

BRIDGES NETWORK

BIORES

Analysis and news on trade and environment

VOLUME 8, ISSUE 2 – MARCH 2014



Navigating the wildlife trade debate

WILDLIFE TRADE

Legal rhino horn: A viable conservation alternative?

BIORES INTERVIEW

John E. Scanlon on wildlife trade

INTELLECTUAL PROPERTY

The challenges of protecting widely shared traditional knowledge

GREEN GROWTH

Solutions for low-carbon economic development



International Centre for Trade
and Sustainable Development

BIORES

VOLUME 8, ISSUE 2 – MARCH 2014

BRIDGES TRADE BIORES

The leading authority on news and analysis emerging from the trade and environment nexus.

PUBLISHED BY

ICTSD

International Centre for Trade and Sustainable Development

Geneva, Switzerland

www.ictsd.org

PUBLISHER

Ricardo Meléndez-Ortiz

EDITOR-IN-CHIEF

Andrew Crosby

MANAGING EDITOR

Kimberley Botwright

ADDITIONAL SUPPORT

Andrew Aziz, Sofia Baliño, Misha Kydd, Milo Madole, Nikita Samaratinga, Francis Vorhies

DESIGN

Flarvet

LAYOUT

Oleg Smerdov

To join the BIORES Editorial Advisory Board, write to us at biores@ictsd.ch

BIORES welcomes all feedback and is happy to consider submissions for publication. Guidelines are available upon request. Please write to biores@ictsd.ch

WILDLIFE TRADE

- 4 **Legal rhino horn: A viable conservation alternative?**

Michael 't Sas-Rolfes

WILDLIFE TRADE

- 6 **Can free trade agreements work for wildlife conservation?**

Nav Dayanand

BIORES INTERVIEW

- 8 **Head of CITES talks on legal and illegal wildlife trade**

INTELLECTUAL PROPERTY

- 10 **Protecting widely shared traditional knowledge**

Manuel Ruiz Muller

GREEN GROWTH

- 14 **Putting the green economy into practice**

María Mendiluce

CLIMATE CHANGE

- 18 **Assessing the value of the EU's renewables and emissions reduction targets**

Sonja Hawkins

SUSTAINABLE DEVELOPMENT

- 20 **UN group co-chairs outline priorities for sustainable development goals**

PREFERENTIAL AGREEMENTS

- 22 **Progress on TPP in Singapore, but no agreement**

- 24 **The newsroom**

- 26 **Publications and resources**

Navigating the wildlife trade debate



On 3 March the international community marked its first ever World Wildlife Day. Established by the UN General Assembly, and facilitated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the occasion was designed to celebrate the planet's extraordinary array of wildlife, as well as to raise awareness around illegal wildlife trade.

"Despite its intrinsic value to sustainable development and human well-being, wildlife is under threat," UN Secretary-General Ban Ki-moon told an audience gathered in Geneva. "The environmental, economic, and social consequences of wildlife crime are profound. Of particular concern are the implications of illicit trafficking for peace and security in a number of countries where organised crime, insurgency, and terrorism are often closely linked."

Earlier, in mid-February, leaders from 46 countries pledged to scale-up cooperation to combat illicit wildlife commerce. This follows a series of statements over the past few months and years in other international fora, such as the UN Security Council, the European Parliament, the G8, as well as national and regional initiatives.

Wildlife commerce – legal and prohibited – sits at the nexus of trade, development, and the environment. Indeed, a key negative impact of wildlife trafficking is that it unsustainably strips countries of vital natural resource assets. This extends well beyond terrestrial mega-fauna such as rhinos and elephants to include key trade industries such as fish and timber.

Adopting a multifaceted approach that includes demand reduction, law enforcement, as well as sustainable use, is vital to tackling various illegal wildlife trade challenges. But establishing specific policy responses will be a complex, nuanced exercise, necessarily dependent on a host of variables, including the specific wildlife good and trade in question. Also of relevance are the number and nature of jurisdictions involved.

This issue presents two papers offering a glimpse into a few of the many options advocated in the wildlife trade debate. Despite profiling these positions, BioRes does not intend to advocate any specific perspective. First up, independent conservation economist Michael 't Sas-Rolfes focuses on the controversial topic of legalising trade in rhino horn. Under what circumstances could this offer a sustainable conservation alternative? A separate piece by Nav Dayanand of Fauna & Flora International assesses the potential of free trade agreements to work for conservation.

The policy intersection between trade and wildlife is often polarising. International consensus exists, however, as to the damaging impacts of illegal trade. Both global action and continued research will be important to alter the current narrative and inform a future sustainable path.

Have something to say? Be a part of the conversation by following us on [Twitter](#) and [Facebook](#) or [write to us](#) and we may publish your letter in a future issue. We appreciate both your time and your feedback.

WILDLIFE TRADE

Legal rhino horn: A viable conservation alternative?

Michael 't Sas-Rolfes

A variety of factors are likely to affect the conservation and economic implications of a given wildlife trade regime.

Last month saw the UK government host a high-profile conference to discuss the challenge posed by illegal wildlife trade. Forty-six heads of states converged on London, duly agreeing to an official declaration designed to showcase political will to tackle this problem.

For the most part, the declaration focuses on top-down policy approaches, flagging the following as essential actions; “eradicating the market for illegal wildlife products,” “ensuring effective legal frameworks and deterrents,” and strengthening law enforcement.” There is also a section that addresses “sustainable livelihoods and economic development” which, if interpreted generously, might allow for some legal wildlife trade for the benefit of communities. The overall tone of the document, however, could best be characterised as prohibitionist.

The first section on market eradication is significant as the main policy thrust. It calls for measures to eradicate both demand and supply of illegal wildlife products, and encourages governments to destroy existing stockpiles of seized goods such as ivory and rhino horn. The section underscores that governments will “take measures to ensure that the private sector acts responsibly, to source legally any wildlife products used within their sectors,” but does not in any way consider the possibility of any future re-establishment of legal trade in relation to threatened species, either by public or private actors. It appears, therefore, that to raise that option at this time is to swim against the tide of public opinion and policy.

This, however, is exactly what the South African government has proposed to do. Unconvinced that the global rhino horn trade ban is having the desired effect of protecting its own rhinos, and looking back on its previous highly successful rhino conservation track record underpinned by sustainable use principles, it is reassessing the trade ban policy. Scepticism over the long-term efficacy of trade bans extends beyond rhinos – there are many who wonder whether this emergent war on wildlife trade will yield similar results to the international “war on drugs” – a massive drain of public resources with highly questionable achievements.

A complex question

But can legal trade offer a viable alternative to the existing policy thrust, and if so, under what conditions? Unfortunately this is not a simple question, nor is there a simple answer. The issue of wildlife trade policy is highly complex, and potential success is heavily reliant on a range of interdependent variables. In an attempt to better understand these, a group of International Union for the Conservation of Nature (IUCN)-affiliated experts has been working in collaboration with the International Trade Centre (ITC) to review the literature and a wide range of case studies. The study aims to draw out the factors that may determine both the economic implications and conservation achievements – or otherwise – of various wildlife trading regimes.

From the research carried out so far, it turns out that the potential of legal trade to work in favour of conservation varies greatly between species and even specific contexts within a species. Key relevant factors include species biology, available technology for harvesting and management, as well as the nature of current formal and informal institutions. Additional factors include the extent and persistence of demand for products and the

market structure of any legal trading regime. The latter is important both directly for conservation purposes as well as for securing the livelihoods of local people on whom conservation efforts often indirectly depend.

To illustrate the effect of market structure on conservation, consider the example of the two one-off ivory sales permitted by the parties to the Convention on International Trade in Endangered Species (CITES) since the 1989 African elephant trade ban. On both occasions, the structure did not especially favour a good conservation outcome because it created an effective intermediary cartel that negotiated low buying prices from ivory producers and high selling prices to retailers. Low buying prices divert funds from the producers – generally elephant conservation agencies – and high retail selling prices do not discourage illegal competition. A more ideal market structure would minimise the financial value extracted by intermediaries.

Further legal one-off ivory sales seem unlikely to take place in the foreseeable future, leaving open the question of what to do with accumulated stockpiles of both collected (legal) and confiscated (illegal) ivory. CITES does not allow confiscated ivory to be resold, although some economists argue that it would make sense to do this, and then reinvest the funds into elephant conservation.

There is now also a strong lobby to destroy all legal ivory from collected raw stocks through to worked products and antiques. Britain's Prince William is alleged to have suggested destroying the royal antique collection and the US has imposed severe federal restrictions on ownership and movement of antique ivory products in a new commercial ivory ban.

The thinking behind these measures is that they would send out a strong message to the consumer market and discourage any further ivory purchases. This message, however, could be interpreted differently if demand for ivory persists. Ivory could be perceived as an increasingly scarce and precious item, driving up black market prices and the incentive to poach more elephants. Supply restriction measures should follow proof of successful demand reduction, not precede it.

There have been similar calls to destroy legally held stockpiles of rhino horn. Unlike ivory, rhino horn is consumed for purported medicinal purposes, thereby requiring ongoing replenishment. Current prices for the product are already extraordinarily high; there is a risk that a trade ban would further concentrate market power in the hands of criminals, increasing the profitability of illegal trade and dooming wild rhinos to extinction. And given that rhino horn is a relatively fast-growing renewable resource that can be safely and regularly harvested off live animals, the potential for successfully competing with the illegal market is far greater than that for ivory.

The political obstacles to establishing a controlled and certified legal trade in rhino horn are significant and it remains to be seen whether South Africa will gain any traction with this idea. Nonetheless, there is a definite need for further good research into this and other related trade policy issues.

To date the arguments presented both for and against such legal trading regimes have tended to be overly simplistic and polemic in nature. Arguments in favour of legal trade are not always fully formed or well understood. Arguments against it rely on some dubious propositions. Legal wildlife trade can only work for conservation under some very specific and clear conditions. Our challenge is to ascertain to what extent those conditions can feasibly be met.



Michael 't Sas-Rolfes
Independent Conservation
Economist

WILDLIFE TRADE

Can free trade agreements work for wildlife conservation?

Nav Dayanand

International trade agreements may have a role to play in enforcing multilateral environment agreements, as well as addressing specific conservation issues.

A critical first step in evaluating whether Free Trade Agreements (FTAs) can address conservation concerns and wildlife trafficking is to understand the scope and nature of FTAs. The following statement from the International Trade Administration, a branch of the US Department of Commerce, outlines their appeal as a favourable format of doing business in the 21st century: "Free Trade Agreements (FTAs) have proved to be one of the best ways to open up foreign markets to U.S. exporters. Trade Agreements reduce barriers to U.S. exports, and protect U.S. interests and enhance the rule of law in the FTA partner country...In 2012, 46 percent of U.S. goods exports went to FTA partner countries." By way of comparison, other countries with similar positions include Australia, Department of Foreign Affairs and Trade, and the European Union, DG Enterprise and Industry.

Countries with many FTAs have also historically ranked among the largest importers of legal and illegally traded wildlife products. According to a 2007 TRAFFIC Report, Australia, Japan, Mexico, Singapore, and United States featured among the top importers of at least one protected animal or plant listed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The role of international trade

In terms of political will at the multilateral trade level, progress has been made towards making trade agreements broadly supportive of ensuring overall environmental safeguards, in theory at least. A significant first step for the WTO came in April 1994, when participating governments signed the Marrakesh Declaration sealing the Uruguay Round of negotiations. The text included commitments to establish a Committee on Trade and Environment (CTE) at the global trade body. The ministers also signed a Decision on Trade and Environment which states that "there should not be, nor need be, any policy contradiction between upholding and safeguarding an open, non-discriminatory and equitable multilateral trading system on the one hand, and acting for the protection of the environment, and the promotion of sustainable development on the other."

But, broadly speaking, international trade may not always be conducive to the protection of wildlife. Interestingly, in 2012 a study found that 30 percent of global species threats could be attributed to international trade, in part due to global value chains accelerating habitat degradation. To attain this figure the authors linked 25,000 animal species threat records from the International Union for the Conservation of Nature (IUCN) Red List to more than 15,000 commodities produced in 187 countries, and also evaluated more than five billion supply chains in terms of their biodiversity impacts.

Trade agreements to address illegal logging

The inclusion of certain provisions in bilateral or regional free trade agreements may help to address conservation challenges posed by fragile – and illegal – resource commerce. The US-Peru Trade Promotion Agreement (PTPA), for example, concluded in 2006 included a strong environmental chapter with a dedicated Forest Annex aimed at strengthening forest sector governance, combating illegal trade in timber and wildlife products, as well as sustainably managing forest resources. This important step was also bolstered in 2008

MEAs in US trade pacts since 2007:

1. Convention on International Trade in Endangered Species (CITES)
2. Montreal Protocol on Ozone Depleting Substances
3. International Convention for the Prevention of Pollution Ships (MARPOL)
4. Ramsar Convention on Wetlands
5. International Whaling Convention (IWC)
6. Convention on Conservation of Antarctic Marine Living Resources (CCAMLR)
7. Inter-American Tropical Tuna Convention (IATTC)

by the passage of an amendment to the US Lacey Act, which banned the trade of illegally harvested timber in the US.

The move appears to be slowly yielding results for the conservation sector – although not without continuing challenges. Legal exports of big-leaf mahogany and Spanish cedar from Peru to the United States have significantly declined in recent years. In preparation for the entry-into-force of the PTPA, Peru adopted administrative procedures for the management and issuance of export permits for CITES timber species, as well as established an independent forestry oversight body. Based on CITES export permits received by the US Fish and Wildlife Service, imports of big-leaf mahogany from Peru in 2011, 2012, and the period between 1 January 2013-15 November 2013, totalled 837 cubic meters, 100 cubic meters, and 50.8 cubic meters respectively, indicating a decline of 94 percent over this period. For its part, the Spanish cedar, a CITES listed species and classified as Vulnerable on the International Union for the Conservation of Nature (IUCN) Red List, has faced exploitation on a large scale. Again based on CITES export permits, US imports of Spanish cedar from Peru totalled 127 cubic meters in 2011 and there were no imports of Spanish cedar in 2012 or 2013 (as of 15 November 2013).

Enforceable multilateral environment agreements

The United States is currently in the process of negotiating a major FTA – known as the Trans-Pacific Partnership (TPP) – with 11 Asia-Pacific countries. In 2007, a landmark US agreement involving a bipartisan Congress and the White House agreed to incorporate a specific list of multilateral environmental agreements (MEAs) into future FTAs, including CITES. Accordingly, among the 29 TPP chapters under negotiation, a dedicated section exists for the environment. Early in January, the United States Trade Representative (USTR) confirmed that, “environmental stewardship is a core American value, and we will insist on a robust, fully enforceable environment chapter in the TPP or we will not come to agreement.” Certain key tenets of the TPP chapter as released by USTR’s earlier green paper leads observers following the process to believe that the US is calling for core environment and conservation challenges to be addressed through the same dispute settlement provisions as commercial chapters that are binding on all parties, which would also follow instructions in the 2007 bipartisan agreement.

But Japan’s joining of the TPP talks in July 2013, following its opposition a few months prior at the CITES COP16 to the listing of the oceanic whitetip shark under CITES Appendix II – which prompts permits to ensure exports are sustainable and legal – drew concern among some in the conservation community about the reduced potential for the trade agreement to help regulate shark fisheries. And when in the new year anti-government secrecy organisation WikiLeaks revealed a November 2013 draft of the TPP environment text, many international conservation organisations in the US suggested it offered sobering news in relation to all 11 of the US negotiating partners’ positions with regards to a strong, enforceable environment chapter.

So can the TPP offer hope for wildlife? While negotiations continue, the reality appears to be that the US faces an uphill battle in pushing for a binding environment chapter with wildlife safeguards subject to dispute resolution similar to other business chapters of the agreement. Besides underlining international MEAs, which among other topics include mechanisms for prohibiting the trade in endangered fauna and flora, FTA environment chapters – if negotiated properly – can also offer specific protections for trafficked or threatened wildlife, such as unlawfully taken flora or vulnerable fisheries. But like all battles, achieving the desired outcome will require a hawkish eye for detail and persistence.

This paper is adapted from a presentation by Mr. Dayanand at the Symposium on International Wildlife Trafficking held in London, 11-12 February 2014. FFI has no official position on free trade agreements.



Nav Dayanand
 Managing Director of Fauna & Flora International (FFI) in the United States

BIORES INTERVIEW

Head of CITES talks on legal and illegal wildlife trade



John E. Scanlon
Secretary-General,
Convention on
International Trade in
Endangered Species of
Wild Fauna and Flora
(CITES)

Monday 3 March marked the international community's first ever day dedicated to wildlife, as set by the UN General Assembly this past December. The Assembly requested the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Secretariat, together with relevant organisations in the UN system, facilitate the new event. The occasion also represented the 41st anniversary of the adoption of the CITES treaty. This interview with the CITES Secretary-General, John E. Scanlon, was conducted during the day's celebrations at the UN Palais des Nations in Geneva, Switzerland.

Congratulations on running the international community's inaugural World Wildlife Day. What do you hope this event will achieve?

[John Scanlon] This is the first time we've seen a day dedicated to wildlife in the United Nations calendar. There's no specific theme for this year, but we thought the whole event would be useful for three purposes.

The first is to celebrate the natural beauty of wildlife, which is what the Wild and Precious exhibit being opened at the Palais today is all about.

The second is to highlight the many benefits that people derive from wildlife – for example, how many million tourists every year interact with wild plants and animals, from snorkelling with corals, to watching mountain gorillas in the wild, to enjoying a safari. Some plants and animals are also commercially traded, specifically those not yet threatened with extinction. If they are traded in a well-regulated way, it benefits the local community. Examples here would include trade in python skins, in alligator skins, in the meat of the Queen conch, or in the wool of the vicuña. This kind of trade is sustainable, it helps people to derive a livelihood, but in a way that doesn't threaten the survival of the species – so it's a nice mix.

Thirdly, we also want World Wildlife Day to draw global attention to the immediate threats posed by the illegal wildlife trade. Poaching and smuggling has got to extraordinary proportions. Today is good opportunity to draw the world's attention to this global challenge, and to remind everyone that, as citizens and consumers, we all have an impact on wild plants and animals, including through what we buy. Our message is that everyone should do what he or she can to make sure they are helping combat this illegal trade.

The event here today involved the UN Secretary General, the President of the UN General Assembly, the President of the Swiss Confederation, and multiple diplomats, which raises the level of political attention given to such wildlife issues. And it's also useful to have a day in the international calendar where we can pause, reflect, and reconnect, with the planet's wild side.

When talking about conservation approaches, there is often quite a polarised debate around sustainable use. How can we balance the rhetoric of wildlife crime with the fact that most international wildlife trade is legal?

[JS] Our international Convention draws a distinction between species; there are some species that are threatened with extinction, wherein no commercial trade is allowed –

CITES

The Convention entered into force on 1 July 1975 and currently lists over 35,000 species on its databases, protecting these through trade measures, species management plans and enforcement actions.

that's only 3 percent of the species that we regulate. [Editor's note, for more on CITES role, see Scanlon's [presentation](#) at a recent Symposium on International Wildlife Trafficking.] This includes animal populations of the great ape, the tiger, and the elephant. 96 percent of the other species on our lists are not yet in the same critical position, but could be if we don't regulate responsibly. There I think we're seeing great benefits from that well-regulated trade, according to figures on our trade database.

You do, however, also see some illegal trade on this 96 percent. Legal python skin trade is worth around a billion dollars a year, but the black market trade is about the same order, which actually undermines the clean, responsible market and could ultimately destroy it. In these instances, CITES is working closely with partners such as the Swiss government, as well as major fashion houses, to work on better tracing the wildlife product from field to shop.

On the other side, rhino horn, elephant ivory, and tiger parts should not be traded commercially in any circumstances. Here we see the involvement of trans-national criminal gang networks. In such cases you have to hit these operations with the full force of the law, involving the same international cooperation techniques as used with other serious global crimes, such as trafficking in humans, firearms, and narcotics.

What about making a distinction between the different kinds of criminals involved in these illegal trades, for example the head of the criminal network and the poacher in the field?

[JS] There does need to be a distinction; we need to place the most emphasis at the top-end, with the kingpin. Those at the other end are largely being ripped off in every way. They do not receive the large sums made from sales in trafficked goods and they are also, more broadly, depriving their communities of future development prospects. These individuals therefore need to be treated slightly differently, but it's crucial to go after those at the top.

Moving forward, what do you hope to see coming out of the London Declaration made a couple weeks ago?

[JS] The most significant meeting we've had in the last 12 months was the 16th CITES COP, because that's a forum where binding decisions are taken, and governments will be held to account for these. But a lot of those decisions need high-level political buy-in, for example, treating wildlife as a serious crime might mean changing national legislation. What we saw in London is excellent political momentum, but it also went a little bit further in some areas, by focusing on reducing the demand side. The main thing for us, however, is that it has elevated the level at which this discussion is taking place – it's important to get heads of state or senior ministers involved to get a fast and whole-of-government response. We were also pleased with the way they prepared it; they had a very inclusive process.

Over to the consumer side, what kinds of policy actions are needed to bring down demand?

[JS] There are a few things. For example, tomorrow there's going to be a joint initiative of the UN Office on Drugs and Crime, UNESCO, and the UN World Tourism Organisation, which is going to work on targeting the world's billion annual travellers, making sure that they are not participating in illicit goods trades. This goes beyond wildlife trafficking of course, to arms, narcotics, etc. This combined effort will, however, reach out to a large and important group of people. Tourists need to be more fully informed because, a lot of the time, they are not aware of the situation and are unwittingly driving demand. Furthermore, the US\$10 they spend on an illicit good is not the "true price," in terms of the sustainability costs.

We've also seen positive things in China including the recent ivory crush – which sends a signal to the black market that illegally taken ivory is worthless and it also sends a strong message to criminals that are speculating that there will be no commercial return on their investment. Finally, the event was broadcast live across China, which is important as it also reached the consumer at the local level.

INTELLECTUAL PROPERTY

Protecting widely shared traditional knowledge

Manuel Ruiz Muller

The next meeting of the WIPO IGC in March will examine draft articles for the protection of traditional knowledge. Including in these discussions the type of knowledge that is widely shared, often across borders, will be important to ensure indigenous peoples benefit from its use by society at large.

A growing body of evidence demonstrates that transboundary traditional knowledge (TK) is the prevailing rule, rather than the exception, in the context of indigenous peoples' cultures and livelihoods. And yet only recently has the issue of protecting widely shared TK been placed on the international agenda. The 2010 Nagoya Protocol on Access and Benefit Sharing (ABS) of the Convention on Biological Diversity (CBD) has now addressed the topic, if somewhat timidly.

Since 2009, the World Intellectual Property Organization (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) has accelerated its work to develop an international instrument(s) to protect genetic resources (GRs), TK, and traditional cultural expression, and there is now a draft, albeit very bracketed, text – *The Protection of Traditional Knowledge: Draft Articles* (23 January 2014). Addressing widely shared TK as part of the IGC discussions will be essential for the eventual establishment of an effective and relevant international intellectual property (IP) protection regime for indigenous peoples.

Traditional knowledge, widely shared

So what exactly is TK and when is it widely shared? Although there is no universally accepted definition of TK, WIPO IGC's current draft articles for TK protection identify it as including the "know-how, skills, innovations, practices, teachings and learning of [indigenous [peoples] and [local communities]]/[or a state or states] that are dynamic and evolving, and that are intergenerational/and that are passed on from generation to generation, and which may subsist in codified, oral or other forms." It further proposes that "[Traditional knowledge may be associated, in particular, with fields such as agricultural, environmental, healthcare and indigenous and traditional medical knowledge, biodiversity, traditional lifestyles and natural resources and genetic resources, and know-how of traditional architecture and construction technologies.]" These definitions followed a 2008 IGC document that elaborated TK in conceptual terms.

Although hard to quantify, there is agreement among experts that much specific TK as it relates to medicinal uses, the application of plants and natural products, conservation techniques for seeds, and knowledge regarding specific characteristics of biodiversity, is in fact shared between indigenous groups. Though certain TK is still secretly guarded by designated leaders in communities – figures such as the shaman, the elder, or the healer – comparable biodiversity and eco-systems imply similar responses among neighbouring communities that may be located across a range of jurisdictions at local, national, and regional levels.

International frameworks to protect traditional knowledge

The WIPO IGC was established in 2001 to look at GRs, TK, and folklore in relation to the IP system. TK had earlier featured as part of the debates around the 1992 Convention on Biological Diversity (CBD), which now expressly recognises the importance of TK in the conservation, management, and the development of biodiversity and its components. The CBD also calls for prior informed consent (PIC), participation of indigenous and local communities, as well as benefit sharing as conditions for the use of TK, but falls just short of specifically demanding its legal protection. The CBD and its discussions on access and benefit sharing eventually led to the Nagoya Protocol almost two decades later. While the latter also does not specifically call for the protection of TK, its general provisions outline

TK protection regional milestones

2000:
African Union adopts Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources.

2001:
Peruvian Congress adopts Law 21 of Panama for the protection of TK and folklore expressions (adopted in 1998) and its regulation, and Law 27811 for the protection of biodiversity-related TK in Peru.

2012:
African Regional Intellectual Property Organization (ARIPO) and the African Intellectual Property Organization (OAPI) adopt the Swakopmund Protocol for the Protection of Traditional Knowledge.

tools that are in practice driven by this underlying objective. For example Articles 7 and 12 provide, inter alia, that access to and use of TK should be subject to the PIC of indigenous peoples and that these communities should participate in the derived benefits.

The technical challenges posed by widely distributed traditional knowledge

The main limitations affecting bilateral, contractual negotiations when TK is shared are threefold. First, how can a contract be negotiated, or PIC obtained, when there is no single, clearly defined right holder? Second even if this were possible, assuming TK is in the public domain or publicly available, is it feasible and economically viable to negotiate an advantageous contract? And finally, what are the effects of economic pressures on benefit potential, when TK is in practice accessible from various sources?

The Nagoya Protocol on ABS is a good starting point to address widely shared and distributed TK protection at the international level. As illustrated in Table 1, Article 10 references “transboundary situations,” suggesting a multilateral funding mechanism that ensures some form of benefit sharing for using such GRs and TK. Article 11.2 leaves it to parties to develop appropriate cooperation and engagement schemes in situations of shared TK, which is rather non-specific in practical policy terms. Some national legal frameworks – such as the Andean Decision 391 and the African Union Model Law – have also acknowledged the issue of shared resources and TK, but have not really overcome key implementation challenges.

It is, nevertheless, quite a paradox that in the context of the Nagoya Protocol and other texts an exceptional measure is suggested for a situation that is in fact the general rule or norm; biodiversity, TK and GRs know no borders and are widely shared among eco-regions – such as the Amazon, the Andes, and Mesoamerica – as well as the peoples that inhabit them.

Table 1: Examples of the treatment of shared or widely disseminated TK in some existing legal instruments

Legal instrument	Provision
Law 27811, for the protection of collective knowledge in Peru (2001)	Article 6: The indigenous representative organization, whose prior informed consent is sought [representative organization are deemed the legitimate TK negotiating body on behalf of communities], must inform the widest possible number of communities holders of the same knowledge that it is entering into negotiations, and take into account their interests.
Decision 391 of the Andean Community on ABS (1996)	First, Final Provision: In the negotiation of the terms of access contracts, in cases where more than one Member States is country of origin of genetic resources or derived products, as well as in regards to access activities, the National Competent Authority will take into account the interests of the other countries sharing these resources ...
Nagoya Protocol on ABS (2010) <i>Global multilateral benefit sharing mechanism</i>	Article 10: Parties shall consider the need for and modalities of a global multilateral benefit-sharing mechanism to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and traditional knowledge associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain prior informed consent. The benefits shared by users of genetic resources and traditional knowledge associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.
Nagoya Protocol on ABS (2010) <i>Transboundary Cooperation</i>	Article 11.2: Where the same traditional knowledge associated with genetic resources is shared by one or more indigenous and local communities in several Parties, those Parties shall endeavour to cooperate, as appropriate, with the involvement of the indigenous and local communities concerned, with a view to implementing the objective of this Protocol.

TK protection international milestones

1992:

Convention on Biological Diversity (CBD) adopted.

2001:

FAO International Treaty on Plant Genetic Resources for Food and Agriculture includes protection as one of the dimensions in the area of farmers' rights.

2001:

World Trade Organization Doha Development Agenda, Article 19 of the Ministerial Declaration provides for an examination of the relationship between the TRIPS Agreement and the CBD.

2001:

WIPO creates the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC).

2007:

United Nations Declaration on the Rights of Indigenous Peoples, Article 31 addresses TK.

2009:

The WIPO General Assembly grants a mandate for IGC to work speedily towards the development of an international instrument(s) to protect GRs, TK and traditional cultural expression.

2010:

The Nagoya Protocol on Access and Benefit Sharing of the CBD, Articles 7, 10, 11, and 12 spotlighting practices related to TK protection.

Scenarios and protection policy options

To define the most effective policy and legal option regarding the protection of shared TK, decisions should account for various scenarios. First, the TK that is maintained confidential among different communities, and yet is simultaneously shared. If TK is restricted to one or just a few closely integrated communities, applying a trade secret-based policy could be one option. The advantage of this approach is that trade secrets are universally recognised and are present in almost all national legislations. One disadvantage is that a certain level of expertise is required to enter into such contractual negotiations, which also entail transaction costs. It should also be recognised *a priori* that this method would lead to the inevitable exclusion of communities or individuals who hold similar TK but are not invited into a given contact.

A second shared TK scenario is when the knowledge has already passed into the public domain. In this particular case TK cannot be strictly protected but three possibilities for the limitation of its use come to mind. Defensive protection measures could be implemented, through a registration system, although this does not ensure monetary compensation. Another option would be to use the copyright derived principle of "domaine public payant." This principle applies to widely shared works, crafts, and arts that have lost copyright protection but for some specific reason are deemed important enough to receive special policy attention obliging a fee payment for their use. A further solution would be to implement biocultural or community protocols, also recognised in the Nagoya Protocol in Article 12. These allow specific communities to elaborate the conditions under which their TK resources may be used. Protocols are not binding on third parties but do provide *ex ante* guidance on what to expect.

One policy option could be considered that would cover widely shared TK, as well as other forms and related challenges. An international compensatory fund offers a practical approach and builds on the suggestion made in Article 10 of the Nagoya Protocol. A precedent for this idea can also be sourced in the FAO International Treaty on Plant Genetic Resources for Food and Agriculture, which created a funding mechanism to ensure that benefits derived from seeds or materials accessed from a multilateral system (MS) for commercial purposes are distributed to farmers in the countries of origin. There is already relatively precise data and information on where indigenous communities are located worldwide – interestingly this overlaps almost perfectly with centres of mega-diversity. For example, hotspot location maps developed by institutions such as Conservation International and the World Conservation Monitoring Centre, also provide an indication of location, and concentration, of communities in relation to biodiversity. The data gives a good idea of the identity of potential TK holders and thus possible beneficiaries of a multilateral TK benefit-sharing scheme.

Rather than impose additional burdens on the private sector or seek additional resources from stretched international agencies, a small, fixed percentage – for example 1-2 percent – of existing taxes on sales of relevant products, could contribute to an international compensatory fund. This figure would, however, require concrete empirical analysis to determine its suitability. Ideally, a binding international agreement would provide the basis for implementing this obligation in order to ensure companies and profit-making institutions commit to it.

Although agreeing to a list of relevant products would be far from simple, there are clear advantages to the fund approach. It offers a *de facto* recognition that access to and use of TK will be compensated. There also would be no need for a negotiation between indigenous communities and specific commercial interests thereby limiting transaction costs. Importantly, indigenous communities are not actually selling their TK, but merely receiving compensation due to a legal recognition of its value. Finally, TK can continue to freely develop, benefiting the broader society.

Recommendations for the ongoing IGC discussions

As in the case of GRs, TK is almost invariably shared – to some extent or degree – and there seems to be no perfectly equitable technical solution. There is therefore a need to

acknowledge the potential for a range of complementary, non-exclusive tools such as defensive protection, “domaine public payant” based schemes, biocultural or community protocols, as well as a compensatory mechanism.

As it stands, the draft text on protection of TK includes a reference in Article 1.3 to TK that is “that is generated, maintained, shared/transmitted in collective context.” However, 1.4 follows “[Protection does not extend to traditional knowledge that is widely known or used outside the community of the beneficiaries as defined in Article 2.1, [for a reasonable period of time], in the public domain, protected by an intellectual property right or the application of principles, rules, skills, know-how, practices, and learning normally and generally well-known.]” Among the policy objectives and alternatives listed, however, the draft text flags the need to “[promote] guarantee the fair and equitable sharing and distribution of monetary and non-monetary benefits arising from the use of traditional knowledge, in consistency with other applicable international regimes,” and Article 10 makes a clear reference to the Nagoya Protocol.

The last meeting of the IGC in early February focused on the related question of GRs protection. Interestingly Article 12 of that revised text – Consolidated Document Relating to Intellectual Property and Genetic Resources (Rev. 2) – recognises instances where the same genetic resource and its derivatives, as well as associated traditional knowledge, are shared. The bracketed wording goes on to include a provision on transboundary cooperation that seems inspired by language used in Article 11.2 of the Nagoya Protocol, namely that parties should “endeavour to cooperate, as appropriate, with the involvement of indigenous [people[s]] and local communities concerned.”

Following the policy solutions outlined above, however, such language alone is not sufficiently ambitious for offering concrete shared TK protection. A permanent financial mechanism that engages commercial actors that directly or indirectly use TK could offer a cost-effective solution to financially compensate indigenous peoples for their intellectual contributions. This alternative should not be seen as replacing other potentially useful national or international approaches, but could be prioritised as a practical multilateral option.

This article has been adapted from a longer information note published by ICTSD: Protecting Shared Traditional Knowledge: Issues, Challenges and Options, ICTSD, October 2013.



Manuel Ruiz Muller
 Lawyer, Peruvian Society for
 Environmental Law (SPDA), Head
 of the International Affairs and
 Biodiversity Programme

GREEN GROWTH

Putting the green economy into practice

María Mendiluce

According to some in the private sector, the recent green goods trade liberalising initiative provides the right kind of momentum towards scaling-up low-carbon solutions necessary to transition towards a green economy. Such solutions should also be taken into account as countries move towards pinning down a global climate agreement.

An important announcement was made at this year's World Economic Forum Davos global gathering, namely that 14 WTO members¹ committed to negotiating a trade liberalising agreement on environmental goods. A gradual liberalisation and market opening in the area of environmental goods would be positive step towards incentivising the transition to low-carbon economic development. Furthermore, the move is particularly important given the ongoing negotiations to achieve an international climate agreement next year in Paris, France.

Indeed, the Davos initiative could be considered as part of a growing international pressure to achieve a meaningful climate agreement. This includes a series of key milestones set at the last UN Framework Convention on Climate Change's (UNFCCC) Conference of the Parties (COP) in Warsaw, Poland. For example, elements of a draft negotiating text are to be delivered by May 2014, a draft negotiating text secured by Lima in December 2014, and information on quantified mitigation contributions given by the Parties by May 2015, as well as a process for the regular submission of developed countries climate finance provisions.

A series of parallel events designed to boost momentum are also lined up over the coming year. As part of its Fifth Assessment Report (AR5), the Intergovernmental Panel on Climate Change (IPCC) will soon release two more chapters, as well as a summary report in October 2014. And this September, UN Secretary-General Ban Ki-moon will gather heads of state along with business, finance, civil society, and local leaders at a special UN climate summit. One stated aim of the event is to catalyse substantial, scalable, and replicable actions that will help the world shift towards a low-carbon economy.

Business has a strong interest in a global climate agreement that would enable the private sector to deliver solutions to climate change as part of a green economy. The World Business Council for Sustainable Development (WBCSD), as a progressive, globally-influential, and cross-sectoral business organisation has an important role to play in delivering these solutions and its Action2020 project is designed as a springboard for addressing climate change.

Solutions to help tackle climate change

Action2020 is a platform for private sector efforts on sustainable development towards the decade's end and beyond. It builds on the results of *Vision 2050*, a wide-reaching report on priorities for business in relation to sustainability challenges. *Vision 2050* sees a sustainable world in 2050 as "nine billion people living well, within the limits of the planet," a definition aligned with UN Environment Programme's Green Economy Initiative, as well as the perspectives of other international groups.² And while *Vision 2050's* takes a long-term perspective, Action2020 is designed to focus on strategic solutions to meet important targets over the next few years – a timeline that resonates with both business and political leaders alike.

After an extensive consultation with scientists on their understanding of the critical environmental and social threats the world is facing, Action2020 outlined nine "Priority Areas." Central to these are a set of "Societal Must-Haves," which are targets we need to meet if our planet's systems are to be put back on a sustainable track in the coming decades. In the case of the Climate Change Priority Area, the Societal Must-Have

states: "With the goal of limiting global temperature rise to 2°C above pre-industrial levels, the world must, by 2020, have energy, industry, agriculture and forestry systems that, simultaneously: meet societal development needs; are undergoing the necessary structural transformation to ensure that cumulative net emissions do not exceed one trillion tonnes of carbon.☉ Peaking global emissions by 2020 keeps this goal in a feasible range; and are becoming resilient to expected changes in climate."

The Climate Change Priority Area has received strong engagement from WBCSD member companies, leading to the development of five business solutions that contribute to one or several of the elements described in the Societal Must-Have: forests as carbon sinks, carbon capture and storage, (CCS), electrifying cities towards zero emissions, low-carbon electrification of remote areas, and climate resilience across interconnected supply chains. A solution around integrating more renewables into the grid is also currently under discussion. In addition to these new projects, WBCSD has long standing programmes that contribute both to meeting development needs and to limiting greenhouse gas (GHG) emissions, including "Energy Efficiency in Buildings" (EEB), the "Sustainable Mobility Project" (SMP), and the "Cement Sustainability Initiative" (CSI).

The targets of each of these solutions are measurable, scalable, replicable, and seek to go beyond business-as-usual. The success, however, of some will depend not only on business but also on enabling factors, such as policies, technology, and finance. Tariff and non-tariff trade barriers are indeed an issue to be tackled if we want to achieve worldwide scalability. In Table 1 we outline three Action2020 solutions that relate to mitigation needs in the energy sector.

Low-carbon investments in developing countries

In trade negotiations, as in the climate change talks, advances are sometimes made more rapidly at the regional level. The announcement in Davos, for example, builds on the Asia-Pacific Economic Cooperation (APEC) group's agreement to liberalise applied tariffs on environmental goods categorised under a list of 54 products. This list features goods related to renewable energy, environmental monitoring analysis and assessment, as well as environmental protection, according to the various subheadings to which the products belong.Ⓔ

Reducing the transaction cost of these technologies is especially important in developing countries, where tariffs are often higher than in developed economies. With the right domestic regulations and policy frameworks in place, developing countries could attract business investment that would trigger job creation and economic development. Furthermore, the International Energy Agency underlines the strong future growth of non-OECD countries' energy demand, hence the importance of providing sustainable business solutions. Adopting green growth strategies in developing countries could provide clear benefits from leapfrogging to new low-carbon technologies to being at the vanguard of energy transformation.

In its report on "Enabling frameworks for technology diffusion" WBCSD member companies agreed on cross-cutting enablers that would strengthen the case for investments in and sales of low-carbon technologies in developing countries. These included, among others, strong signals from governments towards low-carbon growth nationally and internationally, adequate institutional frameworks that provide stable and transparent policies, appropriate absorptive capacity, and incentives to bridge the gap between low-carbon solutions and their commercial viability.

What is clear for business is that open markets, fair trade, and competition rules are a must. Low-carbon investments could further be facilitated by removing non-technological barriers, such as legal requirements that prevent or limit foreign investment, as well as trade tariffs or taxes on imports that slow and diminish access to some low-carbon technology by local business. Ensuring protection of intellectual property rights is also essential for technology development and deployment in any market.

Table 1: Three Action2020 climate change business solutions, barriers, and enablers

	Action2020 business solution	Barriers	Enablers
Carbon capture and storage (CCS)	By 2020, deliver improved understanding of the role of CCS, real change in the recognition of CCS in national and international policy and ideally, a Final Investment Decision (FID) on at least one major for-profit project	<ul style="list-style-type: none"> • Knowledge: Lack of understanding of the critical role of CCS. Prevailing view that it "doesn't work" or "hasn't been tested." Seen as difficult to implement with complex policy requirements. • Risk / Reward: CCS requires absolute belief that a long-term policy framework will be in place as there are no ancillary benefits from a CCS project • Finance: Capital intensive, particularly the early projects where core infrastructure must be included. Once built, it requires ongoing costs to deliver reductions, including an energy penalty. 	<ul style="list-style-type: none"> • Forming Partnerships: Need to build synergy with CCS-focused organisations. • Finding champions: Identify key political figures, high-profile individuals, etc. who will back the need for CCS and identify with it. • Financing: Major funding mechanisms (e.g. Green Climate Fund) need to focus on CCS and build key finance metrics. • Engaging with national and international policymakers: Initially focus on building understanding and creating the desire.
Electrifying cities toward zero emissions	By 2020, 20 Cities have agreed on the agenda to transform their energy systems and related infrastructure to a zero emission pathway through electrification	<ul style="list-style-type: none"> • High technological, institutional, and regulatory complexity: Challenging to address the three elements together (energy demand, supply, and ICT) present a challenge. Lack of understanding on the interdependencies of system elements. • Absence of incentives to optimise and invest: Low-carbon prices and lobbying activities may encourage industry to burn fossil fuels. Investments in energy efficiency also require upfront costs and can have longer pay-off times. • Insufficient infrastructure, premature technology and knowledge • Lack of standardisation of IT systems: Existing ICT solutions prevent compatibility of systems/technologies. Infrastructure needs to be installed, hence substantial investments needed. • Lack of knowledge of technologies and investment amortisation or payback times at city level: Need to transform mobility and buildings may create a risk of stranded assets. 	<ul style="list-style-type: none"> • Policy: Commitment of mayors and city councils • Partnerships: Engage local/regional stakeholders. Awareness, capacity building, education. Support by the broad public • Data and Technology: Availability and maturity of technologies • Partnerships: Foster collaboration across industry and governments. • Finance: Increase transparency about cost/benefits of energy efficient and/or low-carbon technology. Develop financing models that promote innovative technologies and business solutions. • Regulation: Smart use of (local) energy requires regulatory frameworks that suit decentralised energy systems. • Partnerships: Cooperation with other initiatives, incl. WBCSD's EEB, SMP, UII, and Water
Low-carbon electrification of remote locations	By 2020 accelerate remote electrification through the formulation of "solution packages" designed to meet needs ranging from single households to grid-equivalent electricity supply for sizable communities or production locations.	<ul style="list-style-type: none"> • Knowledge of available technology solutions: Solutions for remote electrification are often very specific to the location and economic environment. policymakers often are not aware of the variety of solutions or their applications, leading to slow decision-making or selection of "proven" fossil solutions. • Lack of policy frameworks: Energy policies focus on grid connected energy generation. Electrification in remote areas requires different technical solutions, business models, and players. • Financing/business models to support scale: Often business models for electrification are developed project-by-project, limiting scalability, and broader implementation. • Decision-making process for financial investment 	<ul style="list-style-type: none"> • Regulations: legislation and standards; market deployment support; an integrated systems approach. • Partnership: Including with organisations with existing interests in low-carbon remote electrification. • Awareness, capacity building, education: Sharing of best practices among sector practitioners; Human capacity building. • Data and technology: Development of containerised energy technologies. • Effective business models: Innovative models such as one-handed dealer credit, two-handed end-user credit, fee for service and lease/hire purchase.

The description of the barriers and enablers of business solutions presented in Table 1 will be refined in the coming months as the projects evolve and move towards implementation. In most cases, the development of enabling frameworks and supportive policies will be a fundamental part of their eventual success. For example, CCS is capital intensive, particularly in early projects where core infrastructure must be included, and carries ongoing costs to deliver reductions – including an energy penalty due to the fact that CCS reduces the efficiency of the plant. Investment decisions in CCS therefore require absolute belief that a long-term policy framework will be in place to cover both investment and operational costs.

The reduction of tariffs on environmental products, especially in wind and solar technologies, will be particularly important for the low-carbon electrification of remote areas. The latter could be accelerated by the formulation of “solution packages” designed to meet needs ranging from access to light or charging electronic devices in single households, to grid-equivalent electricity supply for sizable communities or production locations. The reduction of tariffs might provide a competitive advantage to renewable solutions *vis-à-vis* other more carbon intensive forms of electricity production.

Towards a 2020 climate agreement

The Davos announcement has shown that agreements within a smaller common interest group may spur action alongside multilateral negotiations. Similar ongoing efforts within the Clean Energy Ministerial (CEM) or the G2 can provide the impetus for a positive outcome in the climate change negotiations. The private sector is ready to play a leading role in limiting the planet's temperature rise below 2 degree Celsius and will bring innovative low-carbon solutions to the market. In many cases, however, governments will need to create adequate frameworks for investment, including specific regulations tailored to particular technologies and their stage of maturity. Reducing costs at the border for environmental products is good news, especially for the deployment of renewable energies in developing countries and fostering economic growth. Moving forward, participating countries should consider bringing other economies into the trade discussions in order to achieve a more global environmental goods agreement.

More generally, WBCSD members support a post-2020 agreement that addresses climate change according to the urgency and scale demanded by the IPCC AR5 report. The climate agreement should: commit all countries to deliver emissions cuts consistent with limiting global temperature rise to 2 degrees Celsius while respecting their national circumstances; induce actions recognising “bottom-up” as well as “top-down” action, starting now rather than waiting for 2020; and deliver a stable, predictable, simple, and transparent framework that supports innovation and investment, including market signals and coherent, harmonised regulations.

This paper benefited from input by Barbara Black (WBCSD) and Lara Birkes (WBCSD).



Maria Mendiluce
PhD, Director, Climate and Energy at the World Business Council for Sustainable Development (WBCSD)

- ❶ Countries participating in the Joint Statement Regarding Trade in Environmental Goods (24 January 2014) include, Australia; Canada; China; Costa Rica; the European Union; Hong Kong, China; Japan; Korea; New Zealand; Norway; Singapore; Switzerland; Chinese Taipei; and the United States.
- ❷ As part of the Green Economy Initiative, UNEP defines the green economy as “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient, and socially inclusive” (UNEP, 2011). Similarly, the Green Economy Coalition defines it as “a resilient economy that provides a better quality of life for all within the ecological limits of the planet.”
- ❸ Anthropogenic CO2 Emissions from preindustrial levels as outlined in the IPCC Working Group I Fifth Assessment Report. One trillion tonnes carbon = 3.67 trillion tonnes CO₂.
- ❹ Sugathan, Mahesh, (2014), “Davos announcement shakes up trade scene,” Bridges Trade BioRes, Vol. 8 No. 2.

CLIMATE CHANGE

Assessing the value of the EU's renewables and emissions reduction targets

Sonja Hawkins

The debate around policy options to address the impact of the energy sector on climate change has, at times, proved polarising. Governments, experts, and stakeholders alike have weighed in on whether to set both renewables and emissions reductions targets.

In January, the European Commission unveiled its 2030 Climate and Energy Framework, setting out a greenhouse gas (GHG) reduction target of 40 percent against 1990 levels and an EU-wide binding renewable energy target of at least 27 percent. The latter – unlike its 2020 counterpart – will not be translated into binding country-level targets. Renewable energy plays a key role in the transition towards a sustainable, secure, and competitive energy future. At the same time, it provides an opportunity to reduce the EU's energy trade deficit, as well as its exposure to supply disruptions and price volatility. On the one hand, the EU has made some progress in this area; in 2012 the EU's internal market renewable energy share had reached 13 percent. On the other hand, data from the Commission indicates that, for the same year, imports of oil and gas cost the EU over €400 billion – or 3.1 percent of its GDP. Experts agree that a substantial scale-up of renewables is required in order to successfully transition to a new energy paradigm, as part of a green growth model. But many remain divided over the ability of a binding renewables target to foster this evolution.

Renewables target counteracts ETS market dynamics

Critics of a renewables target include strong voices, including top Harvard academic Robert Stavins, clean energy entrepreneur Assaad Wajdi Razzouk, and *The Economist*. In a recent [blog post](#), Stavins explained that a renewable energy target works against the market dynamics of the EU's Emissions Trading Scheme (ETS). A renewables target will lead to additional emissions reductions in the electricity sector and hence generate surplus allowances. Other sectors will buy these allowances and consequently emit more emissions than under a GHG-only approach, thereby offsetting the additional reductions from the electricity sector. Aggregate abatement costs are driven up, since reductions no longer take place where they are most cost-efficient, but rather where the target requires them to occur. The renewables target will decrease the total demand for allowances, but since the supply remains unchanged, allowance prices will be suppressed. This, in turn, reduces and delays investments in climate-friendly technologies. According to Stavins, a complementary renewable energy target will therefore achieve no additional emissions reductions, but increase abatement costs and delay technological change.

In an [article](#) penned in February for UK newspaper *The Independent*, Razzouk claimed that the 2020 framework has already sufficiently supported renewable energy, to the extent that – under a higher carbon price – it could now compete with and beat fossil fuel energy. Using renewables targets for the next decade, he argues, would lead to capacity being diverted to “the wrong place, at the wrong time,” instead of building renewable energy capacity where it provides the highest returns. Put simply, forcing capital towards a solar plant in the UK may not be as productive as an equivalent investment in Spain. Instead, the EU needs to provide a stable long-term framework in which carbon has an increasing price. This, he reasons, will encourage efficient investments into renewables and enable a drastic shift towards clean energy.

Renewables target provides multiple benefits

Several organisations have, however, provided credible arguments in favour of a renewable energy target. These are succinctly summarised in a 2013 [report](#) by the European Renewable Energy Council. An oft-repeated stance is that a 2030 renewables target

is necessary in order to send a signal to investors that renewable energy is a long-term priority. This view has some industry backing: 92 European companies and associations recently called for a binding 2030 renewables target, including multinationals like Ikea and 3M. The report also suggests that a renewables target would further preserve the EU's leadership in renewable technology innovation. While the EU has established itself as a front-runner, having installed some 44 percent of the world's renewable electricity,¹ countries such as South Korea, China, India, and the US are fast closing in on the bloc's lead. A renewables target also serves objectives beyond emissions reductions, including job creation, economic growth, and other environmental benefits like reduced air pollution. According to the European Commission's [impact assessment](#) of the 2030 framework, coupling a 40 percent GHG reduction target with a 30 percent renewables target could generate up to 1.25 million additional jobs.

A well-functioning ETS that encourages the development and deployment of low-carbon technologies could also achieve these benefits – at least in part. The main value of a renewables target, however, lies in its ability to enable the timely scale-up of a wide range of renewable energy technologies, thereby reducing decarbonisation costs in the long-term.² Many technologies hold promise of becoming more competitive in the mid- to long-term; a renewables target would encourage market actors to seize that opportunity in the present, despite the higher short-term costs. Even among the supporters of a renewables target, however, disagreement exists over whether to move to an EU-wide binding target without corresponding country-level targets. For some observers this is problematic, as it raises questions around enforceability. But others point to the virtue of a flexible target, drawing on the efficient allocation sentiments outlined above.

Renewables in the wider context

The renewables debate is not restricted to the EU. Recently, Australia announced a review of its renewable energy target, which has been blamed by the conservative coalition government for ascending energy prices. This comes amidst a process to repeal the country's carbon tax, which was to be transformed into an ETS in July 2015. Some actors in the EU have also criticised renewables policies for driving up energy costs, supposedly placing the continent's industry at a disadvantage on the world stage. But such views avoid the charge that energy prices have little bearing on the EU's competitiveness, as a recent [report](#) by NGO research centre Climate Strategies claimed.

On target: What future for EU renewables?

While Stavins' and Razzouk's arguments appear logically sound, both assume a well-functioning ETS with an increasing carbon price. The reality is that the EU currently has a low carbon price and high number of surplus allowances. As energy expert Cédric Philibert put it on his [blog](#): a GHG-only approach may be the best solution in theory – but not in practice. Under the EU's current circumstances, a renewables target may indeed not be such a bad choice, particularly because of its ability to encourage investments into technologies that are crucial in the long-term, but more costly in the short-term.

The bodies that govern the EU remain divided over the virtue of a renewable energy target. The UK, Poland and Czech Republic support a GHG-only approach, whereas ministers from Austria, Belgium, Denmark, France, Germany, Ireland, Italy and Portugal have asked the Commission to set a “robust” renewables target. In early January, the Parliament voted for a binding renewables target of 30 percent. EU leaders will now likely discuss the overall 2030 framework at the March session of the European Council. Whatever the outcome, intense discussions are expected around the renewable target's policy impact as well as the merits and drawbacks of a flexible versus a nationally binding approach.



Sonja Hawkins
 Programme Officer, Climate Change, Trade and Sustainable Energy, International Centre for Trade and Sustainable Development (ICTSD)

¹ European Commission, (2014), A policy framework for climate and energy in the period from 2020 to 2030, European Commission, COM (2014), 15 Final: 2.

² See, for example, Philibert C., (2011), Interactions of Policies for Renewable Energy and Climate, International Energy Agency.

SUSTAINABLE DEVELOPMENT

UN group co-chairs outline priorities for sustainable development goals

A set of focus areas have been released to facilitate on-going negotiations around new sustainable development goals.

The co-chairs of a UN group tasked with drafting a blueprint for sustainable development goals (SDGs) released a list of 19 focus areas on 21 February, following a year of discussions.

The effort is part of a broader process to develop a post-2015 development agenda that would replace the current eight headline Millennium Development Goals, which are soon set to expire. Discussions on the SDGs have since been held under the Open Working Group (OWG) on Sustainable Goals, which was established in January 2013 by the UN General Assembly.

For this group, UN member states decided to use a constituency-based system of representation, meaning that most of the seats in the group are shared. In order to remain inclusive, the group was instructed to develop modalities to engage stakeholders, civil society, and the scientific community.

The plan to develop a set of SDGs – stemming from an initiative originally tabled by Colombia and Guatemala – was a key result of the UN Conference on Sustainable Development (Rio+20), held in June 2012 in Rio de Janeiro, Brazil.

A letter accompanying the release, penned by OWG Co-chairs Macharia Kamau, Permanent Representative of Kenya, and Csaba Kőrösi, Permanent Representative of Hungary, indicates that these 19 focus areas represent a summary of input provided by member states and stakeholders during the group's eight thematic discussion sessions.

The duo also suggests that the difficulties in poverty eradication, inequitable international development, as well as environmental protection, "were among the most pressing sustainable development challenges facing humankind this century."

"It is our view that the international community could realise greater impacts of the much sought transformative change if further actions are taken in these focus areas of sustainable development. This is necessary to build prosperous, peaceful and resilient societies that also protect the planet."

"It is our view that the international community could realise greater impacts of the much sought transformative change if further actions are taken in these focus areas of sustainable development. This is necessary to build prosperous, peaceful and resilient societies that also protect the planet," the co-chairs' communication read.

Next OWG negotiation meetings:

- 3 – 5 March
- 31 March – 4 April
- 5 – 9 May
- 16 – 20 June
- 14 – 18 July

Not a zero draft

Each of the 19 focus areas in the new report highlights the inter-linkages to other issues, in accordance with the internationally agreed-upon objective to create a set of universal development goals that integrate and balance environmental, social, and economic concerns.

The co-chairs' letter emphasises that these focus areas do not constitute a "zero draft" or a first working version, indicating that the topics included were not "exhaustive."

Given the international community's intention to have a limited set of goals, experts suggest the 19 areas will presumably need to be whittled down. One option, for instance, would be to assimilate complementary topics.

February's release also included a progress report outlining in detail the substance of the thematic discussions. The text reveals that, initially, the group sought to formulate a vision and narrative to frame the selection of proposed goals, but later moved to pin these down directly, including identifying associated targets.

Commenting on the process, Saskia Hollander, a research editor for NGO The Broker, suggests international divisions remain on targets and associated finance. "While the North opts for a clear and negotiable list of goals and targets, the G-77 is reluctant to already commit itself to goals and targets and stresses that the issue of finance needs to be solved first," she wrote.

Hollander also speculates as to whether the emerging economies will continue with this rhetoric or instead move away from the conventional development model towards alternative finance paradigms – such as South-South cooperation to harness trade and investment.

Trade as an enabler of sustainable development

Among the topics and targets listed for consideration, the focus areas document mentions the broad role of an open rule-based trading system in fostering sustainable growth, and as a means of implementation.

More specifically, this includes references to addressing damaging subsidies, although ideas are also put forward around need for policy space to support industrial development, as well as promoting new industries.

The marine resources, oceans, and seas section, for example, suggests eliminating all harmful fisheries subsidies, as well as combatting unreported and unregulated (IUU) fishing. The energy area includes the phasing out of "inefficient fossil fuel subsidies that encourage wasteful consumption," while the food security and nutrition headline puts forward addressing "harmful agricultural subsidies."

The progress report, however, for its part notes that OWG members discussed the fact that trade-related issues – such as agricultural and fisheries subsidies – are also being addressed within the framework of the WTO.

The body will now continue with the second phase of its work in five negotiation sessions scheduled from early March to mid-July, and stakeholders have been solicited for input through various liaison platforms.

The stated deliverable will be a report containing SDG proposals, to be presented for debate at the 68th session of the UN General Assembly in September 2014.

PREFERENTIAL AGREEMENTS

Progress on TPP in Singapore, but no agreement

Ministers suggest some sticking points remain in Pacific trade talks.

The twelve countries negotiating the Trans-Pacific Partnership (TPP) Agreement wrapped up an intensive series of talks on 25 February, reporting progress but no final deal. Trade observers had been watching last month's Singapore ministerial closely to see if an agreement - or at least a new timeframe for one - might be announced, after participants missed last year's target for finishing the negotiations.

Following the meetings, New Zealand Trade Minister Tim Groser flagged market access issues as the main stumbling blocks for TPP members, noting that these are the "meat and potatoes" of the proposed deal. Without reaching consensus on market access provisions, he told reporters, "we don't have an agreement."

Despite these gaps, ministers remained generally positive about the progress they had achieved, with Australian Trade Minister Andrew Robb telling reporters that the group has agreed on more than 80 percent of all issues. US Trade Representative Michael Froman added that some advances were made this weekend in the areas of telecommunications, food safety, and state-owned enterprises.

Other officials, such as Malaysian Minister of International Trade and Industry Mustapa Mohamed, have flagged intellectual property rights, state-owned enterprises, and the environment as difficult areas where "significant gaps" persist.

Other officials, such as Malaysian Minister of International Trade and Industry Mustapa Mohamed, have flagged intellectual property rights, state-owned enterprises, and the environment as difficult areas where "significant gaps" persist.

"While some issues remain, we have charted a path forward to resolve them in the context of a comprehensive and balanced outcome," TPP ministers said in a joint press statement on Tuesday, adding that they had agreed on a "majority of landing zones" that they had identified at their previous meeting in December, which was also held in the Asian city-state. (See Bridges Weekly, [12 December 2014](#))

Japan - US bilaterals make little headway

One of the main questions looming over this latest ministerial was whether the US and Japan – the two largest economies in the talks – would manage to advance in their discussions on agriculture and automobiles.

When the US agreed to back Japanese entry into the negotiations talks last April, the two sides had committed to conducting a separate set of talks in parallel to the group-wide discussions, which would then become part of the larger TPP framework. (See Bridges Weekly, [19 April 2013](#))

The current divide, officials say, centres mainly on Japanese tariffs on agricultural imports, along with Tokyo's non-tariff barriers on automobiles. Agriculture - especially with regards

to rice, beef, pork, dairy, and sugar - is a particularly sensitive area for the Asian island economy, given the strong political influence of the domestic farm lobby.

Though the US and other agricultural exporters have called for the elimination of agricultural goods tariffs, Japan has repeatedly asked its partners to show more flexibility. "Letting one nation win all the gold medals is anything but good," Japanese Economy Minister Akira Amari told reporters after the first day of negotiations, in an apparent reference to the agriculture talks.

Despite these differences, officials from both sides stressed that advances are being made. The negotiations "haven't been broken off or set adrift, and we've made good progress," Amari told Kyodo News.

Timetable?

The TPP deal, together with the US-EU Transatlantic Trade and Investment Partnership (TTIP) have been watched with growing scrutiny in recent months, both for their potential to advance trade rule-making – especially given the impasse in the WTO's Doha Round talks –and for the sizable market that would be covered under these pacts.

The Trans-Pacific Partnership has been branded by its proponents as a "21st century" agreement, one that would go well beyond the disciplines commonly seen in such deals. Along with slashing tariffs on thousands of tariff lines, the final pact would also establish a comprehensive set of rules on subjects ranging from digital commerce and intellectual property to state-owned enterprises, labour, and the environment.

Along with trying to chart new ground in this deal, many members are also dealing with political issues at home, such as agricultural sensitivities in Japan or transparency and income inequality questions in the US.

Meanwhile, the twelve countries that would be covered under the TPP - Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US, and Vietnam - represent a combined GDP of US \$28.1 trillion, amounting to over 40 percent of last year's global economic output. The potential gains from the pact have been estimated by some analysts at US\$223 billion a year in additional global income.

Achieving such a high level of ambition across a group of this size, however, has proven difficult, with members missing previous deadlines to conclude the talks in 2012, and again in 2013. The group's participants - while hinting that they hope to reach a deal this year - have not publicly set a new target date. (See Bridges Weekly, [12 December 2013](#))

"The substance of the negotiations should determine the timetable" for concluding the TPP, Froman told journalists. Officials have stressed in the past that, while keeping up momentum in the talks is key, the agreement should not be watered down just to reach a quick resolution.

No dates have been set for the next round of meetings, the US official said. The next major date on the TPP calendar is likely to be US President Barack Obama's [trip to Asia](#) in April, where he is expected to stop in Japan to meet with Prime Minister Shinzo Abe on the trade negotiations, along with other subjects.

The newsroom

Be sure to visit ictsd.org/news/biores regularly for breaking trade and environment news

US probe into China, Taiwan solar trade

The US International Trade Commission (ITC) voted in February to allow investigations into imports of Chinese and Taiwanese-made solar products to proceed.

The investigation was launched as a response to a petition filed in December by SolarWorld Industries America claiming that Chinese producers were using Taiwanese and other foreign-made cells in their production processes, effectively skirting existing US anti-dumping and countervailing duties thanks to a loophole created in 2012.

US ITC's decision backed SolarWorld's case, finding "reasonable indication" of material injury due to unfair subsidies and products sold at less than fair value.

This move is expected to escalate tensions between two of the world's largest traders. Chinese officials have warned that continuing these investigations would be counterproductive towards the increased deployment of renewable energy at the international level.

EU approves new targets for car emissions

Members of the European Parliament have voted through tougher car emissions standards, setting a limit of 95 grams of CO₂ per kilometre (g/km) as an average across all new cars sold in the EU by 2020, with a one-year additional "phase-in" period. The existing emissions limit is 130 g/km.

The new deal also allows for "super credits" between 2020 and 2022, meaning that the cleanest cars in a manufacturer's fleet could be used to reduce its overall emissions rating.

A deal on car emissions was originally agreed last summer, but this was later scuppered by strong German lobby on behalf its carmakers.

Although the Green Party voted against the new measure, environmental groups have cautiously welcomed the move. The new regulation must now be approved by member states as part of the bloc's co-decision procedure.

COOL compliance hearings kick off at WTO

The US' controversial country of origin labelling (COOL) requirements for livestock and meat imports were once again under scrutiny at the WTO last month, as hearings began to determine whether the changes to the policy have brought it in line with international trade rules.

In a 2012 Appellate Body ruling the judges found the policy's record-keeping and verification requirements imposed a disproportionate burden on upstream producers and processors, in relation to the quality of information the consumer eventually received.

The US then amended the regulation requiring producers to disclose clearly an animal's country of birth, raising, and slaughter all on a single label. Canada and Mexico quickly challenged the revision.

At the compliance panel held in February, the complainants raised questions on the objective of the new policy, as well as its ability to provide accurate consumer information.

New commitments on illegal wildlife trade

Leaders from 46 countries in February pledged to combat a US\$20 billion a year illegal wildlife trade industry at the conclusion of a high level meeting held in London.

Participating states inked a declaration calling for "decisive and urgent action" to eradicate wildlife product markets, ensure effective legal deterrents, strengthen enforcement, and enhance community engagement as a means of securing viable alternative sustainable livelihoods.

The conference in London also saw the launch of an "Elephant protection Initiative," geared specifically towards an escalating black market ivory trade.

A day before the meeting, the UK government announced its backing of a programme aimed at reducing demand for tiger parts trade as part of its ongoing support for the Global Tiger Recovery Program. Across the pond, the US unveiled a ban on commercial trade of elephant ivory and a National Strategy for Combating Wildlife Trafficking.

Ireland's energy policy under EU scrutiny

The European Commission is taking legal action against Ireland for failing to comply with the trading bloc's laws on fair distribution of energy supplies.

The EU's executive branch contends that Dublin has only partially transposed a 2009 electricity directive, which aims at ensuring a level-playing field for all market players. In particular, the charge is made that provisions related to the unbundling of energy supply from energy transmission networks have yet to be enforced.

The Commission's move comes as part of its drive to ensure full compliance with the EU's third internal energy market package, having already referred several other member states to court in 2012 and 2013.

According to EU Energy Commissioner Günther Oettinger, "Delays in implementation of the EU internal energy market rules have negative effects on all market participants and are therefore not acceptable."

If the European Court of Justice rules against Ireland, the Commission has suggested a penalty of €20,358.

Australia eyes July repeal of carbon tax

The Australian government has confirmed that it hopes to repeal the country's controversial carbon tax by July, when the new Senate takes office. The tax was enacted by the previous administration under Prime Minister Julia Gillard.

Under the carbon tax, which targets Australia's largest emitters, prices were initially fixed at A\$23 (€16.43) per metric tonne of carbon during their first year, rising annually at a rate of 2.5 percent.

Australia is one of the world's largest per capita emitters with most of the country's electricity being provided by coal, which is also one of its top exports.

In reference to a government report, which found that emissions dropped 0.3 percent in the year ending September 2013, environment minister Greg Hunt said, "the carbon tax is not cutting emissions in any meaningful or significant way."

In response to Hunt's comments Green Leader Christine Milne commented, "The emission trading scheme is a long-term framework and it has started very well."

US challenges India on solar incentives at WTO

The US lodged its second WTO challenge against India's domestic content requirements for solar cells and solar modules in February, in a move expected to worsen the two side's already-strained trade relationship.

The focus of both the original complaint and the new one is the Jawaharlal Nehru National Solar Mission (NSM) – an Indian programme launched in 2010 with a goal of scaling up solar energy access. According to the US, NSM's second stage maintains requirements for new Indian solar projects to obtain at least half of their content from local producers.

Furthermore, the local content requirements have now been expanded to cover thin film technology, which were not included in the first phase. Thin film makes up the bulk of US solar exports to India, and over half of the projects under NSM have relied on imports of the product.

The new terms, Washington says, put New Delhi in violation of WTO rules on national treatment, under the organisation's General Agreement on Tariffs and Trade, and the Agreement on Trade-Related Investment Measures.

WIPO genetic resources talks advance

Although differences linger, progress was made at the World Intellectual Property Organization (WIPO) in discussions on genetic resources (GRs) and intellectual property rights, producing a streamlined draft text to forward to the organisation's General Assembly in September.

The new document, however, still contains many brackets on a range of important subjects. One provision that sparked intense debate was the mandatory disclosure of the origin of genetic material used by patent applicants, or on which they seek patent claims.

Developed countries argue this could dis-incentivise innovation and be burdensome on patent offices and applicants, while developing countries say that the requirement is essential for preventing biopiracy.

The discussions were held under WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC). Another IGC meeting on the topic is scheduled for July, in the hopes of bridging the remaining differences before the General Assembly.

Publications and resources



Elephants in the Dust: The African Elephant Crisis – UNEP, CITES, IUCN, TRAFFIC – March 2013

This joint report provides an overview of the current state of the African elephant alongside recommendations for action to ensure their protection. The report also provides clear evidence that adequate human and financial resources, the sharing of know-how, raised public awareness in consumer countries, and strong law enforcement can address the poaching challenge.

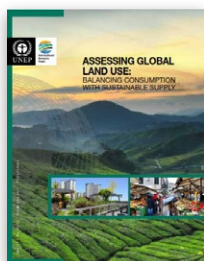
The report can be found at <http://bit.ly/1gdrdp8>



Arctic Biodiversity Assessment: Report for Policy Makers – CAFF – May 2013

This report by the Conservation of Arctic Flora and Fauna (CAFF) aims to inform policymakers on the status and trends of Arctic biodiversity, suggesting that action is required to secure the region's ecosystems and species that local communities rely on for their livelihoods. The report's key findings focus on the significance of climate change, the necessity of taking an ecosystem-based approach to management, and the importance of mainstreaming biodiversity considerations into other policy fields.

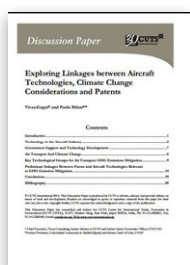
The report can be found at <http://bit.ly/1fwdko5>



Assessing Global Land Use: Balancing Consumption with Sustainable Supply – UNEP – January 2014

Produced by the Working Group on Land and Soils of the International Resources Panel (IRP), this report looks at the drivers of global land use and provides an overview of the scientific options for sustainable land management. The authors also highlight new opportunities to steer consumption towards levels of sustainable supply.

The report can be found at <http://bit.ly/1f5xyX7>



Exploring Linkages between Aircraft Technologies, Climate Change Considerations and Patents – CUTS – January 2014

This paper, authored by the Centre for International Trade, Economics & Environment (CUTS CITEE), aims to understand how the aircraft industry R&D model works, how new technological advancements can contribute to greenhouse gas emissions mitigation objectives, and which are the most promising technological groups for mitigation purposes. It also draws preliminary conclusions on patenting trends in the latter.

The paper can be found at <http://bit.ly/1ftRxsP>



Fisheries and the Post-2015 Development Agenda – IIED – January 2014

This paper argues that fisheries must be central to the post-2015 development agenda. Drawing on ideas discussed at an expert workshop hosted by the International Institute for Environment and Development (IIED) in November 2013, the paper outlines the current and desired state of global fisheries, and suggests key areas to address, including tackling harmful subsidies, as well as eliminating tariff and non-tariff barriers to fish trade.

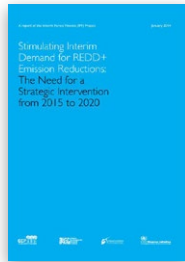
The paper can be found at <http://bit.ly/1gTRA3Y>



EU Climate and Energy Policy: Hope for More and Better Climate Policy Integration? – IES – January 2014

This policy brief published by the Institute for European Studies (IES) examines the extent to which the EU's 2050 climate policy objectives are integrated into the bloc's energy policy. Conclusions are presented based on the examination of climate policy integration in the process and output of three EU energy policies enacted between 2000-2010. The paper outlines concrete actions policy makers could undertake to develop coherent policies and achieve long-term climate goals.

The policy brief can be found at <http://bit.ly/1jKcNqY>



Stimulating Interim Demand for REDD+ Emission Reductions: The Need for a Strategic Intervention from 2015-2020 – IFF – January 2014

In this report, the Interim Forest Finance (IFF) project contends that there is currently no source of demand that will pay for medium to long-term emission reductions from REDD+ in the period between 2015-2020, which threatens the successful implementation of REDD+ in tropical forest countries. The authors explore how funding for REDD+ emissions reductions payments could be rapidly scaled up, including the use of clear financial incentives to leverage private sector investment.

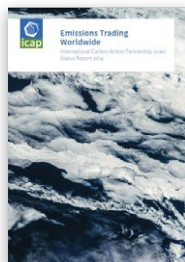
The report can be found at <http://bit.ly/1jvFxLR>



Evaluating Renewable Energy Policy: A Review of Criteria and Indicators for Assessment – IRENA – January 2014

This paper produced by the International Renewable Energy Agency (IRENA) investigates criteria and indicators used to evaluate renewable energy deployment policies. The stated objectives are to explore the extent to which the literature in this area accounts for lower income country contexts.

The paper can be found at <http://bit.ly/1eHwgeL>



Emission Trading Worldwide: International Carbon Action Partnership Status Report – ICAP – January 2014

This report offers insights on the status and workings of emissions trading schemes (ETS) around the world. It assembles contributions by policymakers on their experiences of setting up and running ETS schemes. This is combined with fact sheets on where various jurisdictions stand with their emissions trading frameworks, including those currently operating as well as those under construction.

The report can be found at <http://bit.ly/1jvjMMo>



The Elephant in the Room: Sustainable Use in the Illegal Wildlife Trade Debate – IIED – February 2014

A policy briefing published by the Institute for Environment and Development (IIED) argues that strategies to address illegal wildlife trade also need to support sustainable use. The brief outlines the potential for sustainable wildlife trade and use, and puts forward three strategies for ensuring this policy angle gains traction.

The policy brief can be found at <http://bit.ly/O2IR7t>

EXPLORE THE TRADE AND SUSTAINABLE DEVELOPMENT
WORLD FURTHER WITH ICTSD'S BRIDGES NETWORK

BRIDGES

Trade news from a sustainable development perspective
International focus - English language
www.ictsd.org/news/bridges

BIORES

Analysis and news on trade and environment
International focus - English language
www.ictsd.org/news/biores

BRIDGES AFRICA

Analysis and news on trade and sustainable development
Africa focus - English language
www.ictsd.org/news/bridges-africa

PUENTES

Analysis and news on trade and sustainable development
Latin America and Caribbean focus - Spanish language
www.ictsd.org/news/puentes

МОСТЫ

Analysis and news on trade and sustainable development
CIS focus - Russian language
www.ictsd.org/news/bridgesrussian

PONTES

Analysis and news on trade and sustainable development
International focus - Portuguese language
www.ictsd.org/news/pontes

桥

Analysis and news on trade and sustainable development
International focus - Chinese language
www.ictsd.org/news/qiao

PASSERELLES

Analysis and news on trade and sustainable development
Francophone Africa focus - French language
www.ictsd.org/news/passerelles



International Centre for Trade and Sustainable Development

Chemin de Balexert 7-9
1219 Geneva, Switzerland
+41-22-917-8492
www.ictsd.org

BIORES is made possible through generous contributions of donors and partners including

DFID - UK Department for International Development

SIDA - Swedish International Development Agency

DGIS - Ministry of Foreign Affairs Netherlands

Ministry of Foreign Affairs, Denmark

Ministry of Foreign Affairs, Finland

Ministry of Foreign Affairs, Norway

BIORES also benefits from in-kind contributions from its contributing partners and Editorial Advisory Board members.

BIORES accepts paid advertising and sponsorships to help offset expenses and extend access to readers globally. Acceptance is at the discretion of editors. The opinions expressed in the signed contributions to BIORES are those of the authors and do not necessarily reflect the views of ICTSD.



This work is licensed under the Creative Commons Attribution-Noncommercial-NoDerivative Works 3.0 [License](https://creativecommons.org/licenses/by-nc-nd/3.0/).

Price: €10.00
ISSN 1996-9198

