



Guidance Report:
Pathways to increased
voluntary action by non-state
actors

Executive Summary

ICROA is working to secure a role for voluntary action in a post-Paris world. This guidance sets out pathways to achieve that, which can be supported and actioned by Parties and the private sector alike. It describes three potential models for the future framework of the voluntary carbon market, operating in parallel to each other and accommodating the variability in the Nationally Determined Contributions (NDCs) and the provisions set out in the Paris Agreement:

- **Non-NDC crediting model:** Credits are generated from sectors which are not currently part of a host country's NDC
- **Financing Emission Reductions model:** Emission reductions are financed by non-state actors and contribute to the host country's NDC
- **NDC crediting model:** Emission mitigation units generated under the Paris Agreement's article 6.4 mechanism are voluntarily purchased and retired by non-state actors

ICROA is calling for an 'open architecture' approach to article 6.4 to allow independent standards to be accredited under the mechanism. We also propose the development of an international voluntary market account, as a central data repository to bring transparency to voluntary action across the private sector.

Whilst there is clear desire for international action on climate change, the emission reductions pledged through the NDCs are insufficient to hold the increase in the global average temperature to below 2°C above pre-industrial levels – the primary objective of the Paris Agreement. To help close this ambition gap it is vital that voluntary action plays the fullest role possible.

To achieve this, it is important that the differences between regulated and voluntary action are recognised and addressed. Specifically, voluntary action scales when the rewards to those taking action are explicit and meaningful; and, voluntary action needs to be measured, reported and verified in order to deliver environmental integrity, which is of paramount concern to those taking action. To inform and ensure alignment between the emerging arrangements under the Paris Agreement, we offer the following four guiding principles for voluntary action which:

1. Should be complementary to policy and regulation under the Paris Agreement and focused on raising ambition.
2. Needs to be encouraged, recognised and rewarded to realise its full potential.
3. Must be reported openly and transparently to ensure the highest possible standards of integrity.
4. Needs sound governance, particularly because it operates outside of compliance systems.

About ICROA and our purpose

ICROA is a non-profit organisation made up of the leading carbon reduction and offset providers in the voluntary carbon market. It is housed within the International Emissions Trading Association (IETA). ICROA's primary aim is to deliver quality assurance in carbon management and offsetting through our members' independently verified adherence to the ICROA Code of Best Practice. This ensures credibility and quality for corporates using voluntary carbon offsets to reduce their greenhouse gas emissions and meet their carbon targets.

At a time when governments, businesses and organisations all over the world are looking for immediate and actionable solutions to keep the global temperature rise to below 2°C, ICROA plays a vital role in advocating for the use of offsetting and carbon finance to mitigate climate change. Being comprised of the leading companies in the voluntary carbon market, we provide a unified voice in these critical policy and market discussions.

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Introduction

2016 signalled a new milestone in the voluntary carbon market as the cumulative volume of credits transacted topped 1 billion tCO_{2e} for the first time. These transactions represent over \$4.8 billion dollars in carbon finance¹, much of which has been directed to communities in least-developed economies. ICROA analysis also shows that 43.5 million carbon credits were retired in 2016 across the major voluntary market standards, close to the record volume achieved in 2015.

The entry into force of the Paris Agreement in 2016 also represents a huge opportunity for voluntary action. For the first time, both rich and poor nations pledged to reduce their Greenhouse Gas (GHGs) emissions, as set out in their NDCs. The desire for international action on climate change was demonstrated by the speed at which the Paris Agreement entered into force, as described by Patricia Espinosa, Executive Secretary of the UNFCCC “The speed at which countries have made the Paris Agreement’s entry into force possible is unprecedented in recent experience of international agreements and is a powerful confirmation of the importance nations attach to combating climate change and realising the multitude of opportunities inherent in the Paris Agreement”.

However, the scale of emission reductions pledged through the NDCs are insufficient to restrict the increase in the global average temperature to well below 2°C above pre-industrial levels – the primary objective of the Agreement.

¹ Unlocking potential: State of the Voluntary Carbon Markets 2017. Forest Trends' Ecosystem Marketplace

This presents an opportunity for the private sector to step up and take a leadership role by helping to bridge this ambition gap. As Dirk Forrister, IETA's President and CEO, put it "there is a disconnect between where science says we need to be and how far the Paris Agreement will take us, and the voluntary carbon market will be crucial in bridging that gap."

At the same time, there is an increasing number of private sector focused initiatives that acknowledge the risks of climate change and act on them. These include, amongst others:

- The Task Force on Climate-related Financial Disclosure, which recommends that companies test how their businesses will fare under a 2°C climate scenario, and elevate climate-related disclosures to the same level as mainstream financial reporting;
- The Science Based Targets initiative, which provides methodologies for companies to set GHG reduction targets in line with climate science; and
- The 'America's Pledge' initiative, which will quantify the emission reduction pledges of US states, cities, and businesses, and create a road-map to demonstrate how these non-state groups can collectively help deliver the US pledge to the Paris Agreement.

These developments are aligning to create a compelling opportunity for the private sector to play a role in tackling this global challenge and make a real difference. The voluntary carbon market provides the tools to enable this climate leadership. This paper sets out ICROA's guidance on how the market can evolve in the future to enable increased voluntary action by non-state actors.

Paris Agreement

The entry into force of the Paris Agreement creates opportunities for the private sector to play a role in tackling climate change, but it also presents challenges. Under the Kyoto Protocol, only a relatively small number of developed countries adopted top down targets, which created opportunities to generate voluntary credits in 'uncapped' countries. As the source countries for these credits do not have climate targets, it means double claiming does not occur.

In contrast, under the Paris Agreement, 190 developed and developing countries have set emission reduction targets through their NDCs. This raises the question of how credits can be generated in countries with climate targets and transferred internationally, without being double claimed. As this paper sets out ICROA's recommendations on how the voluntary market can evolve to accommodate this new international framework it is important to analyse key aspects of the Paris Agreement to establish the context for this guidance. In the sections below we use a range technical of terms to describe mechanisms, agreements, concepts and processes. Definitions of these terms are set out in a glossary at the end of the paper.

NDC Analysis

The starting point for developing this guidance is the NDCs. These set out each Party's pledge to reduce emissions, and therefore provide the framework for all future emissions mitigation activities. As of October 2017:

- The Paris Agreement has been signed by 195 Parties (of 197 Parties to the UNFCCC)
- 163 NDCs have been submitted, representing 190 countries (The European Union submitted a single NDC for its 28 members) and over 95% of global GHG emissions
- The Agreement has been ratified by 168 Parties

There is large variability across the NDCs. For example, emission reduction targets are quantified or unquantified; single or multi-year; conditional or unconditional; and, economy-wide or restricted to parts of the Party's economy.

On the last point, Article 4 of the Paris Agreement states that developed countries should continue undertaking economy-wide emission reduction targets, and that developing countries should continue enhancing their efforts by moving to economy-wide emission targets over time. Furthermore, Article 4 also requires each Party to communicate an NDC every five years, and that "each Party's successive NDC will represent a progression beyond the Party's then current NDC and reflect its highest possible ambition". The aim is that over time, all NDCs will become fully quantified and economy-wide.

Article 6

Article 6 of the Agreement provides a foundation for international cooperation through markets. In particular, it will establish two mechanisms that could facilitate offsetting whilst avoiding double counting. These two mechanisms are:

1. International Transferred Mitigation Outcomes (ITMOs) as described under Paragraphs 6.2 and 6.3. ITMOs will facilitate voluntarily cooperation between Parties on a bilateral basis, and will offer a decentralised and country-led approach towards achieving NDCs. In their recent submission to SBSTA², New Zealand defines ITMOs as "emissions reductions or removals of GHGs expressed as tCO₂-equivalent, transferred to a Party and used towards that Party's NDC". Whilst this does not represent a consensus view on a definition, it is helpful to illustrate the concept. Views on the other features of an ITMO are beginning to emerge, which include:
 - They will be measured in tCO₂e. Parties that have indicated an interest in engaging in ITMOs have expressed GHG targets in their NDCs in tCO₂e. This metric is also widely used in carbon markets and emissions inventories. For these reasons it would be logical to measure ITMOs in tCO₂e.
 - They will be a product of different market mechanisms, including internationally linked Emissions Trading Schemes (ETS) or international crediting mechanisms, including from independent standards.
 - There will be common international accounting rules for ITMOs but there will not be common governance rules. As ITMOs will work on a bilateral basis, governance rules will be for the cooperating Parties to decide upon. Essentially, it may allow Parties to trade a variety of different units, as long as they are accounted for according to UN guidelines.
 - An open question surrounding ITMOs is whether they could be used by non-state actors for voluntary purposes. Article 6.2 refers to their use as being for the achievement of NDCs, and being authorised by participating Parties. The answer to this question will depend on the definition of the scope of ITMOs, and DEHSt³ (p23) suggest they could be defined quite broadly "to include functions beyond achieving NDCs, such as voluntary cancellation".

² New Zealand Submission to SBSTA on Article 6.2 of the Paris Agreement, September 2017

³ Robust Accounting of International Transfers under Article 6 of the Paris Agreement. German Emissions Trading Authority (DEHSt), September 2017

2. A mechanism to contribute to the mitigation of GHG emissions and support sustainable development, as specified in paragraph 6.4. In its Straw-Proposal⁴ on Article 6, IETA describes the mechanism as a process to turn activities into units, or reductions from a project into credits. It therefore allows the necessary funding for the mitigation activity to be directed efficiently and with the required financial rigour and emissions quantification to support the investment. IETA refers to this as the Emissions Mitigation Mechanism (EMM), which shall be implemented through the issuance of Emission Mitigation Units (EMUs), which is an instrument measured as a tonne of carbon dioxide equivalent. Other terms for this mechanism have been proposed, including the Sustainable Development Mechanism (SDM).

Double counting will be avoided through the use of corresponding adjustments, as set out in paragraph 36 of decision 1/CP.21. It is likely these will work in a similar way to Joint Implementation (JI) under the Kyoto Protocol, whereby Assigned Amount Units (AAUs) equivalent to the emission reductions generated by a project in a host country are converted into Emission Reduction Units (ERUs). These units are then transferred from the host country's registry to that of the investor country, resulting in a decrease in the host country's stock of AAUs equivalent to the emission reductions of the project. However, there are important questions to be answered about corresponding adjustments under the Paris Agreement which include:

- What is adjusted? Is it a Party's inventory of emissions, or an emissions budget⁵ of their NDC (which may not be economy wide)?
- What activities require a corresponding adjustment? Is it only for when emission reductions within an NDC are credited and then exported? Or should crediting activities outside of an NDC (when a Party doesn't not have an economy wide NDC) also require a corresponding adjustment when they are exported?
- When does the corresponding adjustment occur? Is it when credits are issued for emissions reductions, or is it when those credits are retired or cancelled?

Whilst there are still many questions to be answered, Article 6 does provide the framework – through ITMOs and the EMM – to reduce emissions in a given country with a target, generate units, and transfer those units to another country whilst avoiding double counting.

⁴ Article 6 of the Paris Agreement – Implementation Guidance: An IETA 'Straw Proposal', March 2017

⁵ Robust Accounting of International Transfers under Article 6 of the Paris Agreement. German Emissions Trading Authority (DEHSt), September 2017

Future market framework

To develop this guidance, whilst accommodating the variability in the NDCs and the provisions set out in Article 6, we have identified three potential models for the future framework of the voluntary carbon market:

- **Non-NDC crediting model:** Credits are generated from sectors which are not currently part of a host country's NDC and are transferred internationally without a double claiming risk. This model will therefore be like the current arrangements under the Kyoto Protocol's Clean Development Mechanism when credits are generated in countries without carbon reduction targets. Except in this case, it's the sectors rather than the countries sitting outside of the target boundary.
- **Financing Emission Reductions model:** Emission reductions are financed by non-state actors and contribute to the host country's NDC. This means that under this model there would be no international transfers of emission reductions.
- **NDC crediting model:** Emission reductions are generated within a host country's NDC and transferred internationally, following a corresponding adjustment to ensure no double claiming. The units may then be purchased and retired voluntarily by a non-state actor.

It is important to note that we see these models operating in parallel (i.e. not being mutually exclusive), depending on the arrangements in individual host countries. This framework also provides flexibility to Parties, allowing them to transition from one model to another as circumstances and ambition levels changes over time. This will be important as the first Facilitative Dialogue takes place in 2018, followed by the first Global Stocktake in 2023, when Parties will be encouraged to increase the coverage and ambition of their NDCs.

In the sections below, we expand on each model and demonstrate how each could work in practice by using present day examples. We also attempt to classify NDCs into each model to gain a sense of the potential market size for each model. To do this we have compiled data from IETA's INDC tracker⁶ and World Bank data on global GHG emissions⁷ to assess the following characteristics:

1. Percentage of the economy covered within the NDC, e.g. is it economy wide or limited to specific sectors only
2. Percentage of NDCs indicating whether the Party intends to use international credits to achieve its mitigation target

From the results of this analysis we have derived the number of Parties and cumulated level of GHG emissions falling into the Non-NDC and NDC crediting models. The Financing Emission Reductions model could potentially apply to any NDC.

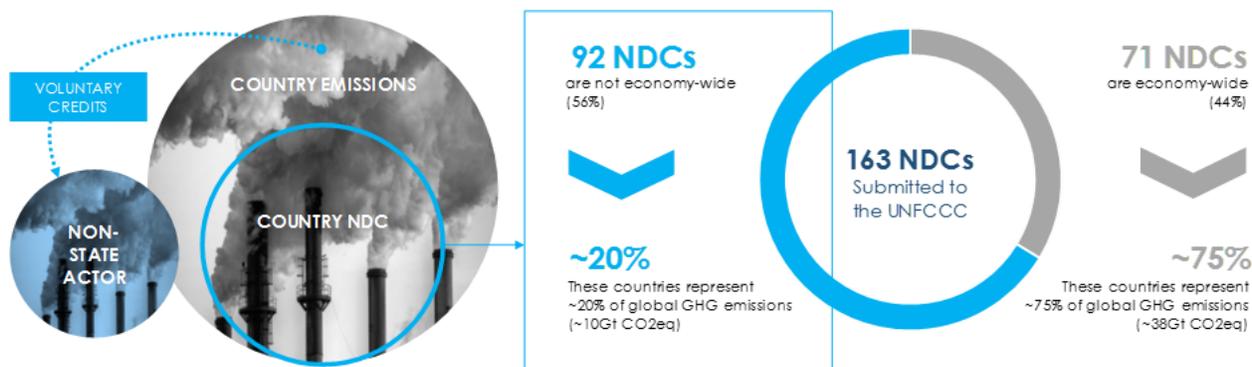
It should be noted that in both the Non-NDC and NDC crediting models, the emissions reductions associated with these approaches will not contribute to the delivery of any Party's NDC, and will be the sole property of the owner of the units. In contrast, in the Financing Emission Reduction model, the emissions reductions will contribute to the host Party's NDC. This will affect the nature of the claims that can be made by the owner of the credits in each model.

⁶ <https://docs.google.com/spreadsheets/d/1YglQiiucWW9vuDUAMeRstzzLxTXi6zFWtFVClqTRTe4/edit#gid=0>

⁷ <http://data.worldbank.org/indicator/EN.ATM.GHGT.KT.CE>

Non-NDC crediting model⁸

DESCRIPTION	PROS AND CONS
<ul style="list-style-type: none"> Voluntary market mechanisms continue in non-NDC parts of economies where non-state actors generate voluntary credits This model would be similar to the current voluntary carbon market arrangements 	<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> <p style="background-color: #ccc; padding: 5px; text-align: center; width: 40px; height: 40px; margin-bottom: 20px;">+</p> <p style="background-color: #ccc; padding: 5px; text-align: center; width: 40px; height: 40px;">-</p> </div> <ul style="list-style-type: none"> Extension of current practices Attracts finance to uncovered sectors, delivering emission reductions which otherwise would not occur Could support the transition to economy wide NDCs </div>
	<ul style="list-style-type: none"> Restricts credit generation supply pipeline Unlikely to be sustainable in the long term, due to requirement to move towards economy-wide NDCs



Data source: UNFCCC and World Bank

In their paper on Article 6 accounting⁹, DEHSt (p22) suggest that “when emissions are not covered by mitigation targets, double claiming does not occur. Therefore, the application of “corresponding adjustments”, as referred to in paragraph 36 of decision 1/CP.21, would theoretically not be necessary on the side of the transferring country if the relevant emission sources are not covered by its NDC”.

If that is the case, the Non-NDC crediting model would represent a continuation of current arrangements, with voluntary projects occurring in locations with no climate targets. 92 Parties¹⁰ have non-economy wide NDCs and the transition to full coverage, as required under Article 4, will take time. This model will help attract finance to uncovered sectors and deliver reductions which otherwise would not occur. In turn, this could help speed up the transition to full NDC coverage.

⁸ Note: In this model, we are reporting the cumulated emissions of all 92 Parties with non-economy wide NDCs. These countries represent ~20% of global GHG emissions. However, this figure should be read with caution and remains a rough indication: this analysis does not reveal the actual percentage of emissions not covered by the NDCs. In addition, no distinction is made between conditional and unconditional NDCs

⁹ Robust Accounting of International Transfers under Article 6 of the Paris Agreement. German Emissions Trading Authority (DEHSt), September 2017

¹⁰ Refer to Appendix A for a list of non-economy-wide NDCs

However, the lack of a corresponding adjustment could also act as a disincentive to move towards economy wide NDCs. To mitigate these concerns, this model could be limited for a set time period, so that it is clearly seen as a bridge to the introduction of economy wide NDCs. Or, it could be restricted to Least Developed Countries (LDCs) so that projects in this model focus on sustainable development benefits.

The lack of a corresponding adjustment may also raise concerns about:

- The environmental integrity of the transferred units because the host country may be incentivised to overestimate emission reductions, as it would not have to compensate for exported mitigation outcomes;
- Whether the project developers/sellers have irrevocable title to the credits issued. There could be a risk that if a host country is likely to fail to meet its NDC, it could claim ownership of the emissions reductions achieved outside of its NDC.

To address these concerns, New Zealand's submission¹¹ to the UNFCCC on Article 6.2 suggests that when credits from outside the NDC are issued, the host country should record the number of tCO_{2e} transferred, but not do a corresponding adjustment. Japan's submission¹² to the UNFCCC goes further and suggests that a corresponding adjustment should take place in the Party's inventory of emissions. If this proposal is what gets agreed, it would make the accounting rules the same as for projects taking place within an NDC.

The EBRD¹³ also call for the establishment of a principle of "seller liability". This would ensure that a country not meeting its NDC may not retract exported ITMOs, and ensure that purchasers do have irrevocable title to their credits. ICROA supports the establishment of this principle to provide confidence in credits that have been generated in the absence of a corresponding adjustment.

This model will also require a clear delineation of NDC boundaries, to know what activities fall within and outside the scope of an NDC. This clear delineation does not exist for many non-economy wide NDCs currently. However, Parties will need to clearly define their NDCs anyway, as Article 13.7 requires each Party to "regularly provide.... Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4."

Illustrating the Non-NDC crediting model: Bangladesh

Bangladesh's NDC covers the power, transport and industry sectors with both conditional and unconditional provisions for its mitigation targets. While this Party also has a number of further actions in other sectors which it intends to achieve, these are subject to the provision of additional international finance. The fact that Bangladesh's NDC is not economy-wide means there should be continued opportunities for voluntary initiatives to mitigate GHG emissions in non-NDC sectors, and generate carbon credits, such as projects promoting the uptake of improved cook-stoves in rural parts of the country.

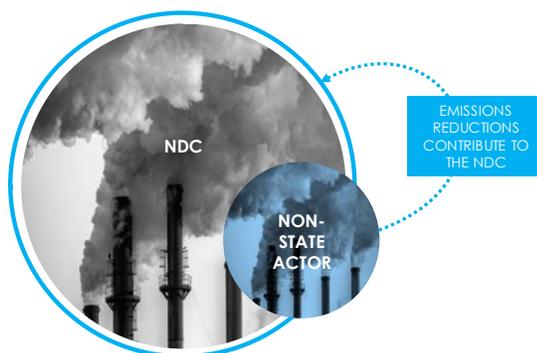
¹¹ New Zealand Submission to SBSTA on Article 6.2 of the Paris Agreement. September 2017

¹² Japan's submission on SBSTA item 10(a). Guidance Article 6, paragraph 2, of the Paris Agreement. October 2017

¹³ Operationalising Article 6 of the Paris Agreement, European Bank for Reconstruction & Development. May 2017

Financing Emission Reductions model

DESCRIPTION	PROS AND CONS
<ul style="list-style-type: none"> ▪ Emission reductions financed by non-state actors contribute to the host country's NDC ▪ Buyers can make finance related claims ▪ This model could potentially apply to any NDC, economy-wide or non-economy-wide 	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="margin-bottom: 10px;"> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">+</div> <ul style="list-style-type: none"> ▪ Simple solution to the double counting challenge ▪ Helps deliver the NDC targets </div> <div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">-</div> <ul style="list-style-type: none"> ▪ This approach could not be used for carbon neutrality purposes ▪ Buyers could not make claims related to the emission reductions, but only the financing </div> </div>



This model envisages a continuation of carbon reduction projects, being quantified and certified by independent standards or the Emissions Mitigation Mechanism. However, the resulting emissions reductions would be owned by the Government of the host country, rather than the project financier. The benefits of this model are that it provides a simple solution to the accounting challenges that the implementation of the NDCs will present. Instead of trying to solve the problem through accounting

practices, it openly acknowledges the risk of double claiming and alters the nature of the claim that can be made. For this reason, it could also apply to any type of NDC.

A further benefit of this model is the variety of incentives that could be applied to scale action. Establishing a strong business case to take voluntary action has been a challenge for many non-state actors under current market arrangements and incentives have often been lacking. Relinquishing ownership of the reductions to the Government could open the door to the implementation of a number of incentives which could rapidly scale voluntary action. In turn, this could also act as a motivation to Parties to set ambitious NDCs.

However, this model would not allow non-state actors to make environmental claims, such as being carbon neutral. This is because the Party is receiving private sector assistance to achieve its climate goals, and that action does not create reductions beyond the target. Additionality has been a fundamental aspect of the voluntary market, and it has allowed non-state actors to make environmental claims. This would no longer be possible under this model, and instead, claims would need to be restricted to the financing of the emission reductions.

An open question surrounding the Financing Emission Reductions model is whether this activity should be directed towards conditional components of NDCs, where Parties have committed to higher ambition with the assistance of international finance. If activity is focused on the conditional component, it will help close the ambition gap as it would go beyond the unconditional emission reduction pledges. However, determining if an emission reduction activity falls into the conditional or unconditional component of an NDC is challenging. The simplest option may be for Parties to define individual sectors as being in their conditional component, and therefore any reduction activities in these sectors would contribute to that part of their NDC.

Two examples are set out below which demonstrate the Financing Emission Reductions model on both a domestic and international basis.

Domestic approach: Colombian carbon tax and offset

A carbon tax of US\$5/tCO₂ came into effect on 1 January 2017 in Colombia. In June 2017, a new measure was approved allowing fuel producers and importers to cover 100% of their carbon tax obligations by retiring carbon credits. This new regulation establishes the framework and eligibility for reducing carbon tax payments with domestically produced carbon credits. As a result, it is a private sector contribution to the Government's international targets, but with the added incentive of a tax break.

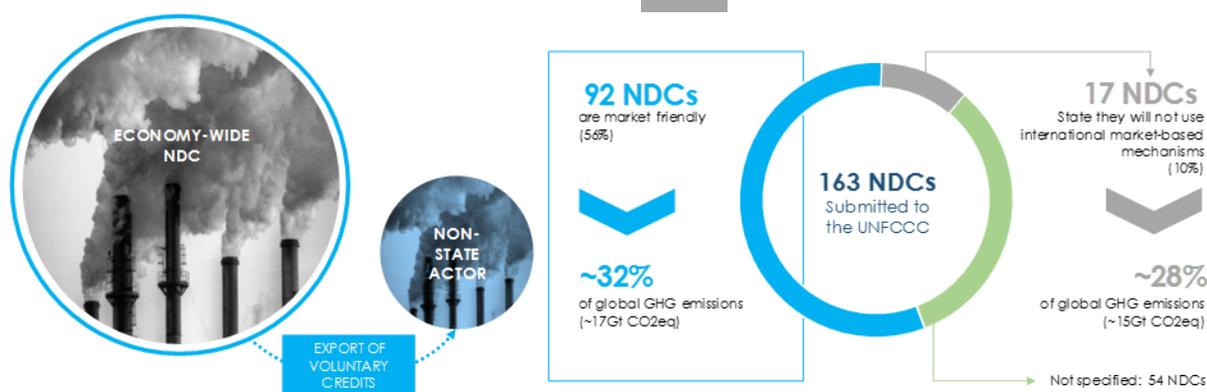
International approach: Gold Standard

In their May 2017 paper¹⁴, The Gold Standard suggests the use of 'certified statements of emission reductions' in lieu of carbon credits, for projects which face a double counting risk. It is undecided if these statements would be tradeable assets, but would be assignable to funders willing to contribute the climate finance needed to help host countries meet their targets. This means that the emission reductions would remain in the national inventory of the host country. The funding entity would not own or be able to retire the reductions, as is the case with carbon credits, and could not use them to support carbon neutrality claims. Instead, they would be able to claim to have funded the emission reductions and contributed to a country achieving its NDC target.

¹⁴ A New Paradigm for Voluntary Climate Action: 'Reduce Within, Finance Beyond'. Gold Standard Policy Brief, May 2017.

NDC crediting model

DESCRIPTION	PROS AND CONS
<ul style="list-style-type: none"> EMUs are generated in NDCs and corresponding adjustments are made The EMUs are voluntarily purchased and retired by non-state actors. The emission reductions do not contribute to the delivery of any Party's NDC. 	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">+</div> <ul style="list-style-type: none"> Enables voluntary offsetting within the Paris Agreement architecture Buyers can make environmental claims, such as carbon neutrality Emission reductions go beyond NDCs, thus helping to close the ambition gap </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 10px;">-</div> <ul style="list-style-type: none"> Requires Parties to allow the development of EMM projects </div>



Data source: UNFCCC and World Bank

This model describes the voluntary purchase and retirement of a compliance unit by a non-state actor. Consequently, this activity would be contributing to “regulatory surplus”. This is a term often used in the energy attribute certificate market to describe the voluntary purchase of renewable energy that goes beyond what is required by law. It will require Parties to enable transfers of EMUs to non-state actors for voluntary cancellation. But this could be an important enabling process to operationalise the EMM, as the voluntary sector could well provide the first sources of demand for EMUs.

The key benefit of this model is that it allows buyers to make strong environmental claims, as the emission reductions they are funding go beyond what is pledged in the NDCs. This means that it helps raise ambition beyond reduction targets in the host country NDC.

We believe the best way to operationalise this model would be to adopt an ‘open architecture’ approach to the design of the EMM, as suggested by the Verified Carbon Standard (VCS)¹⁵. This would allow independent standards to apply to have their standard accredited under the EMM, in a similar approach to the one being considered for CORSIA. This would ensure that the innovation and specialised knowledge developed in the independent standards and broader voluntary market would be carried forward to the EMM.

An open question surrounding this model is whether ITMOs could be used, in addition to EMUs. As described in the Article 6 section above, this will probably depend on the scope of the definition

¹⁵ VCS Submission: Operationalising Article 6 of the Paris Agreement. 29 September 2017

of ITMOs. If a broad scope is agreed, it should allow the use of ITMOs by non-state actors for purposes other than achieving NDCs.

92 Parties have indicated an interest in using markets to help achieve their NDC, a list of which can be seen in Appendix B. These countries could potentially be candidates for this future model of the voluntary carbon market.

The NDC crediting model would be similar to both voluntary retirement of Emission Reduction Units (ERUs) under the JI, and the Australian Emissions Reduction Fund.

[Illustrating the NDC crediting model internationally: Joint Implementation under the Kyoto Protocol](#)

JI projects take place in Annex B Parties, which by definition have emission reduction commitments. The host country converts, in its national registry, Assigned Amount Units (AAUs) equivalent to the emission reductions generated by the project into Emission Reduction Units (ERUs). The units are then transferred from the host country's registry to that of the investor country. At this point, the units can be voluntarily retired by non-state actors by transferring them to a cancellation account.

This means that the units are generated in a country with a carbon target, but have not contributed to the delivery of the targets in either the host or investor country, and can be used to voluntarily offset emissions.

[Illustrating the NDC crediting model domestically: Australia's Emissions Reduction Fund](#)

The Emissions Reduction Fund is the domestic offset standard in Australia. It generates Australian Carbon Credit Units (ACCUs), some of which can be sourced from activities that are captured within the Australian Kyoto account and which count towards Australia's Kyoto target.

To mitigate the risk of double claiming associated with these types of ACCUs, the Department of Environment cancel a Kyoto unit for every ACCU that is retired for voluntary purposes. This means the emission reductions associated with these ACCUs go above and beyond what the Government has committed to do, and can therefore be used to substantiate carbon neutrality claims by their purchasers.

Bringing it all together: An international voluntary market account

We anticipate the three models described above working in parallel to each other, depending on the arrangements in individual host countries. This will bring added complexity to the market as voluntary action evolves to complement the new NDC framework.

We think the creation of a publicly-accessible, international voluntary market account will help consolidate this action and manage the extra complexity. Ideas and opinions on Article 6 accounting are only just emerging. As this will set the high-level framework, it is too early to debate in detail what form an international voluntary market account may take, or how it could operate.

But in a simple form it could be a central data source to track and report private sector voluntary action by disclosing how much and what type of units are being retired. This could build on similar, present day examples such as the CDM registry, or the NAZCA platform. An illustrated and simplified example is show in the diagram below.

Voluntary account	Units retired and type	
	Carbon credits	Finance units
Entry 1	20	20
Entry 2	30	35
Entry 3	10	15
....
Voluntary market total	100	80

In this example, units generated under either the NDC or Non-NDC models would be displayed in the carbon credits column. As the emission reductions associated with these units would not contribute to any country's NDC, there would be no double claiming risk associated with them. Units generated under the Financing Emissions Reduction model would be displayed in the finance units column. As they do contribute to a country's NDC, they could not be used as carbon credits to offset emissions, as this would be double claiming.

In a more comprehensive form, an international voluntary market account could link to the global accounting process. For instance, units in the carbon credits column will be of sufficient quality to be used for NDC compliance, so it seems sensible to include this activity in the global accounting process. The only difference will be that they have been purchased on a voluntary basis by a non-state actor. By doing so, it would allow non-state actors to make a direct contribution to closing the ambition gap in the Paris Agreement, without compromising the ambition of national governments and their NDCs.

Having an international voluntary market account, regardless of form and complexity, will help manage claims made by the private sector taking voluntary action. Under this approach, it will be clear who has bought carbon credits and can therefore make carbon neutrality claims, and who has bought units that support claims related to the financing of emission reductions. Having a single source of information on these actions will also help draw attention to the activities of non-state actors who are taking a lead in tackling this global challenge.

Putting voluntary action to work to raise ambition under the Paris Agreement

ICROA is confident that voluntary action within and across the private sector will continue beyond 2021, and that offsetting is an invaluable, established and credible mechanism to facilitate this action. What is in question is how to ensure that it plays the fullest role possible. As the analysis in this paper shows, there are multiple routes forward, and some important challenges and uncertainties.

We recognise that many of the uncertainties about accounting will be solved by the Parties working through the UNFCCC process to operationalise Article 6. Further, there are strong parallels between the aviation sector's plans for carbon neutral growth by funding mitigation in countries under the Paris Agreement and the private sector's desire for action to decarbonise operations and supply-chains ahead of or beyond regulations. We expect that the aviation sector's work under its CORSIA programme will make a significant contribution to operationalising voluntary action.

However, there are three important differences between regulated and voluntary action that will require specific attention beyond the solutions developed for Article 6 and CORSIA.

1. Voluntary action scales when the rewards to those taking action are explicit and meaningful. Action driven by philanthropy and corporate responsibility alone is constrained by a business's responsibility to direct its capital to investments which provide a clear economic return. Voluntary action requires a clear business case if it is to be fully integrated into corporate strategy and operations.
2. For many organisations taking voluntary action, social and economic impacts can be as important, if not more so, than environmental outcomes. Standards recognised under the ICROA Code of Best Practice will be critical to scaling voluntary action as they continue to develop methodologies to measure, report and verify the social, economic and environmental co-benefits that are frequently associated with mitigation projects.
3. For all organisations committed to voluntary action, the integrity of and recognition for their actions is of paramount concern. Proponents must establish and support governance arrangements that ensure the quality, transparency and integrity of voluntary action.

Guiding Principles to promote voluntary action

With these points in mind, we offer the following four guiding principles to inform and ensure alignment between the emerging arrangements under the Paris Agreement and voluntary action.

1. Alignment and Ambition

Voluntary action should be complementary to policy and regulation under the Paris Agreement and focused on raising ambition across all countries.

- Voluntary action should lead to more ambitious NDCs, and not be used as a “safety valve” to compensate for lack of progress towards NDC targets.
- Our Non-NDC model acknowledges that many Parties do not have economy wide NDCs and the transition to full coverage will take time. With the right safeguards in place, this model can speed up the transition to full coverage by attracting finance to uncovered sectors, introducing monitoring and reporting, and delivering emission reductions which would otherwise not occur.
- Our NDC crediting model allows the private sector to take a leadership role by delivering emission reductions above and beyond the NDC targets, thereby helping to close the ambition gap.

2. Rewarding Action

Measures are needed that encourage, recognise and reward voluntary action. These measures are a rational and necessary step to realising the full potential of voluntary action.

- ICROA encourages Parties to incentivise and reward voluntary action, and notes the following examples of how this may be achieved:
 - The Columbian and South African tax and offset schemes.
 - The Swiss Climate Cent programme, which invests in overseas carbon offset projects. This programme is funded by a levy on petrol and diesel imports and has delivered over 16 million tonnes of emission reductions.
 - NDCs which have components which are conditional upon receiving additional finance, and which establish enabling incentives and provisions.
 - Recognition for voluntary action in the form of open information platforms, awards, leadership tables and certificates of contribution.

3. Transparency & Integrity

Key aspects of voluntary action must be reported openly and transparently so that integrity is maintained to the highest possible standards.

- ICROA proposes a voluntary sector account to record and report aggregated voluntary retirements, and to make those records publicly available.
- ICROA supports an open architecture for the EMM to allow standards established in the voluntary market to continue to innovate and operate under Article 6 provisions.
- ICROA calls for registries to establish and maintain systems which ensure that individual registries are able to share information and ensure the integrity of voluntary transactions and retirements.

4. Governance

Voluntary action needs sound governance, particularly because it operates largely outside of compliance systems.

- ICROA has operated as a self-regulating body for its members, and is intent on exploring how its governance function can evolve and develop to ensure that voluntary action grows to its full potential under the Paris Agreement.

Moving forward

We anticipate that work by the UNFCCC, Parties (individually and in dedicated market supporting clubs), and the aviation sector's CORSIA will develop the modalities for Article 6 to ensure the international transfer of mitigation outcomes with high environmental integrity. This will go a long way to support continued voluntary action, but alone it is unlikely to deliver private sector investment in mitigation at the necessary scale. For this, meaningful incentives, excellent governance, and efficient processes are needed. This is the key area of focus for ICROA as we continue our work with organisations across the voluntary market to secure a meaningful and material role for voluntary action under the Paris Agreement.

This will be the area of the focus for the second in our series of workshops on scaling voluntary action under the Paris Agreement, to be held at COP 23 in November 2017.

Glossary

Assigned Amount Units (AAUs): tradable Kyoto unit representing an allowance to emit greenhouse gases comprising one metric tonne of carbon dioxide equivalent. AAUs are issued up to the level of initial "assigned amount" of an Annex B Party to the Kyoto Protocol.

Ambition gap: The difference between the cumulative emission reductions pledged in the NDCs and the level which emissions need to be at to have a chance of limiting global warming to 2°C this century. UNEP¹⁶ predicts the gap in 2030 will be 12 to 14 gigatonnes of CO₂ equivalent in the conditional NDC case, 15 to 17 gigatonnes in the unconditional case.

Annex B: A list in the Kyoto Protocol of 38 countries plus the European Community that agreed to Quantified emission limitation or reduction commitments.

Australian Carbon Credit Units (ACCUs): Each ACCU issued represents one tonne of carbon dioxide equivalent stored or avoided. ACCUs are issued by the Australian Clean Energy Regulator for greenhouse gas abatement activities undertaken as part of the Australian Government's Emissions Reduction Fund.

Carbon credit: A tradable, non-tangible instrument representing a unit of carbon dioxide-equivalent (CO₂e) – typically one tonne - that is reduced, avoided or sequestered by a project and is certified/verified to an internationally recognised carbon accounting standard.

Certified emission reduction (CER): A Kyoto Protocol unit equal to 1 metric tonne of CO₂ equivalent. CERs are issued for emission reductions from Clean Development Mechanism (CDM) project activities. Two special types of CERs called temporary certified emission reduction (tCERs) and long-term certified emission reductions (lCERs) are issued for emission removals from afforestation and reforestation CDM projects.

Clean Development Mechanism (CDM): A mechanism under the Kyoto Protocol through which developed countries may finance greenhouse-gas emission reduction or removal projects in developing countries, and receive credits for doing so which they may apply towards meeting mandatory limits on their own emissions.

Double counting: Double counting of emission reductions occurs when a single GHG emission reduction is counted more than once towards achieving mitigation targets. Double counting can occur in three ways:

- Double issuance occurs if more than one unit is issued for the same emissions or emission reductions;
- Double claiming occurs if the same emission reductions are counted twice towards fulfilling mitigation targets: by the country or entity where the reductions occur, through reporting of its reduced GHG emissions, and by the country or entity using the units issued for these reductions towards meeting its mitigation target;

¹⁶ The Emissions Gap Report 2016: A UNEP Synthesis Report, November 2016.

- Double use occurs if the same issued unit is used twice to achieve a mitigation target.

Emissions Mitigation Mechanism (EMM), as defined in the IETA Straw-proposal on Article 6, is the mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development as specified in Article 6.4 of the Paris Agreement. It is a process to turn activities into units, or reductions from a project into credits, with the potential for a subsequent transfer of a mitigation outcome between parties. It shall be implemented through the issuance of Emission Mitigation Units

Emissions Mitigation Unit (EMU), as defined in the IETA Straw-proposal on Article, is an instrument measured as a tonne of carbon dioxide equivalent and made available to a Party through a voluntary submission to the Mitigation Assessment Body established under the Paris Agreement

Emission Reduction Unit (ERU): A Kyoto Protocol unit equal to 1 metric tonne of CO₂ equivalent. ERUs are generated for emission reductions or emission removals from joint implementation projects.

Host country: The country in which the emission reduction project or activity takes place.

Internationally Transferred Mitigation Outcomes (ITMOs), as defined in the New Zealand submission to SBSTA on Article 6.2, are emissions reductions or removals of GHGs expressed as tCO₂-equivalent, transferred to a Party and used towards that Party's NDC.

Joint implementation (JI): A mechanism under the Kyoto Protocol through which a developed country can receive "emissions reduction units" (ERU) when it helps to finance projects that reduce net greenhouse-gas emissions in another developed country (in practice, the recipient state is likely to be a country with an "economy in transition"). An Annex B Party must meet specific eligibility requirements to participate in joint implementation.

Kyoto Protocol: An international agreement standing on its own, and requiring separate ratification by governments, but linked to the UNFCCC. The Kyoto Protocol, among other things, sets binding targets for the reduction of greenhouse-gas emissions by industrialized countries.

Kyoto mechanisms: Three procedures established under the Kyoto Protocol to increase the flexibility and reduce the costs of making greenhouse-gas emissions cuts. They are the Clean Development Mechanism, Emissions Trading and Joint Implementation.

Nationally Determined Contributions (NDC): According to Article 4 paragraph 2 of the Paris Agreement, each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Non-state actors: include private non-state actors such as companies, non-governmental organizations (NGOs) and philanthropists, as well as public non-state actors, such as cities and sub-national regions.

Offsetting: The practice of compensating for greenhouse gas emissions by retiring carbon credits.

Paris Agreement: The Paris Agreement builds upon the UNFCCC and for the first time brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The Paris Agreement was adopted at COP21 in 2015 and entered into force on 4 November 2016.

Project: A project is a site, or suite of sites, where restoration, sequestration, or other activities are implemented for the purposes of marketing the resulting ecosystem service assets or outcomes to buyers. Projects quantify their avoided or reduced emissions to produce tradable climate reduction certificates, called carbon credits.

Registry: Electronic database that tracks and records all transactions under the voluntary carbon market and under mechanisms such as the CDM and the JI. A registry issues, holds, and transfers carbon credits, which are given unique serial numbers to track them throughout their lifetime. Registries can also retire carbon credits. In compliance markets, each market has its own designated registry. In the voluntary carbon market, independent registries exist.

Regulatory surplus: Emission reductions that are not used to meet governmental targets, laws, or legal mandates and are therefore "surplus to regulation"

Retire: To permanently remove carbon credits from circulation through the use of a 3rd party registry. Retirement is the point at which an organization permanently sets aside a carbon credit in a designated registry, effectively taking the carbon credit's unique serial number out of circulation. Retiring carbon credits through a registry ensures that they cannot be resold. This is of particular importance if the buyer's intent is to claim the carbon credit's emissions reductions against a carbon reduction or neutrality target.

Standard: A standard is a set of project design, monitoring, and reporting criteria against which carbon offsetting activities and/or projects' environmental and social co-benefits can be certified or verified. In the voluntary carbon market, a number of competing standard organizations have emerged with the intent to increase credibility in the marketplace. More recently, national and sub-national regulated markets have also designed standards specific to regional needs for voluntary use.

Voluntary action: Action from business and individuals to address climate change which is not required by law or regulation.

Voluntary carbon market: Refers to the collective voluntary transactions tracked worldwide. There is no centralized single marketplace for voluntary transactions but rather many discrete transactions and, in some cases, country or program-related markets.

Appendix A: List of non-economy-wide NDCs

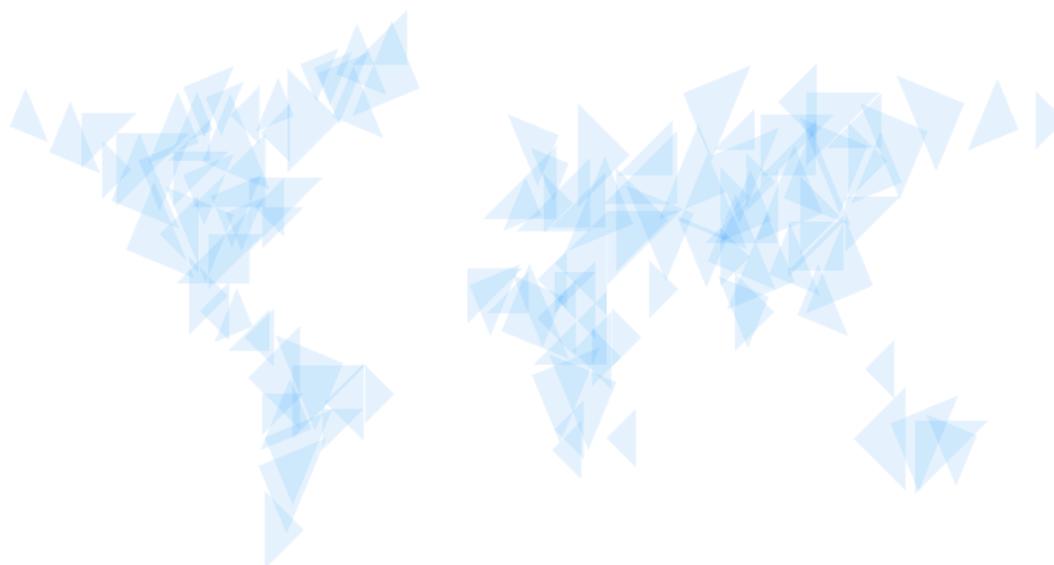
Data source: UNFCCC

INDC is not economy-wide	
1 Gabon	51 Mozambique
2 Andorra	52 Togo
3 Ethiopia	53 Samoa
4 Kenya	54 Philippines
5 Republic of Macedonia	55 Laos
6 Trinidad and Tobago	56 Honduras
7 Benin	57 Sierra Leone
8 Djibouti	58 Botswana
9 Democratic Republic of the Congo	59 Belize
10 Algeria	60 India
11 Jordan	61 Ecuador
12 Comoros	62 Afghanistan
13 Equatorial Guinea	63 Bolivia
14 Mauritania	64 Uganda
15 Albania	65 Antigua and Barbuda
16 Eritrea	66 United Arab Emirates
17 Bangladesh	67 Sri Lanka
18 Seychelles	68 Fiji
19 Belarus	69 Saudi Arabia
20 Moldova	70 Sudan
21 Kiribati	71 Egypt
22 Senegal	72 Pakistan
23 Central African Republic	73 Iraq
24 Mauritius	74 El Salvador
25 Myanmar	75 Nauru
26 The Gambia	76 Somalia
27 Maldives	77 Bahamas
28 Guyana	78 Saint Lucia
29 Burkina Faso	79 Cook Islands
30 Chile	80 Qatar
31 Vanuatu	81 South Sudan
32 Mali	82 Cuba
33 Armenia	83 Yemen
34 Cabo Verde	84 Bahrain
35 Kyrgyzstan	85 Kuwait
36 Zambia	86 Niue
37 Swaziland	87 Jamaica
38 Tanzania	88 Palau
39 Azerbaijan	89 Brunei
40 Congo	90 Tonga
41 Burundi	91 Nepal
42 Guinea-Bissau	92 Panama
43 Solomon Islands	
44 Zimbabwe	
45 Malawi	
46 Cambodia	
47 Rwanda	
48 Lesotho	
49 Tajikistan	
50 Liberia	

Appendix B: Contribution of market mechanisms to NDCs

Data source: UNFCCC

Country	Market Use	Country	Market Use
1 Albania	Yes	56 Senegal	Yes
2 Antigua and Barbuda	Yes	57 Sierra Leone	Yes
3 Bahamas	Yes	58 South Korea	Yes
4 Bangladesh	Yes	59 South Sudan	Yes
5 Barbados	Yes	60 Switzerland	Yes
6 Bhutan	Yes	61 The Gambia	Yes
7 Bosnia-Herzegovina	Yes	62 Togo	Yes
8 Botswana	Yes	63 Tunisia	Yes
9 Burkina Faso	Yes	64 Turkey	Yes
10 Burundi	Yes	65 Uganda	Yes
11 Cabo Verde	Yes	66 Ukraine	Yes
12 Cambodia	Yes	67 Vietnam	Yes
13 Cameroon	Yes	68 Zimbabwe	Yes
14 Canada	Yes	69 Angola	Use will be considered
15 Central African Republic	Yes	70 Armenia	Use will be considered
16 Chad	Yes	71 Belize	Use will be considered
17 Costa Rica	Yes	72 Brazil	Use will be considered
18 Côte d'Ivoire	Yes	73 Brunei	Use will be considered
19 Dominica	Yes	74 Chile	Use will be considered
20 Dominican Republic	Yes	75 Guatemala	Use will be considered
21 Egypt	Yes	76 India	Use will be considered
22 Equatorial Guinea	Yes	77 Kazakhstan	Use will be considered
23 Ethiopia	Yes	78 Laos	Use will be considered
24 Fiji	Yes	79 Samoa	Use will be considered
25 Ghana	Yes	80 San Marino	Use will be considered
26 Guinea	Yes	81 Solomon Islands	Use will be considered
27 Guinea-Bissau	Yes	82 Sudan	Use will be considered
28 Haiti	Yes	83 Suriname	Use will be considered
29 Indonesia	Yes	84 Thailand	Use will be considered
30 Iran	Yes	85 Zambia	Use will be considered
31 Japan	Yes	86 Colombia	Not in INDC, but in the longer term
32 Kiribati	Yes	87 Grenada	Not in INDC, but in the longer term
33 Lebanon	Yes	88 Guyana	Not in INDC, but in the longer term
34 Lesotho	Yes	89 Jordan	Not in INDC, but in the longer term
35 Liberia	Yes	90 Kenya	Not in INDC, but in the longer term
36 Liechtenstein	Yes	91 Singapore	Not in INDC, but in the longer term
37 Mexico	Yes	92 Republic of Macedonia	Not in INDC, but in the longer term
38 Moldova	Yes	93 EU	No
39 Monaco	Yes	94 Norway	No
40 Mongolia	Yes	95 United States	No
41 Montenegro	Yes	96 Russian Federation	No
42 Morocco	Yes	97 Gabon	No
43 Mozambique	Yes	98 Andorra	No
44 Namibia	Yes	99 Serbia	No
45 New Zealand	Yes	100 Iceland	No
46 Nepal	Yes	101 Marshall Islands	No
47 Niger	Yes	102 Madagascar	No
48 Pakistan	Yes	103 Seychelles	No
49 Panama	Yes	104 Federated States of Micronesia	No
50 Peru	Yes	105 Malaysia	No
51 Rwanda	Yes	106 Jamaica	No
52 Saint Lucia	Yes	107 Tuvalu	No
53 Saint Kitts and Nevis	Yes	108 Palau	No
54 St. Vincent and the Grenadines	Yes	109 Venezuela	No
55 Sao Tome and Principe	Yes		



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About ICROA:

ICROA is a non-profit organisation made up of the leading carbon reduction and offset providers in the voluntary carbon market. It is housed within the International Emissions Trading Association (IETA). ICROA's primary aim is to deliver quality assurance in carbon management and offsetting through our members' independently verified adherence to the ICROA Code of Best Practice. This ensures credibility and quality for corporates using voluntary carbon offsets to reduce their greenhouse gas emissions and meet their carbon targets.

At a time when governments, businesses and organisations all over the world are looking for immediate and actionable solutions to keep the global temperature rise to below 2°C, ICROA plays a vital role in advocating for the use of offsetting and carbon finance to mitigate climate change. Being comprised of the leading companies in the voluntary carbon market, we provide a unified voice in these critical policy and market discussions.

Further details can be found at: www.icroa.org