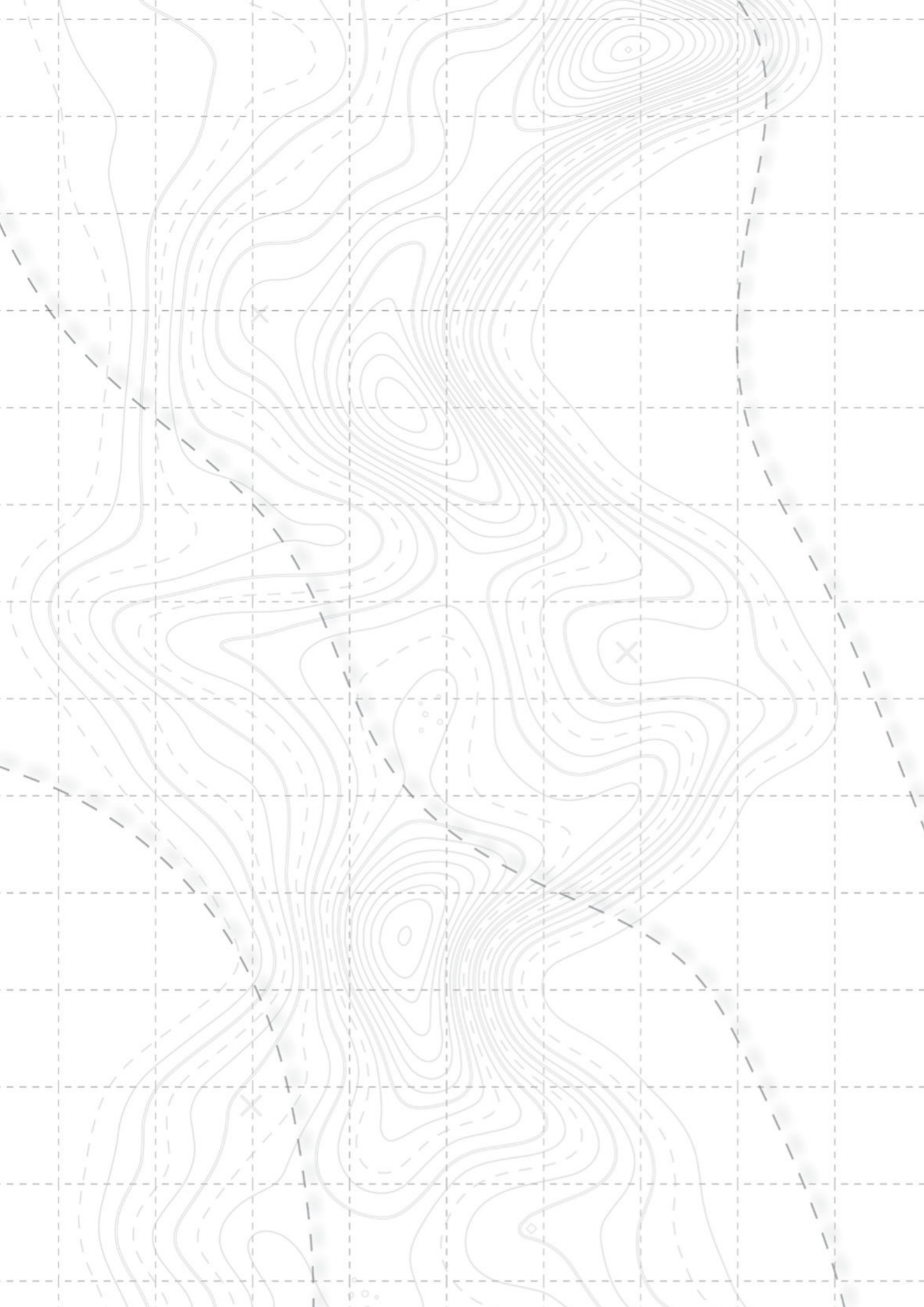


# **IMPLEMENTING ARTICLE 6 – AN OVERVIEW OF PREPARATIONS IN SELECTED COUNTRIES**

May 2023

**Gold Standard**<sup>®</sup>

adelphi 



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## List of acronyms

<u>AFOLU – Agriculture, Forestry, and Other Land Use</u>	<u>ITMO – Internationally Transferred Mitigation Outcome</u>
<u>AIPA – Apex Committee for Implementation of the Paris Agreement</u>	<u>JCM – Joint Crediting Mechanism</u>
<u>BAU – Business-as-Usual</u>	<u>KliK – Foundation for Climate Protection and Carbon Offset</u>
<u>BMWK – German Federal Ministry for Economic Affairs and Climate Action</u>	<u>LOA – Letter of Authorisation</u>
<u>CCC – Carbon Credit Certificate</u>	<u>LULUCF – Land Use, Land-Use Change and Forestry</u>
<u>CCER – China Certified Emission Reduction</u>	<u>MEE – Ministry of Ecology and Environment</u>
<u>CCMGM – Carbon Credit Management Guideline and Mechanism</u>	<u>MEMR – Ministry of Environment and Mineral Resources</u>
<u>CDM – Clean Development Mechanism</u>	<u>MESTI – Ministry of Environment, Science, Technology and Innovation</u>
<u>CER – Certified Emission Reduction</u>	<u>MGEE – Ministry of Green Economy and Environment</u>
<u>CH4 – Methane</u>	<u>MoEF – Ministry of Environment and Forestry</u>
<u>Ci-Dev – Carbon Initiative for Development</u>	<u>MOFE – Ministry of Forests and Environment</u>
<u>CIMV – Committee on Climate Change and Green Growth</u>	<u>MONRE – Ministry of Natural Resources and Environment</u>
<u>CMC – Carbon Market Committee</u>	<u>MRV – Monitoring, Reporting, and Verification</u>
<u>CMO – Carbon Market Office</u>	<u>Mt – Metric Tonne</u>
<u>CO2 – Carbon Dioxide</u>	<u>MW – Megawatt</u>
<u>CO2e – Carbon Dioxide Equivalent</u>	<u>MWE – Ministry of Water and Environment</u>
<u>COP – Conference of the Parties</u>	<u>N2O – Nitrous Oxide</u>
<u>CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation</u>	<u>NCCC – National Committee on Climate Change Policy</u>
<u>DCC – Department of Climate Change</u>	<u>NCCMT – National Climate Change Mechanisms Taskforce</u>
<u>DGCCD – General Directorate of Climate Change and Desertification</u>	<u>NDC – Nationally Determined Contribution</u>
<u>DNA – Designated National Authority</u>	<u>NDRC – National Development and Reform Commission</u>
<u>EAA – Eastern Africa Alliance on Carbon Markets and Climate Finance</u>	<u>NEMA – National Environment Management Authority</u>
<u>EEPA – Ethiopian Environmental Protection Agency</u>	<u>ONEP – Office of Natural Resources and Environmental Policy and Planning</u>
<u>EFCCC – Environment, Forest and Climate Change Commission</u>	<u>PFC – Perfluorocarbon</u>
<u>EPA – Environmental Protection Agency</u>	<u>PMI – Partnership for Market Implementation</u>
<u>EPR – Environment Protection Regulation</u>	<u>REDD+ – Reducing Emissions from Deforestation and Forest Degradation</u>
<u>ETF – Enhanced Transparency Framework</u>	<u>SCF – Standardised Crediting Framework</u>
<u>ETS – Emissions Trading System</u>	<u>SLCP – Short-Lived Climate Pollutant</u>
<u>EU ETS – European Union Emissions Trading System</u>	<u>SPAR6C – Supporting Preparedness for Article 6 Cooperation</u>
<u>GCR – Ghana Carbon Registry</u>	<u>TGO – Thailand Greenhouse Gas Management Organisation</u>
<u>GDP – Gross Domestic Product</u>	<u>T-VER – Thailand Voluntary Emission Reduction</u>
<u>GGGI – Global Green Growth Institute</u>	<u>UAE – United Arab Emirates</u>
<u>GHG – Greenhouse Gas</u>	<u>UN – United Nations</u>
<u>HFC – Hydrofluorocarbon</u>	<u>UNEP – United Nations Environment Programme</u>
<u>IPPU – Industrial Processes and Product Use</u>	<u>UNFCCC – UN Framework Convention on Climate Change</u>
	<u>USD – United States Dollar</u>

# CHAPTER 1

## INTRODUCTION AND BACKGROUND

The agreement reached on Article 6 of the Paris Agreement at COP26 in Glasgow was a major milestone for international carbon markets. After six years of negotiations, countries established an initial set of guidance for a new reporting and accounting system for "internationally transferred mitigation outcomes" (ITMOs), as well as the rules for a new crediting mechanism under the United Nations Framework Convention on Climate Change (UNFCCC). Carbon trading was a central component of the system set up under the Kyoto Protocol, the treaty that governed countries' climate action at the international level between the years 2008 and 2020. Article 6 could play a similar role under the Paris Agreement, lowering the cost of meeting emissions reduction targets and thus allowing countries and non-state actors to raise their climate ambition<sup>1</sup>.

Article 6 deals broadly with cooperation between countries to meet their Nationally Determined Contribution (NDC) targets and has two operative parts that relate directly to carbon markets<sup>1</sup>:

**Article 6.2** - The guidance adopted under Article 6.2 set up a framework for tracking, reporting, and accounting for cooperation between countries, allowing mitigation in one country to be counted towards another country's NDC target, or other international mitigation purposes. In this way it provides a basis for trading in ITMOs. It also established a new set of digital infrastructure to facilitate countries' participation and a centralised review to ensure that information reported is consistent with provisions in the guidance.

**Article 6.4** - The rules, modalities, and procedures set out the design features for a new crediting mechanism. While the new Article 6.4 Mechanism builds on experiences gained from the Clean Development Mechanism (CDM), it differs in some important areas such as the option for a more active role in the mechanism's operation for project host country governments and the approaches towards calculating baseline emission levels.

The agreement from COP26 was only a first step in implementing Article 6. The decisions adopted there included a substantial multi-year programme of further work, much of which needs to be completed before Article 6 can be considered fully operational. Work therefore continued throughout 2022, with the first meeting of the Article 6.4 mechanism's Supervisory Body held in July. The Supervisory Body is responsible for many operational aspects and making recommendations on the mechanism's design. At COP27 in Sharm el-Sheikh, Parties adopted a further set of decisions, with progress focused in the following areas:

- An outline for the [initial report](#) was agreed. The initial report is one of three different reporting formats required by Article 6.2. The initial report must be submitted before cooperation can take place under Article 6.2 and ITMOs can be used towards NDC targets.

<sup>1</sup> Emissions Trading Association (IETA) and University of Maryland School of Public Policy (2021) *The Potential Role of Article 6 Compatible Carbon Markets in Reaching Net-Zero*. Working Paper.

- Many features of the [Article 6.2 review](#) were established, including what information should be reviewed and when, how the reviews will operate, and the composition of review teams.
- Some [infrastructure design elements](#) were agreed, including for the international registry and centralised accounting and reporting platform under Article 6.2, and the new mechanism registry under Article 6.4.
- More detailed guidance on the process and rules for [transitioning CDM projects](#) into Article 6.4, as well as using Certified Emissions Reductions (CERs) generated through the CDM towards NDCs were adopted.
- Several [operational provisions under Article 6.4](#) were also agreed, including how the share of proceeds to support the mechanism’s administration costs will work and the rules for the functioning of the Supervisory Body.

In addition to the negotiations, in recent years countries and international institutions have been supporting pilot activities to trial how Article 6 could be implemented in practice. The process of piloting has been particularly important because Article 6 involves fundamental changes from the previous system under the Kyoto Protocol. Under the latter, most countries that hosted emission reduction projects were developing countries and did not face any obligation to reduce emissions. Emissions reduction credits generated in these countries could therefore be transferred and used internationally without any accounting implications for the project host country. In contrast, under the Paris Agreement all countries have committed to take action through their NDCs and, as a result, must account for any carbon credits they transfer and use.

The change to comprehensive accounting has wide-ranging implications. All countries must now carefully assess whether and how they choose to authorise and transfer carbon credits abroad. If a country authorises and transfers too much it could undermine efforts to meet its own NDC target. In many instances, analysing the benefits and risks of Article 6 for meeting a country’s NDC target will need enhanced capabilities within governments. Participating in Article 6 will also require new administrative arrangements, for instance to identify and approve eligible projects and to issue authorisations. Countries may choose to develop national infrastructure to implement Article 6 domestically, which will support their reporting and accounting requirements. These institutional, administrative and infrastructure arrangements may be underpinned by new or revised legal frameworks.

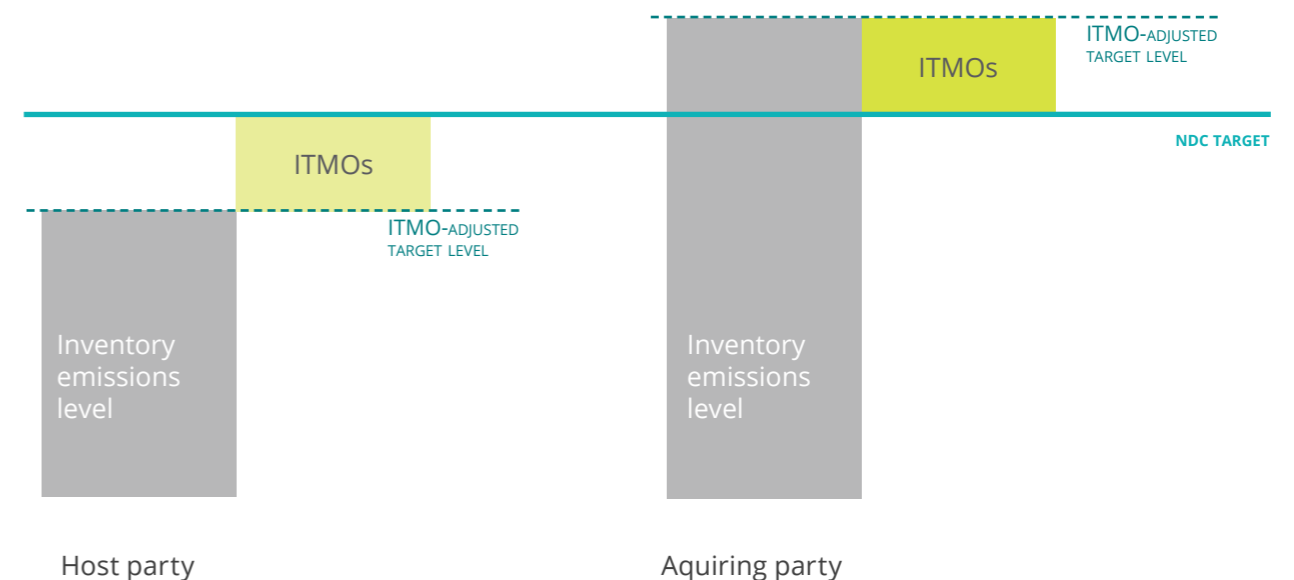
This new context also poses challenges for other stakeholders, including project developers. Growing demand for carbon credits will likely see more buyers seeking units with corresponding adjustments, for instance for use to meet obligations under CORSIA. To serve this demand, project developers will need to engage closely with host country governments, which in turn must have the relevant processes in place to approve projects under Article 6.2, issue authorisations, and apply corresponding adjustments. Even when authorisations are not requested, some countries may nevertheless require projects to be

registered with national authorities, for instance to improve transparency on mitigation actions hosted in the country or to levy fees. For these reasons, the coming years will likely see increased interaction between host country governments and project developers, particularly for activities implemented under Article 6.2.

## Corresponding adjustments and authorisation

Article 6 established *'corresponding adjustments'* as an accounting mechanism to avoid double counting of the same emission reduction between two different targets. Countries transferring ITMOs must add on an equivalent amount to their emissions levels as reported in their Biannual Transparency Reports, to reflect the fact that the underlying emissions reductions are being claimed by another country. Conversely, the country using the emissions reductions to meet its target can make a subtraction to its emissions levels.

Only ITMOs that have been *'authorised'* by countries will be subject to corresponding adjustments. Authorisation is a confirmation that a country, through applying corresponding adjustment, will or will not count the emission reductions towards its target, depending on whether the country is using or transferring the ITMOs, respectively. Countries can also authorise ITMOs for use towards other purposes, such as in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) or for companies and other voluntary buyers seeking credits with corresponding adjustments.



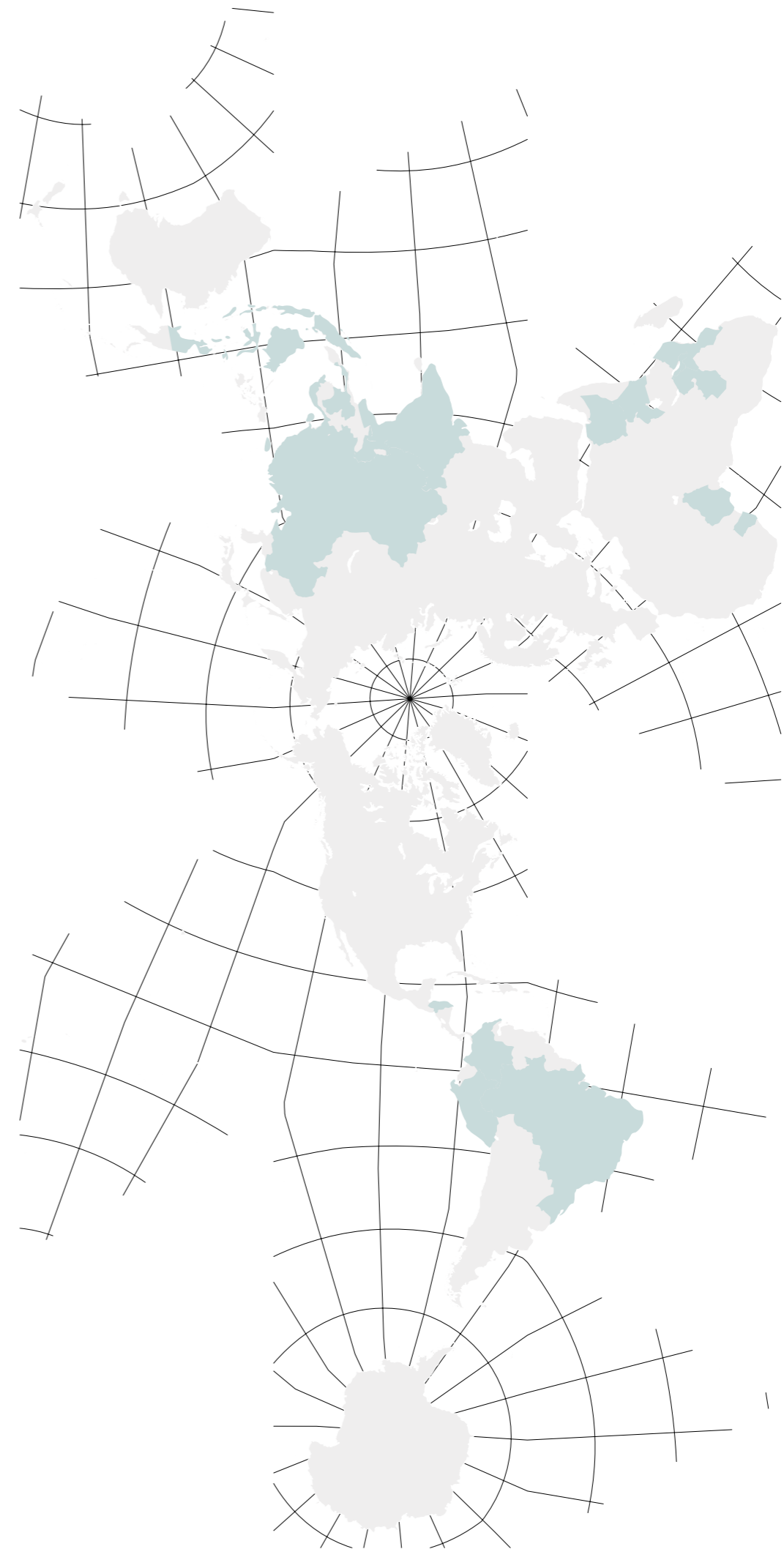
## About this report

This report presents information on the latest status of Article 6 preparations in 20 countries as April 2023. These countries are among the most important past suppliers of carbon credits, and many of them host significant numbers of certified Gold Standard activities. Information on their preparations is presented in three separate categories: institutional and administrative arrangements; legislative frameworks; and infrastructure. The relevance and importance of these three areas to Article 6 implementation is outlined in Chapter 2.

The factsheets presented in this report show that preparations to implement Article 6 are progressing in a wide variety of countries. This geographical diversity is significant. The countries furthest along in their preparations are not those with most experience under the CDM or independent crediting standards. African countries in particular are actively pursuing efforts to enable their participation. This early action can help ensure that they benefit from the opportunities presented by Article 6 and avoid the experience of the Kyoto Protocol, in which African countries had limited involvement.

Preparations in most countries have begun with establishing formal institutional arrangements, often built on the structures established under CDM. The other elements of preparation covered in this report – administrative arrangements, legal frameworks and infrastructure – have to date not been widely implemented within countries in order to generate carbon credits, either through the CDM or independent crediting standards. This now appears to be changing. Many countries are considering adopting new legal frameworks specifically related to carbon credits and Article 6. This marks a change from existing arrangements, where domestic regulations were often absent. This arguably applies to an even greater extent with infrastructure. Almost all of the countries considered in this report have relied on external carbon registries – managed by the UNFCCC secretariat or independent standards – both to store information about emissions reductions projects and to generate carbon credits. Governments are now increasingly exploring the option of developing their own systems to track and record information on activities in their countries. In some cases, these systems will have the full functionality of a carbon registry, able to support the issuance, transfer, and retirement of carbon credits. These systems are often being considered within the wider context of tracking policies and measures for implementing countries' NDCs.

Finally the report highlights the importance of continued support from international partners and development organisations to help facilitate broad participation in Article 6 in a variety of different ways, including technical assistance and peer-to-peer knowledge exchange.



# CHAPTER 2

## GETTING READY FOR IMPLEMENTATION

With the agreements reached at COP26 and COP27, many countries are now actively preparing to put in place new arrangements to facilitate their participation in Article 6. While the specific ways in which countries will implement Article 6 vary, there are three broad areas which in all cases must be considered: institutional and administrative arrangements; legislative frameworks; and infrastructure. These are introduced briefly below.

### 1

## INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

All countries that participated in carbon markets under the Kyoto Protocol have existing institutional arrangements. Under the CDM, participating countries were required to appoint a "Designated National Authority" (DNA), which was responsible for approving CDM projects hosted in the country. DNAs would issue "letters of approval", which were needed in order for CDM projects to be registered. In many instances the DNA was the ministry of environment, or an agency under its responsibility.

Article 6 institutional arrangements would generally be expected to build upon countries' CDM structures. While these provide a good basis, in most cases existing arrangements will need to be developed further to meet the requirements of Article 6. Under the CDM, a DNA's mandatory obligations were limited to confirming that the activity contributed to sustainable development, that the country had ratified the Kyoto Protocol, and that its participation in the CDM was voluntary. Under Article 6 the responsible ministry or DNA's duties may be significantly broader, including approving activities, issuing authorisations, managing any national infrastructure, and meeting Article 6 reporting and accounting requirements. Fulfilling these roles could entail more comprehensive governance arrangements, involving other ministries and agencies. Furthermore, under Article 6.4 host countries have the option to specify additional methodological requirements – such as on additionality assessments and baseline approaches – which may require technical capabilities not needed under the CDM.

In addition to establishing appropriate institutional arrangements, host countries will need to set up administrative frameworks to implement Article 6. These frameworks will address multiple issues, such as processes for project developers to request project approval and authorisation of credits, providing template documents, establishing and collecting fees for different activities, and the procedures for registering activities with any national infrastructure. In all cases, at least some – if not all – parts of these administrative frameworks will need to be newly created.

## 2 LEGISLATIVE FRAMEWORKS

In many countries, including those that have hosted a significant amount of emission reduction projects, there is no legislative framework related to carbon credits. Although some governments did adopt regulations to implement the CDM in their country, it was not always necessary to have domestic legislation in place, as regulation of the CDM was done at the international level. A 2021 analysis of 31 tropical forest countries by the Rights and Resources Initiative found that only four had regulations covering all of the following: a definition of carbon credits; their ownership; responsible entities for credit issuance and validation; and the process for registering and trading credits within the country<sup>1</sup>.

Implementing Article 6 may see more countries adopt new, or update existing, regulations. Such legislation could give a more secure legal foundation for the institutional and administrative arrangements, including the roles and responsibilities of different ministries. Having key elements included in law may serve to increase stakeholder confidence in the system. For some countries it may be the case that legal powers are needed to implement certain procedures, such as charging fees or taxes on different activities within the Article 6 process. In countries where there are already laws in place related to carbon crediting – for instance covering CDM implementation or management of a national crediting mechanism – these may be updated to address the new requirements under Article 6, including to implement the Article 6.4 mechanism domestically.

Legal frameworks are not only relevant for implementing institutional, administrative and infrastructure arrangements. The International Swaps and Derivatives Association has identified greater clarity on the legal treatment of carbon credits within and across jurisdictions as a crucial building block to scaling up the market internationally. This includes issues such as whether carbon credits can be considered a form of intangible property, which may in turn affect their treatment for taxation and accounting purposes. More legal certainty would support standardised documentation for over-the-counter and exchange-traded derivatives products, which will contribute towards a more efficient and liquid market for carbon credits<sup>2</sup>.

Whether countries adopt legislation to implement Article 6 – or simply put in place administrative frameworks and infrastructure without underpinning regulations – will ultimately depend on local circumstances and national legal systems.

1 [Lofts, K., Frechette, A. and Kumar, K. \(2021\) "Status of Legal Recognition of Indigenous Peoples', Local Communities' and Afro-descendant Peoples' Rights to Carbon Stored in Tropical Lands and Forests", \*Rights and Resources Initiative\*, Technical Report.](#)

2 [International Swaps and Derivatives Association \(2021\) \*Legal Implications of Voluntary Carbon Credits\*.](#)

## 3 INFRASTRUCTURE

Carbon markets are underpinned by infrastructure, the most important component of which is a carbon registry. Registries typically perform two distinct but related functions: to enable the issuance, transfer, and cancellation of carbon credits; and to record and make public information on registered activities. Together these two functions serve to increase transparency on activities taking place in the country and avoid different forms of double counting, such as double issuance.

All countries participating in Article 6 must have, or have access to, relevant infrastructure. A new international registry with functionality to record the authorisation, transfer, and use of ITMOs will be established by the UNFCCC secretariat. Each country participating in Article 6 will be able to have their own account in the registry, and the system will be interoperable both with national registries operated independently by countries, as well as the registry established under Article 6.4. The international registry will also have additional functions, such as automatically pre-filling quantitative information for Article 6 reporting. Two new reporting platforms will also be set up: a centralised accounting and reporting platform, into which countries will submit their Article 6 reporting; and an Article 6 database, which will record information on ITMOs – such as their unique identifier numbers – and corresponding adjustments.

Whether countries choose to utilise the registry operated by the UNFCCC secretariat or develop their own will depend on a number of factors. Countries implementing their own emissions trading system or national crediting mechanism will already have registry capabilities, although in the case of some crediting mechanisms these systems can be quite simple and with limited functionality. These countries could in theory amend their existing systems to meet Article 6 requirements. Other countries that have so far relied on externally managed infrastructure (e.g., the registries of the UNFCCC or independent crediting mechanisms) may either choose to develop their own registry or continue to use third party systems. Alternatively, countries may decide on a mixed approach, developing a (likely digital) system to record information on activities implemented in their countries – which is important for transparency and accounting purposes – while continuing to rely on externally provided infrastructure for the full registry functionality associated with issuance, transfer, and cancellation of carbon credits.



# CHAPTER 3

## FACTSHEETS

The following section contains country-specific factsheets presenting the latest status of preparations for Article 6, as of April 2023. Information was collected through a survey distributed to local stakeholders, supplemented by desk research. Survey returns were received for the following countries: Bangladesh, Brazil, China, Ethiopia, Honduras, India, Indonesia, Nepal, Peru, Rwanda, Thailand, Uganda. All other factsheets have been compiled only through desk research. All efforts have been made to ensure the accuracy of the information in the factsheets, of which the survey responses are an important component. However, the information and assessments of Article 6 preparation statuses contained within the factsheets are the responsibility of the authors and should not be treated as official statements or positions of the countries.

As is reflected in the factsheets, the implementation of Article 6 is rapidly evolving in countries across the world, and the preparation status of countries is therefore likely to change over the months and years following publication of this report.

A template of the factsheet can be found below, with explanations of the different fields and information sources.



**[COUNTRY NAME]**

**NDC Description**

TARGET

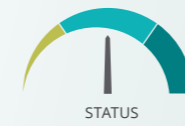
— [Relevant mitigation-related targets established in the country's NDC]

COVERAGE

— [The sectors and gases covered by the NDC, as specified in the country's NDC]

**Article 6 preparation status**

STATUS



Preparation for Article 6 is:

- UNDER CONSIDERATION** - Currently considering whether or how to use Article 6, but with no active preparations underway for implementation.
- UNDER DEVELOPMENT** - Actively preparing for Article 6 implementation, although measures are still being developed and are not yet fully in place to enable participation.
- IMPLEMENTED** - The relevant institutional, administrative, legal and infrastructure arrangements to participate in Article 6 are already in place.

INTENTION TO PARTICIPATE IN ARTICLE 6

Confirmations are primarily drawn from the country's NDC, but in some instances have come from public communications or directly from survey responses.

- ✓ Yes: Confirmed intention to participate.
- ~ Possibly: NDC indicates that it is open to participation.
- ? Unclear: Not publicly communicated whether the country intends to participate.

MOST COMMON IMPLEMENTED PROJECT TYPES

The three most implemented project types based on the amount of Gold Standard certified designs and certified projects, and registered CDM and Verra projects. Data is drawn from the Berkley Carbon Trading Project's *Voluntary Registry Offsets Database*<sup>4</sup> and UNEP's *CDM Pipeline Analysis and Database*<sup>5</sup>.  
 "Methane avoidance" includes projects avoiding fugitive emissions. "Forestry" includes afforestation, reforestation and reduced deforestation projects.

INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

LEGISLATIVE FRAMEWORK

INFRASTRUCTURE

[Information primarily drawn from country survey responses, where available, and supplemented by desk research.]

PROJECT TRANSITION

[Whether the country intends to approve the transition of registered CDM activities to Article 6.4, drawn primarily for survey responses.]

BILATERAL COOPERATION

[Whether the country intends to approve the transition of registered CDM activities to Article 6.4, drawn primarily for survey responses.]

**Other**

PARTICIPATION IN EXTERNAL INITIATIVES

[Engagement or participation in external initiatives relevant to Article 6, drawn from desk research.]

EXTERNAL LITERATURE

[Policy reports relevant to Article 6 or carbon crediting published since 2016, with a sole or significant focus on the country.]

OTHER RELEVANT INFORMATION

[Additional information relevant to Article 6 or carbon crediting, drawn from both survey responses and desk research. Examples include domestic carbon pricing policies/plans, and climate finance or long-term strategies addressing carbon markets.]

## BANGLADESH

### NDC Description

#### TARGET

- 6.73% reduction below BAU emissions in 2030 (unconditional)
- 21.85% reduction below BAU emissions in 2030 (conditional and unconditional)

#### COVERAGE

- Sectors: Economy-wide
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

##### Responsibility authorities/institutions:

The Ministry of Environment, Forest and Climate Change is the focal point for climate change in Bangladesh. The Department of Environment, a technical arm of the ministry serves as DNA under the CDM. An agency responsible for Article 6 implementation has not formally been appointed and Bangladesh has not yet communicated its Article 6 institutional arrangements to the UNFCCC.

##### Partnership for Market Implementation:

Bangladesh is participating in the World Bank's Partnership for Market

Implementation (PMI) technical support programme. As part of this programme, the government will develop institutional and governance arrangements for approving and registering Article 6.2 activities and procedures for authorising ITMOs.

##### Institutional arrangements under JCM:

Institutional arrangements have already been established to implement the JCM (see below). A Joint Committee comprised of different representatives from ministries and non-governmental entities from Bangladesh and Japan approves, registers, and allocates credits to JCM projects.

#### LEGISLATIVE FRAMEWORK

There is no legal framework specifically addressing Article 6.2. Bangladesh is planning to develop the necessary regulations for

implementing Article 6 activities as part of the PMI programme.

#### INFRASTRUCTURE

As part of Bangladesh's participation in the JCM, an **online registry system** of JCM projects is maintained by the Japanese Government. With the support of the PMI, Bangladesh is planning to develop **national MRV** and **carbon registry systems**

to implement Article 6.2. This national infrastructure will be connected with the World Bank's Climate Warehouse and the Article 6 Centralised Accounting and Reporting Platform, if possible.

#### PROJECT TRANSITION

In principle, the government plans to allow activities from the CDM to transition to Article 6.4. The administrative procedure to

implement the transition of activities has not yet been established.

#### BILATERAL COOPERATION

Bangladesh and **Japan** signed a bilateral cooperation agreement in 2013 to implement the JCM in Bangladesh. Four projects

have been implemented. JCM projects are expected to be transitioned into Article 6.2.

#### Other

##### PARTICIPATION IN EXTERNAL INITIATIVES

World Bank's Partnership for Market Implementation: Provides technical support for Bangladesh's participation in Article 6 and planning for further carbon pricing instruments.

Mutual Learning Programme for Enhanced Transparency: Supports countries in applying the reporting guidance under the Paris Agreement, including reporting provisions under Article 6.2.

##### OTHER RELEVANT INFORMATION

According to Bangladesh's NDC, most of the emission reductions needed to achieve the country's conditional target will come from the energy sector (96.46%), with waste and agriculture expected to contribute up to 2.97% and 0.65%, respectively. No emission reductions are planned from the industrial processes sector.

The government has said that it considers Article 6 as a way of attracting foreign investment, supporting sustainable development co-benefits, and encouraging technology transfer and financing of higher-cost mitigation measures. Bangladesh was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>1</sup>.

<sup>1</sup> Reklev, S. (2022) "South Korea lines up potential partners for Article 6.2 carbon trade", *Carbon Pulse*, 23 August.



**BRAZIL**  
NDC Description

TARGET  
— 50% reduction below 2005 emissions in 2030 (unconditional)

COVERAGE  
— Sectors: Economy-wide  
— Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs

Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** Decree No. 10.845 dated 25 October 2021 established the **Interministerial Committee on Climate Change and Green Growth (CIMV)** as the authority in charge of implementing all actions related to climate change in Brazil. Among the CIMV's responsibilities is managing Brazil's participation in the UNFCCC, including as it relates to Article 6. Some definitions of the decree remain outstanding, particularly regarding the modalities of interaction with external stakeholders.

**Administrative arrangements:** An administrative framework for Article 6.2 is being prepared. As part of an ongoing debate in the National Congress about implementing a domestic carbon market, an exploratory working group established under the CIMV is discussing different aspects – including legislation, national arrangements, infrastructure, and governance – relevant to activities that would require authorisation by the federal government.

LEGISLATIVE FRAMEWORK

In 2022 the then-administration adopted **Decree No. 11.075/22**. The Decree established several relevant legal definitions, including for carbon credits, carbon stock units, carbon emissions reduction credits, and offsetting of emissions. The Decree also created the **National System for the Reduction of Greenhouse Gas Emissions (SINARE)**. SINARE will serve as a centralised

source of information on emissions, removals, reductions and offsetting, and record transactions and retirements of certified emission reduction credits. The ministries of Environment and Economy will adopt further rules outlining, inter alia, the process for registering GHG emission reduction activities and the certification standards to be applied<sup>1</sup>.

INFRASTRUCTURE

There is existing infrastructure that could be adapted to serve Article 6.2 purposes, although no decisions have yet been taken.

One example is the **SINARE**, which will be made available as a digital tool.

PROJECT TRANSITION The transition of CDM activities to Article 6.4 is being discussed as part of the CIMV working group. No decisions have yet been taken.

BILATERAL COOPERATION There are currently no Article 6 pilot activities or bilateral cooperation agreements.

Other

PARTICIPATION IN EXTERNAL INITIATIVES Initiative for Climate Action Transparency: Supports ITMO accounting, integrated with tracking progress of NDC implementation following ETF and Article 6 guidance.

EXTERNAL LITERATURE ON ARTICLE 6 Opportunities for Brazil in carbon markets (2022): Provides an overview of the carbon market in Brazil and different scenarios for Brazil's participation as a supplier to international voluntary carbon markets.

OTHER RELEVANT INFORMATION The National Congress is discussing the creation of a national carbon market (legislative bill PL No. 2148/2015). It proposes setting up two systems: an **emissions trading system**; and an **offsetting programme** for registering and trading carbon credits. A separate Senate Bill – PLS 412/2022 – proposes to establish a national plan for allocating GHG emission rights. Brazil was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>2</sup>.

<sup>1</sup> Sede Seccional OAB SP (2014) Decreto Federal No 11.075, de 19.05.2022.  
<sup>2</sup> Reklev, "South Korea".

## CHINA

### NDC Description

#### TARGET

- Peak CO<sub>2</sub> emissions before 2030
- Lower CO<sub>2</sub> emissions per unit of GDP by over 65% by 2030 (from 2005 level)
- Increase share of non-fossil fuels in primary energy consumption to around 25% by 2030

#### COVERAGE

- Gases: CO<sub>2</sub>

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



WIND



HYDRO



ENERGY EFFICIENCY

#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ministry of Ecology and Environment (MEE) has been appointed as the DNA for Article 6.4. There is currently no administrative framework in place for Article 6.2.

**Institutional arrangements under CDM:** Under the CDM, the National Development

and Reform Commission (NDRC) served as China's DNA. The NDRC co-chaired the National CDM Board, which was composed of different ministries, and advised on CDM policy. The CDM Project Management Centre was established under the Board and assisted the NDRC in its capacity as DNA with project approval and implementing CDM measures<sup>1</sup>.

#### LEGISLATIVE FRAMEWORK

There is no legislative framework specifically addressing Article 6. Policy on the CDM was guided by the Measures for Operation and Management of CDM Projects in China<sup>2</sup>. Aside from governance arrangements and institutional responsibilities, the regulation established a revenue sharing arrangement between project owners and the

government. The share of revenue collected by the government varied by project type and was set to encourage priority activity types that contributed towards sustainable development. The revenues collected were transferred into the China CDM Fund and used to support the development of the CDM in China and other mitigation activities<sup>3</sup>.

#### INFRASTRUCTURE

There is a **registry** for the Chinese emissions trading system, as well as a **national mitigation reduction project registry**.

#### PROJECT TRANSITION

No information on the transition of CDM activities was identified.

#### BILATERAL COOPERATION

There are currently no Article 6 pilot activities or bilateral cooperation agreements.

#### Other

#### OTHER RELEVANT INFORMATION

China operates a **domestic crediting mechanism**, the China GHG Voluntary Emissions Reduction Programme. The programme was established in 2012 and applies many of the same methodologies as used in the CDM. The China Certified Emissions Reductions (CCER) issued are eligible for use in China's regional emission

trading pilots and national emissions trading system. The programme has been suspended since 2017 with no new project registrations or credit issuances. It is currently unclear when the programme will resume, although in March 2023 the MEE issued a call for new offset methodologies to be proposed.

<sup>1</sup> Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH [GIZ] (2008) *CDM/JI Initiative Country Study: China: A CDM Market Overview of the CDM Service Unit China*.

<sup>2</sup> Department of Climate Change, National Development and Reform Commission China (2005). *Measures for Operation and Management of CDM Projects in China*.

<sup>3</sup> [China Clean Development Mechanism Fund](#).

## COLOMBIA

### NDC Description

#### TARGET

— 51% reduction below BAU emissions in 2030

#### COVERAGE

- Sectors: Economy-wide
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>

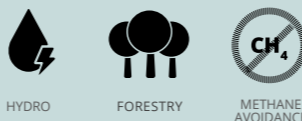
### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ministry of Environment and Sustainable Development has been appointed as the DNA for Article 6.4.

**Institutional/administrative arrangements:** Further institutional arrangements for Article

6 have not been publicly confirmed, although Colombia is receiving support from SPAR6C (see below) to develop its institutional, regulatory, and technical framework for implementing Article 6.

### LEGISLATIVE FRAMEWORK

While not addressing Article 6 specifically, there are existing regulations related to carbon crediting in Colombia. **Decree 926**, issued in 2017, established conditions for eligible carbon credits for use for compliance with the country's carbon tax. This includes relevant definitions, eligible methodologies,

and requirements for verifiers and carbon crediting programmes<sup>1</sup>. **Law 1753**, passed in 2015, provided the legal basis to establish the national registry for GHG emission reductions (RENARE – see below). The operational provisions were elaborated in **Resolution 1447**, from 2018.

### INFRASTRUCTURE

In 2019 the web-based platform **RENARE** was launched. The purpose of the RENARE is to manage mitigation initiatives taking place in Colombia that intend to receive compensation or results-based-payments,

and which contribute towards the country's commitments under the UNFCCC. Carbon credits surrendered to meet compliance obligations under the national carbon tax must be registered in RENARE<sup>2</sup>.

### PROJECT TRANSITION

No information on the transition of CDM activities was identified.

### BILATERAL COOPERATION

In 2022 Colombia signed a memorandum of understanding with Singapore to cooperate under Article 6.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

Supporting Preparedness for Article 6 Cooperation (SPAR6C): Applies research-based capacity building to promote increased climate action ambition through strategic use of Article 6. At least two Article 6 pilot projects will be identified under the SPAR6C framework.

World Bank's Partnership for Market Implementation: Provides technical support to implement a national ETS in Colombia.

Initiative for Climate Action Transparency: Supports ITMO accounting, integrated with tracking progress of NDC implementation following ETF and Article 6 guidance.

#### EXTERNAL LITERATURE ON ARTICLE 6

Article 6 readiness in updated and second NDCs (2021): Study on how Article 6 readiness can be built in the context of NDCs, with a case study on Colombia.

Net-zero energy housing virtual Article 6 pilot (2020): Explores a possible Article 6 pilot project implementing net-zero energy buildings in Cartagena, Colombia.

#### OTHER RELEVANT INFORMATION

Since 2017 Colombia has operated a national carbon tax. Covered entities may meet up to 50% of their carbon tax obligations through the use of offsets. The country is also considering implementing a national emissions trading system.

Colombia was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>3</sup>.

<sup>1</sup> Climate and Clean Air Coalition. "Decree 926". Accessed 4 April 2023.

<sup>2</sup> Ministry of Environment and Sustainable Development. "RENARE, la plataforma para registrar las reducciones de gases efecto invernadero en Colombia". Accessed 6 April 2023.

<sup>3</sup> Reklev, "South Korea".

## ETHIOPIA

### NDC Description

#### TARGET

- 14% reduction below BAU emissions in 2030 (unconditional)
- 68.8% reduction below BAU emissions in 2030 (conditional and unconditional)

#### COVERAGE

- Sectors: Energy, Industry, Livestock, LULUCF, Managed Soils, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ethiopian Environmental Protection Agency (EEPA) is responsible for implementing Article 6. In 2021 the EEPA replaced the previous Environment, Forest and Climate Change Commission (EFCCC), which had served as the country's DNA under the CDM.

**Institutional/administrative arrangements:** There is no administrative framework in place for implementing Article 6. In its updated NDC, Ethiopia stated its intention to develop institutional capacity to meet Article 6 accounting and reporting requirements, including procedures for authorisation<sup>1</sup>.

#### LEGISLATIVE FRAMEWORK

There is at present no legislation that relates to Article 6 or carbon crediting. The EEPA is planning to develop relevant regulations.

#### INFRASTRUCTURE

Although there is currently no infrastructure, Ethiopia plans to develop a national registry.

#### PROJECT TRANSITION

Ethiopia intends to allow the transition of CDM activities to Article 6.4, although the

administrative process to facilitate this is not yet in place.

#### BILATERAL COOPERATION

Ethiopia and Japan signed a bilateral cooperation agreement in 2013 to implement the JCM in Ethiopia. There are currently no

registered projects. Ethiopia is also planning pilot activities with Sweden and Switzerland.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

Eastern Africa Alliance on Carbon Markets and Climate Finance (EAA): Group of seven East African countries focused on strengthening regional participation in carbon markets and access to climate finance.

Mobilising Article 6 Trading Structures Programme: Works to structure mitigation activities and support governance frameworks that will generate ITMOs under Article 6. Two activities are being

developed in Ethiopia<sup>2</sup>.

Carbon Initiative for Development (Ci-Dev): Results-based payments programme aiming

to mobilise private finance for clean energy access in low-income countries. Ci-Dev's Standardised Crediting Framework may be extended to Ethiopia.

#### EXTERNAL LITERATURE ON ARTICLE 6

Carbon Market Profile – Ethiopia (2023): Summary of key facts and figures covering existing carbon crediting activities in Ethiopia.

(2021): Summary of EAA member country institutional preparations for engaging in Article 6.

Urban market approaches under Article 6 of the Paris Agreement (2023): Presents two potential Article 6 activities in Addis Ababa, Ethiopia – e-mobility and green cooling systems in health facilities.

Germany's carbon market cooperation with Ethiopia: Prospects for engaging with Article 6 of the Paris Agreement (2017): Discusses the readiness of Ethiopia to engage in potential carbon market options presented by Article 6, which at the time of publication remained unagreed.

Revitalising Eastern Africa's Institutional Capacity to Engage in Global Carbon Markets

#### OTHER RELEVANT INFORMATION

Ethiopia's Strategy for a Climate-Resilient Green Economy released in 2011 set out the country's plan to reach middle-income status by 2025<sup>3</sup>. Transferring carbon credits internationally was considered an important financing source, with a major source of demand foreseen to come from the EU ETS. Ethiopia's involvement in international carbon markets over the past decade has been limited. Nevertheless, the NDC

expresses a strong desire to participate in Article 6, which the country sees as a mechanism to increase its mitigation ambition.

Ethiopia was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation, although participation is limited to South Korean companies<sup>4</sup>.

- 1 Danford, E., Kassaye, R. and Sonja, S. (2023) *Urban market approaches under Article 6 of the Paris Agreement – Recommendations for practical implementation*. German Environment Agency.
- 2 Michaelowa, A. Perspectives Group et al. (2021) *Article 6 readiness in updated and second NDCs*.
- 3 Federal Democratic Republic of Ethiopia Environmental Protection Agency (2011) *Ethiopia's Climate-Resilient Green Economy: Green Economy Strategy*.
- 4 Reklef, "South Korea".

# GHANA

## NDC Description

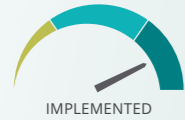
### TARGET

- 24.6 MtCO<sub>2</sub>e reduction below baseline scenario emissions by 2030 (unconditional)
- 64 MtCO<sub>2</sub>e reduction below baseline scenario emissions by 2030 (conditional and unconditional)

### COVERAGE

- Sectors: Energy, IPPU, LULUCF, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, SLCPs

## Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



## INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

### Responsible authorities/institutions:

The Ministry of Environment, Science, Technology and Innovation (MESTI) coordinates Ghana's NDC and Climate Change Agenda. It oversees and provides policy direction for implementing Article 6 in Ghana, including updating the cabinet on participation in Article 6.2 transactions and overseeing the development of bilateral engagements with prospective Article 6.2 partners.

### Institutional/administrative arrangements:

In December 2022, Ghana published its framework for implementing Article 6<sup>1</sup>. It established a multi-level governance arrangement. A Carbon Market Inter-Ministerial Committee participates in high-level strategic support and meetings every six months, and is responsible for the overall direction

of Ghana's participation in the Article 6.2. A **Governing Committee** (CMC) develops and approves rules for transactions and carries out mandates assigned by the Minister of MESTI.

The **Carbon Market Office** (CMO) is hosted within the climate change unit of the Environmental Protection Agency and deals with day-to-day management. This includes implementing policies on transactions, MRV, registry operations, creation and transfer of ITMOs, reporting, and applying corresponding adjustments. A **Carbon Market Technical Committee** provides support to the CMC and CMO on authorisation, approved methodologies, validation and verification entities, and issuances of mitigation outcomes. See Case Study I for more detail on Ghana's authorisation approach.

## LEGISLATIVE FRAMEWORK

The Article 6.2 framework is supported by **section 2(h) of the 1994 EPA Act 490**, which mandates the EPA to prescribe standards and guidelines relating to all aspects of the

environment. The government is currently working on an amendment of the EPA Act 490 which will further develop the legal basis for implementing both Article 6.2 and 6.4 in Ghana.

## INFRASTRUCTURE

The CMO has established the Ghana Carbon Registry (GCR) to track the authorisation, transfer and use of ITMOs. All activities

seeking to create authorised mitigation outcomes must be registered in the GCR. Following a completeness check by the

CMO, authorised mitigation outcomes will be issued into the holding account of the activity developer. Activity developers may also choose to have authorised mitigation outcomes issued in the registries of **recognised independent mechanisms**. In this instance, the independent registry

administrator must inform the CMO of the issuance within seven days, and a record will be kept in the activity developer's account in the GCR. Where possible the GCR may also be linked with the registry systems of other countries or independent mechanisms.

## PROJECT TRANSITION

Ghana's CMO is responsible for the approval of the transition of CDM project activities by no later than 31 December 2023 according to

decision 3/CMA.3 of UNFCCC and procedures adopted by CMA.4 during COP27.

## BILATERAL COOPERATION

To date, Ghana has announced bilateral Article 6 agreements with **Singapore** (2022),

**Sweden** (2021), and **Switzerland** (2020).

## Other

### PARTICIPATION IN EXTERNAL INITIATIVES

West African Alliance on Carbon Markets: Supports readiness to implement Article 6 and developing a common vision on carbon markets and climate finance in the region.

legal settings for Article 6 cooperation.

Article 6.2 Transfer Readiness Assistance: Provides technical assistance strengthening ITMO operational processes and developing

KliK Foundation: Established under the Ghana-Switzerland cooperation agreement, at present two activities – on clean cooking and a national clean energy programme – are being developed<sup>2</sup>.

### EXTERNAL LITERATURE ON ARTICLE 6

Ghana – Green Growth PASA (2022): World Bank readiness assessment, including Ghana's early-mover bilateral agreements.

the authorisation procedure in Ghana.

The Birth of an ITMO: Authorisation under Article 6 of the Paris Agreement (2022): Includes a summary of the different bodies involved in

West African countries' ITMO readiness scoping assessment (2021): Provides an overview of West African countries' readiness to implement Article 6 as a whole and specific Article 6 activities that generate ITMOs.

### OTHER RELEVANT INFORMATION

In 2022, Ghana launched the **first ever bilaterally authorised project** enabling a transfer of mitigation outcomes to Switzerland (utilising Article 6.2)<sup>3</sup>. Ghana

intends to use voluntary cooperation under Article 6.2 to achieve up to 55% of its conditional absolute emission reductions.

1 Environmental Protection Agency Ghana (2022). *Ghana's Framework on International Carbon Markets and Non-Market Approaches. Cooperating on climate change mitigation in West Africa* (no date).  
 2 United Nations Development Programme [UNDP] (2022) *Ghana, Vanuatu, and Switzerland launch world's first projects under new carbon market mechanism set out in Article 6.2 of the Paris Agreement*.



# HONDURAS

## NDC Description

### TARGET

— 16% reduction below BAU emissions in 2030

### COVERAGE

- Sectors: Energy, IPPU, Agriculture, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs

## Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6

MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

#### Responsible authorities/institutions:

No ministry responsible for Honduras' participation in Article 6 has yet been appointed.

#### Institutional/administrative arrangements:

There are currently no administrative or institutional arrangements for Article 6.

### LEGISLATIVE FRAMEWORK

Honduras does not yet have any laws and regulations relevant for carbon credits or participation in Article 6.

### INFRASTRUCTURE

Honduras does not currently have national infrastructure in place to implement Article 6.2.

### PROJECT TRANSITION

Honduras has a portfolio of CDM projects that could transition to Article 6.4, but there are currently no administrative processes in place related to the transition of the activities.

### BILATERAL COOPERATION

There are currently no Article 6 pilot activities or bilateral cooperation agreements.

## Other

### OTHER RELEVANT INFORMATION

In June 2022, Honduras imposed a moratorium on the sale of forest carbon units not recognised under the UNFCCC<sup>1</sup>. At COP27 the Honduran deputy environment minister signalled the country's intention to have more than 5.5 MtCO<sub>2</sub> of reductions verified through the UN's **REDD+ framework** in 2023. The resulting sovereign units could then be sold as internationally transferred mitigation outcomes under Article 6<sup>2</sup>. According to Honduras' NDC most of the emissions reductions will come from the energy (9%) and agricultural (5%) sectors, with small contributions from IPPU (1%) and waste (1%).

<sup>1</sup> Graham (2022) "Honduras Imposes Moratorium on Voluntary Credits", *Coalition for Rainforest Nations*, 2 August.  
<sup>2</sup> Sguazzin, A. and White, N. (2022) "Honduras to Follow Gabon With Sovereign Carbon Credit Issue", *Bloomberg.com*, 24 November.



## INDIA

### NDC Description

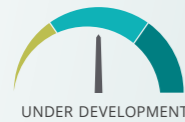
#### TARGET

- 45% emissions intensity reduction of the GDP by 2030 from 2005 levels
- Achieve about 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030
- Create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub>e through additional forest and tree cover by 2030.

#### COVERAGE

- Sectors: Economy-wide

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

#### Responsible authorities/institutions:

In November 2020, the high-level, inter-ministerial Apex Committee for Implementation of the Paris Agreement (AIPA) was established. AIPA is responsible for coordinating India's response to climate change and ensuring India is on track to meet its obligations under the Paris Agreement. AIPA also operates as the DNA responsible for regulating carbon markets under Article 6 in India, formulating guidelines for consideration of projects or activities, issuing guidelines on carbon

pricing, market mechanisms, and other similar instruments that have a bearing on climate change and the NDC. The AIPA replaced the National CDM Authority.

**Administrative arrangements:** In February 2022 the Ministry of Environment, Forests, and Climate Change submitted to AIPA a list of 13 priority activity types eligible for crediting under Article 6.2. Activities will remain valid for three years, after which point the list may be updated or revised<sup>1</sup>.

### LEGISLATIVE FRAMEWORK

The 2022 **Energy Conservation (Amendment) Act**, which enables the government to establish a domestic carbon market. While not specifically addressed at

Article 6 implementation, may be relevant in future. The AIPA has the authority to undertake, approve, and implement projects under Article 6.

### INFRASTRUCTURE

There is currently no infrastructure specifically intended to implement Article 6.2, although IT infrastructure will be established by the

Bureau of Energy Efficiency as part of efforts to establish the national **Carbon Credit Trading Scheme** (see below).

### PROJECT TRANSITION

AIPA has been appointed as the DNA for Article 6.4 and is mandated to consider the transition of CDM activities.

### BILATERAL COOPERATION

In March 2023 India signed an "aide memoire" with **Japan** expressing the

countries' intent to establish the JCM in India. This is expected to be followed by a Memorandum of Cooperation on the JCM.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

Global Carbon Market Programme: Running until 2022, it supported public decision-makers with policy advice and the private

sector actors through capacity building to increase their market readiness.

#### EXTERNAL LITERATURE ON ARTICLE 6

JCM and Article 6 of the Paris Agreement: Strengthening Japan-India Technology Collaboration (2022): Discusses the potential

of a Japan-India collaboration under the purview of Article 6; examines opportunities for shaping mutual ties through the JCM.

#### OTHER RELEVANT INFORMATION

The Energy Conservation (Amendment) Act, 2022, provides the legal basis to establish a **domestic carbon market** and grants the government the ability to issue certificates for reducing carbon emissions. In March 2023, the Ministry of Power issued draft guidelines for public comment for a "**Carbon Credit Trading Scheme**". It proposes to

establish an Indian Carbon Market Governing Board, whose responsibilities will include approving projects under the voluntary crediting mechanism, issuing "Carbon Credit Certificates" (CCC) and making recommendations to guide the sale of CCCs outside of India<sup>2</sup>.

<sup>1</sup> Ministry of Environment, Forest and Climate Change (2023) *Activities finalised to be considered for trading of carbon credits under Article 6.2 mechanism to facilitate transfer of emerging technologies and mobilise international finance in India*.  
<sup>2</sup> Kiernan, P (2023) "Indian govt releases draft guidelines for operation of carbon market, seeks stakeholder feed back", *Carbon Pulse*, 28 March.

## INDONESIA

### NDC Description

#### TARGET

- 31.89% reduction below BAU emissions in 2030 (unconditional)
- 43.20% reduction below BAU emissions in 2030 (conditional and unconditional)

#### COVERAGE

- Sectors: Energy, IPPU, Waste, AFOLU
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

#### Responsible authorities/institutions:

The Ministry of Environment and Forestry (MoEF) serves as the UNFCCC national focal point and will be responsible for Article 6 implementation. The MoEF will establish a DNA responsible for reviewing proposals made by ministries for international cooperation under Article 6 and for providing recommendations on authorisation of mitigation outcomes. All

approved mitigation adaptation activities must be reported in the national registry (see below).

**Administrative arrangements:** A more detailed administrative framework for implementing activities under Article 6.2 has not yet been developed. Discussions on the process and the role of relevant ministries and agencies began at the end of 2021.

### LEGISLATIVE FRAMEWORK

**MoEF Regulation No. 21/2022** provides detail on the operation of international carbon trading under Article 6.2. MoEF will have responsibility for approving activities and authorising units for corresponding adjustment.

Emissions reductions may be generated through a domestic crediting mechanism, or when generated through independent mechanisms (e.g., Gold Standard or Verra) can apply for mutual recognition with the national standard. All projects must be recorded in the national registry. A portion of credits from international projects must be set

aside in a buffer account, which acts as a risk management measure to ensure Indonesia's NDC target achievement is not undermined. The set-aside amount starts at between 0-20% and depends on whether the activity takes place outside the NDC scope and whether it will be for domestic or international trading. Units will only be allowed to be internationally traded from sectors that have achieved their NDC targets in a particular year. The buffer units will be held for two years. Voluntary carbon market projects, units from which do not require corresponding adjustment, must also be recorded in the national registry and can be internationally traded<sup>1</sup>.

<sup>1</sup> ARMA (2022) *ESG Update: Key takeaways of Minister of Environment and Forestry Regulation No. 21 of 2022 on the Guidelines of Carbon Economic Value Implementation.*

**Presidential Regulation (PR) No. 98/2021 on Carbon Economic Value** covers issues related to carbon pricing. It provides a legal basis for establishing an emissions trading scheme, trading through carbon offsets,

and a results-based payments system. The regulation allows for international carbon trading, as long as it does not affect the achievement of Indonesia's NDC.

### INFRASTRUCTURE

MoEF operates the **National Registry System for Climate Change Control** (SRN). Among its functions is to serve as the carbon registry to support implementation of the

carbon pricing instruments established by PR No. 98/2021. Internationally traded units will need to be recorded in the registry.

### PROJECT TRANSITION

The government has not publicly indicated whether it is planning to allow activities from

the CDM to transition to Article 6.4. The DNA for Article 6.4 has not yet been appointed.

### BILATERAL COOPERATION

Indonesia and **Japan** signed a bilateral cooperation agreement in 2013 to implement the JCM in Indonesia. There are currently 23

registered activities. Indonesia does not have any other bilateral cooperation agreements.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

World Bank's Partnership for Market Implementation: Supports the development of the emissions trading system in the power sector and the domestic crediting mechanism.

GGGI's Designing Article 6 Policy Approaches: Supports development of ITMOs through policy interventions, either through single policies or as part of package of policy measures.

Article 6 Support Facility: Managed by the Asian Development Bank; provides capacity building and technical support to identify, develop, and test mitigation actions under the Article 6 framework.

Urban Climate Action: Pilot Projects under Article 6: Aims to develop an urban piloting programme in Yogyakarta able to generate mitigation outcomes in line with Article 6.

#### EXTERNAL LITERATURE ON ARTICLE 6

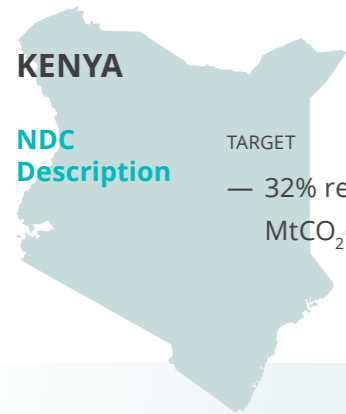
Nationalisation Risk: Will Host Countries Hedge their Bets between Article 6 and the Voluntary Carbon Markets? (2022): Legal analysis of Indonesia, India, Malaysia regarding enactment of domestic legislation to achieve NDCs, including Article 6 considerations.

ADB Article 6 of the Paris Agreement: Drawing Lessons from the JCM (2021): Assesses cooperation between Japan and Indonesia under the JCM framework; provides insights into lessons learned on cooperative approaches.

#### OTHER RELEVANT INFORMATION

Indonesia launched an **emissions trading system** (ETS) for the power sector in February 2023, and will introduce a **carbon tax** likely in 2025, depending on progress made in

preparing the carbon tax roadmap. The ETS will work as a hybrid "cap-tax-and-trade" system. Facilities that fail to meet their obligations under the ETS will be subject to the tax.



**NDC Description**

TARGET  
— 32% reduction below BAU emissions (143 MtCO<sub>2</sub>e) in 2030

COVERAGE  
— Sectors: Energy, IPPU, AFOLU, Waste  
— Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

**Article 6 preparation status**



INTENTION TO PARTICIPATE IN ARTICLE 6

MOST COMMON IMPLEMENTED PROJECT TYPES



**INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS**

**Responsible authorities/institutions:**  
The Climate Change Directorate is the lead government agency responsible for coordinating climate change plans and actions<sup>1</sup>. The National Environment Management Authority (NEMA) is Kenya's DNA under the CDM and is housed within the Ministry of Environment and Mineral Resources (MEMR).

**Institutional/administrative arrangements:**  
Kenya's 2020 updated NDC indicates the development of national institutional frameworks to govern its engagement with Article 6; however, details are not yet publicly available. Kenya has also signed up to develop a **carbon activation plan** with the help of the Africa Carbon Markets Initiative (see below).

**LEGISLATIVE FRAMEWORK**

According to the NDC, Kenya plans to **develop domestic legislation** to govern its engagement with Article 6. A legal framework and guidance for a domestic carbon market

are reported to be close to publication, however details are not yet publicly available<sup>2</sup>.

**INFRASTRUCTURE**

In 2021, the finance minister stated that a national carbon credits and green assets **registry** is under development<sup>3</sup>.

**PROJECT TRANSITION**

No information on the transition of CDM activities was identified.

**BILATERAL COOPERATION**

Kenya and **Japan** signed a bilateral cooperation agreement in 2013 to implement the JCM in Kenya. There are currently two registered activities.

**Other**

**PARTICIPATION IN EXTERNAL INITIATIVES**

Eastern Africa Alliance on Carbon Markets and Climate Finance: Group of seven East African countries focused on strengthening regional participation in carbon markets and access to climate finance.

working on 13 action programmes.

African Carbon Markets Initiative: Group of seven African countries focused on scaling voluntary carbon markets and

Carbon Initiative for Development (Ci-Dev): Results-based payments programme aiming to mobilise private finance for clean energy access in low-income countries. Ci-Dev's Standardised Crediting Framework may be extended to Kenya.

**EXTERNAL LITERATURE ON ARTICLE 6**

Change the Story: Developing a Local Carbon Market in Kenya (2023): Summarises the status of the local carbon market and the outlook for future opportunities.

existing carbon crediting activities in Kenya.

Carbon Market Profile – Kenya (2023): Summary of key facts and figures covering

Kenya: Swedish Energy Agency Virtual Pilot (2019): Elaborates on the technical, financial and transaction for a possible Article 6 pilot programme supporting a risk mitigation facility for geothermal energy.

**OTHER RELEVANT INFORMATION**

Kenya is currently considering the implementation of an **emissions trading system**. Its recent Draft National Green Fiscal Incentives Policy Framework (December

2022) also includes a proposal for the government to explore the viability and design of a **carbon tax**<sup>4</sup>.

1 Ministry of the Environment and Forestry, Office of the Cabinet Secretary (2020) *Kenya's First NDC (updated version)*.  
 2 Saya, M. (2023) "Kenya to develop carbon credit market guidelines to ensure transparency", *The Star*, 23 February.  
 3 Obulutsa, G. (2021) "Kenya plans to set up emissions trading system", *Reuters*, 11 May.  
 4 Government of Kenya Treasury. *Draft National Green Fiscal Incentives Policy Framework*.

# MALAWI

## NDC Description

### TARGET

- 6% reduction below BAU emissions in 2040 (unconditional)
- 51% reduction below BAU emissions in 2040 (conditional and unconditional)

### COVERAGE

- Sectors: Energy, IPPU, Agriculture, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

## Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** No ministry responsible for Malawi's participation in Article 6 has yet been publicly appointed nor has the DNA for Article 6.4 been communicated. The **Environmental Affairs Department** of the Ministry of Natural Resources and

Climate Change is the implementing body for Malawi's bilateral Article 6 agreement with Switzerland (see below). Malawi has signed up to develop a **carbon activation plan** with the help of the Africa Carbon Markets Initiative (see below), which may include developing governance arrangements.

### LEGISLATIVE FRAMEWORK

No legislative framework related to Article 6 or carbon credits was identified.

### INFRASTRUCTURE

The cooperation agreement with Switzerland requires that both countries shall have access to a **publicly available registry**, which will track authorisations and transfers. This registry may be implemented jointly by the two countries.

### PROJECT TRANSITION

No information on the transition of CDM activities was identified.

### BILATERAL COOPERATION

In 2022, Malawi signed a bilateral cooperation agreement with Switzerland for the transaction of ITMOs under Article 6.

## Other

### PARTICIPATION IN EXTERNAL INITIATIVES

African Carbon Markets Initiative: Group of seven African countries focused on scaling voluntary carbon markets and working on 13 action programmes.

Klik Foundation: Established under the Malawi-Switzerland cooperation agreement, at present two activities – on clean cooking and sustainable biomass, and biogas – are being developed.

### OTHER RELEVANT INFORMATION

Malawi's president has stated that he wants the country to produce 5 million carbon credits per year to generate up to USD 100 million<sup>1</sup>.

In 2019, Malawi implemented a **carbon tax on vehicles**, calculated based on the engine size or cylinder capacity of the vehicle<sup>2</sup>.

<sup>1</sup> Malawi24 (2023) "Malawi seeks to generate forex by selling carbon credits", *Malawi24*, 20 February.

<sup>2</sup> Mkandawire, M. (2019) "MRA to start collecting carbon tax", *Malawi24*, 23 November.

# MOZAMBIQUE

## NDC Description

TARGET

- Emissions reduction of around 40 MtCO<sub>2</sub>e below BAU between 2020 and 2025

COVERAGE

- Sectors: Energy, Industry, Agriculture, Livestock, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

## Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



## INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** No ministry responsible for Mozambique's participation in Article 6 has yet been publicly appointed nor has the DNA for Article 6.4 been communicated. However, the government held a Cooperation Workshop on Climate Finance in 2022 with financial support from Belgium and the UK.

One of the conclusions of the workshop was that a **Task Force on Article 6** would be set up to allow Mozambique to mobilise climate finance<sup>1</sup>. Mozambique has also signed up to develop a **carbon activation plan** with the help of the Africa Carbon Markets Initiative (see below).

## LEGISLATIVE FRAMEWORK

Mozambique has adopted legislation related to carbon credits in the context of implementing REDD+ activities. In 2018 **Decree No. 23/2018** was passed. Among other things, the Decree sets the institutional

framework for REDD+ and defines rules for the generation, transfer, transaction and withdrawal of emission reduction titles. This may be relevant for activities under Article 6.

## INFRASTRUCTURE

No national infrastructure related to Article 6 or carbon credits was identified.

## PROJECT TRANSITION

No information on the transition of CDM activities was identified.

## BILATERAL COOPERATION

A German-funded Article 6 pilot project is exploring the reduction of technical losses

in the electricity grid and builds on early methodological work under the CDM<sup>2</sup>.

## Other

### PARTICIPATION IN EXTERNAL INITIATIVES

African Carbon Markets Initiative: Group of seven African countries focused on scaling voluntary carbon markets and working on 13 action programmes.

Initiative for Climate Action Transparency: Supports ITMO accounting, integrated with tracking progress of NDC implementation following ETF and Article 6 guidance.

### EXTERNAL LITERATURE ON ARTICLE 6

Assessment of the Government capacity to transfer titles over Emissions Reductions (2017): Examines the ability of the

Mozambique to transfer title of emissions reductions in the context of the FCPF (see below).

### OTHER RELEVANT INFORMATION

In 2021, Mozambique became the first country to receive payments totalling USD 6.4 million from the **World Bank's Forest Carbon Partnership Facility** (FCPF) for reducing 1.28 million tCO<sub>2</sub> from REDD+ since 2019. The payment was the first of four under

the country's Emission Reductions Payment Agreement with the FCPF that could unlock up to USD 50 million for reducing up to 10 million tCO<sub>2</sub> in Mozambique's Zambézia Province by the end of 2024<sup>3</sup>.

1 De Clercq, S., Buvane, S. and Taas, A. (2022) "Mobilising climate finance for the implementation of Mozambique's Nationally Determined Contributions under the Paris Agreement" Open.Enabel, 29 July 2022.  
 2 Climate Focus et al. (2020) *Article 6 Piloting: State of Play and Stakeholder Experiences*. Climate Finance Innovators.  
 3 World Bank Group (2021) "Mozambique Becomes First Country To Receive Emission Reductions Payments From Forest Carbon Partnership Facility" World Bank, 15 October.

## NEPAL

### NDC Description

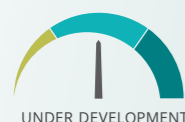
#### TARGET

- Expand clean energy generation to 15,000 MW by 2030
- Increase e-vehicle sales to over 90% of private passenger vehicle sales by 2030
- 25% of households to use electric stoves as their primary cooking mode by 2030
- Maintain 45% of total land area under forest cover by 2030

#### COVERAGE

- Sectors: Energy, IPPU, AFOLU, Waste
- Gases: CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ministry of Forests and Environment (MOFE) is responsible for Article 6 implementation.

**Administrative arrangements:** A draft high-level Article 6 **Governance Framework**

has been developed to inform the ongoing development of an Operations Manual. The **Operations Manual** will cover activity eligibility, as well as processes for the authorisation, transfer, and tracking of ITMOs.

#### LEGISLATIVE FRAMEWORK

To allow Nepal to engage in international cooperation under Article 6, the MOFE is currently revising the **Environment Protection Regulation (EPR)**, which sits

under the **Environment Protection Act**. The MOFE is conducting a stakeholder engagement process regarding the expansion of the EPR's scope to carbon trading.

#### INFRASTRUCTURE

There is currently no established national infrastructure to implement Article 6.2. Nepal will most likely use **third-party infrastructure**; however, this is yet to

be finalised and will be addressed in the Operations Manual currently under development (see above).

#### PROJECT TRANSITION

Although the decision is not yet finalised, the government intends to allow CDM projects to transition to Article 6.4.

#### BILATERAL COOPERATION

In 2022 Nepal signed a memorandum of understanding with **Sweden** to cooperate on Article 6 implementation. It was the first formal step in developing bilateral cooperation

between the two countries. Nepal and Sweden are currently discussing the terms and conditions of a signed bilateral agreement, for Nepal to carry out its first trade.

#### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

Mobilising Article 6 Trading Structures: Supports Nepal in establishing institutional frameworks for ITMO authorisation, transfer, and reporting to the UNFCCC; assisting

private and public sector project developer in developing Article 6-aligned mitigation activities; and facilitating the negotiation of agreements for the transfer of ITMOs.

#### OTHER RELEVANT INFORMATION

Nepal's Long-Term Strategy for Net-Zero Emissions (2021) states that market mechanisms will play a key role for Nepal to support and implement various GHG mitigation measures across sectors<sup>1</sup>. Cross-border energy trading is expected to provide an opportunity to generate ITMOs.

In 2021, Nepal signed an Emission Reductions Payment Agreement with World Bank's Forest Carbon Partnership Facility, whereby Nepal may access up to USD 45 million by 2025 to support efforts to reduce emissions from deforestation and forest degradation.

<sup>1</sup> Government of Nepal (2021) [Long-Term Strategy for Net-Zero Emissions](#).

## NIGERIA

### NDC Description

#### TARGET

- 20% reduction below BAU emissions in 2030 (unconditional)
- 47% reduction below BAU emissions in 2030 (conditional and unconditional)

#### COVERAGE

- Sectors: Energy, IPPU, AFOLU
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible institutions/authorities:** The Mitigation Division in the Department of Climate Change of the Federal Ministry of Environment is responsible for Article 6.

**Institutional/administrative arrangements:** Nigeria intends to develop a national strategy on the use of carbon markets for NDC achievement<sup>1</sup>. Institutional arrangements for implementing Article 6 are expected to build upon **frameworks**

**under the CDM**<sup>2</sup>. This included: a National Committee on Climate Change, with responsibility for approving CDM project applications in Nigeria; the Federal Ministry of Environment serving as the DNA; and a National Technical Committee on CDM, comprised of different ministries and external participants, to provide technical advice<sup>3</sup>. Nigeria has also signed up to develop a **carbon activation plan** with the help of the Africa Carbon Markets Initiative (see below).

#### LEGISLATIVE FRAMEWORK

A climate change legal working group has the mandate to develop a **legal domestic framework** for Article 6<sup>4</sup>. There are no

domestic legal frameworks for implementing the CDM in Nigeria<sup>5</sup>.

#### INFRASTRUCTURE

No carbon registry is current operational in Nigeria and the country is planning to develop a **national registry**<sup>6</sup>.

#### PROJECT TRANSITION

No information on the transition of CDM activities was identified.

#### BILATERAL COOPERATION

There are currently no Article 6 bilateral cooperation agreements.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

[West African Alliance on Carbon Markets and Climate Finance](#): Supports readiness to implement Article 6 and supports a common vision on carbon markets and climate finance in the region.

#### [Initiative for Climate Action Transparency:](#)

Supports ITMO accounting, integrated with tracking progress of NDC implementation following ETF and Article 6 guidance.

[NDC Partnership: Supporting Nigeria in developing a mandate to establish a domestic process for engaging with Article 6.](#)

#### EXTERNAL LITERATURE ON ARTICLE 6

[Article 6 readiness in West Africa – scoping study \(2021\)](#): Creates a bottom-up host country readiness map that outlines the building blocks of national Article 6 implementation.

[West African countries' ITMO readiness scoping assessment \(2021\)](#): Provides an overview of West African countries' readiness

to implement Article 6 as a whole and specific Article 6 activities that generate ITMOs.

[Nigeria Virtual Pilot \(2019\)](#): Combines Article 6 finance and sovereign green bonds to expand energy access in Nigeria, proposes the design and implementation of a domestic crediting programmes to promote renewable energy mini-grids.

#### OTHER RELEVANT INFORMATION

In August 2022, the Nigerian Minister of the Environment announced that the country had started activities towards establishing

a national **emissions trading system**. The National Council for Climate Change is responsible for developing the system.

- 1 West African Alliance on Carbon Markets and Climate Finance (2021) *Article 6 readiness in West Africa: Scoping Study*. Technical Report.
- 2 Jibril, A. "IETA Live Markets Series – Article 6 Readiness in West Africa: West African Alliance on Carbon Markets and Climate Finance (WAA) Report Launch", webinar, 30 July 2021.
- 3 Hakeem, I. "Legal and Institutional Framework for Achieving Sustainable Development in Nigeria through the Clean Development Mechanisms", *University of Botswana Law Journal* 20 (2015): 41-61.
- 4 West African Alliance, *Article 6 readiness in West Africa*.
- 5 Hakeem, "Legal and Institutional Framework".
- 6 West African Alliance, *Article 6 readiness in West Africa*.



**PERU**

**NDC Description**

TARGET

- Emissions not to exceed 208.8 MtCO<sub>2</sub>e in 2030 (unconditional)
- Emissions not to exceed 179.0 MtCO<sub>2</sub>e in 2030 (conditional and unconditional)

COVERAGE

- Sectors: Energy, IPPU, AFOLU, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>

**Article 6 preparation status**



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



**INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS**

**Responsible authorities/institutions:** The **General Directorate of Climate Change and Desertification (DGCCD)** of the Ministry of Environment (MINAM) is responsible for implementing Article 6 and serves as the DNA for Article 6.4.

**Institutional/administrative arrangements:** Currently MINAM is developing the regulation for the National Registry of Mitigation Measures (RENAMI – see below). The regulation sets out the institutional responsibilities of MINAM and DGCCD, the procedures for registering NDC mitigation

measures, as well as the process for requesting authorisations for ITMOs under Article 6.2. DGCCD must consider several measures before granting authorisation, including that the emissions reductions have not already been requested for authorisation or have been previously transferred in national or international markets. Third-party standards must be accredited by the DGCCD in order for activities and emissions reductions to be registered on RENAMI. Draft template documents for the different stages of the RENAMI registration process have also been published.

**LEGISLATIVE FRAMEWORK**

Article 56 of **Decree No. 013-2019-MINAM**, released in 2019, established the **RENAMI**. The decree sets out the objectives of RENAMI and requires mitigation transferred under Article 6.2 to first be authorised by MINAM. In August 2022, the regulation to implement

RENAMI was released for public consultation. More than 700 hundred comments were received, and the proposed regulation is currently being updated. The final regulation is expected to be completed during the second semester of 2023.

**INFRASTRUCTURE**

RENAMI is a digital platform in which public and private actors can **register mitigation activities** which contribute towards meeting

the NDC targets (see Case Study IV for more detail).

**PROJECT TRANSITION**

No information on the transition of CDM activities was identified.

**BILATERAL COOPERATION**

In 2020 Peru signed the world's first cooperation agreement under Article 6 with **Switzerland**.

In 2022 Peru signed a memorandum of understanding with **Singapore**.

**Other**

**PARTICIPATION IN EXTERNAL INITIATIVES**

**Klik Foundation:** Established under the Peru-Switzerland cooperation agreement, there are currently three activities focused on improved cookstoves, renewable energy and green credit lines.

**Initiative for Climate Action Transparency:** Supports ITMO accounting, integrated with tracking progress of NDC implementation following ETF guidance and Article 6 guidance in an integrated manner.

**EXTERNAL LITERATURE ON ARTICLE 6**

**Peru's regulatory framework for carbon markets (2022):** Overview of current legal and policy developments in the context of REDD+.

for energy-sector activities in Peru.

**Financial additionality tests for cooperation under Article 6 of the Paris Agreement:**  
**Case study Peru (2021):** Explores theoretical concepts for assessing financial additionality

**Opportunities for the Implementation of Article 6 of the Paris Agreement in the Solid Waste Sector in Peru (2018):** Outlines a conceptual pilot to trade ITMOs generated from the solid waste sector in Peru.

**OTHER RELEVANT INFORMATION**

Peru was among the first countries to pilot Article 6 activities. The pilot phase of the **Tuki Wasi project** – which distributed improved cookstoves in rural areas of Peru and is supported by the Klik Foundation – was launched in 2019. Following the conclusion of the pilot, in February 2023 a second call for implementing organisations to install around

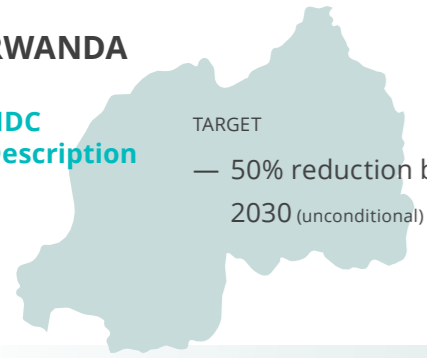
60,000 improved cookstoves in the period to 2031 was published<sup>1</sup>. The programme is expected to save around 100,000 tCO<sub>2</sub> over its lifetime.

Peru was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>2</sup>.

1 Microsol (2023) *Noticias: Se abre Segundo Proceso de Selección Competitiva para Programa Tuki Wasi*.  
2 Reklev, "South Korea".

## RWANDA

### NDC Description



#### COVERAGE

- Sectors: Economy-wide
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ministry of Environment (MoE) is responsible for Article 6 implementation. The **Rwanda Environment Management Authority** (REMA), under the supervision of the MoE is the DNA for Article 6.4 and is mandated to coordinate all activities related to Article 6.

**Institutional and administrative arrangements:** REMA is currently developing a national **Carbon Trading and**

**Readiness Framework.** The framework will establish, amongst others, the governance arrangements, responsibilities of different institutions, the processes for validation and verification. The application of levies is also being considered. The framework will set out the criteria, requirements and procedures for approval and authorisation for transfer of ITMOs. The framework is expected to be released by April 2023.

#### LEGISLATIVE FRAMEWORK

There are no existing laws or regulations relevant to carbon crediting and participation in Article 6. There is an ongoing activity

assessing the necessary legal and regulatory framework needed to meet Article 6 requirements.

#### INFRASTRUCTURE

There is no existing infrastructure, however Rwanda is developing a **centralised**

**accounting and reporting platform**, as well as an online carbon **registry**.

#### PROJECT TRANSITION

Rwanda plans to allow the transition of projects and Programmes of Activities from the CDM to Article 6.4. REMA is coordinating

this process and is currently establishing criteria and procedures for the transition.

#### BILATERAL COOPERATION

There are currently no Article 6 pilot activities or bilateral cooperation agreements.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

[Eastern Africa Alliance on Carbon Markets and Climate Finance](#): Group of seven East African countries focused on strengthening regional participation in carbon markets and access to climate finance.

[African Carbon Markets Initiative](#): Group of seven African countries focused on scaling voluntary carbon markets and working on 13 action programmes.

[Carbon Initiative for Development \(Ci-Dev\)](#):

Results-based payments programme aiming to mobilise private finance for clean energy access in low-income countries. Rwanda was one of two countries (alongside Senegal) to pilot the Standardised Crediting Framework (see below).

[World Bank's Partnership for Market Implementation](#): Supports participation of selected African countries in post-2020 carbon markets through capacity building for national governments on carbon pricing.

#### EXTERNAL LITERATURE ON ARTICLE 6

[Carbon Market Profile – Rwanda \(2023\)](#): Summary of key facts and figures covering existing carbon crediting activities in Rwanda.

[Revitalising Eastern Africa's Institutional Capacity to Engage in Global Carbon Markets \(2021\)](#): Summary of EAA member country institutional preparations for

engaging in Article 6.

[Standardised Crediting Framework Pilot – Lessons Learned \(2020\)](#): Summary of the main findings from applying Ci-Dev's streamlined "Standardised Crediting Framework" in Rwanda.

#### OTHER RELEVANT INFORMATION

Ahead of COP26 the project developer **atmosfair** signed an agreement with the Government of Rwanda to cooperate in avoiding double counting of emission

reductions by applying corresponding adjustments. No correspondingly adjusted units have been generated so far<sup>1</sup>.

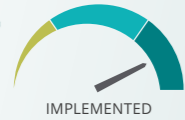
<sup>1</sup> Gilde, L. et al. (2022) [Article 6 Transaction Structures](#). World Bank Transformative Carbon Asset Facility.

# THAILAND

## NDC Description

- TARGET
- 30% reduction below BAU emissions in 2030 (unconditional)
  - 40% reduction below BAU emissions in 2030 (conditional and unconditional)

## Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



## INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The Ministry of Natural Resources and Environment (MONRE), acting through the **Office of Natural Resources and Environmental Policy and Planning (ONEP)**, and the **Thailand Greenhouse Gas Management Organisation (TGO)**, are responsible for implementing Article 6. ONEP acts as the focal point for the implementation of bilateral agreements between Thailand and partner countries, and is responsible for issuing letters of authorisation, performing corresponding adjustments, and reporting under the UNFCCC. TGO serves as the administrator of the activity standards and the registry. MONRE is currently being restructured. Policy relating to climate change will be transferred from ONEP to the Department of Climate Change and Environment once the new

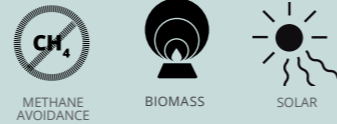
## LEGISLATIVE FRAMEWORK

The Board of Directors of TGO – which is responsible for the operational elements of carbon crediting in Thailand – has recently adopted two regulations relevant to Article 6.2. The **NCCC has a legal mandate** to, inter alia, formulate policies, guidelines, rules, and mechanisms on implementing international cooperation on climate change. The CCMGM was

## COVERAGE

- Sectors: Economy-wide (excluding LULUCF)
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>

## MOST COMMON IMPLEMENTED PROJECT TYPES



department is officially established.

## Institutional/administrative arrangements:

The National Committee on Climate Change Policy (NCCC) has adopted the Carbon Credit Management Guideline and Mechanism (CCMGM). With respect to the use of carbon credits for international purposes, the CCMGM prescribes:

- Eligible project types and criteria for projects which intend to request authorisation;
- The procedure for issuing a letter of authorisation;
- The procedure for registration of authorised projects and issuance of carbon credits; and
- The procedure for transferring carbon credits internationally, reporting, and applying corresponding adjustments.

developed pursuant to this regulation. MONRE is currently preparing a **Climate Change Act**, which may address carbon pricing instruments, including carbon crediting mechanisms and Article 6.

There is currently no fee for issuance of a letter of authorisation. TGO collects fees for registration

of domestic T-VER projects and issuance of carbon credits. TGO can collect fees relating to execution

## INFRASTRUCTURE

TGO administers a carbon **registry** to track and record ITMOs. The registry records issuance and transactions of carbon credits, including any transfer, acquisition, use, and

## PROJECT TRANSITION

There is currently no policy consideration around the transition of CDM projects to Article 6.4.

## BILATERAL COOPERATION

Thailand has a bilateral agreement with **Switzerland** and has entered discussions with **Singapore**, the agreement with which is

## Other

### PARTICIPATION IN EXTERNAL INITIATIVES

[Supporting Preparedness for Article 6 Cooperation \(SPAR6C\)](#): Applies research-based capacity building to promote increased climate action ambition through strategic use of Article 6.

[Mutual Learning Programme for Enhanced Transparency](#): Supports countries in applying the reporting guidance under the Paris Agreement, including reporting provisions under Article 6.2.

[KliK Foundation](#): Established under the

### OTHER RELEVANT INFORMATION

Since 2014, TGO has operated the Thailand Voluntary Emission Reduction (T-VER) scheme. The scheme is a **local crediting mechanism** similar in design to the CDM. It generates two types of credits: Standard T-VER credits, which are generated using the general project standards; and Premium T-VER credits, which are aligned with requirements under Article 6 and the Taskforce on Scaling Voluntary Carbon

of transactions in the carbon credit registry; however, at present these fees are waived.

cancellation. TGO is currently considering how to record and track the authorisation status of carbon credits in the registry.

expected to be finalised in 2023. Thailand is also participating in the **Japanese JCM**, which has pre-funded activities in the country.

Thailand-Switzerland cooperation agreement, Thailand has authorised the first Article 6.2 pilot project on operation of e-buses in the Bangkok Metropolitan area. The project will be implemented through the T-VER scheme.

[Urban Climate Action: Pilot Projects under Article 6](#): Aims to develop an urban piloting programme in the cities of Khon Kaen and Krabi able to generate mitigation outcomes in line with Article 6.

Market's "Core Carbon Principles". T-VERs can be used for voluntary corporate social responsibility purposes including for carbon offset/carbon neutral certification in Thailand and can be applied for relevant incentive measures of the Thai government. Thailand was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>1</sup>.

1 ReKlev, "South Korea".

## UGANDA

### NDC Description

#### TARGET

- 5.9% reduction below BAU emissions in 2030 (unconditional)
- 24.7% reduction below BAU emissions in 2030 (conditional and unconditional)

#### COVERAGE

- Sectors: Economy-wide
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** The **Climate Change Department** of the Ministry of Water and Environment (MWE) is responsible for implementing Article 6. The MWE has formed a **National Climate Change Mechanisms Taskforce** (NCCMT), which will develop and implement a strategy for carbon market activities and the NDC.

**Institutional/administrative arrangements:** The MWE is currently developing a framework to establish the processes to participate in Article 6.2. This will include registration and ownership of credits, the ITMO authorisation process, and national validation and verification procedures. Levies related to the authorisation, issuance and/or transfer ITMOs are being considered and may be introduced.

#### LEGISLATIVE FRAMEWORK

Section 9 of the 2021 **National Climate Change Act** provides for participation in "climate change mechanisms", which include Article 6. The Act gives the minister for climate change the authority to adopt regulations outlining the procedure for

approving project proponents' participation in such mechanisms, to establish a register for project approaches, and to address the ownership of emissions reductions. More detailed regulations are currently being developed.

#### INFRASTRUCTURE

The MWE may use **infrastructure developed by the UNFCCC** under Article 6, alongside a simple **national registry**. No decision has yet

been made regarding the use of registries of independent crediting mechanisms.

#### PROJECT TRANSITION

Uganda intends to allow CDM activities to transition to Article 6.4. The MWE is currently developing criteria to facilitate this transition.

A draft of the criteria is currently pending approval by the NCCMT and the National Climate Change Advisory Committee.

#### BILATERAL COOPERATION

There are currently no Article 6.2 pilot activities or bilateral cooperation agreements.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

[Eastern Africa Alliance on Carbon Markets and Climate Finance](#): Group of seven East African countries focused on strengthening regional participation in carbon markets and access to climate finance.

[Climate Finance Innovators](#): Works to develop replicable climate financing models in three African countries (inc. Uganda) based on CDM elements and activities.

[Global Carbon Market Programme](#): Supports public decision-makers with policy advice and the private sector actors through capacity building to increase their market readiness.

[World Bank's Partnership for Market Implementation](#): Supports participation of selected African countries in post-2020 carbon markets through capacity building for national governments on carbon pricing.

#### EXTERNAL LITERATURE ON ARTICLE 6

[Carbon Market Profile - Uganda \(2023\)](#): Summary of key facts and figures covering existing carbon crediting activities in Uganda.

[Uganda - transitioning to electric cooking and rapid bus transport](#).

[Urban market approaches under Article 6 of the Paris Agreement \(2023\)](#): Presents two potential Article 6 activities in Kampala,

[Revitalising Eastern Africa's Institutional Capacity to Engage in Global Carbon Markets \(2021\)](#): A summary of EAA member country institutional preparations for engaging in Article 6.

#### OTHER RELEVANT INFORMATION

The NDC identifies AFOLU as a priority sector, which is expected to contribute more than

87% (30 MtCO<sub>2</sub>e) of the emissions reductions by 2030.

## VIETNAM

### NDC Description

- 15.8% reduction below BAU emissions in 2030 (unconditional)
- 43.5% reduction below BAU emissions in 2030 (conditional and unconditional)

### COVERAGES

- Sectors: Energy, Industrial Processes, AFOLU, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

**Responsible authorities/institutions:** No ministry responsible for Vietnam's participation in Article 6 has yet been publicly appointed nor has the DNA for Article 6.4 been communicated. The Department of Climate Change (DCC) of the **Ministry of Natural Resources and Environment** (MONRE) serves as the main coordinating entity for climate policy in Vietnam and is also the DNA under the CDM.

**Institutional/administrative arrangements:** As part of the process of establishing the new national carbon market (see below), institutional arrangements for participation in both Article 6.2 and Article 6.4 will be developed. There is currently an activity underway seeking to propose relevant administrative arrangements for Article 6, including the different stages of the project cycle, transaction fees, MRV procedures, and the process for applying corresponding adjustments.

### LEGISLATIVE FRAMEWORK

While there is no legal framework specifically addressing Article 6.2, there are several relevant regulations related to carbon crediting. Rules for the operation of the CDM were set through **PM Decision No 130/2007/QD-TTg**. In addition to outlining features such as eligible activities and stakeholder responsibilities, the Decision established a CER "sales fee". Under the CDM, revenues from CER sales were not received directly by project developers but instead flowed through the **Vietnam Environmental Protection Fund**. The Fund deducted a percentage of the total revenue, before transferring the remaining money to the project developer. The Fund used the fees to support environmental projects in Vietnam.

**Circular No. 17/2015/TT-BTNMT** established rules for implementing the JCM in Vietnam. The revised **Law on Environmental Protection**, adopted in November 2020, provided the legal basis to establish a national carbon market. The Law's first implementing regulation – **Decree No. 06/2022/ND-CP** – entered into force in 2022. The Decree provides some design features for a new **national crediting programme** (NCP), which will be overseen by MONRE. Further implementing regulations are expected before the NCP begins operation, which may also have relevance to the operation of Article 6.2 and Article 6.4 in Vietnam.

### INFRASTRUCTURE

Vietnam operates a basic carbon **registry** as part of its participation in the JCM. It is likely that **new infrastructure** will be developed

as the national carbon market is established, which could serve Article 6.2 purposes.

### PROJECT TRANSITION

There is an ongoing exercise looking at possible criteria and procedures for existing

CDM projects to transition to Article 6.4.

### BILATERAL COOPERATION

Vietnam and **Japan** signed a bilateral cooperation agreement in 2013 to implement the JCM in Vietnam. There are currently 14 projects registered under the JCM. More

recently, Vietnam has signed cooperation agreements with **South Korea** and **Singapore**, in 2021 and 2022, respectively.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

[GGGI's Designing Article 6 Policy Approaches:](#) Supports development of ITMOs through policy interventions, either through single policies or as part of package of policy measures.

(emissions trading system and national crediting programme).

[World Bank's Partnership for Market Implementation:](#) Provides technical support to establish the national carbon market

[Support JCM Partner Countries for expanding Third Party Entity:](#) Facilitates workshops on MRV procedures taking lessons from the JCM methodology.

#### EXTERNAL LITERATURE ON ARTICLE 6

[Carbon Markets in Vietnam \(2022\):](#) Provides an overview of recent developments, with recommendations for developing the the national carbon market.

[Viet Nam: Prospects for engaging with Article 6 of the Paris Agreement \(2017\):](#) Discusses the readiness of Vietnam to engage in potential carbon market options presented by Article 6, which at the time of publication remained unagreed.

[Germany's carbon market cooperation with](#)

#### OTHER RELEVANT INFORMATION

The planned national carbon market will consist of two instruments. A pilot **emissions trading system**, covering the power, cement and steel sectors, will start operating from 2026-2027, before transitioning into its first full phase from 2028. A **national crediting programme** will begin its pilot phase in 2024, focused on crediting activities in the solid waste

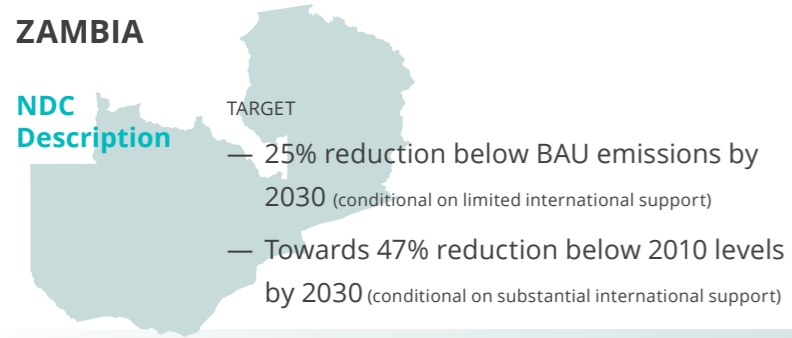
sector, before entering full operation from 2026. Measures to facilitate participation in international carbon markets through Articles 6.2 and 6.4 will form part of implementation of the national carbon market.

Vietnam was included among one of 16 priority countries for potential Article 6 projects by the Korea Environment Corporation<sup>1</sup>.

<sup>1</sup> Reklev, "South Korea".

## ZAMBIA

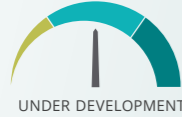
### NDC Description



#### COVERAGES

- Sectors: Energy, AFOLU, Waste
- Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Article 6 preparation status



INTENTION TO PARTICIPATE IN ARTICLE 6



MOST COMMON IMPLEMENTED PROJECT TYPES



#### INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

##### Institutional/administrative arrangements:

The SPAR6C programme (see below) plans to support Zambia in establishing institutional arrangements enhanced in readiness for trading under Article 6 using guidance or tools adapted for Zambia by January 2027<sup>1</sup>. Its political

implementing partner is the Ministry of Green Economy and Environment (MGEE). In 2022, the MGEE released its Interim Guidelines on Carbon Market and Trading<sup>2</sup>. It outlines the procedure for getting approval for activities, as well criteria for eligible project types.

#### LEGISLATIVE FRAMEWORK

A **National Policy on Climate Change** that refers to carbon markets is in place, and a Climate Change Bill is being drafted that will provide the legal framework for Article 6 transactions<sup>3</sup>. In 2021, the government issued the **Forest (Carbon Stock Management) Regulations** (Statutory Instrument No. 66, 2021). The regulation sets out the process

for implementing eligible forestry projects. As the regulation only applies to forestry activities, the Interim Guidelines were issued to provide similar guidance for other emissions reductions activity types. These will be formalised through the Climate Change Bill, the enactment of which is expected in the first half of 2023.

#### INFRASTRUCTURE

An integrated **MRV** system that incorporates a GHG inventory, climate finance, mitigation actions, adaptation actions, technology transfer, and capacity building is soon be

launched. Key priorities include a clear national **registry** and tracking method for both the compliance and voluntary markets<sup>4</sup>.

#### PROJECT TRANSITION

No information on the transition of CDM activities was identified.

#### BILATERAL COOPERATION

The government plans to identify and evaluate at least three Article 6 pilot projects

for cooperative approaches by September 2026, under the SPAR6C programme<sup>5</sup>.

### Other

#### PARTICIPATION IN EXTERNAL INITIATIVES

[Supporting Preparedness for Article 6 Cooperation \(SPAR6C\)](#): Applies research-based

capacity building to promote increased climate action ambition through strategic use of Article 6.

#### EXTERNAL LITERATURE ON ARTICLE 6

[NDC Conditionality and Article 6 \(2021\): Analysis of African countries' updated NDCs and conditionality in relation to Article 6, including a case study on Zambia.](#)

[Climate Finance Mapping for NDC Implementation in Zambia \(2021\): Study on financing the actions required to meet Zambia's NDC targets, including through the use of Article 6 and other market mechanisms.](#)

#### OTHER RELEVANT INFORMATION

UAE-based carbon credit project developer Blue Carbon has signed an MoU with Zambia to explore the option of developing initiatives consistent with Article 6.2<sup>6</sup>. A German-funded Article 6 pilot project is exploring the reduction of technical losses in the electricity grid and builds on early methodological work

under the CDM<sup>7</sup>. Zambia's Eighth National Development Plan and draft Strategic Plan for the MGEE for 2022-2026 identify carbon markets and trading among the key drivers for accelerated national efforts to address climate change<sup>8</sup>.

1 German BMWK, International Climate Initiative [IKI], and GFA Consulting Group (no date) *This project is financed by International Climate Initiative (IKI) Supporting Preparedness for Article 6 Cooperation (SPAR6C): For high ambition NDC implementation* [Powerpoint Presentation].

2 Ministry of Green Economy and Environment Zambia (2022) *Interim Guidelines: Handling of Carbon Markets and Trading in Zambia*

3 GGGI (2022) *Developing Carbon Markets based on Article 6 of the Paris Agreement: Challenges and Opportunities. Technical Report No. 25.*

4 Ibid.

5 Ibid.

6 *Carbon Capture Technology Conference & Expo North America 2022* (2023) "Blue Carbon and Zambia Sign MoU to Collaborate on Carbon Removal Projects in the Forest Sector", 13 February.

7 Climate Focus et al. (2020) *Article 6 Piloting: State of Play and Stakeholder Experiences*. Climate Finance Innovators.

8 Government of the Republic of Zambia (2022) *Eighth National Development Plan 2022-2026*.

# ANNEX

## SUMMARY OF CAPACITY BUILDING INITIATIVES

This section includes some details about the prominent capacity building and/or Article 6 initiatives mentioned in this report, including details on their implementing organisation, their area(s) of focus and, if available, the target countries.

### IMPLEMENTING ORGANISATION



Global Green Growth Institute

### INITIATIVE

Supporting Preparedness for Article 6 Cooperation (SPAR6C)

### TARGET COUNTRIES

Colombia, Pakistan, Thailand, Zambia

### FOCUS AREA

The first focus area of the GGGI SPAR6C programme is national government support to prepare for engagement in Article 6 transactions. This entails the provision of technical assistance for medium- and long-term emissions planning and assessments of potential for raised ambition, as well as support designing strategies, regulations, and institutional arrangements to enable the authorisation of ITMO transfers in line with Article 6. Second, SPAR6C includes the development of an Article 6 toolbox to assist the planning of governments and project partners. Third, the programme establishes a Community of Practice for Article 6 Implementing Countries, an international research-based knowledge sharing platform<sup>1</sup>.

### IMPLEMENTING ORGANISATION



World Bank

### INITIATIVE

Partnership for Market Implementation (PMI)

### TARGET COUNTRIES

Multilateral/Global

### FOCUS AREA

The World Bank PMI programme supports the development and implementation of carbon pricing instruments to meet NDC targets. It participates in the operationalisation of Article 6 through technical discussions and the dissemination of knowledge products<sup>2</sup>.

<sup>1</sup> [Supporting Preparedness for Article 6 Cooperation \(SPAR6C\)](#) (no date). Federal Ministry for Economic Affairs and Climate Action.  
<sup>2</sup> [Home | PARTNERSHIP FOR MARKET IMPLEMENTATION](#) (no date).

IMPLEMENTING ORGANISATION



UNFCCC

INITIATIVE

Capacity building on Article 6.2 and Article 6.4

TARGET COUNTRIES

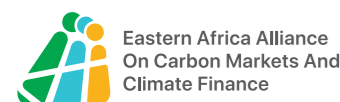
Global

FOCUS AREA

UNFCCC Article 6.2 capacity building programmes focus on: (1) supporting the development of institutional arrangements, including reporting, (2) helping parties ensure that cooperation approaches support ambition, and (3) assisting least developed countries and small island developing States (SIDs) in meeting participation requirements.

The associated Article 6.4 programmes focus on: (1) establishing necessary institutional arrangements to implement the requirements, (2) developing the technical capacity to design and set the baselines for application in host Parties, and (3) capacity-building in developing countries to apply the Article 6.4 mechanism and support for the transition<sup>1</sup>.

IMPLEMENTING ORGANISATION



EAACMCF

INITIATIVE

Eastern Africa Alliance on Carbon Markets and Climate Finance

TARGET COUNTRIES

Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Uganda

FOCUS AREA

The East Africa Alliance on Carbon Markets and Climate Finance promotes long-term participation in international carbon markets and access to climate finance for NDC implementation through a four-pillared approach: (1) it delivers public and private sector capacity building activities to support Article 6 readiness; (2) it focuses on the management of the transition from the CDM; (3) it promotes coordinated participation in UNFCCC negotiations; and (4) it promotes regional exchange on experiences and lessons learned on carbon markets and climate finance<sup>2</sup>.

<sup>1</sup> UNFCCC (2022) *Article 6 Capacity Building Work Programme*.

<sup>2</sup> Eastern Africa Alliance on Carbon Markets and Climate Finance – [Promoting a common vision on Carbon Markets and Climate Finance within the Eastern African region](#) (no date).

IMPLEMENTING ORGANISATION



West African Alliance on Carbon Markets and Climate Finance

FOCUS AREA

The West African Alliance on Carbon Markets and Climate Finance promotes participation in international carbon markets through four specific objectives: (1) fostering of active participation in UNFCCC negotiations, (2) the promotion of access to market mechanisms and climate finance opportunities on national and sub regional levels, (3) piloting of the transition of CDM activities to the Article 6 context, and (4) support of Article 6 pilot experiences in the sub region while sharing implementation knowledge in negotiations and vice versa<sup>1</sup>.

INITIATIVE

West African Alliance on Carbon Markets and Climate Finance

TARGET COUNTRIES

Benin, Burkina Faso, Cape Verde, Ivory Coast, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo

IMPLEMENTING ORGANISATION



Asian Development Bank's Article 6 Support Facility (A6SF)

FOCUS AREA

The ADB's A6SF provides capacity building to identify, develop, and test Article 6 mitigation actions through targeted knowledge products, as well as six core programmes: (1) regional trainings on the development of national climate policy architecture and frameworks to operationalise Article 6; (2) roundtable discussions on creating a regional carbon market alliance and Article 6 capacity building, emphasising technical options and key issues in international negotiations; (3) a Workshop on Piloting Article 6, including screening prospective mitigation activities and developing a roadmap for Article 6 design and development; (4) a Regional Dialogue on Carbon Pricing (REdiCAP) to discuss challenges and opportunities for carbon pricing to meet NDC targets, tools, and best practices; (5) a Workshop on Carbon Pricing for V20 Countries; and (6) a Workshop on Carbon Pricing for SIDs<sup>2</sup>.

INITIATIVE

Capacity building on Article 6

TARGET COUNTRIES

Regional

<sup>1</sup> West Africa Climate Alliance (no date).

<sup>2</sup> Kumar Duggal, V. (2022) [ADB's Support for Article 6 Implementation](#).



# CASE STUDIES

## CASE STUDY I

### Ghanaian approach towards authorisation of ITMOs

One of the most important processes that countries must establish to participate in Article 6.2 is how they will authorise ITMOs. Only ITMOs that have been authorised can be used to meet NDC targets of countries other than the project's host, or "transferring", country. From the transferring country's perspective, in authorising ITMOs it confirms that it will not count the emissions reductions towards its NDC achievement. For this reason, the decision to authorise ITMOs is a more complicated one than whether to simply approve activities, for instance through "letters of approval" under the CDM.

In December 2022, Ghana published its framework for Article 6, which is the fullest elaboration yet of a national level Article 6 framework.

#### Features of Ghana's Article 6 framework approach

- Only mitigation outcomes generated from the **conditional component of Ghana's NDC** may be considered for authorisation. This ensures that achievement of the unconditional NDC target is not put at risk. The activity must fall within one of the 25 conditional mitigation measures in Ghana's NDC.
- Ghana will authorise mitigation outcomes for **three end-use purposes**: for use towards other countries' NDC targets; for use towards other compliance purposes (e.g., CORSIA); and for voluntary use by buyers seeking carbon credits with a corresponding adjustment.
- Ghana will **only authorise 99% of the mitigation generated** (i.e., 990 out of 1000 credits), as a further safeguard against over-crediting risk. Furthermore, Ghana will only consider authorising mitigation outcomes **generated outside the scope of the NDC** if they have been included within the latest GHG inventory.
- For projects included in a list of automatically additional activities, a Letter of Assurance, which serves as a form of pre-authorisation, may be requested. Otherwise, **Letters of Authorisation** (LOA) will be issued after activity design documents have been approved by the Carbon Market Office (CMO) and independently validated, but before registration on either the Ghana Carbon Registry or the registry of an approved mechanism. LOAs will be published online by the CMO.
- The **duration of authorisation granted in a LOA varies** by activity type. Authorised mitigation outcomes that occur until 31 December 2030 will only be accounted for by Ghana during its first NDC period and will not be carried over.

The framework establishes a clear process for requesting and issuing authorisation. In particular, the list of priority projects helps developers to understand which activities will be approved for authorisation, reducing the risk that authorisation is rejected after the project design process has begun.

**Source** – Environmental Protection Agency Ghana (2022) [\*Ghana's framework on international carbon markets and non-market approaches\*](#).

## CASE STUDY II

### Lessons learned on governance and administration under the Standardised Crediting Framework

The Standardised Crediting Framework (SCF) of the World Bank's Ci-Dev programme was developed to pilot a **streamlined, country-administered crediting framework**. The objective of the SCF is to reduce transaction costs and shorten the time need to generated credits when compared with the CDM. In doing so the SCF seeks to improve access to crediting markets to lower-income countries and serve as a model for domestic implementation of Article 6.2.

One of the main tasks of the SCF was to establish **governance arrangements** to manage the framework. This consisted of three entities: a **governing board**, which certifies emissions reductions and oversees the rules, procedures, and bodies of the SCF; the **administrator**, responsible for day-to-day implementation; and a **technical committee**, including civil society and private sector representatives, which reviewed all the rules, templates and tools, including methodologies and guidance documents.

**Lessons learned** – The pilots identified several lessons learned relevant for countries looking to establish governance and administrative arrangements for Article 6.2. Foremost among them is the need for institutions to be **adequately**

**Source** – Spalding-Fecher, R. et al. (2019) [Piloting a Standardised Crediting Framework for Scaling Up Energy Access Programmes. Phase 2 Final Report: Lessons Learned and Next Steps – Senegal Pilot.](#)

**Source** – Spalding-Fecher, R. et al. (2020) [Piloting a Standardised Crediting Framework for Scaling Up Energy Access Programmes. Lessons Learned Note – Rwanda Pilot.](#)

**resourced**. Designing a domestic crediting framework involves substantial engagement with project proponents and requires staff with appropriate knowledge to carry this out. This was particularly important for developing the approach towards monitoring, reporting and verification. Over time it is important for countries to build **local technical expertise**, for example to develop new methodologies or default emissions factors, to reduce their reliance on international experts. Resources are also required to support **regular external stakeholder engagement**, for instance capacity building workshops, which is important to expand participation within the country.

**Challenges ahead – Verifying the emissions reductions** poses a particular challenge in many low-income countries. A **lack of local auditors** means project proponents must rely on international verifiers, which are both more expensive and whose services can be hard to secure due to limited capacity. Developing a **national accreditation standard**, based on international examples (e.g., the CDM), could lead to process improvements and lower costs in the long run. However, developing such a system could require **significant upfront resources** and may result in lower demand from international buyers, who would prefer credits verified by internationally accredited auditors.

## CASE STUDY III

### Private sector participation in country Article 6.2 agreements: two examples

While bilateral cooperation agreements under Article 6.2 are established at the country level, many of the activities to generate ITMOs will continue to be implemented by private sector entities, through developing projects using crediting mechanisms such as Gold Standard or Article 6.4. Different models are emerging to structure the private sector's involvement in the Article 6.2 bilateral agreements.

**In Switzerland**, the **Foundation for Climate Protection and Carbon Offset ("KliK")** fulfils the legal obligation placed on mineral oil companies to compensate a portion of the emissions associated with consumption of motor fuels through both domestic and international offsets. For international offsets, KliK only purchases from countries that have bilateral agreements with the Swiss government under Article 6.2. Only activity types approved by the Swiss Federal Office for the Environment (FOEN) may be supported and must be implemented using methodologies approved by the FOEN.

Project developers seeking to generate ITMOs for Switzerland's NDC use must therefore follow the processes established by KliK, which **acts as the sole purchaser**. Applicants submit a project proposal which, if approved by KliK and both country governments, will be supported with up to USD 200,000 by KliK to be developed into a full project design document. Once the activities have been authorised and mitigation verified, the emissions reductions will be cancelled in the host country's national registry and issued as non-fungible units in the Swiss registry.

**In Singapore**, the government announced that from 2024, up to 5% of regulated entities' liabilities

**Source** – Cue (2023) ["List of eligible international carbon credits for tax offsets in S'pore to be released in 2023"](#), *The Straits Times*, 8 February.

**Source** – Foundation for Climate Protection and Carbon Offset (KliK) (2021) [Annual Report 2021](#)

under the country's **carbon tax** could be met through high-quality international carbon credits, which will be subject to corresponding adjustments under Article 6. To this end, Singapore has established memoranda of understanding (MoU) with five countries – Peru, Morocco, Colombia, Vietnam, and Papua New Guinea – with the aim of establishing formal bilateral cooperation agreements. Singapore has also established MoUs with crediting programmes, including Gold Standard, Verra, the Global Carbon Council, American Carbon Registry and ART TREES, as a basis for recognising eligible credits from these programmes for use under the carbon tax.

The government will determine credit eligibility criteria and eligible host countries from which carbon credits can be sourced under approved crediting programmes. Unlike the Swiss approach, where projects are developed and implemented bilaterally between the project proponent and KliK, under the Singapore carbon tax it is expected that project developers will **generate credits aligned with the eligibility criteria set by the government**. The authorised credits can then be sold to obligated companies directly or through intermediaries, for instance market brokers or via exchanges. This is a similar model to the supply of certified emissions reductions from the CDM into the EU ETS.

## CASE STUDY IV

### Infrastructure for Article 6: The case of Peru

In 2020, Peru launched the [National Registry of Mitigation Actions \(RENAMI\)](#). The RENAMI is a digital platform that enables the collection, registration, monitoring, and public and transparent management of information on emissions reduction or removal activities in the country. It is one of five tools to track mitigation actions in Peru, which also includes the platforms INFOCARBONO (a system to present the national GHG inventory) and Huello de Carbono Peru (a voluntary system for corporate GHG quantification, reporting and offsetting).

**Participation process** – Participation in the RENAMI system applies to all actors implementing mitigation activities in carbon markets both within and outside of the scope of Article 6. In order to register activities, applicants must **submit the relevant documents** through the RENAMI platform. The General Directorate of Climate Change and Desertification (DGCCD) has up to 30 days to assess the application. In the event of a successful application, an **account will be opened** for the applicant in the RENAMI. A similar process will apply for requesting **authorisation**, with the relevant documentation submitted through the platform. The DGCCD will notify the applicant of the amount of emissions reductions authorised and for which it will apply corresponding

adjustments. Once the emission reductions have been transferred, they will be cancelled in applicant's registry account.

**Information provided by platform** – The platform provides publicly available information on all registered mitigation activities. These are divided into three categories: **government actions to achieve the NDC target**; activities to generate **credits for domestic or international carbon markets**, including those implemented through independent crediting mechanisms; and activities that **transfer emissions internationally**, either for use under Article 6, for other schemes such as CORSIA, or for international offsetting purposes. The information publicly displayed on the RENAMI includes the amount of annual emission reductions, the certifying standard, and the destination of internationally transferred units. RENAMI will exist alongside third-party registries operated by independent mechanisms such as Gold Standard.

By providing publicly available information in this way the RENAMI serves to increase transparency on actions taking place in Peru and helps avoid the double counting of units. The draft implementing regulation for the RENAMI was published for public consultation in August 2022. The regulation is now expected to be finalised in the second semester of 2023.

**Source** – [Government of Peru \(2022\) Disposiciones Para El Funcionamiento Del Registro Nacional De Medidas De Mitigación \(RENAMI\)](#).

**Source** – Noticias - Ministerio Del Ambiente - [Plataforma Del Estado Peruano \(2020\) "Minam desarrolla plataforma para registrar y transferir medidas sobre reducción de gases de efecto invernadero."](#)