



# Facilitating Linkage of Heterogeneous Regional, National, and Sub-National Climate Policies Through a Future International Agreement

Executive Summary

Daniel Bodansky  
Seth Hoedl  
Gilbert Metcalf  
Robert Stavins

September 2014

**Harvard Project on Climate Agreements**

*With the support of—and in collaboration with—*

The International Emissions Trading Association



# Facilitating Linkage of Heterogeneous Regional, National, and Sub-National Climate Policies through a Future International Agreement

Daniel Bodansky, Seth Hoedl, Gilbert Metcalf, Robert Stavins<sup>1</sup>

## Executive Summary<sup>2</sup>

September 10, 2014

In the Durban Platform for Enhanced Action, adopted by the Seventeenth Conference of the Parties (COP-17) to the United Nations Framework Convention on Climate Change (UNFCCC) in December, 2011, governments agreed to “develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties,”<sup>3</sup> for adoption at COP-21 in December, 2015, in Paris. The new agreement would become effective from 2020.

Although the negotiations are still at a relatively early stage, it appears likely that the 2015 agreement will reflect a hybrid climate-policy architecture—one that combines top-down elements, such as for measurement (or monitoring), reporting, and verification (MRV), with bottom-up elements consisting primarily of “nationally determined contributions” (NDCs). In their NDCs, countries would specify their own targets, actions, policies—or some combination of these—to reduce greenhouse-gas emissions. The character and ambition of NDCs will be based upon domestic political feasibility and other factors, and will be subject to some system of international peer review.

Linkages across regional, national, and sub-national jurisdictions can make lower-cost mitigation opportunities available to a larger set of emitters and thus make systems more cost effective in aggregate. In the case of the Paris agreement, the prospect of reduced aggregate cost could yield somewhat more ambitious NDCs, and, during implementation of the agreement, facilitate compliance, political support, and overall environmental effectiveness. Importantly, with

---

1 Bodansky is Foundation Professor, Sandra Day O'Connor College of Law, Arizona State University. Hoedl is a student at Harvard Law School. Metcalf is Professor of Economics, Tufts University. Stavins is Albert Pratt Professor of Business and Government, Harvard Kennedy School.

2 An underlying discussion paper was prepared with the support of and in collaboration with the International Emissions Trading Association (IETA) and the following IETA members: Chevron, GDF-Suez, Global CCS Institute, Rio Tinto, Shell, and TransCanada. The authors, however, are fully responsible for any errors and all opinions expressed in the paper and its executive summary. The discussion paper will be released in November, 2014, ahead of COP-20 in Lima, Peru.

3 UNFCCC Decision 1/CP.17, p. 2, <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>.

appropriate provisions for linkage, the agreement reached under the Durban Platform can also be consistent with the Convention’s principle of “common but differentiated responsibilities and respective capabilities” (CBDRRC). The hybrid architecture under consideration provides for self-differentiation, since each country’s NDC is—almost by definition—consistent with each country’s own view of its fair share. Linkage and the associated cost-effectiveness of the system facilitates more ambitious contributions from developed countries, realizing CBDRRC even further, in practice.

Linkage can be very straightforward, as with the bilateral recognition of allowances under two cap-and-trade regimes. Linkage can also take place among a heterogeneous set of policy instruments, such as between and among systems of performance standards, carbon taxes, and cap-and-trade systems. As NDCs submitted by various UNFCCC parties may contain any combination of market and non-market policy instruments, **it would be wise to fashion the 2015 Paris agreement such that it would best advance *heterogeneous linkage***. This paper examines how the agreement can best do so.

We first review the economic and political advantages of—and challenges to—linkage generally, and survey existing and proposed climate policy linkages. Among the lessons we draw are that a number of regions, nations, and sub-national jurisdictions have demonstrated their revealed preference for linkage; and well-designed linkage of carbon markets has proven to both advance environmental objectives and reduce costs.

We then identify design elements that merit serious consideration for inclusion in—or exclusion from—the Paris agreement, to facilitate linkage. **First, there are a number of design elements the 2015 agreement should *avoid*, because they would *inhibit linkage***. These include “supplementarity requirements” that require parties to accomplish all (or a large, specified share) of their NDCs within their national borders. Such a provision would drive up costs and reduce the political viability of the Paris Agreement. Other elements to avoid include: competing and conflicting objectives and rules between the UNFCCC and national or regional trading systems; elements that would complicate recognition of national or regional carbon mitigation systems as valid for purposes of meeting international commitments under the Paris Agreement; and including too many objectives that linkage might be required to achieve (for example, adding “sustainable development” as a condition for international recognition of linkages).

What should the 2015 agreement include to facilitate linkage, either directly or by establishing a process for subsequent international negotiations? Potential rules vary along three important dimensions: mandatory versus optional, uniform versus harmonized, and legally-binding under international law (hard rules) versus not-legally-binding (soft rules). After reviewing a number of existing international instruments, both hard and soft, that regulate international trade and finance, including the GATT, the Basel Capital Accords, and the OECD Model Tax Treaty, we draw a number of lessons for international climate negotiators.

**First, effective linkage requires common definitions of key terms, in particular the units that are used for compliance purposes.** This will be particularly important for heterogeneous links, and it is an area where a model rule could be particularly helpful. (See below for more on model rules.)

**Second, registries and tracking are necessary with linked systems, whether the links are among a homogeneous or heterogeneous set of policies.** Indeed, a key role for the top-down part of a hybrid architecture that allows for international linkage of national policy instruments will be the tracking, reporting, and recording of allowance-unit transactions. Internationally-recognized compliance units would make the functioning of an international transaction log more straightforward and reduce the administrative burden of reconciling international registries with national registries. Market oversight and monitoring may increase confidence in the system, although in some cases, national and international institutions may already exist or need only relatively minor additional capacity.

**Third, many elements of linkage can be addressed through default or model rules, from which nations are free to deviate at their discretion.** Rules that may benefit from this approach are typically concerned with the details of linking two or more regulatory systems. For example, when linking cap-and-trade systems, the nations involved must consider rules regarding market coverage, cost containment, banking and borrowing, compliance periods, allocation methods, and treatment of new emitters and emitter closures. Additional rules may be needed for linking of heterogeneous systems. Developing uniform rules for all of these issues is unrealistic. Instead, a degree of harmonization could be achieved through default rules that facilitate linkage by providing a common framework for nations to use when developing their own linkage agreements.

**Fourth, inclusion of detailed linkage rules in the core agreement is not desirable; an agreement with more flexibility would allow rules to evolve on the basis of experience.** Minimum standards to ensure environmental integrity should be elaborated in subsequent COP decisions—for example, establishing the minimum requirements for national MRV, registries, and crediting mechanisms. The function of the core agreement might be confined to articulating general principles regarding linkage, relating to environmental integrity, as well as authorizing the COP to develop more detailed rules. Whatever minimum standards are adopted, international oversight of compliance would be important, to ensure the integrity both of the 2015 agreement and of the linked national systems.

**The most valuable outcome of the Paris Agreement regarding linkage may simply be including an explicit statement that parties may transfer portions of their NDCs to other parties and that these transferred units may be used by the transferees to implement their own NDCs.** From a legal perspective, such a statement would be helpful in providing certainty both to governments and private-market participants that linkage is feasible within the UNFCCC framework, and it is likely a necessary condition for widespread linkage to occur. Such a minimalist approach would allow diverse forms of linkage to arise among what will inevitably be heterogeneous NDCs, thereby advancing both cost-effectiveness and environmental integrity.





---

# Harvard Project on Climate Agreements

---

79 John F. Kennedy Street  
Cambridge, MA 02138, USA

+1 617 496 8054  
climate@harvard.edu  
belfercenter.ksg.harvard.edu/climate



**IETA**

International Emissions Trading Association (IETA)  
Rue de la Loi 235  
Brussels 1040 Belgium

+32 2 230 11 60  
Swartz@ieta.org  
www.ieta.org



This publication was printed on 100% post-consumer-waste recycled paper.



**HARVARD Kennedy School**  
JOHN F. KENNEDY SCHOOL OF GOVERNMENT