reskilling programs, national skills development) • Workers' rights (labor standards including freedom of association and collective bargaining)
Create place-based investment and regional development plans: short- and long-term plans and positive visions for sustainable development, aligned with national plans.	• Targeted industrial policy (tax incentives, subsidies, investment guarantees) • Adaptation and resilience plans • Infrastructure investment • Needs assessment and alignment with long-term plans, including assessment of skills and education • Environmental remediation and restoration
Encourage decarbonization: plans aligned with the Sustainable Development Goals and 1.5/2°C Paris Agreement targets.	• Long-term decarbonization strategies and interim targets • Fossil fuel subsidy reform and reallocation • Energy efficiency programs (building retrofits, appliance standards, building codes, energy benchmarking)
Mobilize climate finance at scale: catalyze sufficient investment to meet the climate finance challenge.	• Dedicated just transition funds • Blended finance • Financial sector reforms (fiduciary responsibility, disclosure requirements, public procurement adjustments) • Green bonds and sustainability bonds

Source: Just Transition Initiative.

"Given the urgency of the climate challenge and the need to address important questions of justice and equity, it is essential to make the tools and strategies for just transitions more accessible and relevant to policymakers."

These elements are meant to be interpreted holistically. The **cross-cutting enablers** are essential components of a just planning and implementation process and increase the chances of success for each of the objectives and associated tools shown in Table 1. These enablers directly relate to various forms of justice commonly discussed in the just transition literature (e.g., procedural justice, distributional justice, restorative justice, and recognition). Together they support socially inclusive processes and an equitable distribution of the risks and benefits associated with transitions.

The four policy **objectives** summarize core priorities of the just transition agenda: (1) promote decent work and labor protections, (2) develop sustainable regional development plans, (3) encourage decarbonization and sustainable development, and (4) mobilize climate finance at scale. These objectives summarize some of the key goals of just transitions, which relate to both climate and sustainable development goals. While climate finance is essential to each of the first three objectives and could thus be considered a cross-cutting enabler, the sheer scale of the climate finance challenge suggests it should be treated as a major objective of just transitions.

For each of these objectives, specific **tools** are listed. These are concrete measures that can help policymakers and practitioners implement a just transitions agenda. Some of these mechanisms will be useful to other actors as well, including investors and civil society groups. This list is not comprehensive, and some policy tools are better established than others. The labor community has developed extensive resources and guidance to promote decent work and labor protections, for example, including mechanisms for social dialogue and guidance for workers' rights.[4]

Many of the tools noted above are being developed and tried in real time. Further research is required to evaluate their efficacy and to identify best practices in different socioeconomic contexts. The Just Transition Initiative resource library highlights research papers and case studies that help to address these questions.

Some of the suggested approaches illustrated in Table 1 are explored in this paper by examining two essential aspects of just transition policies: **gender-responsive policies** and **place-based investment.** This paper discusses the complexities of these two disparate issues and offers insights derived from the just transitions literature.

Gender and social equity is an especially complex aspect of just transitions, as it often relates to much broader systemic challenges that vary by region and social context. Several of the elements identified in Table 1, particularly the cross-cutting enablers, are reflected in gender-responsive policy approaches. Certain groups are especially vulnerable to climate change and transition impacts as a result of social inequalities and norms related to gender, class, ethnicity, race, education, age, dislocation, and land ownership and, therefore, merit targeted support.[5] The following section discusses gender in the context of energy transitions and identifies potential strategies to promote socially equitable outcomes. This paper demonstrates the need for gender-responsive policies that proactively account for gender dynamics and outlines the importance of addressing women's socio-economic vulnerabilities and energy access issues through transition policies to empower women as change agents. The paper concludes with practical insights from the literature into a gender-responsive approach.

Place-based investment for just transitions at first glance appears to be a more straightforward topic, yet there are many difficult questions over how to effectively design and carry out such programs. The justice and equity considerations that are so central to just transitions apply to place-based investment as well. Some regions are inevitably left behind by economic transitions that erode the competitiveness of certain industries and businesses. Climate policies, such as efforts to phase out coal production or to eliminate emissions-intensive industry, can also create acute challenges in terms of employment, wealth, and social well-being in certain regions. A growing number of public and private investors are aiming to counteract this problem by helping affected regions to develop region-specific plans for sustainable development. But the merits of place-based investment—or investing in regions as opposed to people or individual businesses to promote economic growth—have been debated for years, and empirical evidence of their effectiveness is limited. This section of the paper examines the role of regional development plans in just transitions from a cross-sector perspective and offers recommendations in terms of stakeholder engagement, needs assessment, investment signals and financing, and partnerships. The discussion mainly focuses on policy design and process for place-based investment, but it offers some high-level recommendations on how policymakers can employ targeted regional investment in just transitions planning, including for regions undergoing energy transitions.



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The Need for Gender-Responsive Policies

Gender is a critical dimension of the distributional impacts of energy transitions. Local gender dynamics affect the distribution of risks and benefits in energy transitions and play out differently in various geographies and social contexts. Gender—which itself is not a binary concept—also intersects with other social identifiers, including race, class, age, dislocation, and land ownership, to create unique challenges and barriers for specific individuals or groups in different social and cultural contexts.[6] Accordingly, it is important that policymakers identify and address these dynamics from the outset to promote equity and realize the positive potential of transitions. This includes the potential of women's role as change agents for just energy transitions. Studies show that women's involvement in the energy system supply chain is good for business and that women's access to energy services supports broader sustainable development, providing strong incentives for governments and private actors to focus on the gender dimension of transitions and leverage women's capacity to drive positive change.[7] Meanwhile, past experience indicates that failure to do so tends to hinder gender and social equity.

Below, this study briefly illustrates potential **gender-related impacts of energy transitions**. It then discusses gender-related considerations for **labor** and **energy access**—two aspects of transitions that have profound implications for gender equity and sustainable development and thus merit special attention in efforts to advance just transitions. Finally, the paper offers practical insights into a **gender-responsive policy approach** to achieve greater social equity through just transition policy outcomes and processes.

Gender-Related Impacts of Energy Transitions

Energy transitions can shift or exacerbate inequalities. The rapid decline of coal mining in the United Kingdom, for example, introduced new gender roles for women. Traditionally, these communities had "strongly demarcated gender roles, promoting a firmly embedded, conservative division of labor that has presented married women as domestic, non-economically active workers."[8] The United Kingdom's pit closures in the 1980s, by necessity, created new economic opportunities for women in traditionally rigid communities.[9]

However, gender inequalities persisted even as new economic opportunities emerged for women, finding new forms of expression in the workplace and at home.[10] As male economic activity declined, women became increasingly responsible for productive work.[11] Situated near the bottom of the job hierarchy, women were typically employed in unskilled, low-wage, part-time work while still responsible for traditional domestic duties. At home, women suffered an increase in domestic violence attributed to the crisis in masculinity and an erosion of the identity of men as wage-earners.[12] A women's center in North Nottinghamshire attributed increases in marital breakdown, domestic violence, and child and sexual abuse to pit closures.[13] Similarly, coal sector downsizing and layoffs in Poland have been associated with substance abuse and household tensions, including gender-based violence.[14]

Gender-neutral transition assistance can be detrimental to women. Women and men tend to have different jobs in the mining sector, for example, and transition policies that fail to account for these differences can in effect exclude women. Poland's coal sector reform program provided $2 billion in "Miners Social Packages" (1998–2002) for around 80,000 workers.[15] These packages provided income support measures to smooth the transition for mine workers and encourage them to voluntarily accept layoffs. Initially, these packages were only available to underground mine workers and coal washing plant workers, all of whom were men. Only later were these support measures offered to surface mine workers, many of whom were women.[16]

Finally, low-carbon energy interventions that are exclusive or do not take into account gender-related inequalities can be detrimental. Numerous studies demonstrate that low-carbon interventions can fail to address structural barriers and inequalities that exclude women and other marginalized groups from decisionmaking processes and the associated benefits of energy transitions.[17] For example, large-scale renewable energy projects such as solar arrays and wind turbines require significant land and can present equity issues related to land rights and use practices that are commonly rooted in discriminatory gender and social norms.[18] Women tend to have fewer and less secure land tenure rights than men, making them especially vulnerable to displacement, poverty, and dispossession as a result of large clean infrastructure projects.[19] Furthermore, in many cultures the decisions

regarding the use and rights of communal land and resources are made by male leaders.[20] It is important that low-carbon energy interventions take into consideration all those who may be impacted and can drive change, including women and marginalized groups.

"Numerous studies demonstrate that low-carbon interventions can fail to address structural barriers and inequalities that exclude women and other marginalized groups from decisionmaking processes."

Gender and Labor

Women's dependence on informal labor and their disproportionate responsibility for unpaid care work, coupled with current labor market gender segregation, present significant obstacles for women in realizing the benefits of energy transitions as well as accessing support measures.[21]

Just transitions interventions have been primarily focused on developed countries, where the labor force in the informal sector is relatively small and mechanisms such as social dialogue are comparatively stronger. In developing countries, by contrast, informal labor often constitutes a significant portion of the labor market. Because jobs in the informal sector are not subject to national labor legislation, income taxation, social protections, or employee benefits, these workers are especially vulnerable to shocks related to climate change. Women engaged in informal labor (e.g., unpaid domestic labor, home-based employment, and establishments operated by others in the same household) tend to be more vulnerable than men.[22] According to the International Labor Organization (ILO), 28.1 percent of women engaged in informal work fall within the "particularly vulnerable" category, compared to 8.7 percent of men globally.[23]

Moreover, women face additional barriers to entering the formal economy and, therefore, improving their socio-economic positions. These barriers include norms and laws, discrimination, exploitation, violence, and educational obstacles.[24] The Women, Business and the Law Index tracks legal impediments to women's economic opportunities. The index in 2019 was 75.2, indicating that, on average, women have three-quarters of the rights of men in this realm. This index only accounts for laws that restrict women's economic opportunities—for example, legislation that bars women from factory jobs, working at night, or getting a job without the permission of their husbands—and does not account for social norms or practices.[25]

"Because jobs in the informal sector are not subject to national labor legislation, income taxation, social protections, or employee benefits, these workers are especially vulnerable to shocks related to climate change."

Women are also less likely to benefit from growth in the energy sector or other male-dominated sectors unless transition measures address gender segregation and promote gender equality in the labor market.[26] A recent report by the ILO and Inter-American Development Bank on Latin American and the Caribbean indicates that female- and male-dominated occupations will experience similar losses through the regional transition but that male-dominated occupations will see a higher proportional gain than female-dominated ones.[27] Employment in the energy sector is projected to reach 87 to 100 million jobs globally by 2050, depending on the ambition of decarbonization efforts.[28] In the renewable sector alone, jobs are estimated to increase globally from 12 million in 2017 to nearly 42 million in 2050 (naturally, there is significant uncertainty in these long-term estimates). While slightly better than the traditional energy sector, men constitute nearly 70 percent of today's renewable energy workforce.[29]

Governments and private actors can take several important steps to address these obstacles to ensure that women can access new opportunities, especially those in the formal sector, to help lead the transition.[30] As an initial step, private actors can work to improve the collection and reporting of sex-disaggregated employment data, which can help establish baseline evaluations of the gender gap, guide decisionmaking and targets, and monitor progress.[31]

Potential targeted interventions to improve gender equity include gender audits, mentorship programs and networks, flexible workplace policies, finance to promote women's entrepreneurship, and **capacity building** through educational programs.[32] Support for women's participation in science, technology, engineering, and mathematics (STEM) education and employment is needed to increase women's representation and empowerment, as these fields are essential to the transition.[33] Targeted educational strategies and mentorship programs are two potential means to promote women in STEM in the public and private realms, respectively.[34]

Gender and Energy Access

Gender also affects energy access and affordability in the context of energy transitions. Men and women have different energy needs, reflecting societal norms and expectations, and have varying access to energy services and appliances. Yet energy policies are often gender-neutral, based on the false assumption that men and women will benefit equally from energy interventions. To achieve the universal energy access targets defined by the Sustainable Development Goals, policies must align with women's needs as well as those of men.[35]

This is true in developing country contexts where governments will both transition from carbon-intensive to low-carbon energy systems and seek to expand energy infrastructure while avoiding carbon lock-in.[36] Even in the European Union, where 100 percent of the population is technically connected to energy services, the lack of affordability means that women experience unequal energy access. The relationship between gender and energy poverty in this context is largely price related, so pricing policies will determine whether growth in renewable energy will help improve energy access for women.[37]

"Men and women have different energy needs, reflecting societal norms and expectations, and have varying access to energy services and appliances. Yet energy policies are often gender-neutral, based on the false assumption that men and women will benefit equally from energy interventions."

Energy transition policies that seek to address energy access and gender equality together can offer multiple development gains. In the context of energy transitions, it is important to emphasize that women are not merely passive energy users but also employees and entrepreneurs. Improved access to energy can increase women's earnings in the production of goods, crops, and services, contributing to their economic empowerment. When women have discretion over their earnings, they tend to spend more on education, healthcare, and children's welfare, suggesting that enhancing women's access to energy can have a multiplier effect.[38]

For these reasons, just transition policies should focus on energy access for women. Effective approaches could involve targeting sectors where women predominate, such as the street food sector, by providing information, investments in energy infrastructure, or financing mechanisms. For example, programs that offer the option of renting as opposed to purchasing energy appliances can help women entrepreneurs overcome initial financial barriers.[39]

Gender-Responsive Policy Approaches

To achieve better social outcomes, just transition policies should explicitly focus on gender equity from the outset. A **gender-responsive policy approach**, in contrast to a gender-neutral approach, accounts for gender dynamics in various social, economic, political, or environmental contexts. While this approach requires additional time and effort upfront, it will ensure more equitable outcomes and processes and may help foster public support for an accelerated transition.[40] Gender-responsive policies seek to empower women by enhancing their

welfare, increasing their agency, and challenging gender norms for women as well as men. Such policies will support women's essential role as active participants in realizing more sustainable societies through energy transitions.[41]

"Gender-responsive policy approaches require additional time and effort up front but will ensure more equitable outcomes and processes and may help foster public support for an accelerated transition."

Gender assessments are an essential first step in a gender-responsive policy approach.[42] To help encourage positive outcomes, governments and investors can consider this step as part of the qualifying criteria for funding or as a requirement for policies and programs under national plans.[43] Gender assessments inform **impact analyses**, indicating how gender dynamics will shape policy outcomes to potentially impact women and men differently. This insight in turn informs strategies for targeted interventions to promote social equity. Such interventions address women's unique needs and challenges and support their interests and engagement as active participants and innovators in society and the economy.[44] For example, gender-responsive policies can help women overcome potential barriers to accessing resources as well as new markets and socioeconomic opportunities.[45]

Gender assessments can be based on **stakeholder engagement** with women and men as well as gender indicators, including quantitative and qualitative metrics.[46] Qualitative indicators capture experience, opinions, attitudes, or feelings and can be collected through participatory practices such as focus-group discussions or opinion surveys as well as social mapping tools. Quantitative indicators are based on sex-disaggregated data, which enable separate measurements for men and women on, for example, wage rate or levels of poverty or access.[47]

Quantitative sex-disaggregated data related to the distributional impacts of transition is lacking.[48] However, there are ongoing efforts to develop indicators to, for example, monitor women's participation in the clean energy sector.[49] Stakeholders can continue to work to address this gap to enable data-informed policies, dedicating special attention to data that are disaggregated across a range of social characteristics in addition to gender, such as age, civil status, and ethnicity.[50] This data can capture differences in access to resources or services, division of labor, or a variety of other variables.[51]

Gender dynamics are fluid and should be monitored and evaluated not only in the planning phases but also throughout policy implementation. This will allow policymakers to measure progress in relation to set targets and to better understand how these dynamics manifest and evolve.[52] Gender indicators intended to measure progress should go beyond measuring wom-

en's representation in processes and seek to evaluate real change. Positive indicators could include greater control of productive assets, participation in decisionmaking, knowledge, empowerment, and improved economic status for women and men.[53]

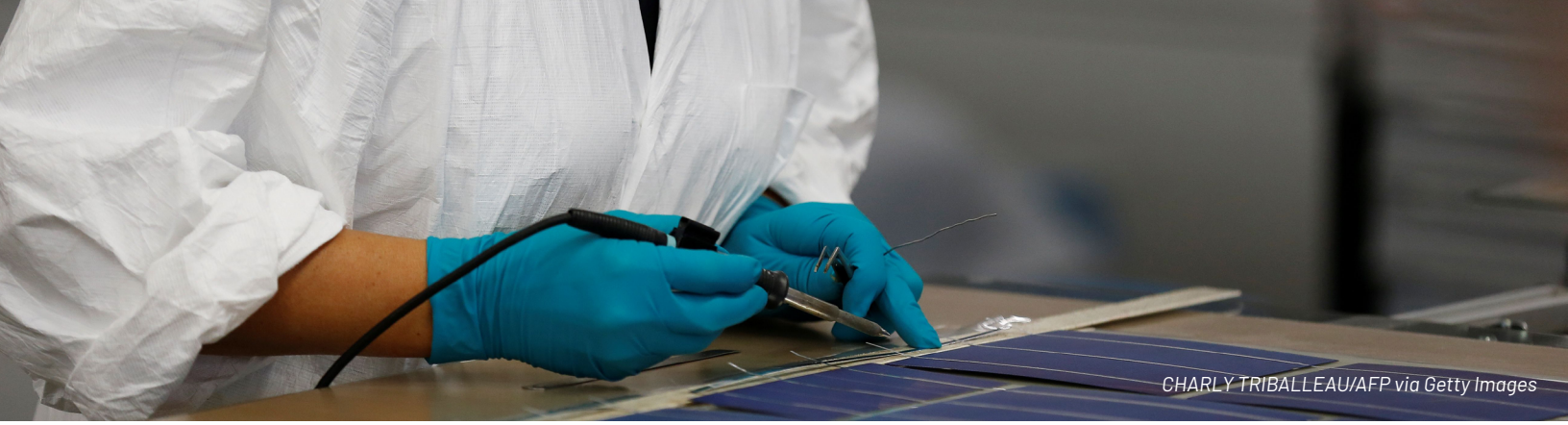
The monitoring and evaluation process should include a post-evaluation phase to help inform ongoing and future efforts to address social dimensions of transitions. This type of review can help shed light on the distributional impacts associated with deep and rapid changes related to climate. The following questions can offer a potential starting place for assessing transition politics[54]:

- How accurate were the impact assessments made prior to implementation? Were any impacts missing from consideration? What adjustments were required along the way?
- Was the degree of social inclusion beneficial or deleterious to the pace of the process?
- Were stakeholders satisfied with the process and outcomes?
- Were targeted interventions successful in achieving their goals?
- Are the outcomes sustainable?

Lastly, social inclusion—or involvement and influence in planning and implementation processes—is essential to every aspect of a gender-responsive approach. Increasing women's voices in policy is likely to lead to more equitable distribution of the benefits and risks of policy interventions while also improving efficiency and sustainability.[55] Yet women, among other groups, are often excluded because of sociocultural norms, low visibility of women's work, discriminatory laws, limits on education and income, and time restraints due to disproportionate caregiving responsibilities.[56]

Processes should go beyond ensuring numerical representation of women and seek to increase their influence and credibility in policy processes through **stakeholder engagement** and **capacity building**.[57] In nearly every context, there are local figures and women's organizations leading the work to address these challenges. Stakeholders may want to adopt a twin-track approach: supporting women's engagement in mainstream organizations that are traditionally dominated by men, where transformation is more likely to occur through incremental reform, while also supporting women's networks that promote progressive agendas.[58] This approach can simultaneously foster change across varying organizations for more sustainable and just systems.

The onus should not fall entirely on women. Stakeholders can plug into local organizations to identify and support male allies or "he for she" mechanisms to encourage men to actively promote women's voices and to alleviate the burden on women in having to address gender inequalities and norms.[59]



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JUST TRANSITIONS

Place-Based Investment for Just Transitions

Place-based investment has an important role to play in just transitions as a means of channeling capital to areas that are especially threatened by climate change and transitions. This paper provides a brief overview of some of the key elements of place-based investment, including how climate change and transition risks can impact regions differently across sectors as well as the options available to policymakers and communities seeking to manage these risks. This study offers some high-level recommendations on how policymakers can employ targeted regional investment in just transitions planning. Most of these recommendations center on policy design and process for place-based investment generally, since the local context in different regions undergoing energy transitions makes it somewhat challenging to offer one-size-fits-all guidelines.

Regions at Risk

Climate policy that entails eliminating or phasing out work in emissions-intensive industries can bring acute harm to certain workers and their communities. When a coal mine closes, for example, employees and their families lose wages and benefits, but local service providers also suffer from lower investment and spending, and multiple levels of government lose tax revenue. When local communities are especially dependent on a particular industry, such as the concentration of coal mining in a single province of South Africa, its decline can take a devastating toll.[60] In such cases, there is a pressing need to

help workers and communities develop alternative livelihoods and new sources of employment and growth.

One approach to helping disadvantaged regions is place-based investment, alternatively known as area-based development. In essence, this is a strategy of investing in "places rather than people."[61] The term is sometimes associated with small-scale "impact investment" intended to produce positive social and environmental outcomes, in addition to financial returns.[62] However, this type of community- or region-focused investment makes up a relatively small portion of the impact investment market, which has grown to an estimated $715 billion.[63] This paper focuses on larger-scale place-based investment, as a strategy to help regions hindered by unfavorable economic geography, vulnerability to shocks, or industrial decline.

Place-based investment strategies are appealing for several reasons. Because place-based investment strategies target specific areas, they can in theory allow for more community participation and support a tailored approach to the local economic, social, and political context.[64] An emphasis on vulnerable groups and inclusiveness through community engagement and dialogue can help map out economic and environmental visions for particular regions and help ensure that the transition delivers social equity.

Investing in a region, as opposed to discrete assets or companies, can also help to develop integrated regional plans and spur coordination among investors and other stakeholders.[65] A prominent example of place-based strategies to achieve just transitions is the European Commission's newly announced Just Transition Mechanism, created to help various regions in Europe adjust to climate-related economic transitions.[66] Member states will be required to create "territorial just transition plans," to be approved by the European Commission, in order to access funding from the Just Transition Mechanism."[67] Those plans must be consistent with each country's energy and climate plans and a long-term transition to a climate-neutral economy.

"An emphasis on vulnerable groups and inclusiveness through community engagement and dialogue can help map out economic and environmental visions for particular regions and help ensure that the transition delivers social equity."

Challenges in Place-Based Approaches

Several challenges in place-based investment are apparent. First, the objectives of regional investment are often defined very broadly and often framed in terms of job creation or economic growth

rather than defining concrete interventions. These goals may only be achieved over a long time horizon, making it harder for governments to secure local and national buy-in for plans.

Second, economic development strategies for entire regions necessarily involve many stakeholders, from multiple levels of government to donor agencies to civil society organizations to the private sector.[68] The greater the number of participants, the harder it is to coordinate and achieve consensus on goals.

Third, place-based strategies for certain regions can be disconnected from national development plans and priorities. Although a region may have clear funding needs, national governments may have incentives to allocate scarce funding and resources elsewhere to address broader national challenges.

Finally, it is difficult to make a clear ex-post analysis that links eventual outcomes to initial investments.[69] If a government invests in roads, telecommunication infrastructure, or education in a certain region, future investments in that area may be attributed to that initial investment—but the causality is not always clear. Any private investment that materializes, for example, may have taken place in the absence of a clear place-based investment strategy. Gaining the required support for a regional development plan can, therefore, prove challenging.

Aside from these challenges, approaches to place-based investment policies will also need to evolve in order to deliver on just transitions goals. As noted in the discussion above on gender, there is ample opportunity for various groups to be excluded from planning processes—place-based or otherwise—or to be negatively impacted by transitions, even if economic and social benefits materialize for others.

To accelerate socially inclusive transitions to a green economy, a new and transformative approach and set of criteria should shape long-term plans and investment decisions, whether at the local, regional, or national levels. Otherwise, the risk is that development plans will not produce better social outcomes.

Operationalizing Place-Based Investment Strategies

There are a number of factors that key actors in transitions can consider in seeking to design and implement effective place-based investment plans, including several of the enablers and tools identified in Table 1 at the outset of this paper.

Note that many of the examples included here tend to be concentrated in Europe, as there is a longer history of place-based investment in the region and a greater depth of ongoing just transition initiatives. Ongoing activity in Europe should have some applicability to other regions, but clearly the economic, social, and environmental context will vary in other parts of the world.

Stakeholder Engagement

Just transitions in general and place-based investment strategies in particular depend on extensive **stakeholder engagement**.[70] However, complications can arise if diverse actors hold varied interests and priorities in regional development planning. These actors include workers and their families, labor and environmental groups, companies, local and regional governments, central governments, and civil society groups.[71] It is no easy task to map out an alternative economic future for a particular region, and including all these stakeholders in the planning process is a significant challenge.

The trade-offs between inclusion and speed are evident in commonly cited success stories of inclusive place-based investment, which usually have involved lengthy consultation processes. Examples include the coal phase-outs in North Rhine-Westphalia in Germany and Ontario, Canada.[72]

The hard coal phase-out in North Rhine-Westphalia took decades. Employment in the coal industry fell from a peak of 600,000 workers in the late-1950s to fewer than 200,000 workers 20 years later. Mining companies, unions, and local political figures initially resisted structural changes to the economy, and subsidies for the industry slowed its decline. However, the government was able to direct subsidies and targeted investment toward economic diversification beginning in the 1960s as well as more direct support for miners in the form of early retirement, redundancy payments, and other social support. By the 2000s, North Rhine-Westphalia had developed a strong services sector, with numerous universities and research centers in cities such as Dortmund and Cologne and a well-developed healthcare industry.[73]

The diversification of formerly coal-dependent North Rhine-Westphalia took many years but shows that "implementing a fair and realistic transition from a fossil fuel-based economy can be managed when city, regional, national, and supranational governments work together on designing a phase-out." This region also shows the importance of designing development strategies from the bottom up, with significant input from cities and local governments.[74]

However, such approaches are not realistic in all regions, many of which do not have the luxury of time. Coal plants in most regions are rapidly losing competitiveness due to declining demand, lower prices, carbon prices, and other policies designed to curb coal consumption. The International Energy Agency estimates that coal generation will fall by 5 percent per year through 2024 in Europe and by 4 percent per year over the same period in the United States.[75] In the Organization for Economic Cooperation and Development (OECD) and 28 states of the European Union, coal plants with 197 gigawatts (GW) in generation capacity were retired between 2010 and 2019, and another 167 GW in capacity is slated for retirement by 2030.[76] The growing number of coal plants destined for retirement increases the urgency of planning for the future of coal regions.[77]

Given the importance of social inclusion in planning, it is vital that policymakers institute community engagement and dialogue when economic transitions are impending rather than

waiting for a crisis to occur. Governments should concentrate in the early stages on developing inclusive consultations and dialogue, especially at the local level. As suggested in the section above, it is important to prioritize participation and influence by women, minority groups, and other populations at risk of underrepresentation. Where possible, this type of community engagement can build upon formal **social dialogue** mechanisms between workers, employers, and government, but policymakers should ensure that civil society groups are represented in planning as well.[78]

"Given the importance of social inclusion in planning, it is vital that policymakers institute community engagement and dialogue when economic transitions are impending rather than waiting for a crisis to occur."

Needs Assessment

Realistic plans to channel investment to a particular region depend on a clear sense of investment needs and current capacity as well as the educational attainment and skills essential to help certain industries grow. The European Bank for Reconstruction and Development (EBRD) emphasizes the importance of strong public sector institutions in this process, whether at the national or local level.[79] The Stockholm Environment Institute suggests that it is important to develop bottom-up processes that allow for dialogue and exchange of ideas.[80]

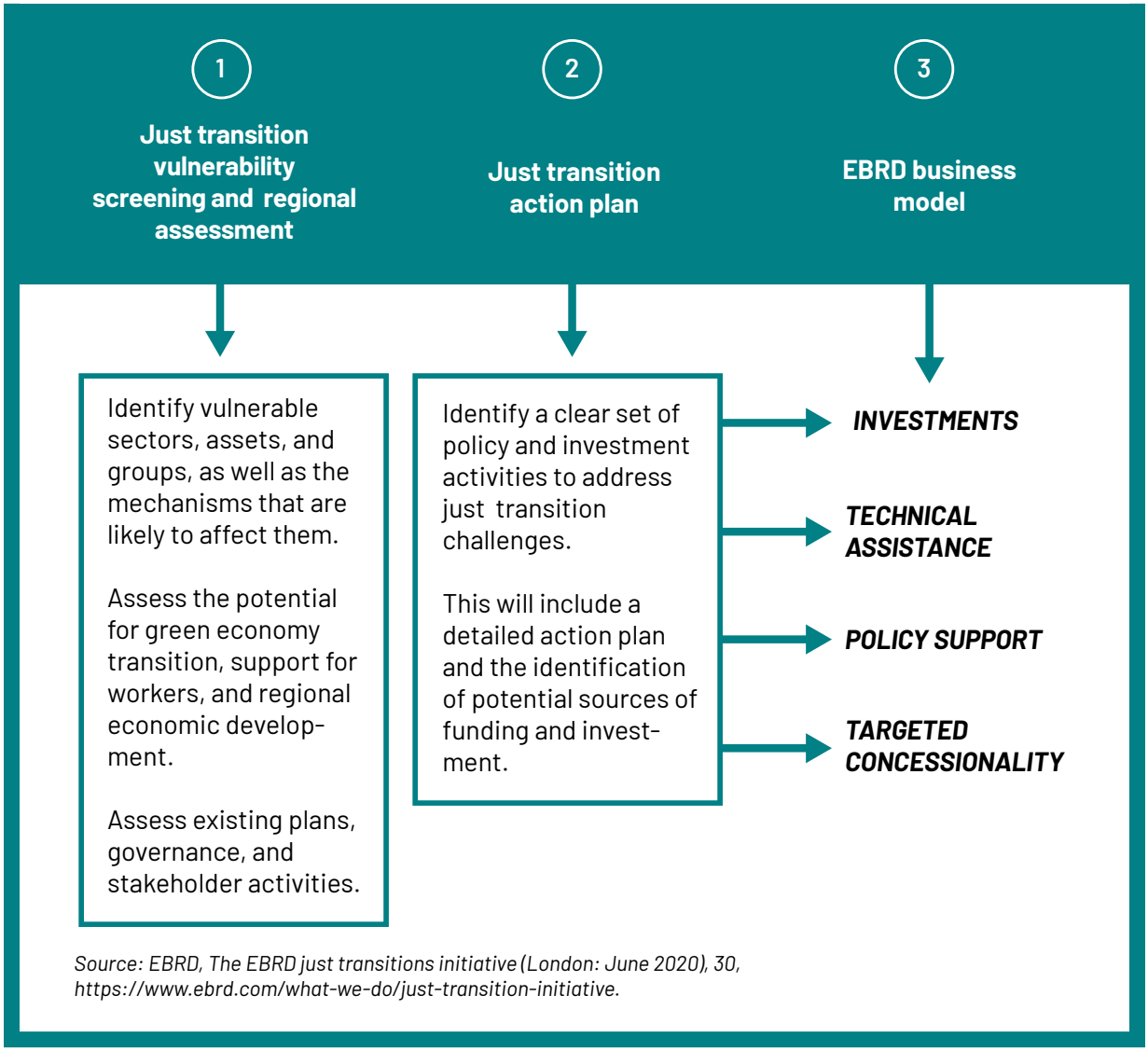
Beginning with a needs assessment can also help identify sequential moves that policymakers can take to promote growth and investment in new sectors, for example, in infrastructure projects or support for small and medium enterprises (SMEs). A challenge in setting investment priorities is to determine which actions will have the greatest impact on job creation and spur innovation and other positive spillover effects. Policymakers may be inclined to invest in hard infrastructure such as railways, ports, or road systems. But it is not always clear that the direct and indirect benefits of investing in infrastructure will be greater than, for example, supporting SMEs in a certain region (see discussion in following section).

"Realistic plans to channel investment to a particular region depend on a clear sense of investment needs and current capacity as well as the educational attainment and skills essential to help certain industries grow."

In addition, not all governments have the institutional capacity and resources to conduct these exercises. In some cases, multilateral development banks and other institutions may be able to step in to provide guidance and technical expertise.

Multilateral development banks are beginning to adopt frameworks to assess investment opportunities and potential impacts in the context of just transitions. The EBRD, for example, is developing a set of indicators to benchmark investment impact.[81] Its "just transition diagnostic" (see **Figure 1**) integrates a screening of vulnerable sectors, assets, and groups with an assessment of the bank's opportunity to help advance the green economy transition, help workers, and promote regional economic development. In essence, this approach begins with an assessment of the broader landscape of resource needs, then considers how the bank should alter or complement its investment activities in a given region.

FIGURE 1: EBRD JUST TRANSITION DIAGNOSTIC TOOL



Source: EBRD, The EBRD just transitions initiative (London: June 2020), 30, https://www.ebrd.com/what-we-do/just-transition-initiative.

This approach will not work for every institution, but similar diagnostic exercises can help to ensure that specific investments and programs are nested within broader objectives for regional development.

These first two steps of inclusive **stakeholder engagement** coupled with **skills and education assessments** can underpin a strategic vision for effective place-based investment planning. This type of process can also provide policymakers with vital information to help prioritize and sequence decisions aimed at promoting growth and investment in new sectors.

Table 1 at the outset of this paper suggests several enablers for just transitions that are relevant to needs assessments. **Impact analysis** can help policymakers develop a clear picture of workers in vulnerable industries and assess jobs at risk and exposure by region. A key component of these analyses can include education and skills assessments of the local population mapped against critical requirements for promising industries, which will help to identify gaps and anticipate new skills required, thus helping to mitigate impacts and maximize employment opportunities in transitioning regions. The ILO advises that governments, in consultation with social partners, allocate resources to identifying and anticipating skills needs as well as aligning occupational skills profiles and training programs.[82] Such plans should promote both generic skills and qualifications in STEM fields and incorporate them in curricula for basic training and lifelong learning.

In the Wallonia region of Belgium, the Public Service for Employment and Vocational Training (FOREM) uses foresight analysis to identify local skills needs in specific sectors. The exercise helps to build appropriate training offerings for Wallonia's business clusters and communicate the identified skill needs to relevant audiences.[83] The analysis classifies future occupations and associated core skills in eight sectors, supported by a panel of experts and a range of workshops. It then identifies a set of related or secondary skills that could subsequently arise from developing the sectors. Selected sectors and industries can benefit from these types of resources because they often lack the capacity or resources to undertake extensive study.

Governments can identify the industries, assets, and sub-regions that are most at risk from an economic transition and identify areas most in need of interventions. At the other end of the spectrum, the section above suggests the importance of engaging local, regional, and central government institutions in identifying competitive advantages and promising areas for investment.

To model potential job creation from investment in various sectors, policymakers can leverage tools such as the ILO's "Green Jobs Assessment Institutions Network" (GAIN) to analyze employment-related outcomes. It is equally important to ensure that impact assessments examine social outcomes, not merely employment effects.

Investment Signals and Financing

Companies are reluctant to be the first to invest in lagging regions that lack advantages such as proximity to demand centers or favorable local labor markets. Governments and economic development agencies may tout plans to attract investment and grow certain industries, but companies will be skeptical until initial investments are made.

Place-based investment can help to overcome this reluctance by altering expectations. Both public and private investment in transportation infrastructure, renewable energy, tourism, buildings, agribusiness, environmental remediation, or broadband access in certain regions can improve the business climate but also signal that a particular region will be a development priority.[84] These measures can be especially powerful if paired with other pro-investment government policies such as tax incentives or the creation of free trade zones. Other industry-neutral supportive measures include fostering enabling environments for innovation and entrepreneurship, including through improved access to finance, human resources, networks, and communication infrastructure.[85]

The European Union's Cohesion Policy, for example, was created to invest in under-developed areas to reduce regional inequality and spur private investment and innovation.[86] Member states worked with the European Commission to identify investment needs and development priorities, and the European Union provided capital from three main funds.[87] A number of social and economic objectives helped to shape funding decisions, including stated goals of supporting SMEs, encouraging a shift to low-carbon industries, and promoting sustainable transport and infrastructure.

This type of regionally focused policy intervention can help to create proximity between companies and investors, or clustering, which helps to improve economies of scale for certain sectors and encourages competition and innovation.[88] Successful regional development can also establish "agglomeration economies" or external economies of scale, as workers in new industries develop specialized skills and new demand for services helps to bolster local supply networks and strengthen related industries.

There is, however, a risk with place-based investment that policymakers will lavish support on industries that fail to gain momentum or generate these positive spillover effects on employment and growth. A World Bank study found that many spatially targeted investments have been "expensive and ineffective," in part because it is difficult to predict the path of innovation or to determine how the needs of firms will evolve over time.[89] The report concluded that subsidizing education and research institutions that promote innovation and clustering in a particular area would be more effective than measures to attract specific firms or groups of firms.

With regard to financing place-based investment strategies, policymakers have multiple options, including direct budget allocations, dedicated just transition funds, public-private partnerships, and dedicated bonds. Analyzing the merits of these various options is beyond the scope of this paper. But due to the scale of financing required for regional development plans, sustainability or social bonds are an important option to consider.[90]

It is important for governments to identify critical investments to improve the business climate and spur private sector investment and confidence. Priority areas for infrastructure could include road and rail transport, ports and airports, and broadband. Policymakers should also consider potential tax incentives for the private sector and fiscal support from central or local governments to encourage investment. Last, governments can explore multiple financing options for place-based development, including dedicated just transition funds, sustainability or social bonds, and public-private partnerships.

Partnerships

Partnerships represent a final dimension of operationalizing place-based investment. Multiple levels of government, multilateral institutions, civil society groups, and the private sector should have a voice in shaping these plans, but policymakers are key to determining which of these stakeholders can help advance place-based investment plans.

National and regional governments are best positioned to convene a diverse set of actors for the development of regional investment plans that are aligned with national priorities. These policymakers can operationalize these plans through supportive policies and funding that helps to mobilize private sector investment.

Multilateral development banks have a key role to play in facilitating sustainable investment, especially in the early stages of a regional plan. These institutions provide technical assistance and significant capital on favorable terms to projects that are unable to attract investment from the private sector or commercial lenders. When international finance institutions (IFIs) invest in ventures, they help to reduce financial risk and create greater confidence by performing due diligence on companies, usually also including screening for environmental, social, governance, risk, and other indicators.[91]

Policymakers can partner with the IFIs and others to provide financial and technical support for SMEs to help deliver on place-based investment goals. SMEs account for more than two-thirds of employment worldwide as well as the majority of new job creation, and the OECD has highlighted the importance of supporting social entrepreneurship as a way of tackling environmental and social concerns.[92] Support for SMEs can advance just transitions goals if directed toward sustainable businesses and funding for diversification efforts by SMEs in carbon-intensive industries.[93]

“Multilateral development banks have a key role to play in facilitating sustainable investment, especially in the early stages of a regional plan. These institutions provide technical assistance and significant capital. “

Lastly, civil society groups and local organizations should be embedded in place-based investment policies from the outset. Numerous studies have found that bottom-up processes are more successful than centrally managed programs in managing economic transitions.[94] Nearly all observers stress the importance of extensive stakeholder engagement in just transitions, and some research has illustrated the benefits of various models of citizen engagement in energy transition.[95] For place-based investment models to succeed, it is particularly important to ensure that civil society groups, labor organizations, philanthropists, and others are included.

To help design effective place-based investment plans, policymakers can work with IFIs to expand financing options for **infrastructure projects**, including the potential for partnerships. Governments can also work with these international institutions to explore options to support SMEs in growth sectors, including renewable energy and other sustainable business. Finally, policymakers should consider available support from civil society organizations, philanthropists, universities, and others to develop **positive visions for sustainable development** and regional growth strategies and to access finance and technical expertise.

Just Transitions Glossary

ADAPTATION AND RESILIENCE PLANS anticipate climate risks to the environment, infrastructure, communities, and industries to reduce vulnerabilities, enhance their adaptive capacity, and invest in climate-resilient and low-emissions growth.[96]

BLENDED FINANCE refers to the strategic use of public finance to mobilize private capital and help close the funding gap for climate finance. Public finance can often reduce risks and barriers for private investors, establish supporting environments and institutions, and build local capacity.[97]

CAPACITY BUILDING, in the context of just transitions, can allow local actors to form and express their unbiased views, provide critical local insight, and play an active role in the implementation and evaluation of technical programs. Capacity building often takes place through skill development and peer-to-peer knowledge sharing.[98]

DECARBONIZATION PLANS commit to reduce carbon emissions in order to limit warming to 1.5 to 2° C above pre-industrial levels. These plans should seek to identify synergies with the Sustainable Development Goals, which are a universal call to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity.[99]

DEDICATED JUST TRANSITION FUNDS include dedicated national/supranational, philanthropic, or private funds that provide capital to support a variety of transition measures, often conditional upon some criteria, such as decarbonization commitments.[100]

ENERGY EFFICIENCY PROGRAMS that promote energy efficiency measures, including building retrofits, appliance standards, building codes, and energy benchmarking, can reduce emissions and air pollution. Such programs can be combined with measures to ensure affordability for the poor.[101]

ENVIRONMENTAL REMEDIATION AND RESTORATION of physical environments that were damaged as a result of energy generation or other industrial activities can encourage new investments and address environmental and public health risks. Strengthening regulatory requirements and financial guarantees in relation to closure and environmental remediation can help ensure that the related costs are not transferred from the private sector to the public sector.[102]

FINANCIAL SECTOR REFORMS to the "rules of the game" governing financial and capital markets can better align the financial system with climate action and sustainable development, thereby catalyzing change at scale.[103] Potential reforms include:

- **FIDUCIARY RESPONSIBILITY** among institutional investors demonstrated through commitments to responsible investing can send powerful market signals.[104] Examples include the "Principles for Responsible Investment" and "Principles for Responsible Banking."[105]
- **DISCLOSURE REQUIREMENTS** regarding climate-related financial risks for companies, asset owners, and asset managers using consistent methods, such as the Task Force on Climate-related Financial Disclosures (TCFD), can better align natural and financial capital, thereby correcting for current market failures. Such frameworks can be extended to include social dimensions as well.[106]
- **PUBLIC PROCUREMENT ADJUSTMENTS** refer to new requirements in the public procurement process that trigger market demand for more sustainable goods and services and advance socio-economic and environmental goals.[107]
- **FOSSIL FUEL SUBSIDY REFORM AND REALLOCATION** curtails fossil fuel subsidies, which tend to be regressive and create inefficient energy use, and/or to reallocates funds from subsidy programs to infrastructure or sustainable energy.

GREEN BONDS AND SUSTAINABILITY BONDS can raise capital for new and existing projects with social and environmental benefits, including both sovereign bonds and private bond issuance.[108]

IMPACT ANALYSIS based on broader assessments of social and environmental impacts, beyond employment and direct economic impacts, can identify synergies and trade-offs between policy objectives, help build stakeholder alliances, and promote a more integrated approach to just transitions policy.

Policymakers can identify pre-existing and potential social inequalities and vulnerabilities to design policies that address the unique needs and challenges that certain groups experience as a result of race, gender, class, and religion. Neutral policies often serve to reinforce such inequalities and vulnerabilities.[109]

Policymakers can conduct social and environmental impact assessments to better understand the policy context and breadth of potential distributional impacts related to culture, social equity, human health, and physical environmental well-being.

INFRASTRUCTURE INVESTMENT in specific sectors or services – for example, energy transport, communication, or education – can support the economic growth and development of priority areas in accordance with regional development plans.[110]

NEEDS ASSESSMENT can gauge current education- and skill-levels of a particular region or sector in order to identify gaps in the skills and training needed to increase competitiveness in accordance with long-term industrial and economic development plans.[111]

PLACE-BASED INVESTMENT STRATEGIES refers to investment in a particular region in order to spur economic growth and development as well as job creation and sustainability. Often place-based policies focus on infrastructure investments intended to stimulate private sector activity, economic diversification, and more sustainable livelihoods.[112]

POLITICAL ECONOMY ANALYSIS refers to the identification of key actors and their ability to exert influence or power to further their priorities. Effective power-mapping analyzes both the influence and preferences of various actors as well as the relationships between them, which can help identify inequalities.[113]

SKILLS DEVELOPMENT includes vocational training and reskilling programs to help workers develop the skills to transition to new jobs or to work with new materials, processes, and technologies in their existing jobs. Education through national skills development and employment policies linked to broader development plans can prepare workers, particularly young people, for the future world of work.[114]

SOCIAL DIALOGUE includes negotiation, consultation, and exchange of information between or among representatives of governments, employers, and workers on issues of common interest relating to economic and social policy. Social dialogue can contribute to just transitions by building on the commitment of social partners to joint action.[115]

SOCIAL PROTECTIONS help vulnerable groups absorb economic pressures and environmental shocks by providing income support as well as access to healthcare and basic services during transitions. These can include unemployment insurance and benefits, workforce redeployment, and non-financial transition assistance.[116]

STAKEHOLDER ENGAGEMENT refers to various forms of engagement with civil society, government, and private sector actors in the policy planning, implementation, and monitoring process. Effective stakeholder engagement is contingent on the knowledge capacity of participants and the provision of up-to-date information on the potential socioeconomic effects of climate change or climate change policies.[117] Public outreach can foster support and coalitions through transparent communication and consultations in the form of interviews, discussion groups, surveys, negotiations, and collaborative action.

TARGETED INDUSTRIAL POLICY includes state support in the form of tax incentives, subsidies, state- or multilateral-backed investment guarantees, and other measures to support critical but underdeveloped growth industries and sectors.[118]

WORKERS' RIGHTS promote decent and productive work, in conditions of freedom, equity, security and dignity. International labor standards offer a comprehensive framework to promote workers' rights, including the fundamental right to freedom of association and collective bargaining.[119]

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