



# Overview

# Overview

## Strength through diversification

**This report explores ways in which commodity-dependent developing countries can diversify their production and move up value chains to produce and export a wider variety of products – and do so in ways that are inclusive and protect the global climate.**

Most economic value chains originate in commodities, such as crude oil, copper, cotton or wheat. Developing countries that depend on exporting commodities are often very vulnerable. They are, for example, exposed to fluctuations in exchange rates: a drop in commodity prices reduces export revenues in United States dollars, which tends to lower the demand for the local currency and puts downward pressure on the exchange rate. As a result of these fluctuations, commodity-dependent developing countries (CDDCs) often have volatile incomes and slow economic growth. Overconcentration of exports also affects public revenue and the potential for investing in sustainable development.

In addition, CDDCs are impacted by economic and political shocks transmitted through global commodity markets – such as those arising from the COVID-19 pandemic and the war in Ukraine – which have come on top of the climate crisis and the global energy transition. An additional challenge is that, to limit global warming to 2°C above pre-industrial levels, a significant proportion of natural resources will need to remain unused – one-third of oil reserves, half of the natural gas reserves and over 80 per cent of coal reserves.

While there are risks for commodity exporters, there are also risks for importers. Many developed and developing countries depend on imports of basic commodities such as food, fuels and fertilizers. In 2019-2021 among the 195 UNCTAD member States, 131 were net importers of basic food, 143 of fuels, and 154 of fertilizers. In highly integrated global commodity markets, supply disruptions in one region have knock-on effects around the world. For example, in 2022, reduced gas supply to Europe pushed up liquefied natural gas (LNG) prices globally – with dire consequences for some Asian countries.

### Diversifying exports

As the world moves to more advanced products that command higher prices in international markets, CDDCs risk falling behind. If they are to achieve the Sustainable Development Goals (SDGs) in an increasingly uncertain global economic and political environment, they will need to become more resilient – by moving along value chains and diversifying production to offer a greater variety of exports. Diversification not only insures against future market shocks, but also generates economic growth and drives structural transformation.

This diversification can take place across broadly defined economic sectors, such as an extension from agriculture to manufacturing or services, but it can also happen within sectors, such as when farmers start to produce non-traditional agricultural goods.

Diversification can thus be horizontal or vertical. Horizontal diversification typically broadens the range of production and exports. Vertical diversification can involve greater variety in a sector's value chain, such as refining crude oil to produce gasoline or petrochemicals.

### Common approaches

Each CDDC will diversify according to its own priorities and capabilities, but there are common broad approaches. Successful countries have, for example, generally promoted priority sectors while making the economic environment more conducive to investment, business activity and international trade. They have also maintained stable and competitive macroeconomic conditions and built regulatory frameworks that facilitate private-sector initiatives.

Market access conditions are also a key factor in successful diversification. The challenge for CDDCs is that many trading partners impose low tariffs for commodities, but higher tariffs for goods made from those commodities, since these might compete with their own production.

A critical component of diversification is access to reliable energy services, since adding more value usually means consuming more energy. In addition, diversification requires a strong human capital base – a well-trained workforce that can seize higher-skill employment opportunities.

### Diversifying imports

While reducing reliance on a few commodities for exports, developing countries also need to avoid over-reliance on imports from one or two countries – particularly for food. Some net-food-importing developing countries could increase their own agricultural output – especially those in Africa, where, in 2020, average cereal yields were less than half the global average.

To be prepared for emergencies, countries also need to build up public food stocks while strengthening safety nets and social protection. And at times of crisis, fertilizers and fuel markets must remain open – to balance food supply and demand across the globe and avoid price spikes.

### Ensuring inclusiveness

Diversification brings economic benefits, but if not accompanied by inclusiveness and sustainability policies, it may have drawbacks. Producing more sophisticated products may widen inequalities if higher-skilled workers capture most of the opportunities and command higher wages. This could widen within-country disparities, which have been exacerbated by recent shocks in the economy. At the same time, diversification could create low-skilled jobs, for example, when a food-processing firm introduces a new product in the market and procures agriculture inputs from smallholder farmers.

There has been limited research on the links between diversification and inequality, and the results have been mixed. A few studies have found that rising specialization resulted in higher wages for the more skilled workers. Others have found that export diversification may expand employment opportunities to a larger share of the population.

The relationship between inequality and diversification may also be U-shaped. Initially, export diversification can widen wage gaps if it increases the demand for high-skilled labour. In the long run, however, as the benefits spread throughout the economy, there are more jobs for low-skilled workers, and inequality falls again.

This report presents an analysis of 182 countries which shows that overall export diversification is associated with greater inequality, but as diversification generates more widespread opportunities within the economy, inequality declines.

These results suggest that it may be necessary for Governments in CDDCs to consider supplementary interventions to ensure inclusive change. Governments may also need to intervene to provide public goods and increase investment in education, healthcare and skills building.

### **Diversifying through a climate emergency**

Historically, economic development and diversification relied on the extensive use of fossil fuels. The same is true of countries that have diversified over recent decades. This report has tracked the links between greenhouse gas (GHG) emissions and gross domestic product (GDP) over the period 1980-2018. As expected, more diversified developing countries and developed countries had higher emissions than CDDCs. Emissions were lowest in sub-Saharan Africa and among low-income countries. Among CDDCs, the highest emissions were from fuel exporters. In the absence of energy transition, in general, for both CDDCs and non-commodity-dependent developing countries (NCDDCs), emissions growth seems to be increasing at the same rate as GDP, if not faster.

Developing countries aiming to emulate the traditional transition from agriculture to industry will have to achieve this under fundamentally different circumstances – notably a climate emergency. They cannot, therefore, stake their futures on fossil fuels.

They should reduce GHG emissions from economic activity by making growth less emissions-intensive without compromising their economic development. Limiting growth is not an option if developing countries are to attain the SDGs, so they need to minimize GHG emissions while taking advantage of the changing global energy landscape by reconfiguring their economic structures and energy systems.

### **A just transition**

The Paris Agreement calls for a 'just transition' to a lower-carbon world that provides decent and quality jobs for the whole workforce. A just transition also requires addressing prevalent issues in energy access.

Currently, access to electricity and clean cooking fuels in developing countries is very unequal, particularly in Africa and the Asia and the Pacific region. Access to clean energy also has an important gender dimension since women are more exposed to the hazards associated with dirty energy sources.

To accelerate progress towards SDG 7, CDDCs and their development partners need to ensure universal access to affordable, reliable, sustainable, and modern energy. But this will only contribute to the green energy transition if energy sources are renewable and enable

countries to follow a new development path that avoids some of the worst by-products of industrialization, such as smog and polluted rivers.

During this transition, both CDDCs and net-commodity-importing developing countries should upgrade their value chains. For example, many CDDCs provide the raw materials for clean energy technologies – including minerals critical for energy transition, such as cobalt, lithium and copper. They should avoid getting trapped at the entry of the value chains, as has often been the case, but upgrade to higher segments of these chains.

At the same time, net-commodity-importing developing countries can diversify their sources of imports of basic commodities such as food, fuels and fertilizers – while boosting their own production, particularly of food and renewable energy, where economically viable. For this, they will need the full support of the development partners, particularly for technology transfer as well as strengthening social safety nets and emergency preparedness.

## Making the transition to low-carbon energy

Efforts towards an energy transition will depend on a country's starting point, including its ability to invest, as well as existing capabilities. While technologically advanced countries may have the resources and capacities to introduce renewable technologies, low-income countries may prioritize energy access or clean cooking technologies while building capacity for developing renewable energy such as wind or solar industries. Meanwhile, fuel-exporting CDDCs may initially shift from petroleum and coal to natural gas while advancing to greener energy sources.

As diversification and economic growth boost income, countries have more resources to invest in environmental protection. Advocates of green industrialization argue that countries can minimize carbon emissions by changing production and consumption patterns, using natural resources more efficiently and minimizing pollution and environmental damage. This calls for cuts in the use of fossil fuels and huge investments in efficient and green energy. In addition to solar sources, many CDDCs have considerable potential for hydropower and wind energy and for producing and exporting green hydrogen. At the same time, countries need to protect workers and communities whose livelihoods have depended on fossil-fuel-based industries.

If a transition to a greener economy increases employment and social welfare, it is likely to be more politically and socially acceptable and thus offer a pragmatic path towards a low-GHG economy.

The energy transition may, in addition, offer a much-needed impetus for countries to address social and economic disparities. Electrification of schools, for example, allows them to use IT equipment and adopt more advanced curricula and teaching materials that enable low-income households to acquire more skills. Households would further benefit from energy access and cleaner cooking technologies, for example, freeing more women to participate in the labour force.

As a global challenge, the climate crisis requires a collective response. Given the obstacles that the CDDCs face on their path to a low-carbon future, they will need the support of development partners. This may include financial and capacity-building support, along with knowledge transfers that would allow the uptake of new low-carbon technologies.

## Striking policy balances

Experience will differ from one country to another and between the types of commodities that countries depend on. Fossil-fuel-dependent economies, for example, may have more resources than agriculture-dependent economies to invest in economic transformation. The capacity to transform will also depend on the current level of emissions, the sensitivity of emissions to changes in output, and existing productive capabilities.

For lower-income CDDCs, focussing exclusively on cutting emissions may therefore constrain their development without significant emissions benefits. And since energy access is critical for human wellbeing, for these countries, it may be more realistic to concentrate on building basic capabilities and ensuring access to energy using all available sources. These countries should have priority consideration in the allocation of the current carbon budget.

If the CDDCs are to meet their development goals while decreasing emissions, they will therefore need to strike balances between traditional sources of energy and greener alternatives such as solar and wind power. Over time, the demand for green products will increase while that for traditional carbon-based products shrinks. And during this period, CDDCs should not just be buyers of green energy systems but be active participants as producers and innovators of green technologies.

## Greener economies ahead

To achieve sustainable economic growth and enhance human development, CDDCs should reshape their economic structures to become more diverse, resilient, and prepared for a low-carbon future. They need to adapt their productive capabilities in the face of evolving energy and transportation systems. They should aim to develop productive capacities that foster increased productivity and prosperity while transitioning to a low-carbon economy. They should enact policies that prioritize inclusivity by creating employment opportunities and minimizing potential inequalities that may arise from that process. Green industrial policies (GIPs) are crucial in driving this transformation.

A well-designed GIP for CDDCs will:

- **Be multisectoral** – Industrial policy should extend beyond manufacturing to all sectors of the economy, including agriculture, mining and services, with a particular focus on reducing CDDCs' dependence on traditional commodities.
- **Have social goals** – Industrial policy should also be driven by societal goals, including those for climate, health, reducing poverty and inequality and creating decent jobs outside the commodity sector.
- **Collaborate with the private sector** – Instead of the traditional top-down policymaking, industrial policy should be a sustained collaboration between the public and private sectors to create the appropriate institutional environment for diversification outside of the commodity sector.
- **Guide technological change** – Industrial policy should steer technological change to non-commodity sectors that promote pro-poor, pro-environment and pro-labour activities.

CDDCs transitioning along low-emissions paths have the opportunity to start now at the beginning of the green technological revolution. If they delay, they may find themselves firmly

locked into older infrastructure and technologies, in which case the costs of greening their economies will become higher.

It is also worth emphasizing that instead of merely being consumers of green energy and relying on technology imports, CDDCs should strive to participate in the development of new technologies and productive capabilities and establish dynamic comparative advantages in green products and technologies.

### Principles in practice

Instead of copying models from elsewhere, CDDCs should identify pragmatic policies suited to their levels of development and productive capabilities. These will differ from one economy to another, but could be guided by common principles.

**Develop foundational capabilities** – Most CDDCs will need to ‘jump’ from a limited set of productive capabilities into more technologically advanced production. To succeed, CDDCs will require ‘foundational capabilities’ that allow them to learn these new technical solutions and apply them in innovative ways. Hence, States should support research and development to build and accumulate production capabilities.

**Ensure political and public support** – A successful GIP needs to identify the distributional effects of structural changes and manage potential conflicts, given that reforms might have short-term costs on segments of the population. Moreover, success in such structural transformations takes years, or even decades, after the reforms have started, so they will need consistent support from the population and successive governments.

**Create jobs** – CDDCs typically have relatively limited high-quality employment opportunities, so the creation of such jobs should be a priority for GIP, particularly for workers in the informal sector. This could include initiatives such as providing training and support for entrepreneurship and small businesses, creating public works programmes that can develop skills, and investing in labour-intensive green technologies and related infrastructure projects.

**Promote social cohesion and a just transition** – Ensure GIP accounts for all segments of society and includes marginalised and under-represented groups in their design to address and prevent widening existing disparities. This should include measures targeting actors who are vulnerable to the energy transition.

**Ensure gender equality** – Gender equality should be an integral component of GIP design – including measures that specifically address the structural barriers faced by women in accessing the labour market, such as improving childcare, increasing access to education and training, promoting equal pay for equal work, and ensuring equal opportunities for career advancement.

### Identify priority sectors and value chains

GIPs should identify priority sectors for economic diversification that offer the greatest opportunities and lowest risks. This requires an understanding of a country’s current productive capabilities and sectoral opportunities. Certain sectors may offer significant export opportunities for CDDCs due to their potential for upgrading, high unit values, and favourable market conditions. The type of commodity dependence (agriculture, fuel, minerals), income level, and the export and import replacement potential of these sectors play a role in the feasibility of diversification strategies. CDDCs can also capture more value in existing value

chains. Policymakers need to consider these factors when identifying potential new sectors for economic diversification.

### Seek entry points

Entry points for diversification will depend on the commodity being exported.

**Fossil fuels** – One option is to transfer income during boom periods into a diverse asset portfolio through commodity-based sovereign wealth funds (SWFs). However, SWFs are only effective and sustainable if they remain transparent, with strong governance and robust inflow/outflow rules.

**Minerals** – For important clean-technology metals such as cobalt and lithium, mining should be linked with domestic or regional value chains. The recent agreement between the Democratic Republic of the Congo and Zambia to jointly manufacture precursors to electric car batteries is an example of what CDDCs could consider doing. While developing capabilities for diversification, mineral-exporting CDDCs should promote environmental, social and governance (ESG) guidelines, and ensure equitable distribution of gains, as well as build strong institutions governing the commodity sector.

**Agriculture** – CDDCs that depend on agriculture can process more crops locally while shortening supply chains. This is not easy. Newcomers may need access to deep and cheap capital to compete. All countries should also seek to move to smarter agriculture – to increase efficiency and crop productivity while reducing GHG emissions.

### Regional integration

Coordinated regional diversification policies can be advantageous given the small sizes of individual CDDC markets and variations in export potential across countries. By prioritizing diversification efforts in different sectors, CDDCs can expand their opportunities for linking into new supply chains and positioning themselves in the global markets. Effective policies, institutional support, and regional cooperation are crucial for creating a supportive environment that enables sustainable and inclusive economic diversification. Leveraging regional trade, particularly in Africa, where intra-regional trade is low, presents opportunities for CDDCs export diversification. For example, by utilizing regional trade agreements and partnerships, African countries can tap into the growing demand for processed products within the continent, reducing reliance on traditional commodities. Additionally, fostering regional value chains through partnerships allows CDDCs to collaborate and benefit from each other's strengths and resources, enhancing collective bargaining power and market access. Such partnerships require careful planning and management, as well as strong institutional frameworks and governance mechanisms.

### International support

GIPs in most CDDCs cannot succeed without support from the international community. CDDCs and their development partners should join forces to:

**Stabilize commodity markets** – Introduce rules to limit speculation and implement counter-cyclical financing facilities that mitigate price shocks. To help create space for industrial policy, the international community could also consider reinstating stabilization funds to limit CDDCs' volatility of export revenues.

Combat tax evasion and illicit financial flows – In the context of ESGs, measures could include greater international collaboration to reduce tax avoidance and tax evasion while directing the global financial system towards more productive investment.

**Promote technology transfer** – For CDDCs to successfully transition to low-carbon development paths, they will need better access to new technologies and be able to adapt them to local contexts. There should be an international framework along the lines of the Technology Mechanism created under the United Nations Framework Convention on Climate Change (UNFCCC) to ensure the transfer of green technology to CDDCs.

**Use stronger measures on trade and investment** – CDDCs can stimulate transitions with targeted investments in infrastructure and research and development, and those eligible can take advantage of the special and differentiated treatment provided for in WTO rules.

**Support energy transition and mitigate the consequences of stranded resources** – It is unrealistic to expect CDDCs to voluntarily strand fossil-fuel resources without an alternative development path supported by the international community. International financial institutions, large multinational enterprises (MNEs), donor governments, and aid agencies could facilitate this transition.

**Be supported by international funding** – To implement nationally determined contributions, many countries will need international support. A regular assessment of progress and challenges could guide industrial policy and provide opportunities for mutual learning in CDDCs.

## Towards a greener world

Until recently, the benefits of industrial policy and economic diversification in CDDCs were thought to be accrued primarily by these countries, offering little incentive for other economies to support this transition. Climate change has shifted that calculus: the global community stands to benefit if CDDCs succeed in transitioning along low-carbon development paths. The only way to a greener world is through mutual support and cooperation.

This report is structured as follows:

**Chapter 1 – The predicament of commodity-dependent developing countries:**

Summarizes the status of commodity dependency, indicating the main challenges.

**Chapter 2 – Strength in diversification:** Commodity-dependent developing countries will need to become more resilient – by moving up value chains and offering a greater variety of exports.

**Chapter 3 – Ensuring inclusiveness** – Producing more sophisticated products can increase inequalities. While moving along the value chains, countries need to ensure that the benefits are widely shared.

**Chapter 4 – Diversifying the traditional way will have high environmental cost:**

CDDCs seeking ‘diversification’ need to carefully balance old and new sources of energy to meet the needs of current and future generations.

**Chapter 5 – Greener economies ahead:** This chapter considers potential future directions and argues for ‘green industrial policies.’