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Nordic Initiative for Cooperative
Approaches (NICA)

Landscape of Article 6 Pilots

– A closer look at initial
cooperative approaches



Ministry for Foreign
Affairs of Finland



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NICA aims to contribute to the implementation of the Paris Climate Agreement, in particular to the operationalization of international market-based collaboration under Article 6 of the Paris Agreement. NICA strives to demonstrate how international partnerships can scale up and accelerate ambitious climate action, such as broader sectoral approaches, promote sustainable development and harness private sector finance and innovation. NICA aims to build capacity among Nordic actors and their global peers for collaboration that is compatible with the Paris Agreement framework.

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Landscape of Article 6 Pilots

In the run-up to the full operationalization of Article 6 of the Paris Agreement, several initiatives and pilot activities are emerging. While some of these explicitly aim at being recognized as an Article 6 cooperation, others may ‘qualify’ for one of the routes offered through Article 6 in the future. These routes include the decentralized cooperative approaches under Article 6.2, a centralized market mechanism under Article 6.4, and the non-market-based approaches under Article 6.8. Additionally, many market readiness initiatives exist that seek to enhance the capacities of countries and set the stage for international cooperation for post-2020 carbon markets.

The objective of this paper is to outline and illustrate existing and emerging pilot programmes and activities (“pilots”) that may fall under Article 6 of the Paris Agreement. This study maps the different on-going and planned pilots, as well as the many market readiness initiatives that may lead to the establishment of one or more forms of market-based cooperation between countries and/or private entities.

The list of activities provided herein is not intended to be exhaustive, but provides a general landscape of known or announced Article 6 pilots and related-efforts. We also note that a number of the initiatives and programmes are at a very early stage and/or not yet explicit on their intention to pursue recognition or alignment with Article 6 guidance and rules. On this basis, the categories and criteria outlined in this analysis are used solely to simplify and help to better understand the various initiatives and efforts currently taking place.

This analysis has been commissioned by the Nordic Environment Finance Corporation (NEFCO), in the context of the recently launched Nordic Initiative for Cooperative Approaches (NICA). The NICA seeks to channel and focus continued Nordic cooperation on supporting the implementation of the Paris Agreement on a broader level and in particular on operationalizing Article 6 cooperative approaches.

1. Mapping Article 6 Pilots

Article 6 pilots come in different shapes and sizes, meaning they can be assessed and categorized in various ways. To shed light on these interventions, this study groups the initiatives under the following categories:

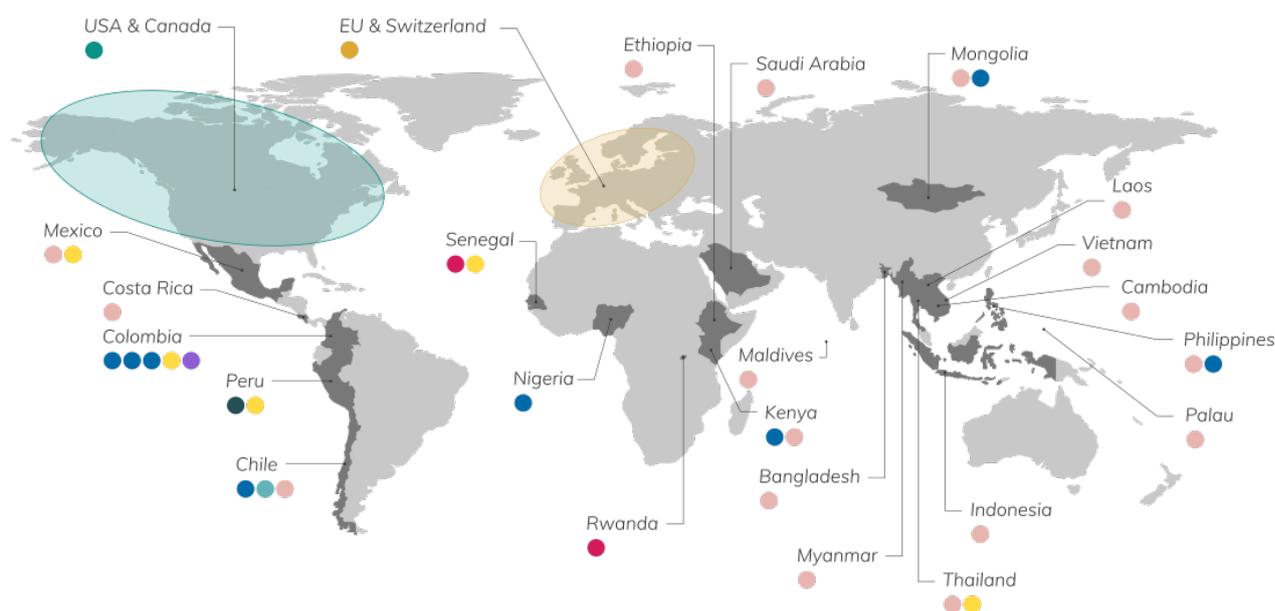
- A. Emerging initiatives explicitly intended to be recognised as an Article 6 cooperative approach. These initiatives (herein referred to as “Category A”) have been developed more recently and with Article 6 in mind, meaning that most are still in the initial phases and have yet to begin implementation.
- B. Pre-existing initiatives that can be recognised by one of Article 6’s market-based routes. These are referred to as “Category B” and include initiatives that were established prior to the Paris Agreement and that already have in place a cooperative structure that can fit under Article 6.
- C. Initiatives linked to market readiness, finance and infrastructure for carbon pricing (“Category C”). These include those initiatives that aim to prepare host countries for emerging carbon pricing mechanisms and with that, provide these countries with market readiness and suitable institutional set-ups.

- D. Initiatives that are market-related but operate mainly outside the UNFCCC realm (“Category D”). These refer to initiatives that function in parallel and which may in future be recognized by the UNFCCC.

The focus of this analysis is primarily on those Article 6 routes that are market-based and thus fall under carbon markets: Article 6.2 cooperative approaches and/or the Article 6.4 mechanism. However, we do recognise that a number of existing and emerging initiatives may lead to various types of results-based finance that do not involve an international transfer of mitigation outcomes or emission results. In addition, these non-transfer results-based payments can (and in many instances will) be coupled with market-based approaches so as to assist countries in (over) achieving their NDCs.

We also recognise that certain efforts, such as the Ministerial Declaration,¹ do not fit under any specific category created for the purposes of this study but are nonetheless important for countries to find landing zones with respect to Article 6 rules.

Figure 1 – Overview of initiatives listed in Categories (A) and (B)



Article 6 Pilot Initiatives

- | | | | | |
|------------------------|------------------------|-------------------|-----------------------------------|-----------------------------------|
| NEFCO | JCM | Klik Foundation | World Bank SCF | German Emission Trading Authority |
| EU / Swiss ETS linking | Chile-Canada Agreement | SEA Virtual Pilot | California-Quebec-Ontario linking | |

¹ To signify the important role that markets play in the post-2020 climate era, 17 countries came together in 2015 to sign a ministerial declaration on carbon markets. Countries to the declaration have been developing concepts, standards and guidelines for Article 6 and its environmental integrity. See Ministerial Declaration on Carbon Markets, available [here](#),

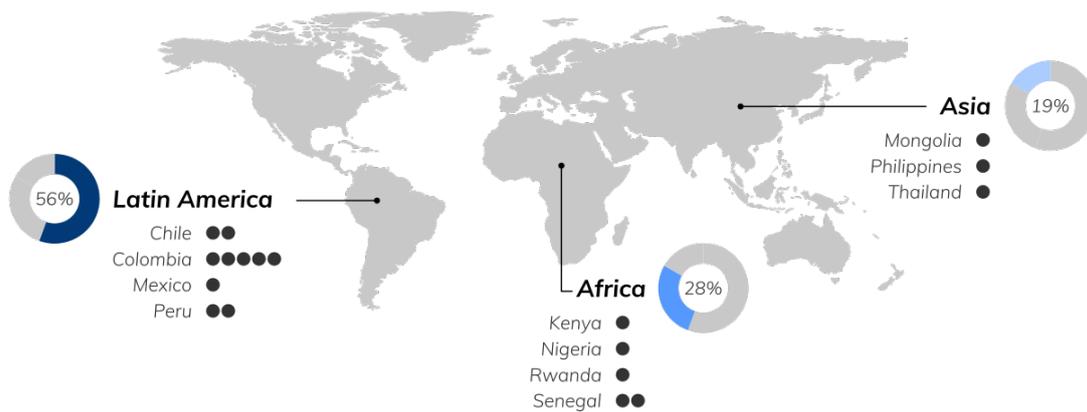
2. Category A: initiatives explicitly intended as an Article 6 pilot

Several initiatives exist that explicitly intend to fit under Article 6 of the Paris Agreement.

Initiatives in this category have been developed fairly recently and in most cases with the Article 6 context in mind. This means that the majority of these piloting initiatives are still in their initial stages and have yet to reach on-the-ground implementation. We have identified 18 emerging pilots. The large majority (10) are hosted in Latin America, followed by Africa (5) and Asia (3) (see Figure 2).

Figure 2 – Overview of initiatives in Category A

Location



A number of these initiatives remain purely conceptual at this stage. They seek to first and foremost, simulate a possible Article 6 cooperation and to add more clarity to how emerging Article 6 guidance may be applied within specific host country scenarios (see Figure 3). These conceptual pilots, however, do not exclude the possibility of eventually advancing to the implementation phase, as well as to more concrete negotiations between the countries and stakeholders involved. Examples include the Peruvian Solid Waste Sector Conceptual Article 6 Pilot (commissioned by NEFCO) and the Virtual Pilots in Colombia, Chile, Nigeria, Kenya, Mongolia and Philippines, commissioned by the Swedish Energy Agency (SEA).

A large number of the initiatives under Category A are housed within the energy sector of host countries and are covered within the scope of their respective NDCs. These activities include small scale energy interventions – e.g. decentralized renewable energy access (the Standardized Crediting Framework (SCF) in Senegal) and domestic biogas (the Swiss/KliK Foundation Pilot in Senegal) – as well as larger renewable energy investments, such as waste-to-energy systems (NEFCO/Peru Pilot) and energy efficiency in buildings (the SEA Virtual Pilot in Colombia). A relevant number of pilots also target the waste sector (see Figure 4).

Figure 3 – Conceptual vs. implementation-oriented

Nature

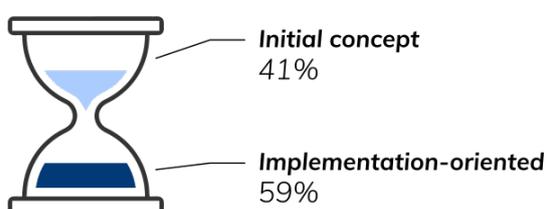
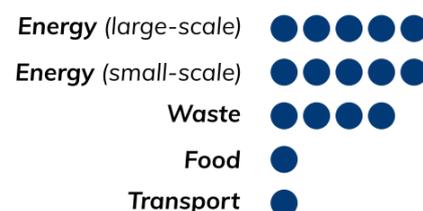


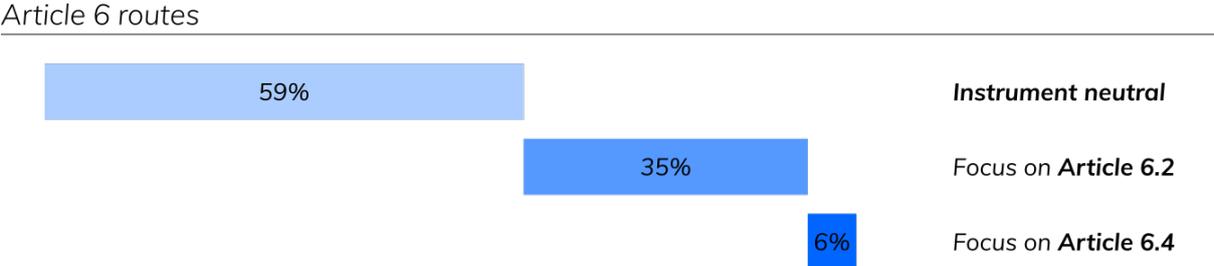
Figure 4 – Sectors covered

Sector



With respect to the intended Article 6 route, at this stage, most seem to either focus on cooperation under Article 6.2² or initially operate as ‘instrument neutral’, in that they could make use of both cooperative approaches under Article 6.2 as well as the mechanism under Article 6.4 (see Figure 5). In addition, the emerging pilots currently identified under Category (A) appear to all adopt a baseline-and-crediting approach, either on the basis of a project-by-project crediting (e.g. the SEA Virtual Pilot in Kenya) or as standardized crediting (e.g. The SCF in Senegal and Rwanda).

Figure 5 – Intended Article 6 routes of pilots



3. Category B: pre-existing initiatives that can qualify under Article 6

Category B includes initiatives we identify as ‘pre-existing initiatives’ that were established prior to the Paris Agreement and can eventually qualify for or align with Article 6 (see Figure 6). These refer, in particular, to the linking between the EU-ETS and the Swiss ETS, for which negotiations were initiated in 2010 (with a linking agreement being adopted in 2017) and Japan’s Joint Crediting Mechanism (JCM), for which first consultations were held in 2011.

While these initiatives were not necessarily established with the Article 6 context in mind, they all have the potential to be recognised under Article 6.2 cooperative approaches. For the JCM in particular, Article 6.2 is expected to be flexible enough to allow the bilateral cooperation to retain its existing cooperative structures. It does not however exclude the possibility that the JCM may in future be registered under Article 6.4.

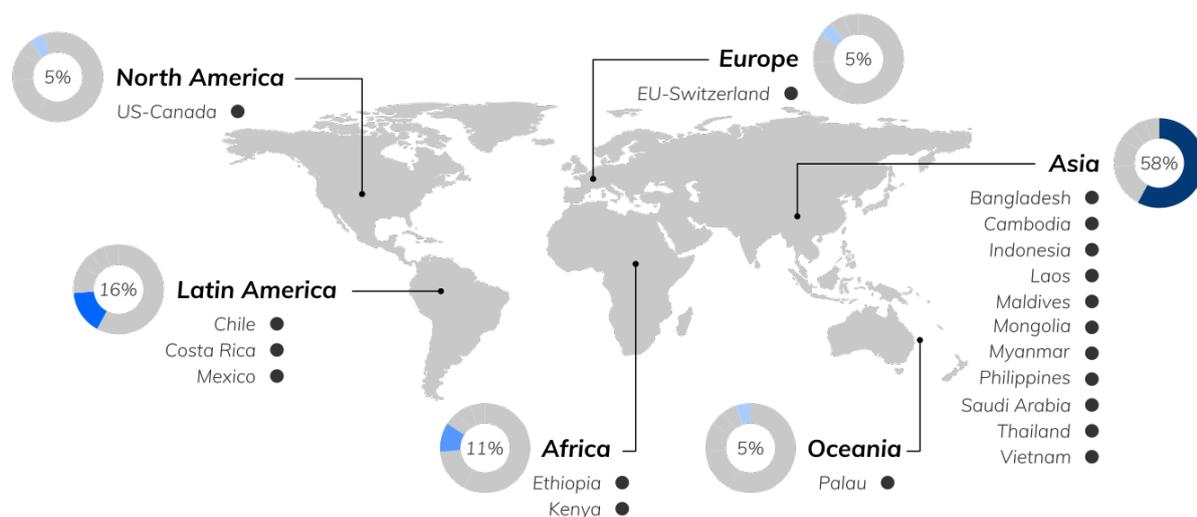
We can also include here, subnational cap-and-trade linking initiatives, such as the California, Quebec and Ontario* linking.³ For these forms of international cooperation to produce mitigation outcomes to achieve NDCs, they would need to not only be consistent with the Article 6.2 guidance, but also obtain the authorization of their respective countries pursuant to Article 6.3 (which could be particularly difficult for California given the current’s US Administration’s decision to withdraw from the Paris Agreement).

² Without necessarily excluding the possibility that cooperating parties may eventually make use of Article 6.4 or even 6.8 (non-market-based cooperation).

³ *On July 3, 2018, the Ontario government revoked its cap-and-trade regulation (144/16) through regulation 386/18, suspending all Ontario entity CITSS accounts. With Ontario departing from the linked carbon market, California and Québec are continuing to work together to ensure environmental integrity and stringency of our cap-and-trade program and market is maintained.

Figure 6 – Pre-existing initiatives

Location



As long-standing initiatives, Category (B) examples are already at the stage of being fully implemented. The JCM is entirely focused on the energy sector, with subsectors varying from energy efficiency, electrification through PV power generation and hydropower generation, and solar PV systems. Cooperation in the form of linking ETS, in turn, covers a range of different sectors, including the energy, industry, transport, waste and agriculture sector.

Existing CDM activities may also find a home in Article 6.4 in accordance with the emerging rules on the transition of activities or, alternatively, serve as the activity and methodological basis for an Article 6.2 cooperation. In fact, a number of CDM Programme of Activities (PoAs) have been framed into NAMAs and may now also seek to align themselves with one of the Article 6 cooperation routes. The European Bank for Reconstruction and Development (EBRD) is also supporting Integrated Carbon Programmes (ICPs) together with the Spanish Government. Within this framework, the EBRD is developing the project “Developing and Transacting an Up Scaled CDM-based Carbon Credit Approach in SEMED”, which comprises Morocco, Jordan, Egypt and Tunisia. The project seeks to monetize pre-2020 GHG emissions and potentially pilot a carbon crediting mechanism on this basis under Article 6.⁴

4. Category C: initiatives linked to readiness for carbon pricing

With the new climate regime under the Paris Agreement and the new possibilities under Article 6 also comes the need to enhance domestic capacities and readiness to participate in these cooperative approaches at their outset. The initiatives outlined under Category (C) offer a space for knowledge sharing and assist countries in preparing for emerging carbon pricing mechanisms. These initiatives are often linked to market readiness and the institutional set-up needed for effective carbon pricing interventions.

⁴ EBRD (2017) The ICP Project: Developing and transacting an up scaled CDM-based carbon credit approach in the SEMED region. Available [here](#).

Category (C) includes both long-standing and recently conceptualized initiatives that may or not lead to an Article 6 cooperation. Examples include initiatives led by multilateral financial institutions, such as the various World Bank programmes and the Warehouse Facility (See Box 1), as well as a number of regional initiatives such as the platform created by the Declaration on Carbon Pricing in the Americas,⁵ the West African Alliance on Carbon Markets and Climate Finance (WAA), and the Asian Society Policy Institute (ASPI).

In the energy sector in particular, a market-related initiative that stands out is the Transformative Carbon Asset Facility (TCAF) that focuses on supporting developing countries with market-based and sector-wide mitigation measures to achieve their NDCs. TCAF is currently developing innovative carbon accounting methodologies to quantify emission reductions achieved by policies. In the future, the Facility may purchase a portion of the mitigation outcomes produced, while the remaining part could be retained by the host country.⁶

It is also worth mentioning the existing bilateral and multilateral forms of cooperation under REDD+.⁷ Forest countries are gradually improving their capacities to accurately measure, monitor and verify emission reductions from deforestation and degradation. These are often structured as pay-for-performance arrangements and may or may not lead to a transfer of emission reductions from one country to another. Examples include, among others, the Guiana-Norway REDD+ Agreement, the World Bank's Forest Carbon Partnership Facility (FCPF) and the BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL), as well as Germany's REDD+ Early Movers Programme (REM).⁸

During COP24 in Katowice, the Asian Development Bank (ADB) announced the launching of its Article 6 Support Facility. The facility aims to assist their developing member countries to identify, develop and pilot Article 6 mitigation actions – in the context of Article 6.2 and 6.4. – and provide capacity building, as well as technical and policy development. The ADB is utilizing its Carbon Market Program⁹ (CMP) to develop and implement these approaches.

Similarly, the World Bank's Warehouse Facility is being launched to support transactions under Article 6.2.¹⁰ The Warehouse Facility is an online database of mitigation activities accessible to potential investors interested in purchasing mitigation outcomes. The Warehouse stores and records transfers of mitigation outcomes. While it stores mitigation outcomes available from World Bank operations, it is also open to other multilateral development bank (MDB) operations and possibly other private entities.

The MAAP tool is currently being developed to introduce a standardized approach to evaluate ambition levels and environmental integrity of mitigation actions as well as to enable the compatibility of these mitigation actions. The MAAP is anticipated to serve as a support tool for actual transactions of mitigation outcomes. The Warehouse will be launched and made accessible online in 2019.

⁵ More information on the Declaration on Carbon Pricing in the Americas available [here](#) and [here](#).

⁶ The World Bank (2019) Transformative Carbon Asset Facility. Available [here](#).

⁷ REDD+ refers to 'reducing emissions from deforestation and forest degradation, the sustainable management of forests, and the conservation and enhancement of forest carbon stocks'

⁸ The World Bank's FCPF is an example where forest countries may eventually sell and transfer emission reductions abroad. Whether REDD+ will be included in the scope of Article 6 and, if so, whether the FCPF will in future seek alignment with Article 6.2 guidance, remains to be seen.

⁹ The CMP is one of ADBs flagship initiatives for mitigating climate change. It is an innovative financing scheme that supports the development of GHG mitigation projects in developing countries in Asia and the Pacific – eligible under CDM and the KP.

¹⁰ More information on the World Bank's Warehouse Facility and MAAP tool available [here](#).

Box 1 – World Bank market-readiness initiatives

Carbon Markets and Innovation Practice (CMI)

The CMI aims to facilitate client countries with identifying the role of markets under the Paris Agreement and to help decision-makers with developing as well as piloting the institutional and policy environment that may be needed to trade mitigation outcomes internationally. On this basis, the CMI supports countries through programs such as the Carbon Pricing Leadership Coalition (CPLC), the Partnership for Market Readiness (PMR) and the Networked Carbon Markets (NCM) initiative, to advise and to deliver funding and knowledge services.

- **Carbon Pricing Leadership Coalition (CPLC)**
The CPLC is a voluntary partnership that aims to advance carbon pricing initiatives by strengthening carbon pricing policies, enhancing the implementation of existing carbon pricing policies, as well as improving and increasing the sharing of knowledge and lessons learned.
- **The Partnership for Market Readiness (PMR)**
The PMR is a forum for action and a fund to support the implementation of mitigation policies such as carbon pricing instruments to enhance and scale up GHG mitigation. At the same time, the PMR works as a platform to facilitate country-to-country knowledge sharing and lessons learned through which countries can work together to form cost-effective climate action.
- **Networked Carbon Markets (NCM)**
The NCM is working - together with governments, the private sector, civil society and academia - to create and pilot enhanced services and institutions to facilitate bottom-up climate markets. The aim is to enable more countries to participate in international markets while preserving environmental integrity. The NCM works to develop concepts, model data, build market infrastructures, and to facilitate country engagement and pilots.

The NCM tackles country-engagement through the Mitigation Action Assessment Protocol (MAAP) and market infrastructure elements linked with registries and distributed ledger technologies.

Pilot Auction Facility for Methane and Climate Change Mitigation (PAF)

The PAF is a climate finance model that aims to stimulate investments in mitigation projects while enhancing and maximizing the impact of public finance as well as leveraging private finance. In doing so, the objective of the PAF as a results-based payment mechanism, is to set a floor price on prospective carbon credits in the form of a tradeable put option.

5. Category D: international carbon market regimes outside the UNFCCC

Category D comprises those market-based regimes that operate in parallel with markets regulated or otherwise recognized under the UNFCCC. They correspond to either voluntary private sector-led initiatives such as the Gold Standard and Verra (formerly the VCS), as well as the multilateral compliance regime created by the International Civil Aviation Organization (ICAO), titled the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Voluntary carbon markets will need to be accommodated within NDC accounting of host countries. They can offer robust environmental integrity standards, which host countries can use to build their overarching GHG accounting guidelines. For CORSIA, the lack of more specific guidance for Article 6 at COP24 may affect how the scheme defines eligible emission reductions and standards in 2019. For Article 6 cooperative approaches, it is clear that countries will have to report structured information under the Paris Agreement's transparency framework, including when mitigation outcomes are transferred for purposes other than meeting NDC goals.¹¹

¹¹ Whether or not mitigation outcomes can be used for purposes other than to achieve NDCs, however, remains to be decided.