



Just Transition Finance

1. Background to just transition finance	1
2. Just transition finance under the UNFCCC	3
3. Just transition in commodity-dependent developing countries	4
3.1 Geographical relevance	4
3.2 Socioeconomic vulnerabilities and just transition needs	7
3.2.1 Climate impacts and physical risks for commodities	7
3.3 Challenges for CDDCs seeking to achieve just transition	10
3.4 Approaches to achieving a just transition	11
4. Just transition finance	14
4.1 Public sector just transition finance	14
4.2 Private sector	15
5. Conclusion and recommendations for climate negotiations	17
References	19
Appendix	22

1. Background to just transition finance

Just transition is a concept that was born of the efforts of trade unions to reconcile environmental and social concerns, and it started with a programme to support workers whose jobs were negatively affected by environmental protection policies. Thanks to the unions' efforts, the concept has been progressively introduced in the context of climate change negotiations. The purpose has been to ensure that considerations of decent work and quality jobs are included in discussions on shifting to more sustainable and 'green' societies.

Lead author

Jannik Landwehr &
Michel Köhler

Contributing authors (alph.)

Bertha Argueta, Julia Grimm,
David Ryfisch

Just transition stakeholder groups, reflecting individual interests and beliefs, understand the concept in different ways. These distinct understandings, in turn, translate into different approaches to just transition. Approaches range from proposals for ‘greening’ the existing economic system, coupled with the provision of new job opportunities as a proxy for justice, to a complete transformation of existing political and economic systems. Along the spectrum of approaches, different aspects are introduced, such as addressing existing inequalities, emphasising the need for social dialogue, ensuring distributive and procedural justice,¹ and focusing on alternative development pathways that are not dependent on continuous growth.²

The concept has evolved from its origins; for example, its scope has extended beyond workers and workers’ rights to include communities and the rights of marginalised social groups, as well as gender considerations. Its focus has also expanded: it started with a strong focus on the decarbonisation of a few sectors such as mining, energy, and industry, and on technological solutions, which more closely reflect the interests and concerns of the Global North,³ and has shifted to include sectors such as agriculture and other land uses, and the impacts of climate change, which reflect the realities of the Global South.

Beyond recognising the need to introduce considerations of just transition into climate change negotiations, more recent discussions have started to acknowledge the need to support developing countries in their transition to low-carbon economies and to ensure that this transition is just. This can be interpreted as a reference to existing support channels for developing countries, including climate finance, and the need for this finance to also support a just transition. Beyond the United Nations Framework Convention on Climate Change (UNFCCC), finance for a just transition has also been increasingly discussed among both public and private sector actors. However, many actors do not clearly understand what activities need to be financed and how, as well as when finance can be considered to be supporting a just transition. Viewpoints will probably depend on the varying understandings and priorities of different stakeholders.

This policy brief starts by introducing the just transition discussions within the UNFCCC in more detail. It then looks at the just transition needs and challenges of commodity-dependent developing countries and how these needs have been addressed so far. Next, it reflects on options to include transition finance in the UNFCCC negotiations and advance existing financial vehicles and channels, as well as other potential new financial forms and instruments to support a just transition.

2. Just transition finance under the UNFCCC

With the adoption of the Paris Agreement in 2015, Parties committed to taking into account ‘the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities’.⁴ But it was not until COP26 in Glasgow that attention to this single line within the Paris Agreement truly gained momentum. COP26 has made it clear that a just transition is a critical factor in shifting towards a net-zero and climate-resilient economy. In the run-up to COP26, and at the summit itself, a series of initiatives was launched to support a just transition. The textbox below lists these initiatives and briefly describes their relevance.

In addition to these government initiatives, the official Glasgow Climate Pact, agreed on by over 190 Parties, includes several references to just transition, including references to the financial support needed to implement a just transition.⁵ It calls on Parties to provide ‘targeted support to the poorest and most vulnerable in line with national circumstances and recognising the need for support towards a just transition’. The Glasgow Climate Pact also ‘recognises the need to ensure just transitions that promote sustainable development and eradication of poverty, and the creation of decent work and quality jobs, including through making financial flows consistent with a pathway towards low greenhouse gas

1 This justice entails inclusive and equitable decision-making processes and collective ownership and management of the new, decarbonised energy system by the various stakeholders.

2 See UNRISD (2018).

3 See Adriana Abdenur.

4 See UNFCCC (2015) Paris Agreement.

5 See UNFCCC (2021) Glasgow Climate Pact.

emission and climate-resilient development, including through deployment and transfer of technology, and provision of support to developing country Parties.⁶

However, in 2015, the International Labour Organization (ILO) was already significantly shaping the understanding of the term ‘just transition’ by publishing a far-reaching set of just transition guidelines that were negotiated among governments, businesses, and trade unions. These ‘guidelines

for a just transition towards environmentally sustainable economies and societies for all’⁷ cover a wide range of policy areas, including tax and regional policies, but they also focus on relevant mechanisms such as social dialogue. The 2015 ILO Guidelines describe just transition as a process that ‘needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty’,⁸ and thus the guidelines provided the basis for the references to just transition in the Glasgow Climate Pact.

Textbox 1: Examples of just transition finance initiatives announced at COP26 in Glasgow

Over 30 countries (including the US, the UK, Norway, Canada, New Zealand, and all 27 European Union (EU) member states) signed the Just Transition Declaration developed by the COP26 Energy Transition Council. In signing this declaration, the governments of the above-mentioned countries not only recognised the importance of just transition but also committed to working with relevant international organisations to implement just transition principles across their international financial and technical cooperation with developing and emerging countries.

The South African **Just Energy Transition Partnership (JETP)** is a long-term partnership between the governments of South Africa, France, Germany, the UK, and the US, along with the EU, that was announced at COP26. This \$8.5-billion multinational partnership was one of the most notable outcomes of COP26, and its objective is to support South Africa’s decarbonisation efforts. It was followed by a G7 announcement of a similar partnership in India, Indonesia, Senegal, and Vietnam. However, questions exist about how the more vulnerable developing countries, such as small island developing states (SIDS), can be supported in their green transitions. Questions also remain on how JETPs can complement other global and multilateral initiatives and channels for climate action.

In addition to these official government initiatives, several voluntary initiatives from the business, industry, and finance sectors, as well as multi-stakeholder collaborations targeting just transition, were announced at COP26. One such example of a multi-stakeholder initiative for a specific industry sector is the **Just Transition Maritime Task Force**, which was launched in Glasgow. The task force comprises the International Chamber of Shipping, representing shipowners, the International Transport Workers’ Federation, representing seafarers and port workers, and the United Nations Global Compact, as well as the ILO and the International Maritime Organization. The objective of this task force is to support the decarbonisation of the shipping sector and at the same time ensure that workers and communities 1) are protected from any negative social impacts of the decarbonisation process and 2) benefit from the opportunities that emerge in the process of this transition.

The Egyptian COP27 Presidency, while formulating its vision and goals for the 2022 climate change conference in Sharm El-Sheikh, has recognised that ‘just transition’ remains a priority for developing countries worldwide. One of the five targets for COP27 formulated by the Egyptian Presidency specifically focuses on ‘ensuring a managed and just transition’ and ensuring ‘that the just transition meets the needs of all those who are impacted, including regarding food

and water security’.⁹ The Presidency also recognises that ‘challenging times create opportunities for a speedy transition and to deliver on commitments’.¹⁰ Moreover, in October 2022 the UNFCCC Standing Committee on Finance (SCF) decided that its 2023 annual forum would focus on the topic of ‘Financing the Just Transition’. The topic of just transition finance has thus gained momentum in the run-up to COP27 in Egypt.

6 Ibid.

7 See ILO (2015).

8 Ibid.

9 See 27th Conference of the Parties of the UNFCCC (COP27) (2022).

10 Ibid.

3. Just transition in commodity-dependent developing countries

The threat of accelerating climate change calls for strong commitments to transforming carbon-intensive sectors of the global economy. Far-reaching action to achieve a low-carbon transition is needed if the global community wants to keep the Paris Agreement targets in reach. A successful economic transition can only be achieved if it is complemented by a social transition. The just transition approach links these two aspects, but its focus is often reduced to the energy transition in developed and emerging economies.¹¹ Countries in Latin America, Central Asia, and sub-Saharan Africa are experiencing important changes in their extractive industries, as well as in their agricultural production, that also require a just transition concept; however, case studies on contemporary just transition work in these areas are rare.

While the previous section elaborated on the terminology of just transition finance and outlined the concept's profile in the international climate finance agenda, the next section looks at the relevance of just transition finance for commodity-dependent developing countries (CDDCs). In so doing, the following aims to shed light on different facets of the climate and social justice nexus.

3.1 Geographical relevance

According to a definition by the United Nations Conference on Trade and Development (UNCTAD), all countries that derive at least 60% of their merchandise export earnings from the commodity sector are regarded as commodity-dependent.¹² This implies that national economic cycles are synchronised with global commodity demand and respective price cycles. The economies of CDDCs usually grow faster during commodity price booms but slow down during commodity price slumps. Due to underlying external dependencies, volatility, and price shock risks, commodity dependencies result on average in slower growth rates compared to rates in diversified economies.¹³

In addition to the challenges of achieving economic diversification and stable sustainable development, the accelerating climate crisis imposes another twofold challenge

on CDDCs (see section 3.1.2 for more details). First, climate change impacts can impose significant physical risks on commodities, particularly agricultural products. Second, efforts to achieve the Paris Agreement targets, and thus limit temperature increases to 1.5°C, imply transition risks to commodities. This is because many natural resources, particularly in the energy sector, are likely to be stranded. On top of the domestic greenhouse gas (GHG) mitigation and climate adaptation efforts in CDDCs that require new sustainable management of natural resources, mitigation strategies adopted by fossil-fuel-importing countries will affect CDDCs' commodity exports.

Challenges associated with commodity dependence are relevant for large parts of the developing world. UNCTAD found that 87% of all commodity-dependent countries are developing economies. Moreover, the 10 countries most vulnerable to climate change in 2017 were also all CDDCs, and of the 40 most vulnerable countries, only three were not dependent on commodity exports.¹⁴

Those CDDCs' key commodities are energy-related commodities, forestry and agricultural raw materials, and minerals, ores, and metals. Because of their significantly higher vulnerability to climate impacts and climate change action, this policy brief will focus on energy-related and forestry and agricultural commodities.¹⁵

The maps in figures 1 and 2 distinguish in more detail which countries are particularly economically affected and in need of a just transition approach.¹⁶ The dark-red-coloured countries export fossil fuels, and the dark-blue-coloured countries export agricultural commodities. The darker the colour, the higher the vulnerability of the country's gross domestic product (GDP) to export changes (i.e. reduced energy carrier exports or lower production of climate-change-vulnerable agricultural products).¹⁷ The map shows that many of the severely affected countries are CDDCs in Latin America, Africa, and South East Asia.

11 See Tsafos & Carey (2020).

12 See UNCTAD (2021).

13 See UNCTAD (2019).

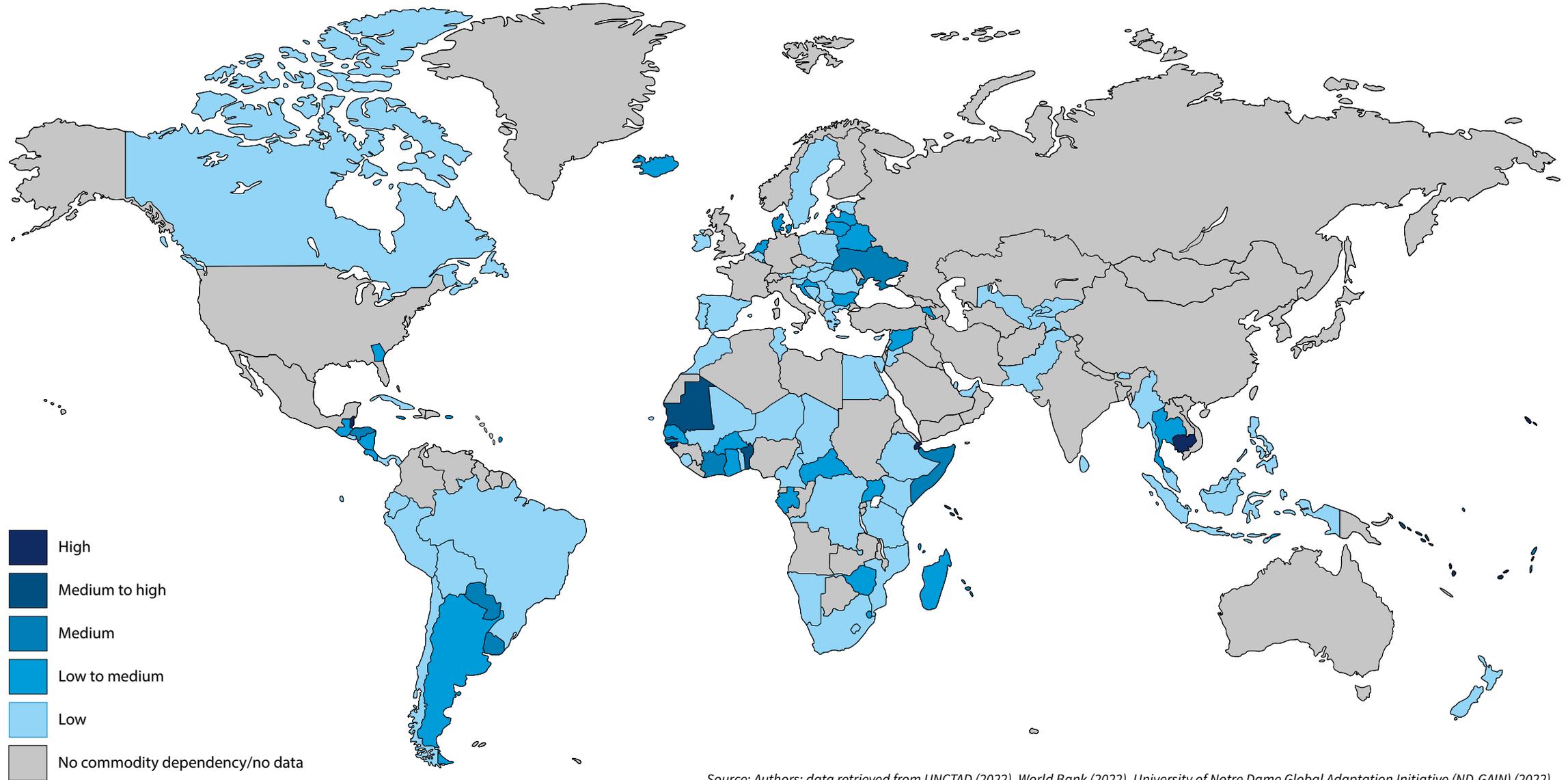
14 See UNCTAD (2019).

15 The climate vulnerability of economic sectors associated with minerals, ores, and metals is relatively small, and also the effects of climate policy on these sectors are discussed rather ambiguously in the literature. It is often argued that these economic sectors might even expand with more effective climate policies in place, as certain raw materials are needed for renewable energy production, such as solar photovoltaics.

16 A detailed list of countries is provided in the appendix.

17 The commodity dependency value is calculated using the commodity export dependency (UNCTAD 2022), the importance of exports for the countries' GDP (World Bank 2022), and, for the agricultural map, the vulnerability index of agricultural production and water supplies (University of Notre Dame Global Adaptation Initiative (ND-GAIN) 2022).

Figure 2: Countries dependent on exports of agricultural commodities vulnerable to climate change (low to high dependency and vulnerability)



Source: Authors; data retrieved from UNCTAD (2022), World Bank (2022), University of Notre Dame Global Adaptation Initiative (ND-GAIN) (2022)

3.2 Socioeconomic vulnerabilities and just transition needs

CDDCs have both socioeconomic vulnerabilities and transition finance needs. To disentangle them, the following section distinguishes between the physical risks and transition risks of commodity-dependent economic sectors in developing countries.

3.2.1 Climate impacts and physical risks for commodities

With regard to climate impacts and related physical risks, raw materials and products in the Agriculture, Forestry, and Other Land Use (AFOLU) sector are significantly affected. The Intergovernmental Panel on Climate Change (IPCC) has reported that the effects of human-induced climate warming have had significant negative effects on global crop production in recent decades.¹⁸ For example, in Western Africa, 1°C warming above preindustrial levels has increased heat and rainfall extremes, reducing yields of main crops by 5–20%.¹⁹ At the global level, drought and heatwaves have caused average yields of maize, soybeans, and wheat to decrease by 11.6%, 12.4%, and 9.2%, respectively.²⁰ Crop losses have also been caused by increasing numbers of climate-related hazards, as well as the proliferation of pest and disease agents due to global warming.

Furthermore, forests, the world's carbon sinks, are vulnerable to higher temperatures, changes in precipitation, and more frequent extreme weather events. A changing climate can increase the frequency of fires, alter the genetic nature of trees, and induce the loss of plant species, which in turn threatens ecosystem function. In addition to its detrimental effects on nature conservation and biodiversity, climate change negatively affects the production of lumber and other forest products.²¹

Heat stress results in higher mortality of cattle and lower success in livestock production. Indirect impacts have also been observed: changes in grassland quality, shifts in species distribution, and range changes in livestock diseases. In aquatic systems, temperature increases, acidification, salt intrusion, oxygen deficiency, floods, and droughts have negatively impacted production by reducing growing suitability, increasing mortality, or damaging infrastructure.²²

Because of the vulnerability of many AFOLU sector commodities to global climate change impacts, developing countries, whose exports and economies depend on these natural resources, face increasing economic losses under predicted circumstances.²³ Climate events, such as severe fires, storms, droughts, or floods, can even lead to physical stranding by making it impossible or economically unprofitable to continue to produce certain AFOLU commodities.

According to the UNFCCC, the climate-resilient, low-carbon transition will affect nearly 1.5 billion workers across the world, in sectors critical to climate stability. The agricultural sector represents about two thirds of these, with 1 billion workers facing quantitative and qualitative changes in agricultural jobs.²⁴ Because of their commodity dependence, CDDCs need to anticipate climate impacts and restructure their economies to facilitate social transition for smallholders and workers in the AFOLU sector and affiliated industries.

Moreover, adaptation measures can significantly impact physical risks and just transition. On the one hand, adaptation measures can determine how jobs in relevant sectors evolve. New agricultural techniques, new mixes of crops, agroforestry, new irrigation techniques, rehabilitation of ecosystems, protection of species, including marine species, and so on, all affect how AFOLU sector resources are produced, and so they change the associated working environment. Certain adaptation measures can also affect productive capacities and commodity prices (both positively and negatively). Any backlash in the export markets would then affect employment in CDDCs. On the other hand, well-designed adaptation measures reduce transformational pressure on employment in the AFOLU sector by strengthening the climate resilience of commodity production and mitigating the risk of climate disasters.

While the overall effect of adaptation measures is likely to be positive for workers and smallholders, adaptation measures can form only a part of any comprehensive just transition strategy. When it comes to the development and enforcement of such strategies, CDDCs face significant gaps in terms of political capacities and additional just transition finance.

18 See IPCC (2022).

19 See Sultan et al. (2019).

20 See Matiu et al. (2017).

21 See UNCTAD (2019).

22 See IPCC (2022); Free et al. (2019).

23 The African Development Bank just recently stated that Africa is losing 5% to 15% of its per capita economic growth because of the effects of climate change. See Reuters (2022).

24 In terms of affected workers, the agricultural sector is followed by manufacturing (200 million), building (110 million), transport (88 million), and energy (30 million). See UNFCCC (2016).

Textbox 2: Case study – adaptation in Malawi poses uncertainty for workers

The agricultural sector in Malawi is very important for the country's economic activities, as the sector accounts for about 30% of national GDP and generates over 90% of foreign exchange earnings. Moreover, the agricultural sector employs 64% of the total workforce. Unfortunately, the agricultural sector in Malawi is highly susceptible to the impacts of climate change, including dry spells, seasonal droughts, intense rainfall, riverine floods, and flash floods. In particular, droughts and floods have increased in frequency, intensity, and magnitude over the past twenty years and have had significant consequences for food and water security.²⁵

While there are ongoing efforts to support adaptation in the agricultural sector, concerns have been raised that some of these initiatives are in fact exacerbating the socioeconomic challenges of affected workers and smallholders. For instance, Malawi's National Agriculture Policy identifies new irrigation techniques as key in reducing vulnerabilities in the sector. However, the policy also promotes investor incentives and higher commercialisation of the sector, which, if inadequately implemented, could benefit larger investors and deprive smallholder farmers of their access to and control over critical water resources. In this context, Malawi needs to integrate the just transition approach into a discussion on how adaptation is planned and delivered.²⁶

3.2.2 Transition risks for commodity-dependent sectors

Beyond physical risks, commodity-dependent sectors also face significant risks related to the transition towards climate-resilient, low-carbon economies. Transition risks emerge from domestic climate action agendas or through third-country mitigation strategies.

The achievements of the climate negotiations have not only spurred the development of 'green' technologies but also led to political targets, policies, and regulations that are guided by the Paris Agreement targets. At the domestic level in CDDCs, the implementation of mitigation measures requires sound natural resource management. For example, sustainable management of forests cannot be achieved without effective incentives and regulations that prevent deforestation and forest degradation through illegal logging.

At least in the short term, a commodity-dependent country is often confronted with the trade-off between economic development and climate policy. For example, a CDDC that is dependent on AFOLU commodities and pledges to reduce GHG emissions could face a trade-off between preserving its forests as carbon sinks or converting its natural capital into revenues that boost economic and social development. Similarly, restricting fossil-based energy commodity sectors will lead to a politically induced stranding of natural

resources, potentially slowing down the country's socioeconomic development. The shift from carbon-intensive sectors towards low-carbon activities transforms a significant proportion of employment and requires a comprehensive, well-aligned social transition.

Fossil fuel commodities in particular play a critical role in the mitigation contributions of CDDCs' Nationally Determined Contributions (NDCs). In sub-Saharan Africa, energy-related mitigation actions are outlined in every NDC. Additionally, 80% of the mitigation components also feature agriculture, forestry, and land use change.

Commodity stranding in CDDCs is not only exacerbated by climate vulnerabilities and policies on domestic adaptation and mitigation; in fact, it is mostly caused by third-country mitigation strategies that are driven by national climate targets and the international climate agenda.²⁷ The GHG footprint of the oil sector, for example, comprises direct emissions from exploration, extraction, surface processing, refining, petrochemical manufacturing, storage, and transport. Consequently, the growing political pressure to reduce and mitigate emissions from the energy sector through decreased consumption of fossil fuels in emerging and developed economies will affect the entire value chain, including the underlying raw material production in CDDCs. Examples of direct policy actions include emissions-related

25 See Atteridge et al. (2022).

26 See Atteridge et al. (2022); Atteridge & Remling (2017).

27 The so called 'Green Paradox' is a phenomenon where, in anticipation of mid- or long-term stranding of natural assets and depreciation of resources (i.e. perceived financial losses), a country accelerates the conversion of its natural capital, thus conflicting with the sustainability efforts of global mitigation strategy, see UNCTAD (2019).

import regulations, introduction or adjustment of CO₂ prices, and/or a phase-out of fossil-fuel-based industries. In addition, technological development contributes to the stranding of energy commodities through relative price change in favour of low-carbon alternatives. As renewable electricity becomes cheaper, energy commodities lose competitiveness.

While labour market policies are limited to national borders, the employment effects of economic shocks or economic restructuring are transnational, spreading across borders and global value chains in globalised markets.²⁸ Poor job quality and working conditions constitute additional challenges. About 900 million workers and their dependants live below the poverty line of \$2 per day, most of them in informal employment in developing countries.²⁹

In 27 CDDCs, fuel exports represented more than a third of total merchandise export revenues in 2017. In Western Asia and Africa, the fossil fuel sector is particularly dominant, accounting for 40–50% of the total value of merchandise exports.³⁰ Additionally, as Figure 1 shows, commodity export dependency often goes hand in hand with exports that represent a significant share of national economic activity (GDP). In the extreme case of Congo (Republic of the Congo), energy commodities represent over 70% of export revenues, while exports make up 74% of Congo's GDP. Hence, energy commodities directly or indirectly determine large parts of Congo's labour market. It is only a matter of time before reductions occur in energy commodity imports by CDDCs' current trading partners (e.g. China, the US, or Europe), while alternative markets for traditional fossil fuel exports will also vanish.³¹ Reduction in demand for carbon-intensive commodities will not only reduce exports but also lower prices, with associated economic consequences in the medium to long term.

Analysis of the 2019 Commodities and Development Report by UNCTAD confirms that because of global mitigation efforts, CDDCs may be worse off economically with the implementation of the Paris Agreement. In order to achieve the target of well below 2°C, it was estimated that a third of oil

reserves, half of natural gas reserves, and more than 80% of current coal reserves must still be in the ground in 2050.³² If the world wants to stay within the 1.5°C target, the halting of fossil-fuel-commodity extraction must be even more drastic. Additionally, ExxonMobil expects that, because of the electrification of mobility, the demand for liquid fuels for light-duty vehicles will peak by 2030.³³ Similarly, BP estimates that oil demand will peak in the 2030s.³⁴

In light of the effects of third-country climate change response measures, CDDCs must transform and decarbonise commodity sectors, as well as diversifying their economies in order to prevent the stranding of their natural resources. Successful implementation of this economic restructuring will require sufficient time and financial resources. If CDDCs want to prevent economic and social collapse, resulting from both economic transformations and stranding, this will require an immense transitioning of jobs and employees' skill sets and considerable strengthening of social safety nets.³⁵

Although CDDCs are not explicitly referenced as a group in the Paris Agreement, Article 4.15 speaks indirectly to this country group by urging Parties to 'take into consideration in the implementation of this Agreement the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties'.

The reality is that countries that are ill-equipped to cope with stranding or disruptive economic restructuring and its social effects might have to jeopardise their current economic development structures and income sources. Facilitation of an urgently required and socially just transition in the context of economic development challenges often exceeds the resources and capacities of CDDCs with lower income levels.³⁶ Thus, CDDCs should be offered appropriate support and incentives by developed countries and various intergovernmental agencies aligned with Paris Agreement Article 3, to foster a just social transition to accompany the transformation of their commodity sectors and the stranding of their key natural resources.

28 For example, the economic crisis in the late 2000s increased unemployment rates across the world – the number of people unemployed rose from 170 million in 2007 to almost 200 million in 2015, see ILO (2016).

29 See UNFCCC (2020).

30 See UNCTAD (2019).

31 Ibid.

32 See McGlade & Ekins (2015); International Energy Agency (2012).

33 See ExxonMobil (2018).

34 See BP (2018).

35 See UNFCCC (2015), p.5.

36 See IISD (2019).

Textbox 3: Case study – Indonesia’s coal phase-out plan will pose challenges for workers in the country’s coal regions

3

The government of Indonesia signed the Global Coal to Clean Power Transition Declaration at COP26, devised a coal retirement programme starting in 2030, and included coal phase-out in the country’s plan to achieve net-zero emissions by 2060. According to the International Energy Agency, Indonesia is the world’s biggest exporter of thermal coal. As illustrated in Figure 1, energy commodities make up over 20% of Indonesia’s total exports, while exports account for about 20% of GDP. Several regions, including East Kalimantan, South Kalimantan, Central Kalimantan, and South Sumatera Provinces, depend highly on the coal industry for employment and income. Furthermore, the coal industry contributes significantly to local revenues through land rent, royalties, and taxes.

Global and national energy transitions will cause a sharp decrease in domestic/local revenue in the sector, with potentially detrimental effects for the relevant regions. If not planned and managed properly, the low-carbon transition could increase unemployment and slow local economic growth even further. Indonesia’s Dala Institute is also exploring the alignment between transition of the working environment and the government’s post-COVID-19 recovery programmes, which provide social and economic support to broader climate-related transition responses in sectors such as agriculture and energy.³⁷

3.3 Challenges for CDDCs seeking to achieve just transition

Several reports and organisations, such as the South to South Just Transitions initiative, point to challenges and barriers to the achievement of the just transition needed in developing countries. The following provides an overview of eight key challenges:³⁸

1. Informality: According to the ILO, more than 60% of the world’s employed population are in the informal economy.³⁹ Workers are mostly undocumented and cannot rely on the state for social support and benefits. Informal dialogues can be challenging, and political measures intended to foster social transition might be ineffective for informal workers.

2. Awareness: There is little consensus in developing countries concerning the implications of the just transition approach. This creates barriers to understanding it, accepting it, and introducing it into policy. In addition, because of high energy poverty and low electricity access, debates about the energy sector are not centred on a low-carbon transition.

3. Limited local expertise and international best practices: There is limited understanding and knowledge

management globally of how the just transition concept can be applied in developing countries. There are few just transition best practice examples in the Global South. Furthermore, there is no one-size-fits-all approach, as models for introducing just transition principles need to be responsive to domestic circumstances.

4. Political capacities and cooperation: There are often inconsistencies between countries’ climate targets and development agendas and their integration into sector-specific economic strategies and policies and labour market planning. Government departments frequently operate in silos and do not adequately communicate with each other. Within government and stakeholder groups, capacities related to the just transition approach are limited. Engagement with stakeholders and government is essential to the delivery of just transition and is often lacking.

5. Lack of data: in various countries, there is a lack of labour market data, which are needed to inform the political decisions and measures that facilitate just transition.

6. Limited resources: A challenging socioeconomic context (i.e. high unemployment, high external debt, high income inequality, and limited public financial power) is likely to exacerbate the negative impacts of an economic transition.

³⁷ See Blachowicz et al. (2021).

³⁸ See Atteridge et al. (2022), Blachowicz et al. (2021), and Glynn et al. (2020).

³⁹ See ILO (2018).

Limited levels of public resources constrain social safety net policies. Resource limitations also impact the state's capabilities to create an environment in which workers' skills can be strengthened sufficiently to align with low-carbon industries and sectors.

7. International climate finance focuses on technological transitions: Although several countries (e.g. Colombia) are committed to preparing just transition strategies in their NDCs, the issue of how to finance such strategies is not addressed in the discussions. This mirrors the lack of international opportunities and support for just transition finance. Just transition requires a clearer approach that is well integrated into the international climate finance landscape.

3.4 Approaches to achieving a just transition

As elaborated in previous sections, large parts of the developing world will face significant economic and social challenges resulting from climate impacts and from global action to achieve the Paris Agreement goals. The challenges for developing countries in promoting just transition (i.e. providing social support and benefits for affected workers and stakeholders) mean they have structural and additional financing needs. The following sketches key approaches that would ensure that just transition policies are established in the developing world, along with climate action:

Social dialogue and stakeholder engagement: A first step that has been emphasised by several case studies is to seek social dialogues and engagement with relevant stakeholders, such as national and provincial governments, academic institutions, think tanks, and labour unions, but also representatives of informal workers, private sector entities, youth, women, and indigenous groups, as well as financial institutions, international donors, and private investors. Local knowledge and expertise are key to identifying sector-specific individual transition concepts. Social dialogue will help raise awareness and build consensus on integrating the just transition approach into public policy and the agenda of non-governmental actors. Social dialogue and stakeholder engagement will also address financing needs and the lack of practical information, and help advance conceptualisations

of the just transition approach in line with national circumstances.⁴⁰

Strengthening data collection and research: Effective action to foster a just transition must be based on sufficient knowledge and data. However, data are often lacking, for example on the number and types of workers in an area and sector as well as on the impacts of certain (climate) policy decisions on income, poverty, and employment. A lack of data is a key barrier to evaluating transition impacts and opportunities. Effective just transition planning and proper resource allocation require strengthened research, because the capacity for socioeconomic modelling and scenario planning is critical.⁴¹

Empower understanding through capacity building and coordination: Often, affected workers have limited understanding of the implications of climate policy and climate impacts for their socioeconomic situations. Empirical analyses have shown that various key government institutions use the term 'just transition' in a limited or wrong way. Building understanding of what just transition actually means and why it is important would build capacity, enhance political action, and enrich social dialogue. In addition, cross-sector and cross-government coordination is important for formulating a clear vision and establishing an inclusive and joint commitment, as well as enhancing the effectiveness of social transition measures.⁴²

Coherent policies for a just transition framework: An enabling just transition framework will require coherent policies across the economic, environmental, and social spectrum that are informed by stakeholder dialogues and benefit from enhanced availability of data on the effects of climate action and sectoral transitions. A political environment of this kind would enable impacts on employment to be anticipated, provide adequate and sustainable social protection for job losses and displacement, offer opportunities for skills development, and strengthen collective bargaining rights.⁴³ With an appropriate political set-up, countries can demonstrate ownership and leadership in promoting just transition via a structured process. The ILO, together with the Green Jobs Assessment Institutions Network, developed an economic tool to measure and model social and employment outcomes of climate policies, which can help actors to plan adequate just transition policy responses.⁴⁴

40 See Atteridge et al. (2022); Atteridge & Lestari (2022); Blachowicz et al. (2021); CSIS & CIF (2020); Glynn et al. (2020).

41 See Atteridge et al. (2022); CSIS & CIF (2020).

42 See Atteridge et al. (2022); Blachowicz et al. (2021); ILO (2019).

43 Ibid.

44 For the tool, see ILO (2017).

Involve the private sector: To support the actions required for facilitating a just transition and meeting finance needs, countries should actively engage the private sector in designing support programmes for workers. This is particularly relevant for reskilling initiatives that help workers transition into new sectors in a low-carbon economy. Public-private partnerships (PPPs) can be particularly effective when facilitating the transition in emerging and future industries.⁴⁵

Identify specific just transition investment needs and funding mechanisms: In the coming decades, financing a just transition approach that deals with socioeconomic transition risks and impacts will be a critical challenge. On the one hand, financing is needed to address coordination, build capacity, and establish a political framework, in order to strengthen social dialogue. On the other hand, financing is also needed for concrete transition measures that directly enhance the situations of affected workers.

At the domestic level, CDDCs might use national policy and fiscal instruments to generate transition finance. For instance, the government of Indonesia aims to implement a carbon tax to generate revenue that could be used for managing distributional impacts and ensuring that the negative effects of a low-carbon transition for poor or marginalised groups are prevented or diminished.⁴⁶ In another example, the Central Bank of Bangladesh has launched a green banking initiative that aims to encourage financial services to make an appropriate contribution to sustainability, considering the Paris Agreement targets and broader Sustainable Development Goals.⁴⁷ If an initiative like this successfully sets out a common terminology on socially inclusive sustainable financing, it could potentially support a socially just transition in the country. On another note, Laos introduced a payment scheme for environmental services that can also contribute to a just transition by supporting the livelihoods of low-income groups.⁴⁸ Also, the literature suggests that in Latin America and the Caribbean,

carbon tax revenues can be effective in at least compensating poor and vulnerable households.⁴⁹ Nevertheless, in most empirical examples, the specific ways that resources are used and channelled⁵⁰ are still unclear and will be insufficient to achieve a comprehensive just transition approach.

Despite national efforts by CDDCs to finance and facilitate just transition, for the large majority of them, international climate finance will be critical in the financing of the social pillar of global sustainable transition. Therefore, it is key that under the international climate finance framework, just transition finance is addressed in addition to existing finance flows dedicated to meeting commitments to reduce GHG emissions (mitigation) and enhance adaptive capacities (adaptation). While just transition financing resources must be additional, projects and programmes would benefit from integrated approaches that better combine mitigation/adaptation action and just transition components and hence increase their effectiveness and impact.⁵¹

Strengthen the integration of the just transition approach into UNFCCC mechanisms: To achieve global climate justice, it is key to make just transition more prominent in climate negotiations and mechanisms under the UNFCCC. First, just transition strategies should be addressed in NDCs. A report by Climate Strategies provides a template and guidance for integrating just transition considerations into NDCs. Such considerations may include a re-endorsement of the ILO Guidelines for a just transition⁵²; just transition commitments and delivery strategies; a labour market plan; and the establishment of a dedicated committee or a just transition target monitoring process.⁵³ Once just transition strategies are integrated into NDCs, it is important to ensure that plans and targets are enforced. For instance, just transition is mentioned in Colombia's revised NDC, but this does not yet translate into promotion by the Colombian government of an inclusive low-carbon transition.⁵⁴

45 See Atteridge et al. (2022); CSIS & CIF (2020).

46 See Atteridge et al. (2022).

47 See Bangladesh Bank (2020).

48 See ITUC (2018).

49 See Vogt-Schilb et al. (2019).

50 It should be noted that local jurisdictions often hinder the direct rechanneling of resources, as in most cases rechanneling of taxes is not compatible with national budget laws.

51 Official Development Assistance (ODA) might also be a financing framework under which just transition components can be realised. Given its rather unsustainable character, ODA should be used catalytically to enable and empower partners to finance the 'just' component on their own in the long term.

52 In 2015, the ILO adopted a set of just transition guidelines based on inputs from governments, businesses, and trade unions. The ILO Just Transition Guidelines underscore the need to support and provide socioeconomic management for industries, regions, workers, and communities that will be negatively affected by climate change and climate policy, hence highlighting the importance of policy coherence between action on climate change and labour market planning. For example, the guidelines recommend action to anticipate skills needs, assess health and safety risks, ensure social protection in the low-carbon transition, implement international labour standards, and actively promote social dialogue. For the ILO Just Transition Guidelines, see ILO (2016b).

53 For the Climate Strategies Report, see Glynn et al. (2020).

54 See Blachowicz et al. (2021).

Second, as developing countries communicate more about their just transition needs (particularly through NDCs), financial support for just transition strategies could consequently be enhanced under UNFCCC climate finance channels. While it is evident that more financial support of this kind is needed, the format and channels for such support, either through existing mechanisms or new just transition finance instruments, have yet to be analysed. This paper calls for such discussions to be placed more prominently in the agendas of upcoming climate negotiations. With the 2022 climate conference in reach, developing countries could prepare concise position statements on just transition to bring forward at COP27; moreover, it will be critical for future climate conferences to investigate their finance needs in more depth.

Third, through technology transfer, the international community can contribute to economic and social stability in CDDCs, as well as enabling developing countries to foster economic diversification and escape the commodity dependence trap. However, developing countries' access to technologies is significantly limited by a lack of financial resources to acquire them and by the current intellectual property protection rules. The international framework for technology transfer towards CDDCs is not sufficient, although the Paris Agreement sets guidance for a Technology Mechanism via the Technology Executive Committee and the Climate Technology Centre and Network. Through the existing frameworks, Parties should develop a conducive

environment for knowledge exchange and technology access, where developed countries are required to provide and report on technology transfer and capacity-building support to CDDCs, based on the needs assessment of each country.⁵⁵

Fourth, just transition finance needs should be integrated into other elements of the Paris Agreement such as the New Collective Quantified Goal (NCQG) or transparency standards⁵⁶ such as climate finance reporting (e.g. Paris Agreement Article 13). Country studies suggest that greater transparency is needed over how climate finance is being spent and how far social transition needs are being addressed.⁵⁷ With this in place, stakeholders such as local authorities, workers, the private sector, and civil society could better grasp the nature of local transitions and be better able to prepare adequate responses.

The UNFCCC itself recognises that sustainable development, which should be the ultimate goal of climate finance, comprises three dimensions: the economic, the environmental, and the social.⁵⁸ Fulfilling the imperative of a just transition, which is that no one is left behind in the shift to a climate-resilient, low-carbon economy, must be the next frontier of climate action. Therefore, climate finance flows must integrate the social dimension to increase the overall quality of financing provided.

55 See UNCTAD (2021).

56 Integration into transparency standards would require a common definition of 'just transition' and a respective marker or CRS code.

57 See Atteridge et al. (2022).⁵⁸

58 See UNFCCC (2020).

4. Just transition finance

4.1 Public sector just transition finance

As this policy brief has already outlined, the concept of just transition has been discussed only recently within the framework of international climate finance. Moreover, debates and actions are often dominated by developed countries and the topic of low-carbon transition in the energy sector. As the relevance of a just transition approach and the need for associated financial resources in CDDCs are not prominent in the debate, there is a lack of empirical work on just transition policies and financing channels in the countries concerned. From a commodity dependence and developing country perspective, this paper reveals the need for more practical, granular advice on what works and what does not, as well as the need for sufficient targeted just transition finance channels. While the largest sums of capital lie in the private sector, public finance plays a critical role, as policymakers can exert direct control over financing flows and catalyse private finance.

Forming one major channel of public climate finance, 450 development banks have signed a joint declaration and stated their intention to ‘take into account the imperative of a just, inclusive and rights-based transition’ as part of their strategy to build back better from COVID-19; this occurred in the context of a global summit of all public development banks in 2020. For instance, the Inter-American Development Bank (IDB) recently published a report on jobs in a future net-zero economy, outlining predicted labour market development and policy options for facilitating a just transition in countries in Latin America and the Caribbean.⁵⁹ These options include public finance options such as the use of revenues from carbon taxes. Nevertheless, the issue of how finance for just transition can be systematically unlocked and effectively channelled towards actions that need to be taken, beyond simple acknowledgement and a mere willingness to support just transition action, has yet to be defined. Recently, the African Development Bank has launched a just transition initiative to consult African stakeholders and build consensus

on a working definition of a just transition approach, identify the implications that the developed-economies-led energy transition has for a low-carbon and climate-resilient economy in Africa, and explore potential policies and strategies.⁶⁰

In the context of COP26, several initiatives and multilateral partnerships have been announced that deal with the financing needs of a just transition. The most prominent under the current international just transition agenda is the JETP between South Africa and the US, Germany, France, the UK, and the EU. The JETP focuses on the transition from coal-fired power plants to cleaner energy sources. To this end, it is envisioned that South Africa will receive \$8.5 billion through various mechanisms including grants, concessional loans and investments, and risk-sharing instruments, including to mobilise the private sector. Despite being energy focused, the partnership recognises that climate ambitions will affect mining communities and workers – South Africa employed more than 90,000 people in coal mines alone in 2020. This partnership could be a role model for CDDCs focusing either on energy or agricultural commodities.

So far, substantial just transition finance mechanisms have been implemented only in the developed world – for example, the Just Transition Mechanism in the EU.⁶¹ In the Global South, initiatives exist that promote a just transition approach through research and knowledge exchange. Initiatives include the Just Rural Transition,⁶² the Just Transition Initiative,⁶³ the South to South Just Transitions project,⁶⁴ and the Just Transition Research Collaborative.⁶⁵

Many developing countries will have difficulty raising national financing for just transition efforts and will depend on the support of climate finance (and Official Development Assistance (ODA)). To fulfil its critical role, the international climate finance architecture must find a way to systematically integrate just transition finance into UNFCCC mechanisms and instruments. The climate finance architecture needs to broaden its focus and fund complementary programmes that

59 See IDB & ILO (2020).

60 See Rosario (2022).

61 The Just Transition Mechanism provides targeted support to help mobilise around €55 billion over the period 2021-2027 in the most affected EU regions. See European Commission.

62 See JRT website.

63 See JTI website.

64 See CS (2021).

65 See Edouard Morena (2018).

support the socioeconomic transition process, as well as GHG emissions mitigation and climate impact adaptation. Such programmes are vital for filling data and knowledge gaps, establishing efforts to reskill affected workers, or fostering public policy reforms to strengthen social safety nets for those who cannot find re-employment.⁶⁶ To this end, development of the climate finance architecture must not start from scratch. The Green Climate Fund, for example, is already taking social justice into account in the context of mitigation and adaptation through its Environmental and Social Safeguards. Discussions must address whether to integrate just transition principles more deeply into the design of funding proposals or whether additional funding mechanisms are required.

Some just transition elements might also be addressed by current adaptation finance measures, with adaptation defined by the UNFCCC as ‘human-driven adjustments in ecological, social or economic systems or policy processes, in response to actual or expected climate stimuli and their effects or impacts’.⁶⁷ The elements in question could include enhancing the climate resilience of agriculture with new technologies, crops, and irrigation systems, while the broad definition of adaptation also leaves space for the integration of other just transition elements. Nevertheless, data collection and research must be enhanced to enable correlations between adaptation and the implications of just transition before they can be analysed in more depth. It is also a task for the international community, in climate negotiations, to define the implications of adaptation measures for just transition needs. Classical development assistance might also be able to address just transition elements, for example by diversifying economic activities.

Although certain just transition needs can be addressed under adaptation measures, existing climate finance channels will not be adequate to fully cover a comprehensive just transition approach. For instance, smallholders in areas whose agricultural activities will be completely lost due to climate impacts need to be offered a solution. Where climate adaptation in the agricultural sector is not effective, new and additional approaches to just transition must be added. Alternatively, workers in coal, oil, and gas extraction businesses that cannot be directly transformed need prospects for their future employment and income sources.

Despite the unilateral activities of developing countries, it is evident that a financing and action gap exists in CDDCs in relation to just transition needs, because of physical and transition risks. Such gaps can only be addressed if, under the framework of climate finance (and ODA), developing country Parties enhance their communication about just transition needs. Meanwhile, donor countries may increasingly support the just transition approach in CDDCs, taking into account the fact that only a holistic sustainable transition (economic, environmental, and social) can be successful in the long term.

4.2 Private sector

Given that public finance is limited and will probably not be enough to finance a just transition, it is necessary to mobilise private finance. The role of the private sector in the transition and the support needed to promote it are well understood. The private sector needs to invest more in low-carbon and climate-resilient technologies, activities, and related infrastructure (e.g. in renewable energies or improvements in power grids) and less in high-emitting technologies and sectors.

To promote more investment in low-carbon and resilient options, public finance can be deployed to ‘crowd in’ private investment at the project level, using instruments such as guarantees, equity, and concessional loans. ‘Blended finance’ is often highlighted as a way to mobilise private finance, with development finance institutions playing a critical role in developing countries. They can provide finance in a way that reduces or transfers the perceived risks of investments in certain sectors and new technologies, provides access to long-term debt and lower transaction costs, and can play a role in providing local currency debt for projects that are otherwise unable to access affordable finance.⁶⁸ Other financial instruments to promote private investment in the transition include green and sustainable bonds.

Additionally, reorienting private finance to support the transition requires changes in public policies and regulatory frameworks aimed at the financial sector. These changes seek to incorporate climate-related physical and transition risks into financial systems, as well as to promote transparency and consistency in disclosing those risks, and to promote the opportunities presented by climate change and climate policy. In this way, investors can identify risks of stranded

66 See Atteridge et al. (2022).

67 See UNFCCC. Glossary of Key Terms.

68 See OECD (2021).

assets and make investment decisions accordingly. This shift also entails promoting the incorporation of environmental, social, and governance criteria into investment assessments.⁶⁹ Initiatives already exist to promote these changes in policy and regulation, including the Task Force on Climate-Related Financial Disclosures,⁷⁰ and many of these changes have started to take place in a number of countries, particularly in developed countries.

Some challenges in attracting private finance have also been identified. At the project level, these include a lack of investable projects, particularly in developing countries. More generally, they can involve a lack of common understanding of what investments are considered 'green' or constitute transition activities. Solutions include efforts from governments to develop project pipelines and the introduction of criteria for 'green' and transition-related investments by, for example, developing taxonomies for sustainable finance and transition finance.⁷¹

New emphasis is also being given to the role of private capital in financing a just transition. Adding the justice element to private finance requires the financial system to look beyond 'stranded assets' and include 'stranded workers' and 'stranded communities'.⁷² Responding to the challenges of just transition will thus require greater integration of social aspects into investment decisions, to avoid the stranding of workers and communities in high-carbon sectors and to protect them from climate impacts.

An approach to integrating these considerations within established mechanisms has been proposed. It is aimed at institutional investors and is presented in research commissioned by the Principles for Responsible Investment network. This approach entails including just transition considerations in investment strategies, corporate engagement, capital allocation, policy advocacy and partnerships, and learning and review activities. Key aspects of this proposal include adding the social dimensions of the transition to assessments of portfolio exposure, identifying sectoral and thematic priorities for investment based on this information, and establishing a dialogue with key

stakeholders, including workers and communities. In terms of capital allocation, it entails not only switching capital between companies to finance those that integrate social considerations but also working with portfolio companies to make allocation decisions that support a just transition, as well as the purchase of sovereign, municipal, and other public sector bonds dedicated to financing transition measures.⁷³ The integration of human rights due diligence can also provide a tool to address the wider implications of the transition for communities and indigenous peoples and to integrate gender perspectives.⁷⁴

The just transition can also be seen as a way of identifying new investment opportunities across all asset classes and through new approaches that prioritise social outcomes, especially for those investors who want to generate positive environmental and social impacts.⁷⁵

However, it is important to note that much of the literature on the role of private capital in a just transition draws on examples from developed countries, and to a lesser degree from middle-income economies such as South Africa, and is often focused on decarbonisation of the energy sector. Few accounts and insights exist on how private finance, especially from institutional investors, can support the transition in lower-income countries, and especially the least developed countries (LDCs); this gap is of particular concern given that private investment is currently almost non-existent in these countries.⁷⁶ It is also unclear how private sector approaches could address the previously identified challenges faced by CDDCs, especially the high degree of informality of the labour market in developing countries, the absence of land rights, and the challenging socioeconomic contexts mentioned above (high unemployment levels, high external debt, high income inequality, and limited public financial power).

Beyond institutional investors, development banks could also support just transition by using public finance to mobilise private finance in support of activities that include the 'just' aspects of the transition, for example by using the concept of 'blended finance'. Nevertheless, LDCs also face challenges related to the flows of blended finance, with this group of

69 See OECD (2020a).

70 See TCFD website.

71 See ADB (2022).

72 See Robins, N. et al (2018b).

73 See Robins, N. et al (2018b) and Robins, N. et al (2019).

74 See IHRB (2020).

75 See Robins, N. et al (2018a).

76 For example, in 2021, the share of LDCs in global foreign direct investment remained below 2% and their share in developing country inflows below 4%, see UNCTAD (2022).

countries receiving the lowest share of the private finance mobilised by official development finance interventions, and with blended finance flows being concentrated in a few sectors with higher profitability, such as energy, banking, and financial services.⁷⁷

Some initial results from the South to South Just Transitions project highlight potential avenues for private sector engagement in developing countries, for example via benefit-sharing mechanisms such as payments for environmental services, as well as PPPs. What is clear from these results is

that there is no one-size-fits-all solution and that there needs to be increased dialogue and information sharing between all stakeholders, including private sector entities and private investors. Collaborating with the private sector in the development of just transition initiatives is also an important way to involve them in this process.⁷⁸ Finally, there should be a more open discussion on the limits of private sector engagement in specific contexts and countries, the need for continued international support in such cases, and national reform agendas.

5. Conclusion and recommendations for climate negotiations

This policy brief aims to broaden the discussion on just transition finance and reflects an emerging perspective that takes into account dependency on commodity exports and development status. This publication also emphasises the relevance of including CDDCs in the just transition finance debate. Of the 40 countries most vulnerable to climate change, only three are not dependent on commodity exports – figures 1 and 2 depict the interplay between commodity dependence on resources from the energy and AFOLU sectors and vulnerabilities to climate impacts and third-country mitigation measures. CDDCs' just transition needs arise, on the one hand, through physical risks, particularly to products in the AFOLU sector, and on the other hand through the transition risks (e.g. stranding of energy commodities) related to efforts to achieve the Paris Agreement targets. Facing critical physical and transition risks, CDDCs must anticipate climate impacts and economic restructuring trends and prepare effective response measures. As the UNFCCC acknowledges, a climate-resilient, low-carbon transition can only be successful when it takes into account the economic, environmental, and social dimensions of sustainable development.

In seeking to achieve a comprehensive just transition, CDDCs face several challenges, such as informality, lack of awareness and data availability, and limited political capacities and financing resources. Hence, CDDCs need social dialogues,

strengthened data availability and research, capacity building, and, particularly, a coherent socioeconomic policy framework that includes labour market planning and the provision of adequate social safety nets. More importantly, CDDCs need the just transition approach to be adequately financed.

The latest IPCC report underscores the fact that 'climate finance in support of a just transition is likely to be a key to a successful low-carbon transition globally'.⁷⁹ As there is currently a lack of international opportunities and support for just transition finance, and as the concept requires a clearer approach that is well integrated with climate finance plans, this policy brief has also discussed how just transition finance could be reflected within the financial support window of the Convention and the Paris Agreement.

The following recommendations can be drawn from the policy brief's discussion:

Terminology and rationale: As elaborated in this policy brief, just transition finance needs to exceed the limits of adaptation and mitigation finance. Countries should accelerate research, data collection, and knowledge exchange to decide on just transition action and determine financing needs in more detail. On this basis, climate negotiations need to find a common understanding of the just transition finance

77 See OECD (2020b).

78 See Atteridge et al. (2022).

79 See IPCC (2022), pp.15–16.

terminology, agree on what additional finance is needed and feasible, and determine whether existing channels are sufficient to integrate the just transition approach or whether new just transition finance channels are required.

Just transition initiatives: During COP26, 10 initiatives were announced that directly or indirectly focus on realising the just transition approach; the most prominent is the international JETP. Any of these initiatives that gain momentum, as well as forthcoming initiatives, should take into account just transition needs, as well as the financing and action gap, particularly in CDDCs.

Integrate just transition into the NDC process: In the next NDC round, countries should elaborate on just transition commitments and delivery strategies, a labour market plan, a target monitoring process, and an enforcement strategy. In this regard, the NDC Partnership could be used as a platform for providing resources, matching needs, and communicating support needs for just transition actions in the context of NDC development and implementation.

NCQG: Negotiators under the UNFCCC should consider bringing just transition finance needs into the ongoing debate and negotiations on the NCQG at COP27 and upcoming climate conferences. At the same time, the NCQG deliberations could show support for the process of defining what constitutes just transition finance and support the determination of developing countries' just transition needs. The work of the SCF, which will probably feed into the NCQG deliberations, already includes discussions on transition finance as part of its Fifth Biennial Assessment and Overview of Climate Finance Flows. This work could be strengthened in the future as understanding of just transition finance increases.

Response measures: The forum on the impacts of the implementation of response measures under the Convention might be the right place to discuss and develop approaches and financing measures that provide just transition solutions.

Decision 1/CP.27 1/CMA.4: Just transition should be reflected and covered in the negotiation agenda, Decision 1/CP.27 1/CMA.4.

References

27th Conference of the Parties of the UNFCCC (COP27)

(2022): Official Website. Available at: <https://cop27.eg/#/>

Adriana Abdenur (no date available): What does Just Transition mean for Middle Income Countries?. Available at: <https://www.un.org/en/climatechange/what-does-just-transition-mean-middle-income-countries>

Asian Development Blog (ADB) (2022): Transition Finance is Critical to Address Climate Change. Available at: <https://blogs.adb.org/blog/transition-finance-critical-address-climate-change>

Atteridge, A. et al. (2022): Exploring Just Transition in the Global South. Climate Strategies. Available at: <https://climatestrategies.org/publication/exploring-just-transition-in-the-global-south/>

Atteridge, A. & Lestari, T. (2022): OPINION: Climate finance must foster a just transition in developing countries. Climate Strategies. Available at: <https://news.trust.org/item/20220608144417-8dirs>

Atteridge, A. & Remling, E. (2017): Is adaptation reducing vulnerability or redistributing it? Available at: <https://wires.onlinelibrary.wiley.com/doi/abs/10.1002/wcc.500>

Bangladesh Bank (2020): Sustainable Finance Policy for Banks and Financial Institutions. Available at: <https://www.bb.org.bd/mediaroom/circulars/gbcrd/dec312020sfd05.pdf>

Blachowicz, A. et al. (2021): Incorporating just energy transition strategies into developing countries NDCs and Covid-19 responses: Comparing insights from Ghana, Colombia, and Indonesia. Available at: <https://dala.institute/publications/incorporating-just-transition-strategies-into-developing-countries-ndcs-and-covid-19-responses-comparing-insights-from-ghana-colombia-and-indonesia>

BP (2018): BP Energy Outlook: 2018 Edition. Available at: <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2018.pdf>

Center for Strategic and International Studies (CSIS) & Climate Investment Fund (CIF) (2020):

Just Transition Concepts and Relevance for Climate Action. Available at: https://csis-web-site-prod.s3.amazonaws.com/s3fs-public/publication/200626_JustTransition_layout_v8.pdf

Climate Strategies (2021): South to South Just Transitions. Available at: <https://climatestrategies.org/projects/south-to-south-just-transitions/>

Edouard Morena (2018): The Just Transition Research Collaborative (JTRC). Available at: <https://www.just-transition.info/the-just-transition-research-collaborative-jtrc/>

European Commission: The Just Transition Mechanism: making sure no one is left behind. Available at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

ExxonMobil (2018): 2018 outlook for energy: A view to 2040. Available at: <https://www.aop.es/wp-content/uploads/2019/05/2018-Outlook-for-Energy-Exxon.pdf>

Free, C.M. et al. (2019): Impacts of historical warming on marine fisheries production. *Science* 363(6430), 979–983. Available at: <https://www.science.org/doi/10.1126/science.aau1758>

Glynn, P.J. et al. (2020): Incorporating just transition strategies in developing country Nationally Determined Contributions. Climate Strategies. Available at: https://climatestrategies.org/wp-content/uploads/2020/06/CS_Just-Transition-NDCs-report_web.pdf

Institute for Human Rights & Business (IHRB) (2020): Just Transition for All: Business, Human Rights, and Climate Action. Available at: <https://www.ihrb.org/uploads/reports/Just-Transitions-For-All-Business%2C-Human-Rights%2C-and-Climate-Action-IHRB-Nov2020.pdf>

Inter-American Development Bank (IDB) & International Labour Organization (ILO): Jobs in a net-zero emissions future in Latin America and the Caribbean. Available at: <https://publications.iadb.org/publications/english/document/Jobs-in-a-Net-Zero-Emissions-Future-in-Latin-America-and-the-Caribbean.pdf>

Intergovernmental Panel on Climate Change (IPCC)

(2014): Summary for policymakers, In: Climate Change 2014: Mitigation of Climate Change – Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York.

Intergovernmental Panel on Climate Change (IPCC)

(2022): Climate Change 2022: Impacts, Adaptation and Vulnerability. Available at: <https://www.ipcc.ch/report/ar6/wg2/>

International Institute for Sustainable Development

(IISD) (2019): UNCTAD: Commodity-dependent Countries Must Diversify to Avoid Economic Collapse. Available at: <https://sdg.iisd.org/news/unctad-commodity-dependent-countries-must-diversify-to-avoid-economic-collapse/>

International Labour Organization (ILO) (2015):

Guidelines for a just transition towards environmentally sustainable economies and societies for all. Available at: https://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang-en/index.htm

International Labour Organization (ILO) (2016a): World Employment Social Outlook: Trends 2016. Available at: https://www.ilo.org/global/research/global-reports/weso/2016/WCMS_443480/lang-en/index.htm

International Labour Organization (ILO) (2016b):

Guidelines for a just transition towards environmentally sustainable economies and societies for all. Available at: https://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang-en/index.htm

International Labour Organization (ILO) (2017): How to measure and model social and employment outcomes of climate and sustainable development policies. Available at: https://www.ilo.org/global/topics/green-jobs/publications/WCMS_613934/lang-en/index.htm

International Labour Organization (ILO) (2018): More than 60 per cent of the world's employed population are in the informal economy. Available at: https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_627189/lang-en/index.htm

International Labour Organization (2019): Green Jobs and a Just Transition for Climate Action in Asia and the Pacific. Available at: https://www.ilo.org/asia/publications/WCMS_734887/lang-en/index.htm

International Trade Union Confederation (2018):

ITUC Economic and Social Policy Brief: The Role of Social Protection in a Just Transition. Available at: <https://www.ituc-csi.org/Social-Protection-in-a-Just-Transition>

Just Rural Transition (JRT): Website. Available at: <https://justruraltransition.org/>

Just Transition Initiative (JTI): Website. Available at: <https://justtransitioninitiative.org/>

Keane, J., Bird, N., Tanjangco, B. & Colenbrander, S. (2021): Aligning climate finance and Aid for Trade: A new agenda for LDC negotiators. Policy brief. Available at: https://cdn.odi.org/media/documents/Aligning_climate_finance_and_Aid_for_Trade_X1bReFA.pdf

Matiu, M. et al. (2017): Interactions between temperature and drought in global and regional crop yield variability during 1961–2014. PLoS ONE 12(5), e178339. Available at: <https://doi.org/10.1371/journal.pone.0178339>

McGlade, C. & Ekins, P. (2015): The geographical distribution of fossil fuels unused when limiting global warming to 2°C. Nature 517: 187–190. Available at: <https://www.nature.com/articles/nature14016.epdf>

Organisation for Economic Co-operation and Development (OECD) (2020a): Making the green recovery work for jobs, income and growth. Available at: <https://www.oecd.org/coronavirus/policy-responses/making-the-green-recovery-work-for-jobs-income-and-growth-a505f3e7/>

Organisation for Economic Co-operation and Development (OECD) (2020b): Blended Finance in the Least Developed Countries 2020: Supporting a Resilient Covid-19 Recovery. Available at: <https://www.oecd-ilibrary.org/sites/57620d04-en/index.html?itemId=/content/publication/57620d04-en>

Organisation for Economic Co-operation and Development (OECD) (2021): Mobilising the private sector for the green transition in emerging markets. Available at: <https://oecd-development-matters.org/2021/11/29/mobilising-the-private-sector-for-the-green-transition-in-emerging-markets/>

Reuters (2022): Africa losing up to 15% of GDP growth to climate change, African Development Bank says. Available at: <https://www.reuters.com/world/africa/africa-losing-up-15-gdp-growth-climate-change-afdb-2022-09-13/>

- Robins, N. et al. (2018a):** Investing a just transition: Why investors need to integrate a social dimension into their climate strategies and how they could take action. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/06/Robins-et-al_Investing-in-a-Just-Transition.pdf
- Robins, N. et al (2018b):** Climate change and the just transition: A guide for investor action. Available at: <https://www.unpri.org/download?ac=9452>
- Robins, N. et al (2019):** Why a just transition is crucial for effective climate action. Available at: <https://www.unpri.org/download?ac=7092>
- Rosario, K. (2022):** How is climate finance incorporating 'just transition'? Available at: <https://www.uxolo.com/articles/7116/how-is-climate-finance-incorporating-just-transition>
- Sultan, B. et al. (2019):** Evidence of crop production losses in West Africa due to historical global warming in two crop models. *Sci. Rep.* 9(1), 12834. Available at: <https://www.nature.com/articles/s41598-019-49167-0>
- Task Force on Climate-related Financial Disclosure (TCFD):** Website. Available at: <https://www.fsb-tcfd.org/>
- Tsafos, N. and Carey, L. (2020):** Energy Transition in Emerging Economies: What Success looks like and How to Replicate it. Available at: https://www.jstor.org/stable/resrep27667#metadata_info_tab_contents
- United Nations (UN):** What does Just Transition mean for Middle Income Countries? Available at: <https://www.un.org/en/climatechange/what-does-just-transition-mean-middle-income-countries>
- United Nations Conference on Trade and Development (UNCTAD) (2019):** Commodity Dependence, Climate Change and the Paris Agreement. *Commodities & Development Report 2019*. Available at: https://unctad.org/system/files/official-document/ditcom2019d3_en.pdf
- United Nations Conference on Trade and Development (UNCTAD) (2021):** Escaping from the Commodity Dependence Trap through Technology and Innovation. *Commodities & Development Report 2021*. Available at: <https://unctad.org/webflyer/commodities-and-development-report-2021>
- United Nations Conference on Trade and Development (UNCTAD) (2022):** The state of commodity dependence. Available at: <https://unctad.org/topic/commodities/state-of-commodity-dependence>
- United Nations Framework Convention on Climate Change (UNFCCC):** Glossary of Key Terms. Available at: [https://www4.unfccc.int/sites/NAPC/Pages/glossary.aspx#:~:text=Adaptation%20Human%2Ddriven%20adjustments%20in,impacts%20\(LEG%2C%202011\)](https://www4.unfccc.int/sites/NAPC/Pages/glossary.aspx#:~:text=Adaptation%20Human%2Ddriven%20adjustments%20in,impacts%20(LEG%2C%202011))
- United Nations Framework Convention on Climate Change (UNFCCC) (2015):** Paris Agreement. Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- United Nations Framework Convention on Climate Change (UNFCCC) (2016):** Just transition of the workforce, and the creation of decent work and quality jobs. Technical paper by the secretariat. Available at: <https://unfccc.int/documents/9500>
- United Nations Framework Convention on Climate Change (UNFCCC) (2020):** Just transition of the workforce, and the creation of decent work and quality jobs. Available at: <https://www.ipcc.ch/report/ar6/wg2/https://unfccc.int/documents/226460>
- United Nations Framework Convention on Climate Change (UNFCCC) (2021):** Glasgow Climate Pact. Available at: https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf
- United Nations Research Institute for Social Development (UNRISD) (2018):** Mapping Just Transition(s) to a Low-Carbon World. Available at: <https://www.unclearn.org/resources/library/mapping-just-transitions-to-a-low-carbon-world/>
- University of Notre Dame (2022):** Notre Dame Global Adaptation Index (ND-GAIN). Data release July 2022. Available at: <https://gain.nd.edu/our-work/country-index/>
- Vogt-Schilb, A. et al. (2019):** Cash transfers for pro-poor carbon taxes in Latin America and the Caribbean. *Nat. Sustain.* 2, 941–948. Available at: <https://www.nature.com/articles/s41893-019-0385-0>
- World Bank (2022):** Exports of goods and services (% of GDP). Available at: <https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS>

Appendix:

Dependency index: countries that are dependent on energy and/or climate-vulnerable agricultural commodity exports (low to high dependency on exports)

Data processed				
	Energy	Agriculture with high vulnerability	SIDS	LDC
Afghanistan	0,000	0,000		LDC
Albania	0,032	0,020		
Algeria	0,210	0,002		
Andorra	0,000	0,000		
Angola	0,378	0,002		
Antigua and Barbuda	0,045	0,062	SIDS	
Argentina	0,007	0,074		
Armenia	0,008	0,074		
Australia	0,051	0,022		
Austria	0,012	0,030		
Azerbaijan	0,444	0,020		
Bahamas	0,100	0,018	SIDS	
Bahrain	0,257	0,033	SIDS	
Bangladesh	0,000	0,006		LDC
Barbados	0,038	0,067	SIDS	
Belarus	0,155	0,072		
Belgium	0,073	0,044		
Belize	0,029	0,276	SIDS	
Benin	0,012	0,215		LDC
Bhutan	0,044	0,027		LDC
Bolivia, Plurinational State of	0,083	0,037		
Bosnia and Herzegovina	0,034	0,032		
Botswana	0,001	0,006		
Brazil	0,018	0,036		
Brunei Darussalam	0,530	0,001		
Bulgaria	0,059	0,067		
Burkina Faso	0,003	0,062		LDC
Burundi	0,001	0,016		LDC
Cambodia	0,002	0,440		LDC
Cameroon	0,000	0,043		
Canada	0,085	0,037		
Cape Verde	0,071	0,038	SIDS	
Central African Republic	0,000	0,070		LDC
Chad	0,299	0,036		LDC
Chile	0,003	0,042		
China	0,003	0,005		

Data processed				
	Energy	Agriculture with high vulnerability	SIDS	LDC
Colombia	0,089	0,023		
Comoros	0,000	0,079	SIDS	LDC
Congo	0,528	0,037		
Costa Rica	0,000	0,092		
Cote d'Ivoire	0,035	0,158		
Croatia	0,051	0,081		
Cuba	0,002	0,040	SIDS	
Cyprus	0,156	0,062		
Czech Republic	0,014	0,019		
Korea, Democratic People's Repub	0,000	0,000		
Congo, the Democratic Republic o	0,000	0,000		LDC
Denmark	0,024	0,073		
Djibouti	0,187	0,394		LDC
Dominica	0,000	0,000	SIDS	
Dominican Republic	0,002	0,043	SIDS	
Ecuador	0,096	0,087		
Egypt	0,045	0,032		
El Salvador	0,008	0,050		
Equatorial Guinea	0,448	0,010		
Eritrea	0,000	0,000		LDC
Estonia	0,099	0,065		
Swaziland	0,009	0,144		
Ethiopia	0,000	0,066		LDC
Fiji	0,069	0,221	SIDS	
Finland	0,035	0,018		
France	0,009	0,025		
Gabon	0,299	0,077		
Gambia	0,005	0,144		LDC
Georgia	0,007	0,093		
Germany	0,010	0,016		
Ghana	0,115	0,085		
Greece	0,132	0,044		
Grenada	0,000	0,000	SIDS	
Guatemala	0,007	0,073		
Guinea	0,009	0,019		LDC
Guinea-Bissau	0,009	0,225	SIDS	LDC
Guyana	0,000	0,000	SIDS	
Haiti	0,000	0,011	SIDS	LDC
Honduras	0,006	0,144		

Data processed				
	Energy	Agriculture with high vulnerability	SIDS	LDC
Hungary	0,022	0,060		
Iceland	0,008	0,084		
India	0,027	0,025		
Indonesia	0,041	0,047		
Iran, Islamic Republic of	0,141	0,012		
Iraq	0,369	0,001		
Ireland	0,009	0,061		
Israel	0,006	0,006		
Italy	0,010	0,018		
Jamaica	0,060	0,076	SIDS	
Japan	0,003	0,002		
Jordan	0,006	0,039		
Kazakhstan	0,250	0,013		
Kenya	0,005	0,074		
Kiribati	0,000	0,000	SIDS	LDC
Kuwait	0,458	0,005		
Kyrgyzstan	0,021	0,026		
Lao People's Democratic Republic	0,000	0,000		LDC
Latvia	0,029	0,111		
Lebanon	0,001	0,030		
Lesotho	0,000	0,043		LDC
Liberia	0,000	0,000		LDC
Libyan Arab Jamahiriya	0,396	0,001		
Liechtenstein		0,000		
Lithuania	0,107	0,097		
Luxembourg	0,014	0,102		
Madagascar	0,004	0,133		LDC
Malawi	0,000	0,000		LDC
Malaysia	0,098	0,052		
Maldives	0,000	0,000	SIDS	
Mali	0,001	0,053		LDC
Malta	0,446	0,049		
Marshall Islands	0,005	0,017	SIDS	
Mauritania	0,010	0,206		LDC
Mauritius	0,003	0,107	SIDS	
Mexico	0,023	0,022		
Micronesia, Federated States of	0,000	0,271	SIDS	
Monaco		0,000		
Mongolia	0,265	0,024		

Data processed				
	Energy	Agriculture with high vulnerability	SIDS	LDC
Montenegro	0,083	0,050		
Morocco	0,002	0,057		
Mozambique	0,137	0,056		LDC
Myanmar	0,070	0,080		LDC
Namibia	0,002	0,073		
Nauru	0,000	0,138	SIDS	
Nepal	0,000	0,023		
Netherlands	0,102	0,089		
New Zealand	0,005	0,083		
Nicaragua	0,001	0,144		
Niger	0,016	0,038		LDC
Nigeria	0,132	0,006		
Norway	0,215	0,018		
Oman	0,296	0,021		
Pakistan	0,002	0,025		
Palau	0,000	0,000	SIDS	
Panama	0,042	0,075		
Papua New Guinea	0,000	0,000	SIDS	
Paraguay	0,073	0,182		
Peru	0,019	0,043		
Philippines	0,005	0,028		
Poland	0,013	0,045		
Portugal	0,028	0,039		
Qatar	0,442	0,000		
Korea, Republic of	0,031	0,006		
Moldova, Republic of	0,000	0,000		
Romania	0,016	0,042		
Russian Federation	0,149	0,014		
Rwanda	0,016	0,062		LDC
Saint Kitts and Nevis	0,000	0,000	SIDS	
Saint Lucia	0,000	0,000	SIDS	
Saint Vincent and the Grenadines	0,000	0,000	SIDS	
Samoa	0,045	0,222	SIDS	
San Marino		0,000		
Sao Tome and Principe	0,000	0,000	SIDS	LDC
Saudi Arabia	0,258	0,005		
Senegal	0,041	0,093		LDC
Serbia	0,014	0,080		
Seychelles	0,199	0,289	SIDS	

Data processed				
	Energy	Agriculture with high vulnerability	SIDS	LDC
Sierra Leone	0,002	0,045		LDC
Singapore	0,259	0,053	SIDS	
Slovakia	0,028	0,030		
Slovenia	0,037	0,027		
Solomon Islands	0,001	0,293	SIDS	
Somalia	0,000	0,169		LDC
South Africa	0,028	0,027		
South Sudan	0,000	0,000		
Spain	0,022	0,034		
Sri Lanka	0,004	0,068		
Sudan	0,001	0,004		LDC
Suriname	0,000	0,000	SIDS	
Sweden	0,033	0,021		
Switzerland	0,006	0,010		
Syrian Arab Republic	0,014	0,078		
Tajikistan	0,004	0,032		
Macedonia	0,011	0,038		
Thailand	0,023	0,096		
Timor-Leste	0,102	0,103	SIDS	LDC
Togo	0,094	0,042		LDC
Tonga	0,000	0,142	SIDS	
Trinidad and Tobago	0,000	0,000	SIDS	
Tunisia	0,026	0,044		
Turkey	0,011	0,023		
Turkmenistan	0,000	0,000		
Tuvalu	0,000	0,000	SIDS	LDC
Uganda	0,007	0,094		LDC
Ukraine	0,007	0,136		
United Arab Emirates	0,393	0,034		
United Kingdom	0,028	0,012		
Tanzania, United Republic of	0,003	0,062		
United States	0,014	0,008		
Uruguay	0,003	0,138		
Uzbekistan	0,065	0,038		
Vanuatu	0,018	0,341	SIDS	
Venezuela, Bolivarian Republic o	0,000	0,000		
Viet Nam	0,000	0,000		
Yemen	0,036	0,020		LDC
Zambia	0,005	0,025		LDC
Zimbabwe	0,002	0,106		

About



The Climate Finance Advisory Service (CFAS) offers negotiators, policy makers and advisors in the poorest and most climate vulnerable countries bespoke information and guidance to help them effectively participate in complex global climate finance negotiations.

www.cfas.info



On behalf of



Federal Ministry
for Economic Cooperation
and Development

GIZ provides services worldwide in the field of international cooperation for sustainable development. GIZ has over 50 years of experience in a wide variety of areas, including economic development and employment, energy and the environment, in particular climate change. Acting on behalf of the German Federal Government and other clients, GIZ supports partner countries in implementing their NDCs, aiming at reducing emissions of greenhouse gases and adapting to the consequences of climate change. In addition, GIZ implements climate policy guidelines through a wide range of practical measures in partner countries.

www.giz.de

e: info@giz.de

t :+49 228 44 60-0

The views expressed and information contained in it are not necessarily those of or endorsed by GIZ or the entities managing the delivery of the GIZ, which can accept no responsibility or liability for such views, completeness or accuracy of the information or for any reliance placed on them.

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, the entities managing the delivery of the GIZ and CFAS do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

Copyright © 2022, Climate Finance Advisory Service. All rights reserved.

Photo: Piyaset / Shutterstock.com

Layout: Monika Schmitt / mschmitt@fachwerkdesign.de

 Printed on recycled paper.