ARTICLE 6 OF THE PARIS AGREEMENT

While the negotiation carves out further guidance on Article 6, bilateral deals between countries are making Article 6 operational.

- Parties need infrastructure and institutional capacities to understand the opportunity cost of trading mitigation outcomes.
- Non-market approaches under Article 6 are equally important and require more attention than they currently receive.
What is Article 6 of the Paris Agreement?

Article 6 of the Paris Agreement establishes guidelines for cooperative approaches to reduce emissions and fulfil Nationally Determined Contributions (NDCs). These cooperative approaches encompass both carbon markets (as described in Articles 6.2 and 6.4) and non-market strategies (as described in Article 6.8).

The Article 6 mechanism arrangement and negotiation proceedings require an understanding of a few important concepts/terminologies:

**Cooperative approach:** An agreed arrangement between a country and another party to the Paris Agreement, as outlined in Article 6.2 of the Paris Agreement.

**Internationally Transferred Mitigation Outcomes (ITMOs):** Real, additional and verified reduction or removal of GHG emissions, measured in tCO$_2$e. It is a specific term used in the Paris Agreement for carbon credits.

**Authorization:** The official approval granted by a host country for the use of ITMOs or the transfer of ITMOs to another country or non-party stakeholder (NPS).

**Reporting:** Parties participating in a cooperative approach are required to provide three kinds of report/information to UNFCCC:

- **Initial report:** The party demonstrates that it fulfils the participation criteria, the details of the cooperative approach and other basic information. This is submitted before any transfers of ITMOs are authorized after countries sign agreements.
**Annual information:** Status of transfers and use of ITMOs.

**Regular information:** As Annex to the biennial transparency report (BTR), contains information regarding the status of implementation and NDC achievement.

**Registries:** These are crucial for tracking and managing ITMO-related activities. Registries would work like databases responsible for recording and managing various activities related to ITMOs, including authorization, transfer, acquisition, cancellation and utilization.

The present framework considers the following registries:

1. **National registries:** Each participating party shall have its dedicated registry equipped with unique identifiers to record and manage ITMO activities.

2. **International registry:** Where a party lacks a national registry, the secretariat will maintain an international registry within its Centralized Accounting and Reporting Platform (CARP).

3. **Mechanism registry:** It would track the issuance of 6.4 emission reductions (ERs) as per Article 6.4.

   The mechanism registry shall remain interconnected with the international registry to ensure coordination and interoperability of ITMOs and 6.4 ERs. Registries would be important to prevent double counting and promote transparency in carbon trading.
Article 6.2
It enables countries to make mutual agreements that permit them to generate and transfer emission reduction units—known as Internationally Transferred Mitigation Outcomes (ITMOs). These transfers can be made for any of the following purposes:

a. To the partnering country, which would count toward the partnering country’s own NDC objective.

b. Transfers to other market-based international mechanisms such as Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

c. Transfers for "other purposes", such as to non-state agencies or private companies, also called non-party stakeholders (NPS) by the United Nations Framework Convention on Climate Change (UNFCCC).

However, for a transfer to occur, the host country must make a "corresponding adjustment" (CA), which means they won’t use the emission reductions sold to other countries to meet their own NDC goal.

Article 6.2 allows for flexibility in cooperation between countries and non-country stakeholders; however, there are specific rules and guidelines to ensure that such cooperation and the trade of "mitigation outcomes" occur in a regulated and standardized manner.

While the Paris Agreement provides a framework for cooperative approaches under Article 6, significant work remains to be done to operationalize the mechanisms fully.

Accounting rules, registries and mechanisms for the use of ITMOs are being set up to further carve out the framework.

ADVOCATES OF NON-MARKET APPROACHES HAVE OFTEN ARGUED THAT MARKET-BASED APPROACHES UNDER ARTICLE 6.2 AND 6.4 DO NOT SERVE ANY PURPOSE ON MITIGATION AS OFFSETTING DOES NOT SEEK TO ACHIEVE OVERALL EMISSION REDUCTIONS
## Negotiations status

**COP 26**

**Rules for voluntary cooperation (2021)**
- Established criteria and responsibilities for participating parties.
- Elaborated on the principle of Corresponding Adjustment (CA).
- Detailed requirements for parties to submit initial and regular reports, including quantification of mitigation efforts under NDCs, reference emission levels and environmental safeguards.
- Discussed the process for an Article 6 technical expert review to check the consistency of information submitted by parties.
- Outlined tracking and registry systems, role of the Article 6 database, and the Centralized Accounting and Reporting Platform (CARP).

**COP 27**

**Continuation and adoption of guidance (2022)**
- Detailed guidance on registry functioning, interoperability, ITMO transaction tracking and recording processes.
- Guidelines for the Article 6 technical expert review process, including selection of technical experts and lead reviewers.
- Reporting formats for initial reports submitted by parties, section on cooperative approaches in biennial transparency reports, and the Article 6 technical expert review report.
- CARP structure and operation, managed by UNFCCC, containing information from parties.

**COP 28 (Expected)**

**Will consider recommendations on:**
- Special circumstances of the least developed countries and small island developing States.
- Modalities for reviewing confidential information submitted by parties.
- Response of parties to technical expert review recommendations.
- Timing and sequence for initial reports, technical expert reviews and electronic format submission.
- Authorization process for ITMOs and entities.
- Guidance on information reporting by parties.
- Identification, notification and correction of data inconsistencies submitted by parties.
- Additional functionalities and procedures for international registries and registry administrators.
- Establishment of common nomenclatures for reporting, covering sectors, activity types, non-greenhouse gas metrics and related information.
- Adoption of the agreed electronic format for submitting annual information on the authorization of ITMOs.

## Present developments

While the negotiation process is underway to finalize the specifics of international cooperation and reporting mechanisms, several countries have already initiated collaborative efforts, signing agreements premised upon the principles outlined in Article 6.
Till November 2023, 65 bilateral agreements have been signed or are in the process of finalization between countries.

**Depiction of Article 6.2 mechanism**
Bilateral deals signed or being finalized

These bilateral deals are based on cooperative approaches between countries to transfer mitigation outcomes (MOs). Host countries would transfer MOs to buying countries.
COUNTRY ARRANGEMENTS

Ghana
The country of Ghana aims to mitigate 64 MtCO₂e by 2030 (starting from 2021)—24 MtCO₂e as an unconditional target and 39.4 MtCO₂e as a conditional target. 64 MtCO₂e represents 88 per cent of the total country emissions.

It has signed Article 6.2 based bilateral agreements with Singapore, Switzerland, Sweden and South Korea.¹ Ghana has designated the Ministry of Environment, Science, Technology, and Innovation (MESTI) as the authority to sanction the use of ITMOs.

Ghana’s government has also published a Framework on International Carbon Markets and Non-Market Approaches.² This framework specifies eligible mitigation activities, integrity requirements, the authorization process, the functioning of the registry and other important aspects of hosting projects.

To record the transaction, Ghana has also created the Ghana Carbon Registry. All voluntary carbon market (VCM) projects are required to obtain formal recognition under this framework.

Pilot project: Promotion of climate-smart agriculture practices for sustainable rice cultivation in Ghana

Host country (Transferring party): Ghana

ITMO buyer (Receiving party): Switzerland

CO₂

Emission reduction from activity: 1,125,655 tCO₂e

Methodology: CDM Methodology AMS-III.AU

Activity duration: 2022–30

Authorized entity for the activity: UNDP in Ghana
Ghana submitted an ‘initial report’ for a cooperative approach for activities between Switzerland and Ghana in September 2023. The cooperative approach here is the adoption of Alternate Wetting and Drying (AWD) for rice cultivation. The report declares that farmers are compensated financially for adopting the AWD practice.

An initial report was also submitted by Switzerland in June 2023, providing information on the same activity in the same format. It has specified that ITMOs will not be used towards its NDCs but will be utilized towards the Swiss administration’s voluntary targets. It will also cancel 2 per cent of the ITMOs to achieve Overall Mitigation in Global Emissions (OMGE).

**Thailand**

It has signed Article 6.2-based bilateral agreements with Singapore, Switzerland and Japan. Thailand has designated the Office of Natural Resources and Environmental Policy and Planning, Ministry of Natural Resources as the authority to authorize the use of ITMOs.

It has approved the Carbon Credit Management Guideline and Mechanism (CCMGM), outlining guidelines for international carbon credit use. It covers eligible project types, authorization criteria, issuance of authorization letters, project registration, carbon credit issuance, international credit transfers, reporting and adjustments.
Pilot project: Operation of e-buses on privately owned, scheduled public bus routes in the Bangkok Metropolitan area by Energy Absolute

Switzerland submitted an “initial report” for multiple cooperative approaches for activities with Ghana, Thailand, and Vanuatu. One of the cooperative approaches is to replace conventional buses with e-buses in the Bangkok Metropolitan Area. ITMOs will be utilized towards NDCs and the buying entity in Switzerland will cancel 2 per cent of the ITMOs to achieve OMGE.

Issues and concerns

1. Rich countries have a responsibility to achieve deep emission cuts: Developed countries, as ITMO-buying countries, are entering into agreements with host countries in the developing world. In many cases, these are low-cost emissions reduction activities, from which they plan to use ITMOs to meet their national climate targets under the Paris Agreement. This leaves the developed countries with greater responsibilities and an already negative budget, preventing them from taking significant decarbonization actions themselves.

2. Low-hanging fruits of mitigation should not be transferred to the developed world: By selling the easily achievable and less expensive emissions reduction
opportunities to wealthier partner countries, developing nations may find themselves left with more expensive and challenging options to fulfil their own NDCs.

3. **Countries need a better understanding of the opportunity cost of corresponding adjustment:** The previously highlighted problem is related to the issue of the opportunity cost of transferring ITMOs to another country or NPS—they need to consider the value of what

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**Japan’s Joint Crediting Mechanism (JCM)**

Joint Crediting Mechanisms are Japan-initiated bilateral agreements through which it seeks carbon credits from countries in which it supports the adoption of low-carbon technologies and facilitates implementation of emission reduction activities.

Japan has had JCM agreements with countries since 2013, even before the Paris Agreement.
they're giving up. Normally, several factors affect the price of credits, in addition to the cost of the actions that reduce emissions and create these credits. These factors include the type of project, the quality of the credits, the project’s size and location, and how much buyers value the additional benefits of the project. However, when countries need to make adjustments to their NDCs to meet emission reduction targets, they need to consider the opportunity cost too. This cost arises because the host country may have to implement additional mitigation measures, often at a higher cost, to fulfil the necessary adjustments to their NDCs. This would require an assessment of the marginal cost of achieving NDC targets.

4. **There is an urgent need to develop institutional capacities in participating countries:** Following the challenge highlighted above is the lack of Article 6 readiness in participating countries. Unless appropriate institutional mechanisms are in place and there is a comprehensive understanding of the mechanism, host countries might end up arbitrarily selling ITMOs. This could also result in instability, with the authorization for these transfers being revoked frequently.

5. **Independent carbon crediting programmes of voluntary carbon markets:** Voluntary carbon markets are not directly addressed under the rules developed for the Article 6 market mechanism. As CSE’s recent report "Discredited" shows, the market needs to be regulated to be effective. The report also highlights some directives that countries have come up with to gain control over the market. Yet, there is no uniform direction on how these markets need to be accommodated within the Article 6 framework and what standards they must maintain to be accepted as Article 6 compliant. There is a need for standardized guidance for party countries to accommodate independent crediting programmes fairly and effectively.
6. Climate finance must be kept separate from carbon markets: Carbon markets must not be conflated with climate finance. Climate finance and carbon markets serve distinct purposes and must be kept separate. Combining climate finance with carbon markets could divert resources away from critical adaptation and mitigation efforts which are not market viable, potentially prioritizing profit over urgent mitigation action and equity. At the same time, it would let donor countries evade their responsibility to provide finance consistent with other provisions of the Paris Agreement.

Article 6.4
Article 6.4 establishes a global carbon market overseen by the UN body called "Article 6.4 Supervisory Body". It’s a multilateral mechanism that replaces the old Clean Development Mechanism, thus effectively establishing an international carbon market within the scope of the Paris Agreement. Article 6.4-based emission reductions would be called A6.4ERs.

Unlike the cooperative approaches under the Article 6.2-based mechanism which would be party-driven based on mutual agreements, the 6.4 mechanism will be governed and operated through the UN mandated entity.

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<th>Negotiations status</th>
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<tr>
<td>COP 21</td>
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<tr>
<td>Article 6 rulebook framed after six years of the Paris Agreement.</td>
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<td>Rulebook required further work on market architecture, activity types under Article 6 mechanisms, and methodologies for emission reduction calculation.</td>
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<tr>
<td>COP 27</td>
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<tr>
<td>Supervisory Body tasked with developing rules, modalities and procedures for Article 6.4 mechanism.</td>
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<tr>
<td>Responsibilities included making recommendations on activities involving the “removal” of emissions and the manner of monitoring, reporting and accounting for such activities.</td>
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<tr>
<td>Recommendations received criticism, leading to the Supervisory Body being tasked with re-examining them in further meetings.</td>
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<tr>
<td>COP 28</td>
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<tr>
<td>Supervisory Body to put forward recommendations on methodologies and removal activities, rules for transitioning CDM activities into the Article 6.4 mechanism, accreditation standard for verification, and other considerations for adoption at COP 28.</td>
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<tr>
<td>The body had five meetings in the year, discussing the development and approval of methodologies, project validation, registration, monitoring, verification, certification, issuance, renewal, etc.</td>
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Present developments

Methodologies and removal activities: In the November 16–17 meeting, recommendations on methodologies and removal activities were approved by the Supervisory Body. It emphasized clear and ambitious methodologies, requiring clear documentation on data sources, assumptions and references. It has also laid emphasis on robust monitoring, reporting and equitable benefit sharing. It defined removals as outcomes of processes to remove greenhouse gases from the atmosphere through anthropogenic activities that destroy or durably store them. Removals have been controversial because storing carbon temporarily is being touted as a tool for tackling the climate crisis. But unless the carbon dioxide is stored for over a century, this “solution” can do more harm than good, despite the co-benefits to ecosystems.

CDM activities transition: COP 27 had requested the Supervisory Body to develop and operationalize a

GHG removal activities

"Carbon removal" means removing carbon dioxide from the atmosphere. It can be land-based (like afforestation or reforestation), direct air capture (where big machines suck CO₂), soil carbon sequestration using no-till agriculture, sequestering carbon from biofuel, and the like.

The Supervisory Body’s recommendations on removals at COP 27 provided a broad definition of removals. It did not distinguish between types of removals, including each activity’s requirements, risks and implications. There were also concerns over human rights violations if poorly implemented afforestation or other approaches could adversely impact local livelihoods and the rights of indigenous peoples.
procedure for requesting transition, and developing and operationalizing the transition process for existing CDM activities to move over to the new mechanism. During its 30 October to 2 November meeting, the Supervisory Body adopted standards and procedures for transition of CDM activities to the Article 6.4 mechanism.

Any new methodology developed based on the guidelines approved by the Supervisory Body will be recognized universally. Once the Article 6.4 rules are approved, projects will start to get registered with the UN and the A6.4ER market will be operationalized. This will also impact other international market mechanisms such as CORSIA and programmes run by independent certification bodies.

**Article 6.8**

Non-market mechanisms refer to strategies that are not based on offset markets or emissions trading and include ways other than utilizing carbon markets for cooperation to reduce emissions and fulfil NDCs. These may include technology transfer, capacity building, policy support, mitigation and adaptation finance.

Parties that oppose the utilization or excessive dependence on market-based mechanisms, such as Bolivia and certain other Latin American nations, predominantly endorse non-market approaches (NMAs). The advocacy for NMAs gained prominence during COP 16 in Cancun in 2010, emerging in response to the decision to introduce a new market mechanism in the Cancun Agreement. This dissenting stance persisted and found expression under Article 6.8 of the Paris Agreement.

As the only provisions in the Paris Agreement that offer flexible approaches to mobilizing resources for the needs of developing countries, Articles 6.8 and 6.9 require more discussion space than they currently receive.

Advocates of NMAs have often argued that market-based approaches under Article 6.2 and 6.4 do not serve any purpose on mitigation as offsetting does not seek to achieve overall emission reductions. Meanwhile, if any mitigation action has to be supported through cooperative action, it could only come through non-market approaches.
### Negotiations status

| COP 21 | • Issued directions to undertake a work programme under the framework of NMAs.  
|        | • Aimed to establish linkages between themes like mitigation, adaptation, finance, technology transfer and capacity-building.  
|        | • Facilitated implementation and coordination of non-market approaches.  |
| COP 26 | • Adopted the Work Programme for Non-market Approaches.  
|        | • Established the Glasgow Committee on Non-market Approaches (GCNMA) to implement the framework.  
|        | • Highlighted principles of just transition, human rights and sustainability in the context of NMA.  |
| COP 27 | • Adoption of a schedule for implementing work programme activities for 2023–24 and 2025–26 based on GCNMA report.  
|        | • GCNMA tasked with two phases:  
|        |   Phase 1: Identifying and framing relevant elements for the work programme.  
|        |   Phase 2: Implementing activities  
|        | • Development of a UNFCCC web-based platform for recording and exchanging information on NMA. Identification of more focus areas for work programme activities.  |
| SBSTA 58th Session: June 2023 | • The third meeting of the GCNMA was convened.  
|        | • SBSTA requested the COP Secretariat to prepare a synthesis report on the key elements of the framework based on submissions made by party and non-party stakeholders.  |

In the Paris Agreement, the relevant provisions related to non-market approaches are found in Article 6, Paragraphs 8 and 9.

Some of the possible focus areas for NMAs include:

- Forests and biodiversity, including REDD+ project financing, and technological and policy support to eliminate industrial deforestation;  
- Capacity building and technology transfer;  
- Supporting financing for adaptation solutions wherein achievements may not necessarily be quantified in carbon terms. These could include ecosystem services, water rejuvenation, etc.

Parties have been highlighting existing and potential non-market approaches in NMA-based forums and discussions on them will continue. Some of these include innovative financing and funding mechanisms, nature-based solutions, Joint Climate Ambition Alliance and
Partnership, management of biodiversity resources, etc. This also includes understanding how existing NMAs could be fit under the provisions of Article 6.

Several parties are keen on the web-based platform and the process of submitting and recording NMAs through them.

**Step-up efforts on NMAs**

Non-market strategies are crucial for supporting efforts in both mitigation and adaptation, particularly concerning biodiversity and ecosystem services.

Firstly, developing countries like India need support for agricultural resilience and biodiversity. The complexities of interactions between lands, forests and people require an integrated approach beyond carbon accounting and markets.

Secondly, carbon markets have historically failed in preserving environmental integrity and community rights. The focus on allocating capital for maximum profit or productivity ignores non-obvious but far-reaching consequences of nature-based solutions.

Thirdly, dependence on carbon markets doesn’t guarantee emission reductions, as entities may exploit loopholes or engage in activities that shift emissions without truly reducing them.

For now, progress on NMAs has been limited, with more focus given to the full-scale operationalization of carbon markets. To echo Bolivia’s point of view, workshops, experience sharing and other forms of meetings are good but insufficient. The need is to come up with an equally robust framework for NDC cooperation that does not involve the transfer of outcomes, especially when there is a lot of uncertainty around the opportunity cost of selling mitigation outcomes.

**What to expect at COP 28?**

- **Article 6.2:** COP 28 is expected to refine the existing rulebook to address several aspects of periodic reporting by parties, such as inconsistencies in
information submitted, confidentiality of information, recommendations by the technical expert review, and the timing and sequence of reporting. Additional guidance on the establishment of different registries and how they shall be interconnected will also be considered.

- **Article 6.4:** The adoption of recommendations by the supervisory body on removal activities and the recently finalized methodological principles will be key on the agenda. The contentious issue of allowing emissions avoidance under Article 6.4 will also be discussed.

- **Article 6.8:** Discussions from the previous forum are expected to continue, focusing on sharing best practices on NMAs and the operationalization of the web-based platform.

References

5. Ibid.
Discredited - The Voluntary Carbon Market in India

Article 6 of the Paris Agreement

While the negotiations carve out further guidance on Article 6, bilateral deals between countries are leading to understanding the opportunity cost of trading mitigation outcomes and require more attention than they currently receive.

Mitigation

Climate change mitigation is achieved by limiting or preventing GHG emissions and by enhancing activities that remove these gases from the atmosphere. Current Nationally Determined Contributions (NDCs) are insufficient, with estimates suggesting a temperature rise between 2.1 to 4°C by 2030 if these pledges are implemented.

Adaptation Goal

Different approaches to Article 6 are emergent, especially to the Adaptation Fund. Even developed countries have to move by many times to reduce the Adaptation Finance Gap.

Climate Finance

In 2009, developed countries committed to providing US $100 billion in climate finance per year to developing countries from 2020. In 2021, the total climate finance provided by them stood at US $89.6 billion according to OECD.

Methane

The Global Methane Pledge, announced in 2021, has now been signed by 149 countries. Many countries have announced methane policies, but they lack depth and specificity and reporting gaps.

Loss and Damage

Estimations of economic, non-economic, and ecological losses due to ongoing and future impacts of climate change are termed as loss and damage (L&D). The world needs to provide L&D finance under the broader climate justice and equity framework.

COP 28

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