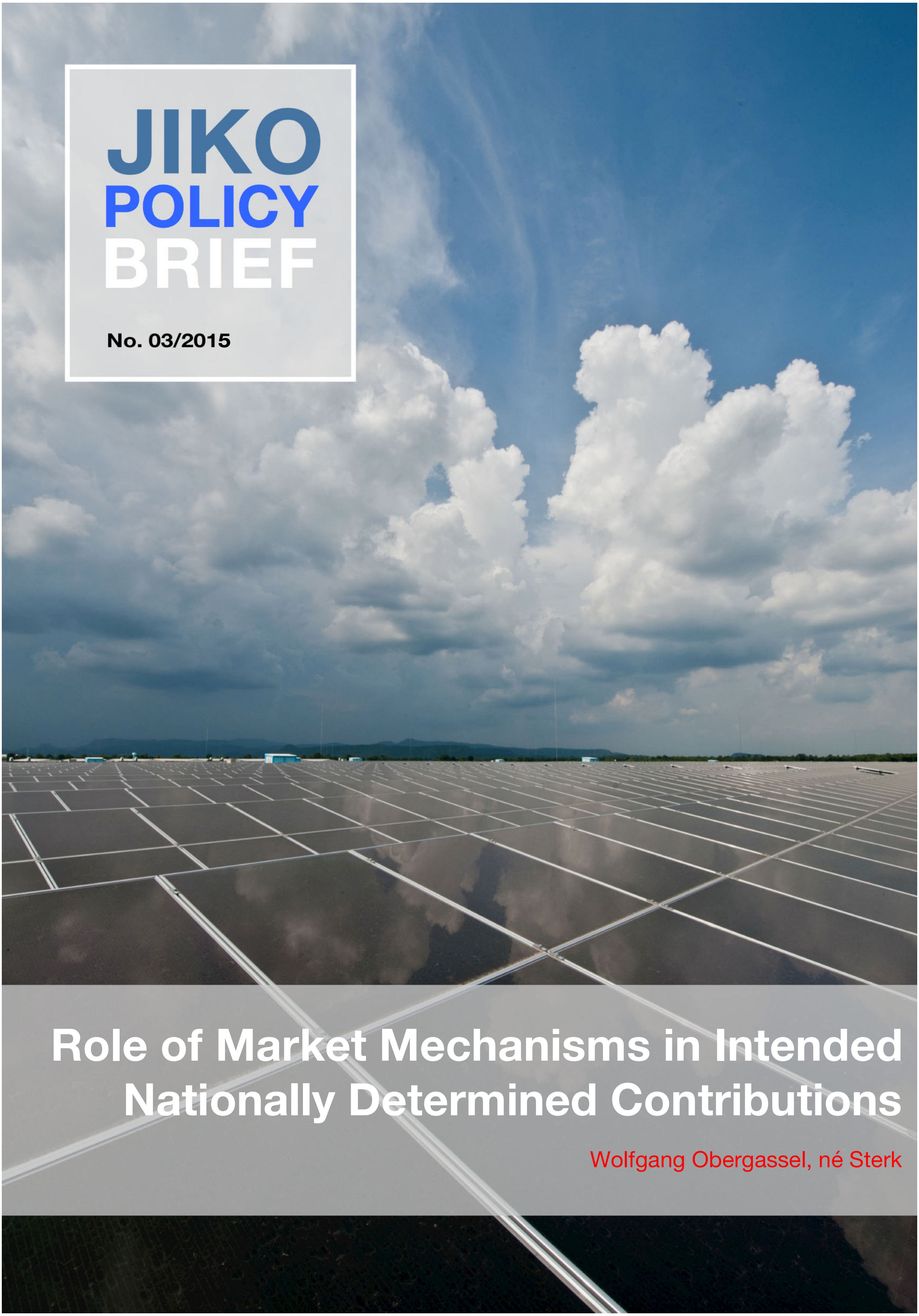

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Role of Market Mechanisms in Intended Nationally Determined Contributions

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for Climate, Environment
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Summary

Market mechanisms – the Clean Development Mechanism (CDM), Joint Implementation (JI) and Art. 17 emission trading – have been a central feature of the Kyoto Protocol. The shape of the new agreement is emerging only slowly, including the role market mechanisms will play.

To gauge the potential scope of market mechanisms in the Paris agreement, this paper surveys the intended nationally determined contributions (INDCs) to the new agreement which countries have so far submitted.

So far, twenty-one Parties have submitted their INDCs: Andorra, Canada, China, the European Union, Gabon, Iceland, Japan, Kenya, Liechtenstein, Marshall Islands, Mexico, New Zealand, Norway, Russia, Serbia, Singapore, South Korea, Switzerland and the USA. Twelve – Canada, Ethiopia, Japan, Kenya, Liechtenstein, Mexico, Morocco, New Zealand Norway, Singapore, South Korea, and Switzerland – are considering to use international market mechanisms. The other nine Parties either do not discuss the issue or explicitly do not envisage use of international market mechanisms.

Of the twelve countries that may use international mechanisms, six discuss issues of environmental integrity and double counting: Canada, Ethiopia, New Zealand, Norway, South Korea and Switzerland. All six proclaim high standards.

Seven Parties envisage use of domestic market instruments, including four that do not intend to use international mechanism: China, the EU, Gabon and Iceland. The other countries are Liechtenstein, Norway and South Korea.

The lack of emphasis on international markets in the EU's INDC is somewhat odd, given its strong engagement in the discussions on the reform of existing and the development of new mechanisms. The US silence on markets is similarly somewhat surprising, given that various US states and Canadian provinces are already engaging in cross-border emission trading.

This paper will be updated as further INDCs become available.

1 Introduction

Market mechanisms – the Clean Development Mechanism (CDM), Joint Implementation (JI) and Art. 17 emission trading – have been a central feature of the Kyoto Protocol. The Parties to the United Nations Framework Convention on Climate Change (UNFCCC) intend to adopt a new comprehensive climate agreement at this year's Conference of the Parties (COP) in Paris. The shape of the new agreement is emerging only slowly, including the role market mechanisms will play.

To gauge the potential scope of market mechanisms in the Paris agreement, this paper surveys the intended nationally determined contributions (INDCs) to the new agreement which countries have so far submitted. So far, twenty-one Parties have submitted their INDCs: Andorra, Canada, China, the European Union, Gabon, Iceland, Japan, Kenya, Liechtenstein, Marshall Islands, Mexico, New Zealand, Norway, Russia, Serbia, Singapore, South Korea, Switzerland and the USA. [1] In detail, the paper looks at five questions for each INDC:

Does the INDC make any mention of market mechanisms? In the negotiations, some Parties have been strongly in favour of market mechanisms while others have been strongly imposed.

Does the Party plan to use market mechanisms to achieve its contribution to the Paris agreement? The answer to this question will allow to gauge the potential demand for units from market mechanisms under the new agreement. In the Kyoto Protocol, various Parties were in favour of market mechanisms but did not themselves use them for compliance with their targets.

If a Party intends to use market mechanisms, does the INDC specify which mechanisms or types of units the country intends to use? In addition to the Kyoto mechanisms, Parties are discussion to establish a new market-based mechanism (NMM) under the Convention. Furthermore, several Parties are in the process to develop bilateral mechanisms or to link domestic emission trading systems (ETS), and the UNFCCC is discussing whether and how such nationally-driven mechanisms could be governed under a UNFCCC Framework for Various Approaches (FVA).

Does the Party quantify the extent to which it intends to use market mechanisms? Under the Kyoto Protocol, use of mechanisms has been supposed to be supplemental to domestic action, though this principle has never been quantified.

Does the Party specify how the use of mechanisms will ensure environmental integrity and avoid double counting? The emergence of nationally-driven mechanisms without UNFCCC oversight has given rise to concerns about their environmental integrity. Furthermore, a proliferation of mechanisms may lead to double counting of emission reductions. Finally, market mechanisms will to a large extent operate within the boundaries of countries' contributions. If not properly accounted for, emission reductions could be claimed by the host countries and by the unit buyers.

[1] Submitted INDCs are available online at http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx

2 Summary of Submissions

2.1 Andorra

Andorra intends to reduce its emissions by 37% below business as usual levels by 2030. Andorra envisages no contribution from international credits.

2.2 Canada

Canada intends to reduce its emissions by 30% below 2005 levels by 2030. Canada stipulates that it may use international mechanisms, "subject to robust systems that deliver real and verified emissions reductions." Canada does not specify which mechanisms or types of units it intends to use, nor the extent to which it intends to use market mechanisms, nor how the use of mechanisms will ensure environmental integrity and avoid double counting.

2.3 China

China aims to achieve a peak of GHG emissions around 2030 and to make best efforts to peak earlier, to decrease emission intensity per GDP by 60% to 65% compared to 2050 levels, to increase the share of non-fossil fuels in primary energy consumption to around 20% and to increase forest stock volume by around 4.5 million cubic meters. The submission highlights China's domestic emission trading market but makes no mention of international mechanisms.

2.4 Ethiopia

Ethiopia aims to limit its net GHG emissions in 2030 to 145 Mt CO_2-eq. or lower, a 64% reduction from projected BAU emissions. Ethiopia intends to sell carbon credits and stipulates that it supports the development of effective accounting rules under the UNFCCC to guarantee the environmental integrity of market mechanisms. The INDC does not make any mention of which mechanisms Ethiopia intends to use.

2.5 European Union

The EU intends to reduce its emissions by at least 40% below 1990 levels by 2030. The EU member states will fulfil this target jointly. The EU envisages no contribution from international credits but the EU ETS will remain a main plank of target achievement.

2.6 Gabon

Gabon intends to reduce its emissions 50% below business as usual (BAU) levels by 2025. Gabon envisages no purchase of international carbon credits but stipulates that it intends to establish a domestic market system. The INDC does not provide further details but the systems seems to relate to non-climate issues: activities have to do a sustainable development assessment and compensate for unavoidable negative impacts.

2.7 Iceland

Iceland aims to be part of the collective delivery of the EU to reduce emissions by 40% below 1990 levels by 2030. Iceland intends to continue to participate in the EU ETS.

2.8 Japan

Japan has announced to reduce emissions 26% below 2013 levels by 2030, equal to 25.4% below 2005 levels. Japan uses its fiscal year (April to March) instead of calender years. Japan elaborates on its Joint Crediting Mechanism (JCM) and “other international contributions”. Japan expects that the JCM will achieve emission reductions of 50-100 Mt CO_2 by 2030 and that emission reductions through diffusion of Japanese technology will be at least 1 billion t CO_2. The JCM is not included in the calculation of the target but JCM reductions will be counted as Japanese contribution. The submission does not discuss issues of environmental integrity.

2.9 Kenya

Kenya aims to reduce emissions 30% below BAU levels by 2030, subject to the provision of support. Kenya stipulates that it does not rule out the use of international mechanisms in line with agreed accounting rules, but does not provide further details.

2.10 Liechtenstein

Liechtenstein intends to reduce its emissions by 40% below 1990 levels by 2030. Liechtenstein’s INDC is based on the assumption that it will be able to achieve emission reductions abread and count these towards its target. The country reserves the right to revisit its commitment if this is not possible. Nonetheless, the primary focus is to lie on domestic reductions. Liechtenstein does not specify which mechanisms or types of units it intends to use, nor how the use of mechanisms will ensure environmental integrity and avoid double counting.

2.11 Marshall Islands

The Marshall Islands have committed to reduce emissions 32% below 2010 levels by 2025 without conditions and additionally announced an indicative target of 45% below 2010 levels by 2030. The country does not intend to use market mechanisms to meet its target.

2.12 Mexico

Mexico has announced an unconditial target to reduce emissions 25% below BAU levels by 2030 and a conditional target of 40% below BAU, “subject to a global agreement addressing important topics including international carbon price, carbon border adjustments, technical cooperation, access to low-cost financial resources and technology transfer, all at a scale commensurate to the challenge of global climate change”.

Mexico also notes that, “In order to achieve rapid and cost efficient mitigation, robust global market based mechanism will be essential.” Mexico´s intends to meet its unconditional target without use of such mechanisms, while achieving the conditional target “will require fully functional bilateral, regional and international market mechanisms”.

Mexico does not specify further which mechanisms or types of units it intends to use and to what extent, nor how the use of mechanisms will ensure environmental integrity and avoid double counting.

2.13 Morocco

Morocco has pledged an unconditional emission reduction of 13 below projected BAU by 2030 and a further 19% subject to the provision of support. Morocco supports the establisment of international market mechanisms and may use such mechanisms to achieve its conditional and/or unconditional target. Morocco does not provide further details on the use of mechanims.

2.14 New Zealand

New Zealand commits to reducing emissions 30% below 2005 levels by 2030 (11% below 1990 levels), subject to confirmation of accounting approaches for the land sector and acess to carbon markets. New Zealand envisages use of "a wide variety of units" that meet "reasonable standards and guidelines" ensuring environmental integrity, prevention of double-claiming/double-counting, and transparency in accounting. New Zealand refers to its domestic ETS as its "primary mechanism" to meet international commitments.

2.15 Norway

Norway aims to reduce its emissions by at least 40% below 1990 levels by 2030. Norway intends to meet its target through collective delivery with the EU with full access to EU-internal flexibilities. Norway notes that the EU ETS ensures that no double counting occurs and that an agreement with the EU on the non-ETS sectors will similarly ensure that no double counting occurs. In this situation, there would be no use of international market mechanisms but Norway nonetheless supports inclusion of market mechanisms in the 2015 agreement, and the opportunity to continue using units accruing from the CDM and JI.

If joint fulfillment with the EU is not possible, Norway will use UNFCCC market mechanisms. Norway stipulates that "strict criteria will be applied to ensure that such credits represent real and verifiable emission reductions and that double counting is avoided." In addition, Norway will seek an agreement on accounting for Norway's participation in the EU ETS.

Norway notes that it will consider adopting a target of more than 40% with use of UNFCCC mechanisms "if it can contribute to a global and ambitious climate agreement in Paris".

2.16 Russia

Russia intends to reduce its emissions by 70-75% below 1990 levels by 2030, depending on the outcome of the negotiating process and INDCs of other major emitters. In addition, the target level is "subject to the maximum possible account of absorbing capacity of forests". The submission makes no mention of markets.

2.17 Serbia

Serbia intends to reduce its emissions 9.8% below 1990 levels by 2030. The INDC makes no mention of markets.

2.18 Singapore

Singapore intends to reduce its emission intensity 36% below 2005 levels by 2030 and aims to achieve and emissions peak around 2030. Singapore indicates that it intends to achieve these objectives through domestic efforts but will continue to study the potential of international market mechanisms. The INDC does not provide further detail.

2.19 South Korea

South Korea intends to reduce its emissions by 37% below business as usual levels by 2030. South Korea stipulates that it will use carbon credits from international mechanisms in accordance with relevant rules and standards. The INDC does not discuss which mechanisms the country intends to use, to what extent and how to ensure environmental integrity.

According to news reports, domestic planning envisages that a reduction of 25.7% is to be achieved domestically while 11.3% are to be achieved using the international carbon market.[2] The INDC submission puts 2030 BAU emissions at 850.6 Mt CO_2-eq., a reduction by 11.3% would therefore equal purchases of carbon credits of nearly 100 Mt CO_2-eq.

2.20 Switzerland

Switzerland intends to reduce its emissions by 35% below 1990 levels by 2025 and 50% by 2030. Switzerland stipulates that it will achieve its targets mainly domestically and will partly use credits from international mechanisms "that deliver real, permanent, additional and verified mitigation outcomes and meet high environmental standards". Switzerland will apply quality criteria which are at least in line with those of Switzerland's current national legislation. Switzerland intends to use the CDM and, as appropriate, the NMM under the Convention and activities under the FVA. Regarding double counting, Switzerland assumes that only the purchasing country will account for the emission reductions covered by the credits.

2.21 USA

The USA aims to reduce its emissions by 26-28% below 2005 levels by 2025. The USA does not intend to use international market mechanisms.

[2] South Korea vows to use international carbon market to meet steeper climate target | Carbon Pulse http://carbon-pulse.com/korea-sets-37-below-bau-carbon-target-by-2030/, accessed 1 July 2015.

3 Discussion

Of the twenty-one Parties that have so far submitted INDCs, twelve – Canada, Ethiopia, Japan, Kenya, Liechtenstein, Mexico, Morocco, New Zealand, Norway, Singapore, South Korea, and Switzerland – are considering to use international market mechanisms. The other nine Parties either do not discuss the issue or explicitly do not envisage use of international market mechanisms. Figure 1 and Table 1 and the following pages provide an overview of the submissions.

Canada stipulates that it may use international mechanisms. Japan expects that its Joint Crediting Mechanism will achieve reductions of 50-100 Mt CO_2 by 2030. These are not included in the calculation of Japan's pledge but will be counted as Japanese contribution. Kenya stipulates that it does not rule out the use of international mechanisms but does not provide further details. Mexico envisages an unconditional and a more ambitious conditional target. While the unconditional target would be met without use of market mechanisms, part of the conditions for adopting the more ambitious target is access to international market mechanisms. New Zealand requires "unrestricted access" to market mechanisms as one of the conditions attached to its target and intends to use a "wide variety" of units. Similar to Mexico, Norway stipulates that it may adopt a more ambitious target than it has currently submitted and that this would include use of international mechanisms, but it does not specify what the more ambitious target would be. Morocco also pledges two target levels and may use market mechanisms for both. Liechtenstein assumes that it will be able to count reductions in other countries towards its target and reserves the right to revisit its contribution if this is not possible. Singapore currently intends to achieve its mitigation objectives domestically but will consider to study the use of international market mechanisms. South Korea stipulates that it wants to use international mechanisms but specifies no further details. According to news reports, it intends to cover about 1/3 of its reduction equallying nearly 100 Mt CO_2-eq. with credits. Switzerland also wants to use market mechanisms in any case and is the only country that specifies which mechanisms it intends to use: the CDM, the NMM and the FVA. Ethiopia intends to use market mechanisms not as buyer but as seller.

Of the twelve countries that may use international mechanisms, six discuss issues of environmental integrity and double counting: Canada, Ethiopia, New Zealand, Norway, South Korea and Switzerland. All six proclaim high standards. Switzerland in addition assumes that only the purchasing country will account for the emission reductions covered by the credits.

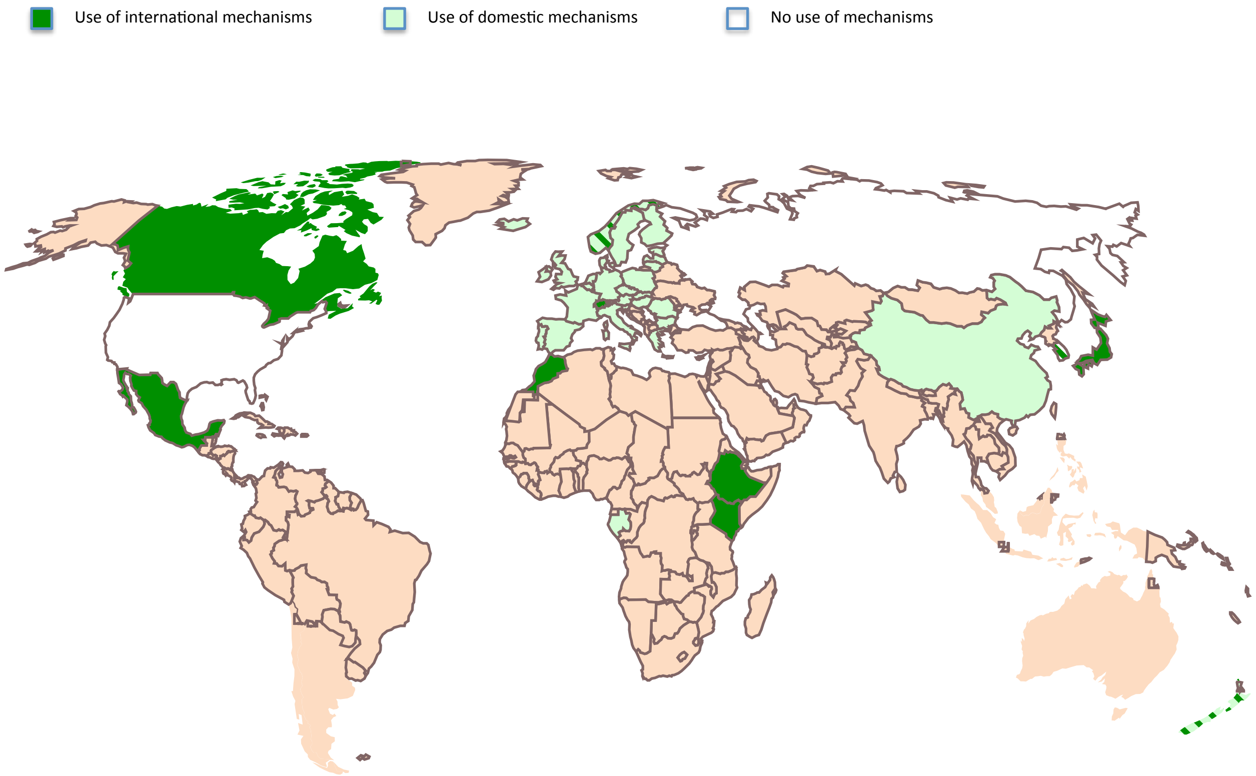
Eight Parties envisage use of domestic market instruments, including four that do not intend to use international mechanism: China, the EU, Gabon and Iceland. The other countries are Liechtenstein, New Zealand, Norway and South Korea. One may note that Switzerland has a domestic system but does not mention it in its INDC.

The lack of emphasis on international markets in the INDCs of the EU is somewhat odd, given its strong engagement in the discussions on the reform of existing and the development of new mechanisms. In particular the EU has been the main driver of establishing the NMM and it has also advocated for the inclusion of market mechanisms in the Paris agreement, but as its INDCs currently stands, it would not provide demand for such mechanisms in the post-2020 period. The same applies to Norway for its 40% target, but it stipulates its openness to adopting a stronger target with use of international mechanisms.

The US silence on markets is similarly somewhat surprising, given that various US states and Canadian provinces are already engaging in cross-border emission trading. To have clear accounting, these transfers should be accounted for when assessing the achievement of contributions under the Paris agreement. The US had in the past acknowledged this necessity in discussions on the FVA.

This paper will be updated as further INDCs become available.

Figure 1: Mentions of Mechanisms in INDCs



World map by www.freeworldmaps.net

Table 1: INDCs and Mention of Market Mechanisms

Country	Any Mention of Market Mechanisms?	Use of International Market Mechanisms Intended?	Mechanisms to be used	Limit on use of markets	Integrity and Double Counting	Use of Domestic Markets?
Andorra	Yes	No	N.a.	N.a.	N.a.	No
Canada	Yes	Yes	Not specified	Not specified	Use of mechanisms is “subject to robust systems that deliver real and verified emissions reductions”	No
China	Yes	No	N.a.	N.a.	N.a.	Yes, domestic ETS
Ethiopia	Yes	Yes, as seller	Not specified	N.a.	Supports “the development of effective accounting rules”	No
EU	Yes	No	N.a.	N.a.	N.a.	Yes
Gabon	Yes	No	N.a.	N.a.	N.a.	Yes, domestic SD offsets
Iceland	Yes	No	N.a.	N.a.	N.a.	Yes, EU ETS
Japan	Yes	Yes	JCM	Expects 50-100 Mt	Not specified	No
Kenya	Yes	Maybe	Not specified	Not specified	Not specified	No

Country	Any Mention of Market Mechanisms?	Use of International Market Mechanisms Intended?	Mechanisms to be used	Limit on use of markets	Integrity and Double Counting	Use of Domestic Markets?
Liechtenstein	Yes	Yes	Not specified	"Primary focus on domestic"	Not specified	Yes, EU ETS
Marshall Islands	Yes	No	N.a.	N.a.	N.a.	N.a.
Mexico	Yes	Yes, for conditional target, "will require fully functional bilateral, regional and international market mechanisms"	Not specified	Not specified	Not specified	No
Morocco	Yes	Yes, may be used for conditional and/or unconditional target	Not specified	Not specified	Not specified	No
New Zealand	Yes	Yes	"wide variety of units"	Requires unrestricted access	Standards that ensure environmental integrity, prevention of double-claiming/double-counting, and transparency in accounting	Yes, NZ ETS

Country	Any Mention of Market Mechanisms?	Use of International Market Mechanisms Intended?	Mechanisms to be used	Limit on use of markets	Integrity and Double Counting	Use of Domestic Markets?
Norway	Yes	Either joint fulfillment with EU with full access to EU flexibilities and no use of UNFCCC mechanisms, or use of UNFCCC mechanisms; possible target beyond 40% with use of UNFCCC mechanisms	Full use of EU flexibilities or use of UNFCCC mechanisms	Not specified	EU ETS ensures that no double counting, will seek agreement on non-ETS sectors If individual, will apply strict criteria	Yes, EU ETS
Russia	No	N.a.	N.a.	N.a.	N.a.	No
Serbia	No	N.a.	N.a.	N.a.	N.a.	No
Singapore	Yes	Maybe	Not specified	Not specified	Not specified	No
South Korea	Yes	Yes	Not specified	Not specified, reports claim objective to purchause 11.3% of BAU emissions in 2030	Use is to be "in accordance with relevant rules and standards"	Yes, domestic ETS

Country	Any Mention of Market Mechanisms?	Use of International Market Mechanisms Intended?	Mechanisms to be used	Limit on use of markets	Integrity and Double Counting	Use of Domestic Markets?
Switzerland	Yes	Yes	CDM, NMM and FVA	INDC achievement "mainly domestically"	Quality criteria at least in line with current Swiss legislation Assumes only purchasing Party will account for reductions	No
USA	Yes	No	N.a.	N.a.	N.a.	No

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