

BRIDGES NETWORK

# BIORES

Analysis and news on trade and environment

VOLUME 8, ISSUE 4 – MAY 2014



## Beneath the surface: Natural resources and national economies

### NATURAL RESOURCES

Partnerships for sustainable gold mining

### ENERGY

Trade and environment in the shale gas revolution

### FISHERIES

The blue planet in the sustainable development goals



International Centre for Trade  
and Sustainable Development

# BIORES

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## BRIDGES TRADE BIORES

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## Beneath the surface: Natural resources and national economies



*Among the world's most coveted commodities, gold has long been associated with wealth, beauty, and even immortality. But sourcing the precious metal can often have serious environmental and social costs, ranging from deforestation and mercury emissions, to child labour and conflict.*

*For example, a study published last October by the Carnegie Institution and Peru's Ministry of Environment found that forest loss in Madre de Dios in the Peruvian Amazon – a biodiversity hotspot – has tripled since the economic crisis began in 2008. As the global economy crashed, gold prices soared, further raising incentives to mine, particularly among individuals and small groups in poor nations. Booming illegal rackets have also sprung up in countries such as Peru and beyond.*

*The lead article in this issue of BioRes tells of a multi-stakeholder effort to address these challenges in order to harness artisanal and small-scale mining (ASM) activities for sustainable development. Through a system implemented across the value chain, buyers purchase gold that meet recognised standards, with a percentage of the sale re-invested in environmental and social projects, as well as aiding non-certified mines move towards sustainable certification. Challenges remain, but efforts aimed at improving gold extraction practices are crucial to helping ensure remote and fragile communities benefit from the presence of industry.*

*Mitigating the impacts of natural resource extraction has been a high profile issue in recent years, with many environmentalists expressing concern over the effects of shale gas extraction. The controversy is unlikely to abate any time soon, with the White House recently confirming that the US is projected to remain the world's largest producer of oil and gas in the world through 2030, spurred on by the country's shale gas "revolution."*

*Shale gas has quickly climbed up national and international policy agendas, playing a particular role in recent weeks in relation to Europe's energy security woes and the escalating crisis in Ukraine. ICTSD Senior Fellow Thomas Brewer takes a look at some of the environmental concerns raised around shale gas extraction, as well as possible future trade flows, putting forward policy recommendations to navigate the road ahead.*

*This issue also features a reflection on the treatment of fisheries and marine ecosystems in the ongoing formulation of the sustainable development goals, while another article takes a look at opportunities and limitations for legal trade models to conserve wildlife.*

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The BioRes Team

NATURAL RESOURCES

# Striking gold: Partnerships for sustainable small-scale mining

Hans-Peter Egler and Thomas Hentschel

*Small-scale miners in developing countries have sought to profit from increased gold prices on international markets. But ensuring sustainable social and environmental conditions will require concerted efforts and partnership from actors across the supply chain.*

The rising price in gold has prompted a dramatic increase in artisanal and small-scale mining activities (ASM) in developing countries in the last few years. Nowadays, ASM is carried out by an estimated number of 15 million miners worldwide, indirectly provides around 100 million people with a living, and accounts for about 20 percent of global gold production. This "gold rush" has accentuated a wide range of environmental, social, and economic problems, including deforestation, mercury emissions, contamination of water, child labour, health and safety, war financed through conflict minerals as well as links to terrorist activity, increasing informality, informal trade structures, and money laundering. Public and political awareness of such problems in the minerals supply chain is growing. Particularly as concerns ASM, informal trade structures are identified as part of the problem. An increasing number of consumers want to be assured that their gold was produced in a sustainable way. Brands and retailers are looking for solutions to respond to the increasing demand for sustainably produced gold.

The political and market environment of mineral production and trade has changed. In the past mining production was simply delivered against payment, nowadays consumers, retailers, and industry increasingly request documented evidence of compliance with ethical and legal standards of production and traceability along the supply chain. A legislation to address these demands has been put in place in the US – the Dodd-Frank Act – and similar efforts to regulate conflict minerals trade are currently being discussed in the EU. In 2012, the Organisation for Economic Cooperation and Development (OECD) developed a multi-stakeholder process, the *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* and its Supplement on Gold, which includes a special appendix for the artisanal and small-scale gold sector.

Gold plays an important role in the Swiss economy, given that the country hosts around 50 percent of the world's gold refining capacity, is a major centre for banking and bullion trading, and is home to a number of leading watch and jewellery brands. In order to respond to the various challenges presented by the gold supply chain, different stakeholders from the Swiss gold and jeweller supply chain have founded a non-profit organisation called "Swiss Better Gold Association" (SBGA). A recent national public-private partnership between the SBGA and the Swiss State Secretariat for Economic Affairs, dubbed the Better Gold Initiative (BGI), aims to support the implementation of the OECD Due Diligence Guidance by creating a direct mine to market path for sustainably produced ASM gold.

Peru has been selected as a pilot country for BGI, implemented through the Ministry of the Environment. According to estimates, some 100,000 illegal and informal miners are producing a value of around US\$2900 million of gold each year in the country, also implying a significant loss in annual tax revenue. Alarmed by this situation and the related severe environmental and socio-economic consequences, during the first quarter of 2012 the Peruvian government took action and put in place a legal package of laws and decrees to start controlling the sector. These include, among others, the definition of illegal and informal mining, definition and timeframe for a formalisation process, mechanisms for environmental control, control of trade and use of chemicals like mercury and cyanide,

# Minamata Convention on Mercury

Agreed on 19 January 2013, this global treaty is designed to protect human health and the environment from the adverse effects of mercury. The text includes a ban on new mercury mines as well as a phase out of those already in existence, and a new international regulation of the informal sector for artisanal and small-scale gold mining.

and new penal laws for illegal mining related confiscation of property, money laundering, and organised crime.

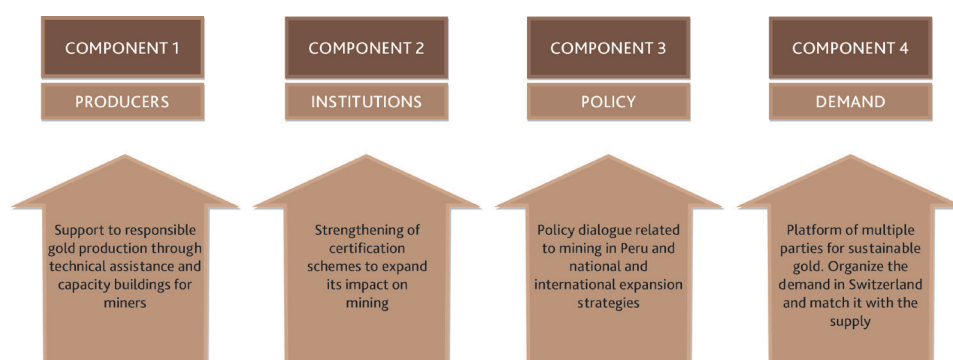
## From sustainable mine to market

After nearly two years of planning, including through various multi-stakeholder meetings in Switzerland and Peru, the BGI started its activities in March 2013. ASM gold mining is a motor for better livelihoods and sustainable development. The BGI's overall objective is to build simple market mechanisms that honour a producer's compliance with standards on traceability, accountability, labour conditions, and environmental, social, governance, and community relations performance. Consistent with the established objectives, an implementation strategy at a systemic level has been designed, which aims at generating a "mine to market" sustainable gold value chain. In order to accomplish this, the project is structured around four complementary components along the value chain, as illustrated in Figure 1. According to this framework, the BGI works to (i) strengthen the capacities of artisanal miners, in technical, organisational, environmental and social terms, (ii) facilitate the certification of responsible mining operations, (iii) collaborate with the Peruvian government to generate incentives for responsible mining, and (iv) generate the conditions to bring the Swiss demand for better gold closer to certified and strengthened producers. This takes advantage of a market opportunity and facilitates sustainable development through international trade.

## Producers

The objective of this component is to assure that the existing supply of sustainably produced gold can be sold under favourable terms and that the supply increases gradually. A project management unit is responsible for setting-up, organisation, and implementation of the first component through a Business Service Platform (BSP) for ASM. The BSP is the mechanism that ensures that ASM can access services that allow them to move towards formalisation and meet standards for future certification. The BSP requires co-financing from the mining operations, which should also provide human resources, investments, facilities, etc. The project focuses primarily on aspects of technical assistance, training, audits, and certification.

**Figure 1:**  
The Better Gold Initiative implementation strategy in Peru



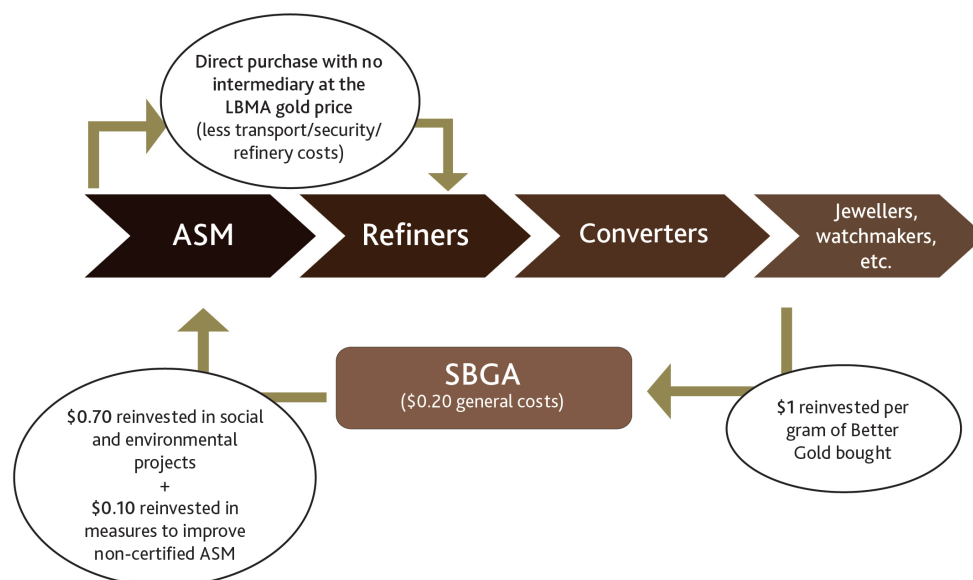
Source: The Better Gold Initiative

## Institutions

Instead of developing a new standard, BGI decided to build upon existing standards. To ensure compliance with standards the BGI is built around three certification schemes; the Fairtrade Standard and Fairmined Gold Standard, both newly revised for gold applicable to artisanal and cooperative structured mines, as well as the complementary standards of the Responsible Jewellery Council (RJC) certification system for industrialised small and medium scale miners. These certification systems ensure the buyer that the gold extraction and production is carried out in a socially and environmentally responsible manner. The objective of this component is to strengthen the Fairtrade, Fairmined, and

the Responsible Jewellery Council standards and their corresponding certification systems in order to broaden their impact.

**Figure 2:**  
Functioning of  
SBGA-CSR Fund



Source: The Better Gold Initiative

### Policy

The objective of this component is twofold. First, to support the Peruvian government in the implementation of the new ASM legal framework, and secondly to share lessons learned from the BGI in the international arena, including with regard to extension options. With regard to the latter, feasibility evaluations are being conducted in Bolivia, Colombia, Ghana, and Mongolia. The BGI maintains a close relationship with all important stakeholders. These include governmental organisations, mining companies, as well as the Sociedad Nacional de Minería, Petróleo y Energía (SNMPE), the Peruvian society for mining, hydrocarbon and energy, non-state actors, donors, other projects, interested traders, and consultants. These stakeholders have been involved in the planning of the BGI in Peru and are now actively engaged in an ongoing policy discussion. These include, public policies for ASM formalisation, together with promotion and regional dialogue around the topic, and discussion in relation to mercury, namely to create a strategic plan in the context of the Minamata Mercury Convention. The recently signed Minamata Convention on Mercury aims at minimising global mercury emissions. The ASM sector is one of the most important global sources of mercury contamination and the BGI will help to address this issue by supporting miners in efforts to minimise mercury emissions during the gold production process and thus contribute to the successful implementation of the Minamata Convention.

### Demand

The Swiss Better Gold Association (SBGA) is responsible for the implementation of the fourth component, which aims at strengthening the SBGA as a multi-stakeholder platform to advance sustainable development in the gold value chain. The SBGA was founded in April 2013 in Geneva. It encourages the demand for better gold among industry stakeholders, thus targeting those higher up the value chain, namely the watchmakers and jewellery brands, as well as investors. Members are committed to buying the full amount of gold produced by participating mines and reinvesting a contribution of US\$1 per gram of better gold purchased back into a Corporate Social Responsibility (CSR) Fund, which supports social and environmental projects in ASMs that are certified or in the process of certification.

### Future benefits and lessons learned

After one year of implementation the BGI system is fully operational. A first entire BGI gold supply chain from the Peruvian SOTRAMI mine, an association of 160 miners, has been implemented. Between September 2013 and April 2014, around 150kg of gold was delivered to Switzerland through this supply chain. Reflecting on this pilot project, certain evaluations could be made regarding the future benefit miners and communities will derive from the BGI. These include the payment of high gold prices guaranteed by Swiss refiners, as well as guaranteed purchase of miner's entire gold production. The system also facilitates the recovery of VAT.

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*Sustainable solutions require common efforts between producer, industry, government, and civil society, and multi-stakeholder processes are a useful instrument.*

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After nearly two years of planning and the first months of implementation it is also possible to draw some initial general conclusions and lessons learned about BGI. Importantly, a high gold price does not generate sustainable development in mining communities; contrarily, more mining produces more problems, especially from an environmental and social perspective. Therefore, sustainable solutions require common efforts between producer, industry, government, and civil society, and multi-stakeholder processes are a useful instrument in this respect. It is worth specifying that certification itself is not the objective, but rather demand for certified production has to be created and matched with production. Certification and sustainable production will be increasingly important to keep ASM in the formal supply chain, although certification must be coupled with good governance capacities in the mining regions. Certification schemes must also be integrated into national strategies, policies, and legal frameworks.

The price tag for certification and labelling can be very high, due to premium, labelling, management, and transaction costs for separate handling through the supply chain, so it is very important to find ways to control these to raise market acceptance. It is also important to include services such as transformation, logistics, transport, security, etc. The inclusion of partners with capacity to immediately scale-up finance or pre-finance is crucial, as ASM requires immediate payments.

Overall, for mining operations it is much better to have a continuous demand for the whole production; a small amount of gold demand is not attractive for miners. It is, however, very important to maintain a balance between available certified supply and the existing demand. After the first positive example with SOTRAMI, the market interest and demand seemed to grow much faster than the potential certified supply, as it takes a long time for mining operations to achieve certification. BGI may have to consider re-evaluating its sourcing options. Too much focus on Fairtrade and/or Fairmined certification may not adequately fulfil better gold demand in the future. With this in mind it will also be important to focus attention on the third standard mentioned above; RJC certification for small and/or medium sized industrialised mining operations.

BGI is now looking to African countries to meet the demand for responsibly produced gold. A large number of African countries have artisanal and small-scale gold mining, but not all have the necessary conditions for responsible production. Countries with a diverse gold mining sector, including a stable – as opposed to a gold rush based production – formalised and organised ASM sector, good governance and functioning institutions in the extractive sector on all levels – national, regional, local – transparent and competitive mineral and trading politics, as well as safe and peaceful environments, are some of the important conditions required for a successful future BGI intervention in new countries.



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ENERGY

# The shale revolution: Environment and trade implications

Thomas L. Brewer

*Shale gas has become not only an energy exploration and production issue, but has been catapulted up national policy agendas, now impacting macro-economic policy, global environmental debates, public health and safety concerns, as well as energy security questions and potential trade flows.*

The basics of the geology of shale gas deposits have been known for more than half a century, so there is no revolution in the sense of a sudden and unexpected discovery of the existence of shale gas. The technological challenge has been to extract it at commercially viable costs from rock formations that are deep underground or buried under bodies of water. In this respect, the relatively recent development of two extraction technologies — hydraulic fracturing and horizontal drilling — have made recovery economically feasible. In an earlier article in BioRes, I outlined some of health and environmental concerns, as well as presented preliminary reflections on the potential for trade in liquefied natural gas (LNG) derived from shale gas. This article explores reservations around fugitive methane emissions and the changing energy mix, as well as digs deeper into the trade landscape.

## Leaky methane

Although shale gas supporters tout the climate change mitigation potential of an increased consumption of shale gas — due to lower greenhouse gas (GHG) emissions than those from coal consumption — serious questions do remain about emissions related to exploration, extraction, and transport. During these three processes there can be significant emissions of methane, a GHG long-known to be much more potent than carbon dioxide. As of early February 2014, the range of estimated methane leakage rates in the US was from less than 1 percent to as much as 19 percent.

Important studies by large teams of experts with diverse backgrounds reported in papers such as Miller et al.<sup>①</sup> have found that US Environmental Protection Agency estimates of national methane fugitive emissions are too low. A study by Allen et al.<sup>②</sup> and in a series of ongoing studies sponsored by the Environmental Defense Fund and nine energy companies, methane emissions rates were measured directly at more than 500 wells nationwide. Because the nine energy firms participating in the study were voluntary funders, the study was not based on a randomly selected, representative sample of firms. Nevertheless, based on the results from the wells that were studied, plus estimates for other wells not in the study, the total national methane fugitive emissions rate for natural gas was estimated to be 0.42 per cent, slightly less than the previous US Environmental Protection Agency (EPA) estimate of 0.47 percent. However, for certain stages of shale gas production, in particular, the results for well completions were lower than previous EPA estimates, but higher than EPA estimates for valves and equipment leaks. Although this study added significant new data to the discussions, clearly many more studies will be needed before there is a consensus on the methane leakage rates from the shale gas segment of the industry and from the industry as a whole, and other studies are in progress.

## Shaking up the energy mix

Over the longer term, a key issue is whether cheap, abundant shale gas will undermine investment in renewable energy sources. Already in the US, with the significant decrease in the price of natural gas and a consequent decline in electricity prices produced in natural gas-fired power plants, the competitive position of wind, solar, and other renewable energy sources has been weakened. The future shares of those technologies in the energy mix are thus also undermined. In some scenarios, therefore, while the substitution of shale

## Shale gas

An “unconventional” natural gas that is defined by its location, namely shale rock formations that include clay, quartz, and other minerals. Such formations – and hence shale gas deposits – can be found in both on-shore and off-shore locations.

gas for coal to produce electricity may yield a net reduction in GHG emissions in the short run, the increasing share of shale gas and concomitant smaller share of renewables may yield a net increase in emissions by deferring deployment of low-carbon energy sources. Yet, cheap natural gas may also indirectly support investment in renewables by lowering the overall price of electricity and thus reducing opposition to renewable subsidy costs.<sup>3</sup>

When it comes to shale gas’ effect on coal use, thus far in the US, there has been a significant decline in coal consumption for electricity power plants. At the same time, domestic consumption and production of coal have also declined, while coal exports have substantially increased in recent years. For example, 2012 was a record-setting coal exporting year looking at the last half century since 1950, and during the first half of 2013, exports were at about the same level as in the first half of 2012. The implications for climate change, of course, is that declining domestic US coal consumption and thus falling carbon dioxide emissions are at least partially offset by increasing consumption of exported coal and thus higher carbon dioxide emissions outside the US.

### Trade implications

When discussing shale gas trade and international price differences, it is also important to understand the differences in the cost of production. Because shale gas production on a commercial basis has thus far occurred only in the US, it is not yet possible to make international comparisons on the basis of actual production data. Even if shale gas deposits in other countries turn out to be as great as or even greater than current estimates, it will be as much as a decade or more before the entire gamut of facilities and skills will make many countries’ shale gas internationally competitive with the US. This is likely to be true even after taking into account changes in exchange rates and their relationship to cross-national differences in inflation rates, together with international transportation costs. Given these conclusions, there are reasons to think that the US will continue to be a low-cost supplier for many years and, therefore, that some industries will experience significant shifts in international patterns of competitiveness.

Many questions still remain about the future of trade in natural gas. Will Australia be a principal source of internationally traded natural gas in the Asia-Pacific region, especially through exports to China, India, and Japan? Will Argentina, Brazil, and Mexico become major exporters and to whom? Will the US become an important shale gas exporter? What impact will US shale gas use have on the international competitive positions of firms in industries, such as chemicals, steel, and aluminium in the US and other countries? Will European dependence on natural gas imports from Russia and Qatar decline? Even though this is not an exhaustive list of questions, it is sufficient to convey the diversity and importance of potential trade patterns emerging over the next many years, maybe decades.

So far, the international gas market has consisted to a great extent of three regions — Europe, North America, and increasingly, the Asia-Pacific region — with a great deal of intra-regional trade within them, but with some significant inter-regional trade as well, especially exports from North Africa, the Middle East, and West Africa. These regionalised pipeline and LNG patterns — plus regional differences in pricing practices — have combined to create a “balkanised” world trade system in natural gas, with pipeline trade in Europe and North America physically separated from each other and the rest of the world.

In that system, there have been large inter-regional differences in prices. However, the rapid increases in US production of low-cost shale gas, the prospect of eventually significant production of shale gas in other countries and exports of it in other countries, the potential for large-scale shipments of LNG at great distances, and the continuing growth in energy demand in Asia are all creating pressures toward more inter-regional trade.

These patterns are relevant to the future of international trade in several respects. First, they are indicative of countries that already have in place the physical infrastructure and associated skills for importing or exporting. Individual LNG gasification facilities for export

## UNFCCC

As one of the three Rio Conventions – stemming from the Rio Earth Summit held in 1992 – the United Nations Framework Convention on Climate Change entered into force two years later on 21 March 1994. The Convention's ultimate aim is preventing "dangerous" human-linked interference with the planet's climate system.

and de-gasification facilities for imports cost in the order of US\$10 billion to construct. Of course, they will need to be scaled up if there is significant additional trade in natural gas. Moreover, the differences between pipeline transport and LNG maritime shipping will be crucial determinants of the types of scaling up required. Second, the current patterns of trade provide benchmarks against which new shale gas trade levels can be compared to gain a better perspective on the energy and economic significance of absolute magnitudes of trade.

All this means that US government policies concerning LNG exports are now under increased scrutiny after having been the concern for decades of a limited circle of industry specialists. The Canada-US Free Trade Agreement (CUSFTA), agreed in 1987, included a chapter on energy trade that guaranteed open access to bilateral imports and exports of oil, gas, and uranium. Exports of natural gas are generally subject to authorisation on a case-by-case basis by the Department of Energy under the Natural Gas Act. Under the terms of the FTA, however, Canada was exempted from this requirement. This treatment was extended to 17 partners in later FTAs.<sup>4</sup> These include Australia, Bahrain, Chile, Colombia, the Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea, and Singapore. There has been intense discussion and lobbying about the possibility of loosening these restrictions. Domestic chemical firms and other manufacturers that use natural gas have put pressure on the US government to limit exports in order to maintain the current relatively low price of natural gas, which is an important feedstock in their production processes. Some key members of the US Congress — including the Chairman of the Senate Energy Committee, Senator Ron Wyden — have also called for restrictions on exports. In May 2013, however, President Obama approved the construction and operation of a new export LNG facility to be developed by Exxon in Texas at a cost of about US\$10 billion. Another project has been approved and yet others are in the application/approval pipeline.

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*All this means that US government policies concerning LNG exports are now under increased scrutiny after having been the concern for decades of a limited circle of industry specialists.*

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### Addressing opportunities and challenges ahead

Given methane's potency as a GHG, all of which have inherently global impacts, fugitive methane emissions require global solutions. As a first step, this implies a need for a comprehensive and precise system of measurement, reporting, and verification within the context of the UN Framework Convention on Climate Change (UNFCCC).

Furthermore, there should be a comprehensive, worldwide system of verifying the levels of natural gas emissions associated with any international trade transactions in natural gas. Importers should be required to certify methane emissions levels, based on exporters' declarations, with the exporting government's confirmation and independent third-party verification. International standards of emissions for pipeline and LNG transport ought to be developed and implemented. This will probably require the involvement of two sets of industries, governmental agencies and international agencies — the former concerned with pipelines and the other with maritime shipping. Several international institutions, including the International Maritime Organisation (IMO) in particular, will thus need to be involved in such efforts.

And as the production of coal for export replaces production for domestic consumption — in some countries at least — the challenges of computing, analysing, and reporting the sources of CO<sub>2</sub> emissions and the allocation of them to producing-exporting countries and importing-consuming countries becomes more pressing. Thus, there is a need to refine the MRV systems of the UNFCCC as well as other international agencies'

reports and databases and in national government reports of emissions, in order to explicitly incorporate the GHG emissions that are embedded in international trade.

Finally, subsidies can be legitimate means to address the positive externalities associated with renewable energy sources and enhance economic efficiency. While local content requirements attached to subsidies may be problematic, non-discriminatory subsidies are in a different category. Better understanding is needed concerning whether and how WTO rules would conflict with the use of non-discriminatory subsidies for renewable energy.

As well as the institutions mentioned above, others such as the Organisation for Economic Co-operation and Development (OECD), the International Energy Agency (IEA), the Major Economies Forum on Energy and Climate (MEF), and the associated Clean Energy Ministerial (CEM) have a role to play in addressing these issues. The negotiations for a Trans-Pacific Partnership (TPP) and a Transatlantic Trade and Investment Partnership (TTIP) are also obvious venues for international cooperation on natural gas trade, investment, and technology transfer questions. The expertise of the secretariat of the Energy Charter Treaty on topics associated with international trade through pipelines and in the form of LNG — and its work more generally on international trade and investment issues in natural gas — should enable it to make additional contributions to the understanding of technical issues associated with pipeline and LNG trade. The International Standards Organization (ISO) should address standards and certification issues about fugitive methane releases.

In Europe, the combination of regional-level EU discourse and policymaking, plus the diverse array of the EU's national members and non-members as natural gas exporters and importers, offers a rich opportunity for developing approaches to industry practices and government policies that are sensitive to intercultural differences in attitudes toward sustainable development and to modes of international cooperation. The US will have a special role moving forward, given the relative advancement in its shale gas technology, exploration, production, and infrastructure – as well as policy discourse in some respects.

At the local level, key questions about shale gas are largely about the implications of exploration and production for local public safety, health, employment, and quality of life. These questions ought to be addressed in local political processes to decide according to local priorities, within relevant subnational and national political-legal frameworks. At the same time, where there are nationwide concerns about these problems, national policymaking processes ought to be engaged, and indeed scaled-up to the international level where appropriate. In fact, where shale gas basins transcend international boundaries, safety, health, and environmental concerns are truly both local and international.

*This paper is adapted from a longer research piece published by ICTSD: The Shale Gas Revolution, Implications for Trade and Sustainable Development, ICTSD, March 2014.*

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FISHERIES

# Searching for a sustainable blue future in the post-2015 development agenda

Essam Yassin Mohammed

*Fish are an important source of food and income for millions across the globe, but oceans and marine ecosystems are suffering from heavy exploitation and degradation. How might the new sustainable development goals help in this area?*

Many of the most intractable problems we face globally and locally involve collective action to manage a shared resource. Nowhere is this more true than in the management of marine and coastal resources in general and fisheries in particular. Marine ecosystems cover some three-quarters of the globe and support a diversity of living resources that sustain the livelihoods of millions of people across all continents. Some 260 million people — mostly in the global South — are directly employed in marine fisheries. Fish are also one of the most traded food commodities in regions such as Sub-Saharan Africa. Fish trade supports economic growth processes by providing an important source of cash revenue to service international debt, fund the operations of national governments, and import food for domestic consumption, thus contributing to national food security and diversification of diets. It is deeply troubling, therefore, that world fish stocks are running dangerously low. Only 20 percent of global fishery resources are moderately exploited according to UN Food and Agriculture Organization (FAO). Of the others, 52 percent are fully exploited with no further increases anticipated, 19 percent are over-exploited, and eight percent are depleted. Only one percent are on track to recover from previous depletion. If current trends continue, we are very likely to see fishless oceans by 2050, implying loss of livelihood for millions.

## A desired state of world fisheries and oceans

Among the main drivers of deterioration in the state of global fisheries are (i) anthropogenic factors such as overfishing, pollution, and habitat destruction; (ii) climate change or variability that affects the biology and ecology of fishery due to physical changes such as ocean acidification, as well as biological and chemical alterations such as changes in primary production. Wild fisheries are also often open access, or at best common property, which leads to overexploitation of the resources. Furthermore, a significant proportion of fish produced in most developing countries are from small-scale artisanal fisheries that are often not accounted for in national statistics, meaning their relationship to the economy, the environment, and food security remains invisible.

Although the current state of global fisheries is gloomy, the debate on the post-2015 development agenda is a very opportune moment to discuss this challenge, ideally resulting in a coherent and coordinated approach to move towards a more desired state in fisheries worldwide. In order to get there, however, we need to have a clear vision of what sort of global oceans and fisheries we would like to see some 15 years down the line. I outlined in a previous [policy briefing paper](#) a desired state of global fisheries which includes: significant restoration of depleted fish stocks to "pre-exploitation rate," major regeneration of critical natural habitats, mitigation of related climate change impacts and enhancement of adaptive capacities of coastal fisher communities, a designation of up to 20-30 percent of global oceans as marine protected areas, and a considerable development of technical and institutional capacities — particularly among developing country governments — in order to enable measurement and good management of marine and coastal fisheries resources.

While it is not yet exactly clear how marine and coastal resources in general and fisheries in particular will be framed in the post-2015 development agenda, little doubt remains that these should play a central role. One of the highly debated issues in the process has

## Addressing marine pollution:

### 1975:

Following the meeting of an inter-governmental conference on the dumping of wastes at sea in 1972, the London Convention was adopted, coming into force three years later.

### 1983:

The MARPOL Convention was adopted in November 1973 by the International Maritime Organization (IMO). A Protocol was subsequently adopted in 1978 following a series of tanker accidents, absorbing the previous Convention. The combined instruments entered into force five years later.

### 2009:

Hong Kong Convention adopted, due to enter into force 24 months after ratification by 15 states, representing 40 percent of world merchant shipping by gross tonnage. A series of guidelines are being finalised to assist the Convention's implementation.

been whether there should be a clear set of goals and targets with particular focus on fisheries or whether fisheries should be included as a driver to enable the achievement of other targets such as food security, poverty alleviation, and so on. While obviously having a clear goal and a set of targets on fisheries may be preferred, a siloed approach to sectors and themes for which the MDGs were criticised, may not be desirable either.

Some clarity on the direction the international community might take is offered in the latest "focus areas" document released by the co-chairs of the Open Working Group on Sustainable Development Goals (OWG) prior to the UN body's 11th meeting in early May. Of the 16 headline suggestions, Focus Area 13 at the time of writing ran "Conservation and sustainable use of marine resources, oceans and seas." Such a clear mention of marine resources is warmly welcomed by fisheries enthusiasts. The focus area calls up on states to "take urgent and significant actions for the conservation and sustainable use of marine resources, oceans and seas." Seven potential target areas are listed although, unlike for some other focus areas, no potential indicators are put forward yet. Each of these is examined in further detail below.

OWG is scheduled to deliver a draft proposal for sustainable development goals (SDGs) by July, to be forwarded for consideration by the 68th General Assembly in September. Given the nature of UN processes, the working documents currently being discussed shed light on the group's thinking and the possible shape of the final outcome. While I understand the danger of jumping the gun in analysing this early stage document, it is helpful to discuss what the focus areas might mean, even at this stage, in order to develop a sound understanding of the evolving process. Indeed, OWG co-chairs have indicated that they will release another revised version of the focus areas document at the end of May and it will be interesting to track the progress of the marine and fisheries related targets.

### **Prevent, control and reduce by x% marine pollution and marine disposal of waste and tailings, including from land-based activities**

Marine pollution and waste disposal are some of the greatest man-made destructive practices requiring urgent action. According to some studies, 80 percent of marine pollution originates from land-based sources. There are already several legal and policy initiatives ongoing to prevent the persistence of marine pollution. Some of these include: the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter – commonly referred to as the London Convention; the International Convention for the Prevention of Pollution from Ships (MARPOL); the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, and so on. But problems still persist. Preventing and tackling marine pollution remains a highly complex issue mainly due to nonpoint sources, such as wind-blown debris, and the trans-boundary nature of pollution. The cost of marine pollution to societal wellbeing is also significant. Invasive species offer one illustrative example of marine pollution, singlehandedly responsible for about US\$138 billion annually in lost revenue and management costs in the US alone. A rough back-of-envelope calculation would give an illustrative view of the economic costs from this particular pollution form on the global scale.

Coordinated approaches at local, regional, and international levels are needed to prevent and significantly reduce such forms of marine pollution, as well as remedy and reverse the damage done to oceanic ecosystems worldwide. The time is ripe for drawing an internationally accepted ecological, societal, and economic optimal pollution level to work towards by 2030.

### **Restore and protect marine ecosystems from destruction, including by halting and preventing ocean acidification**

Marine and coastal habitats are being destroyed at an alarming rate. Habitat degradation can have long-lasting or permanent effects if pushed to a point where conditions physically or biologically prevent regeneration. Coastal areas, home to over 90 percent of all marine species that thrive in ecologically-rich and diverse shallow water habitats including coral reefs, mangrove forests, and seagrass meadows, are being lost at alarming rates.

## Convention on Biological Diversity

Signed by 150 government leaders at the 1992 Rio Earth Summit, the CBD seeks to ensure the conservation and sustainable use of biodiversity, as well as the fair and equitable sharing of benefits arising from the use of genetic resources.

Perhaps the most devastating of all habitat-altering agents is climate change. Even though there have been several studies based on projections and simulation models that predict the potential impacts of climate change on fisheries, understanding of the magnitude and rate of the impact is far from accurate. The impacts of climate change on fisheries are also very complex as this will depend on geographical location, type of species, the nature of aquatic environment, and so on. Therefore, continued efforts to move towards a clearer understanding of the impacts of climate change are critical. Without this, it will be very difficult to devise effective approaches and new mechanisms to mitigate climate change and enhance the adaptive capacity of vulnerable fishery dependent communities.

### **Regulate harvesting to restore fish stocks to ecologically safe levels that can produce maximum sustainable yield, and support sustainable small-scale fisheries**

More than one billion people – most of whom are in the developing world – rely on fish as the only or main source of animal protein. For example, in Senegal the proportion of dietary protein coming from fish is as high as 75 percent,<sup>①</sup> and in Sierra Leone it supplies 63 percent of the total animal protein consumed. Healthy fisheries also directly or indirectly employ millions of youth and women. Therefore, restoring depleted or overexploited fish stocks to pre-exploitation rates – which vary depending on species, country, or the nature of the aquatic environment – is extremely important. A national, regional, and global process to determine the pre-exploitation rate of particularly threatened and commercially important fish species should start and accordingly set targets at national, regional, and global levels.

### **Develop and ensure the full implementation of existing regional and international regimes governing oceans and seas, including for resources in areas beyond national jurisdictions**

While it is difficult to dispute the fact that there is a need to develop and ensure full implementation of existing and highly fragmented marine governance regimes, there is also a critical governance gap in marine environments beyond national jurisdiction. Usually dubbed the high seas, these represent one of the main natural resources governance challenges of the 21st century. Technological advancements have enabled many interest groups to go beyond exclusive economic zones and intensified extractive activities – including fishing and deep sea mining – putting pressure on the open ocean in a way never done in the past. For example, fishing on the high seas has increased over recent decades as a result of the overfishing of coastal waters and in response to growing market demand for seafood products.<sup>②</sup> In light of these changing dynamics, it is now more important than ever to work towards establishing an equitable global oceans governance framework.

### **Eliminate illegal, unreported and unregulated (IUU) fishing and destructive fishing practices**

Global losses are estimated to be between US\$9 billion and US\$24 billion annually, representing between 11 to 26 million tonnes of fish, which weighs in between 10 to 22 percent of total fisheries production. Developing countries are most at risk from illegal fishing, with total estimated catches in West Africa around 40 percent higher than reported catches. This results in a significant loss in government revenue from landing fees, export earnings, taxes, etc., which could otherwise be used for development projects. These losses are potentially severe, particularly in developing countries with a high reliance on fisheries for domestic consumption and export earnings. A study in 2005 found that in Liberia, for instance, elimination of illegal fishing could increase GDP by more than 4 percent. Illegal fishing is, therefore, not only harmful to fish stocks but also to national economic development and overall societal wellbeing.

### **Establish Marine Protected Areas, consistent with international law**

Currently, only a tiny fraction of the world oceans are designated as marine protected areas (MPAs). While there are many cases where MPAs have had significant positive ecological outcomes, it is also feared that this is done at the cost of fisher communities whose livelihoods are directly or indirectly affected by total or partial closures of some fishing grounds. To avoid such social costs, MPAs need to be complemented with economic instruments such as compensation or rewards for affected fisher or coast communities.

At the Convention on Biological Diversity (CBD) COP10 in Nagoya, Japan it was agreed that "by 2020, 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider seascapes" (CBD COP 10, Decision X/2). International Institute for Environment and Development suggests that by 2030, 20-30 percent of coastal and marine areas within the national jurisdictions of coastal and island states should be designated as protected areas.

### **Eliminate fishing subsidies which contribute to overcapacity and overfishing**

Global fisheries subsidies are estimated at US\$30-34 billion annually,<sup>①</sup> with capacity-enhancing and fuel subsidies accounting for US\$20-24 billion. Subsidies are often provided when revenue is exceeded by costs, making way too many fishing activities economically viable consequently leading to overfishing. Fish stock depletion globally has been driven in part by high levels of fishing subsidies. A retreat from the subsidies in fisheries would considerably contribute to the conservation and sustainable use of fish stocks. It must be noted, however, that not all subsidies are harmful. Some fishery subsidies provided in the developing world have had some positive contributions to the overall wellbeing of fisher communities and poverty alleviation.

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*It is extremely important to first and foremost define the desired state of global oceanic ecosystems.*

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### **Towards a vision**

Delegates could also consider further possible targets as the post-2015 conversations continue. Although fish are highly traded, a number of tariff and non-tariff barriers remain that hinder such commerce. These include measures such as sanitary requirements, access to ports, or regulations on foreign investment. One potential consequence includes developing countries leasing fishing rights on foreign vessels, directing revenue away from local communities. Clearly defining use rights of coastal communities would also be a helpful exercise in tackling overfishing.

In order to realise targets discussed so far as part of the SDG conversations, and indeed also as the process moves forward, it is extremely important to first and foremost define the desired state of global oceanic ecosystems and work backwards. Unless this is done, it will be very difficult to prioritise measurable and achievable targets and actions. To do so, there is a need to fill knowledge gaps pertaining optimal pollution levels, historical state of marine and coastal habitats, and climate change impacts. Last but not least, more regional and global coordination is needed to ensure successful implementation of existing but fragmented management regimes. It is a crucial point given the trans-boundary nature of oceans and the problems they face.

*This paper is based on a policy briefing published by the International Institute for Environment and Development (IIED): Fisheries and the post-2015 development agenda, IIED, January 2014.*

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WILDLIFE TRADE

# To ban or not to ban: Assessing the scope for legal wildlife trade

Alexander Kasterine

*Bans on the trade in wildlife may do more harm than good. Regulated trade provides sectors space to improve sustainability and animal welfare practices and increase benefits for rural communities.*

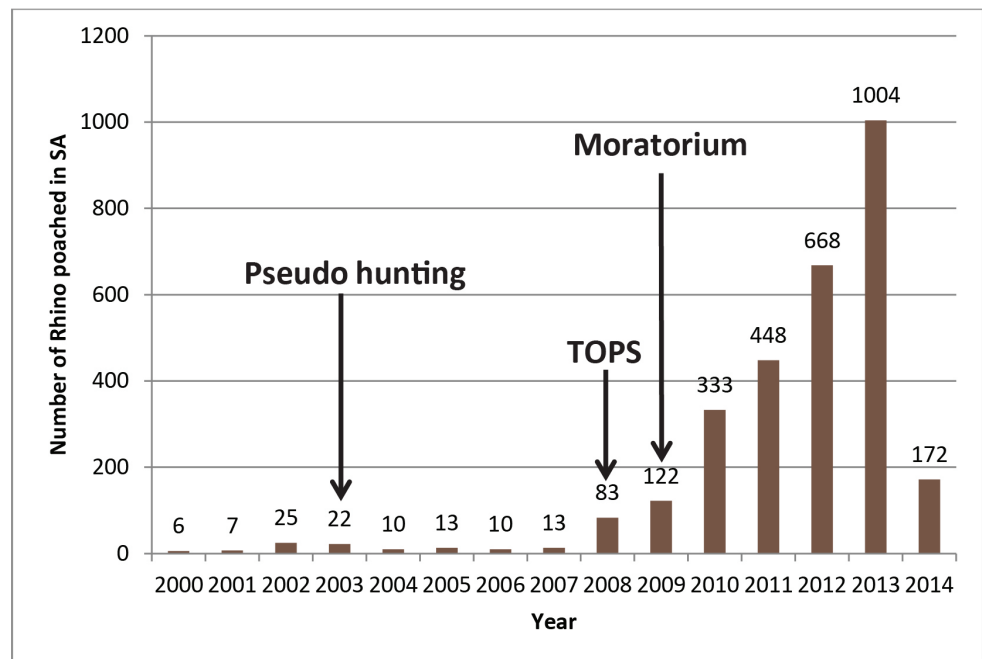
The illegal trade in plants and animals is driving many species around the world to the verge of extinction. Iconic animal species are being poached at record rates, precious timbers are being looted from forests, and endangered plants are being overharvested. Due to their endangered status, species like the rhino, tiger, elephant, cheetah, chimpanzee as well as precious timbers like rosewood and mahogany have been subject to trade prohibitions for several decades. The bans are implemented largely through the Convention on the International Trade in Endangered Species of Fauna and Flora (CITES) and supplemented through EU and US trade measures. The widely covered London Conference on Illegal Wildlife Trade convened in February saw 46 countries and 11 UN agencies sign a declaration setting out a three-pronged approach to protect wildlife. It called for actions to increase enforcement, reduce demand for wildlife products, and foster the sustainable use of wildlife. As highlighted in an [article](#) published in a previous issue of BioRes, independent conservation expert Mike t'Sas Rolfes argued that the primary thrust of the London declaration towards enforcement of trade bans could be misplaced, particularly for some species such as rhinos. This article digs deeper into why certain trade bans could undermine conservation goals, the opportunities and limitations for legal trade models to conserve species, and how aid for trade can support sustainable use of wildlife.

## Trade bans can increase incentives to poach

Prohibition of trade restricts supply and thus drives up price. The impact on price will be particularly marked if demand for the product is price inelastic, i.e. a rise in price has little impact on the quantity demanded. For example, demand for rhino horn is price inelastic as it is regarded as a highly aspirational and elitist product in Asia. A trade ban also restricts competition, further driving up price. By way of analogy, economist Thomas Schelling observed that the United States' prohibition of alcohol in the 1920s gave criminals "the same kind of protection that a tariff gives to a domestic monopoly." As the demand for alcohol increased, prohibition guaranteed "the absence of competition from people who are unwilling to be criminal, and an advantage to those whose skill is evading the law." As prices escalate, the financial incentive to poach rises along with it. As a result, as Pierre Rivilan argues in *Nature*, bans make these commodities more valuable. For example, the price of rhino horn on Korean markets increased by more than 400 percent within two years of their CITES uplisting in 1977, which in turn coincided with a sharp increase in poaching of black rhinos and in illegal trade in rhino horn. This could feasibly be explained by speculators panic buying in order to build stockpiles.

Trophy hunting and sale of horn domestically continued in South Africa. From the mid-1990s until 2007, reported poaching levels remained negligible. In 2003, Vietnamese traders visited South Africa posing as hunters, a practice termed "pseudo hunting". Once it became clear to the authorities that their intention was solely to acquire horn, the government introduced various trade restrictions including permitting – Threatened or Protected Species legislation (TOPS) – and a moratorium on domestic sale of horn. Figure 1 illustrates how rhino poaching levels have risen sharply since the introduction of these trade restrictions. In view of the failure of these trade restrictions to stop the poaching of rhino, the South African government is now preparing a proposal to CITES to legalise the international trade.

**Figure 1:**  
Rhino poaching numbers  
spike after moratorium



Source: Save the Rhino, 'tSas Rolfes 2014

### High prices, high corruption

The resulting wealth accrued by criminal gangs gives them the means to corrupt authorities tasked with protecting wildlife. The growing disparity in wealth between the range states in Africa and consumer countries in Asia could also undermine enforcement efforts in the future. For example, in Kenya, Ian Craig of the Northern Rangelands Trust describes how wildlife rangers are offered large sums to aid poachers. One ranger in his conservation project last year was offered US\$5000 to help poachers find rhinos. The ranger earns US\$200 a month. Further up the value chain, Craig reports that there are around 30 brokers for illegal wildlife products in Kenya. They manage the movement of product in-country, facing minimal personal risk relative to the returns; around 5-10 percent of the end value. A handful of exporters then move the products across international borders, again with little risk given payments made for political protection, and receive around 60-70 percent of the end value. There are numerous allegations that corruption is undermining judicial and enforcement systems in range states. In April 2013, six senior officials of the Kenya Wildlife Service were suspended on suspicion of involvement in poaching. The US non-profit Born Free recently "listed" Tanzania among seven "corrupt governments" in Africa that support elephant poaching. An EIA/Global Witness report accused the previous government of Madagascar (2009-2013) of involvement in the illegal felling and sale of its precious rosewood. Importing countries appear complicit too. Diplomats from Viet Nam and North Korea have allegedly been implicated in trafficking.

### Fighting an uphill battle

The overall value of contraband fauna and flora trade is huge, roughly estimated to be worth over US\$130 billion per year. Last year, a US Presidential Executive Order expressed concern over how the trade is "contributing to the illegal economy, fuelling instability, and undermining security." Some profits earned from illegal wildlife trade are reportedly funding terror groups. In 2012, The Elephant Action League (EAL) estimated that "up to 40 percent" of Al-Shabaab's activities are funded by the illegal ivory trade. Prohibition of crops used for drugs has had the same unintended consequences. The Economist reports on UN estimates that Al-Qaeda has earned over US\$100 million from black market opium trade in Afghanistan in 2011 and 2012. The enrichment of criminals over time means the prospects for "winning the war" against their activities are diminished. Despite the recent deployment of drones across Kenya to protect wildlife, the poachers

## CITES

The Convention on the International Trade in Endangered Species of Fauna and Flora 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.

increasingly have more resources than the enforcement agents. This is evident as rangers are outgunned by poachers who according to the US Congressional Research Service are equipped with "night vision goggles, military-grade weapons, and helicopters." As in most wars, it is the foot soldiers who suffer disproportionately. According to the charity Thin Green Line, poachers in Africa kill some 1000 park rangers each year.

### The scope for a legal wildlife trade

Legal trade, however, is no magic bullet. Loopholes and abuses can plague legal trade systems too. Unscrupulous traders find ways to circumvent CITES rules by mis-declaring the species or number of specimens in a consignment. There are concerns over the lack of governance in issuing permits to trade wildlife. The European Commission advised its member states in 2013 to refuse imports of python skins with captive breeding permits from the Lao People's Democratic Republic over doubts that any captive breeding actually takes place in the country. The CITES Secretariat requested its Parties in April 2014 to reject export permits for listed species from the Democratic Republic of the Congo due to reports that a large number of fake permits had been issued.

Nevertheless, the advantage of placing a species in CITES' Appendix II is that, despite these abuses, criminal organisations have to compete with legal businesses. For reasons outlined above, this reduces their profits and incentives to circumvent the system. It also raises legitimate tax revenue, which can be used for conservation and enforcement. Local communities that harvest wildlife also benefit financially and thus have a stake in a given wildlife species' conservation. Under a trade ban, these communities have no stake, but instead are unwittingly given an economic incentive to poach.

There are key factors that determine whether a legal trade can work well or not. The International Trade Centre (ITC) and the International Union for the Conservation of Nature (IUCN) are currently preparing a framework with a list of these factors. Among the most important include the biological characteristics of a species, including how fast it reproduces; technological factors, is harvest lethal or non-lethal; and institutions, is security of land tenure and ownership in place or is it an open access resource? Institutions are important. Open access land policies mean that local people have no incentive to protect species. Instead, as with the African elephant in the 1980s, the resource is mined resulting in a "tragedy of the commons" that can only be remedied by assigning strong property rights over the resource to local people.

The much-cited success story of trade in the Appendix II CITES listed species is the vicuña, a South American camelid that resembles a small llama. In the mid-1970s the animal was close to extinction from hunting for its wool. In response, the Peruvian government gave local communities the right to shear and market the animal's wool. Now local herders protect the animals and earn money from the sale of their wool. As a result the country's vicuña population has grown from 5000 animals to more than 200,000 today. If we apply the aforementioned framework to the vicuña, it is easy to see why the population recovered. The species is resilient, its harvest is non-lethal, and the communities have secure property rights over its use. Concerns remain about the distribution of benefits between poor communities and traders, but the trade is clearly successful in conservation terms. Later in 2014, ITC will publish a study that examines the value chain for vicuña and the remaining rural livelihood and conservation challenges.

### Building transparency and traceability

A legal trade, if well managed and in complement with proper law enforcement, also gives industry the opportunity to invest in the value chain. A mix of national regulation, conservation planning, certification, and corporate social responsibility provide the tools with which regulators, conservationists, and business can improve sustainable sourcing and economic benefits for rural communities managing wildlife resources. Trade bans do not allow any scope for such initiatives.

An essential first step to improving the performance of a legal market is greater transparency. Greater transparency enables consumers to be more aware of the

challenges for achieving sustainability in wildlife value chains. The work of TRAFFIC, the UN Environment Programme's World Conservation Monitoring Centre, and many non-profit organisations is important in this respect. In 2012, ITC published a study on the python skin trade, intended to fill the information gap on how the supply chain for the South-East Asian species works. The findings highlighted abuses of the permitting systems and expressed concerns over lack of animal welfare and sustainability in the value chain. Kering, the holding group for luxury brands like Gucci and Puma responded by forming a public-private-partnership (PPP) with ITC and IUCN. Over three years, the Python Conservation Partnership (PCP) is carrying out research and training on traceability techniques, captive breeding, and improved animal welfare. As part of the PCP ITC will measure the income benefits for rural communities in Viet Nam ranching python for commercial trade.

### **Aid for trade for sustainable use and livelihoods**

In addition to PPP approaches, there are numerous examples of aid projects funded by USAID, the European Union, and other agencies linking communities to buyers of legally traded animal and plant products. A common objective of these projects is to strengthen sustainability of sourcing, as well as to improve the trade links and economic position of suppliers, namely the communities managing the resource. ITC has been active in this sector over the last 10 years with support from Denmark. In Zambia, for example, ITC worked with a small to medium sized enterprise (SME) to train 500 women smallholders in the sustainable cultivation of devil's claw, a tuber used in the European natural medicine industry as an anti-inflammatory. The training resulted in a more sustainable harvest of the crop as opposed to previous practices of destructive extraction. ITC is also undertaking a study to evaluate the biodiversity impacts and economic benefits for rural households in the Andes of quinoa exports, another "superfood" endemic to the region. This will increase transparency in the supply chain and enable better design of pro-poor conservation policies.

### **South Africa's bid to legalise rhino trade**

South Africa is proposing legalisation of the trade in rhino horn. The proposal is set to be a landmark case over whether trade bans or legal trade models should be used to protect an iconic, and now a very fragile, wild species. Member states will vote on the issue at the next Conference of Parties due to be hosted in South Africa in 2016. The rationale behind the proposal - yet to be formally made - is that legalisation will remove control of the trade from criminals. The industry argues that rhinos reproduce horn eight times in the course of its life and can be sustainably harvested using ethical animal welfare practices. The US, EU, and Kenya are predicted to oppose the proposal.

To support this CITES process ITC is preparing a consultation paper.<sup>①</sup> ITC and CITES signed a Letter of Agreement in 2014 to share expertise on sustainable livelihood issues in the trade in wildlife. The paper outlines the key issues in the debate and proposes further consultation to reduce uncertainties about the outcome of legalisation. The paper proposes further research around market structure, the nature of Asian demand, supply potential and costs, and the economic impact in terms of jobs created under legalisation.

Legalisation is perceived by its opponents – and some supporters – as a risk. Risk is a function of uncertainty and thus there is a pressing need for more research and dialogue. If the research is well executed and South Africa consults widely, the voting parties at the CITES COP in 2016 will be in a better position to make an informed decision on the following important question; is the risk of rhino extinction higher under a continued trade ban or under a legalised trade?

*The views expressed in this article are those of the author and do not necessarily represent the views of, and should not be attributed to, the International Trade Centre. Join the conversation by following Alex on Twitter [@alexkasterine](#).*



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<sup>①</sup> This will be available for comment on the [ITC website](#) from July 2014.

WTO

# China lodges WTO appeal in rare earths dispute

*China has appealed the WTO's recent ruling on its rare earth export restrictions, a case brought to the global trade arbiter in 2012 by the US, the EU, and Japan.*

China has asked the WTO's highest court to review a series of substantive findings in a dispute panel ruling that found Beijing's restrictions on rare earths exports to be in violation of international trade rules. The move marks the latest chapter of a case that has highlighted the nuances of balancing natural resource management policies with global trade commitments.

In March, a dispute panel had found that China's use of export duties and quotas on various rare earth elements, along with tungsten and molybdenum, went against both international trade rules and its WTO accession commitments. (See BioRes, [27 March 2014](#))

These rare earths are used in the manufacturing of various high-tech and green energy products, such as wind turbines and engines for electric and hybrid vehicles. China is responsible for nearly all rare earths production - 90 percent, according to the US Geological Survey - and is the home of a quarter of the world's supply.

The US has already filed a conditional appeal of its own. Unlike Beijing's filing, Washington has focused primarily on a series of procedural concerns with the dispute panel's review of evidence, rather than on questions regarding the substance of the ruling. The other two complainants in the case - the EU and Japan - had not yet filed appeals at the time of writing. (See BioRes, [17 April 2014](#))

## Accession protocol

In March, the panel said that there was "no basis" in China's accession protocol - in other words, the specific terms Beijing agreed to when joining the global trade body in 2001 - for justifying the use of export duties under Article XX of the General Agreement on Tariffs and Trade (GATT). The result recalled an earlier Appellate Body finding in a separate dispute involving China's export restrictions on raw materials. (See BioRes, [6 February 2012](#))

This particular GATT article establishes various justifications for measures that would otherwise be WTO-illegal, on the grounds that such measures are necessary for fulfilling greater public policy objectives.

Under Paragraph 11.3 of China's accession terms, the country was required to eliminate all export duties. According to Appellate Body ruling in the Raw Materials case, that paragraph - by not making specific reference to the GATT Article XX exceptions - does not provide any basis for justifying the use of such duties.

The panel in the rare earths case found that Beijing had not brought a sufficiently new argument to depart from the Appellate Body's previous finding. As a result, Beijing is now asking the Appellate Body to consider how exactly its accession protocol does tie in to the WTO Agreements - not just the overall Marrakesh Agreement establishing the global trade body, but also the various subject-specific texts that the organisation's 159 members are bound to, such as the GATT.

In its appeal, China says that the panel "failed to give effective meaning" to the Marrakesh Agreement provision that says that new members "may not pick and choose among the

various covered agreements but have to accept the WTO legal framework as a single undertaking."

Furthermore, Beijing argues, "the panel unduly found that the words 'shall be an integral part of the WTO Agreement' in the second sentence of paragraph 1.2 of China's accession protocol leads to the conclusion that China's accession protocol is thereby made an integral part of the Marrakesh Agreement excluding the multilateral trade agreements annexed thereto."

#### **Natural resources conservation**

In its March ruling, the panel had also found that China's use of export quotas did not appear to be as related to conservation goals - as Beijing had claimed - as it was to industrial objectives. The Asian economy had argued that these export quotas were critical given the environmental damage caused by the rare earths extraction process, and the limited nature of these resources.

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*In its March ruling, the panel had also found that China's use of export quotas did not appear to be as related to conservation goals - as Beijing had claimed - as it was to industrial objectives.*

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Under Article XX (g) of the GATT, WTO members are permitted to take measures related to the conservation of exhaustible natural resources, "if such measures are made effective in conjunction with restrictions on domestic production or consumption." The Article XX General Exceptions also require that such measures are not applied in a way that creates "arbitrary or unjustifiable discrimination" or that otherwise serves as a "disguised restriction on international trade."

In its appeal, China has asked that the Appellate Body reverse the panel's findings that the rare earths export quotas were not sufficiently linked to conservation. Beijing claims that the panel's interpretation was flawed, as it focused on how these export quotas were designed, rather than on how these were implemented in tandem with other measures in China's conservation policy.

Furthermore, the Asian economy says, the panel's review of whether these export quotas were "made effective in conjunction with" domestic restrictions was also incorrect, as the panel focused more on the how the country's regulatory system of conservation measures was structured, rather than on what effects this system actually has on the marketplace.

China has also questioned the panel's objectivity and legal reasoning in its review of those measures that Beijing submitted as evidence of domestic restrictions on rare earths. The panel, China says, relied on "inconsistent reasoning as well as a double standard of proof in comparing the relative burden of China's restrictions on foreign and domestic users."

In its ruling, the panel had found that export quotas were indeed restrictions, even though these quotas were not filled in 2012. However, the panel was reluctant to accept that Beijing's domestic measures - such as production and extraction quotas - also qualified as restrictive.

#### **Next steps**

Under WTO rules, the Appellate Body can review certain aspects of law and legal interpretation in the original panel ruling, but will generally not interfere with any factual findings. A report is likely to be issued within three months from the close of the appeal period.

WTO

# Russia turns to WTO over EU energy package

*Against a tense geopolitical landscape and rocky trade relations, Moscow is taking Brussels to the WTO over the EU's energy regulations, arguing these are discriminatory.*

Russia has filed a WTO complaint against the EU's energy sector regulations, officials have confirmed. The move is expected to further sour the relationship between the two trading partners, who are already at odds over a series of other issues, including the crisis in Ukraine.

The consultations request, dated 30 April, Moscow claims that the EU's energy rules require discriminatory certification requirements for third countries. The bloc's measures concerning the production, supply, and transmission of natural gas or electricity are similarly in breach of international trade rules, Russia argues.

Moscow has referred to the WTO's General Agreement on Trade in Services (GATS), the General Agreement on Tariffs and Trade (GATT) 1994, as well as the Agreement on Subsidies and Countervailing Measures and the Agreement on Trade, the Agreement on Trade Related Investment Measures, and the Agreement Establishing the WTO.

The European Commission adopted its Third Energy Package – the rules in question – seven years ago, in a bid to promote a competitive EU-wide market for the sector. These policies came into effect in 2009.

Included in the bundle of legislation is a law prohibiting suppliers from owning distribution networks, such as pipelines. The policy has long been a source of frustration for Moscow, which has sought repeatedly to reach an agreement with Brussels on previous occasions, such as through a joint working group on energy.

The stakes are particularly high for Russian state-owned Gazprom, which already supplies more than a quarter of Europe's gas via its transnational pipelines. The company has further plans to build a 2400-kilometer-long "South Stream" oil distribution route across the Black Sea, bypassing Ukraine. For some EU members – notably a number from the ex-Soviet group – Gazprom is the sole supplier of gas.

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*"Our goal is not to sue Brussels just for the sake of it. We want to ensure a predictable environment for exports to the EU, in accordance with WTO rules."*

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EU member states remain divided over whether to green light the new pipeline. Moscow has previously warned that further economic measures by the EU, together with the Kiev's US\$3.5-billion unpaid gas bill, could result in Gazprom shutting off energy supplies to Europe via Ukraine, as it did in 2006 and 2009.

Speaking with Interfax news agency, however, Russia's chief negotiator Maxim Medvedkov said that the WTO move was not connected with the recent Ukrainian crisis. "Our goal is not to sue Brussels just for the sake of it. We want to ensure a predictable environment for exports to the EU, in accordance with WTO rules," he said.

In an interview with the Financial Times, Günther Oettinger, the EU's energy commissioner, said that the Commission remained "relaxed" about the case at the global trade arbiter.

Under WTO rules, the two sides must now hold consultations for a minimum of 60 days in an effort to resolve the dispute amicably. Should these meetings not lead to a resolution, Russia may ask the WTO to establish a panel to hear the case.

### **Escalating trade tensions**

Bilateral ties between the two sides have been severely strained over the past several months, due both to the situation in Ukraine, as well as a myriad of trade spats between the highly interconnected economies. Russia is the EU's third largest trading partner, while the EU is Russia's top trading partner.

Earlier in April, the EU criticised Russia at a meeting of the WTO's Council for Trade in Goods for allegedly not meeting the global trade body's rules.

"The overall experience with Russia as WTO member is, to our regrets, rather disappointing," said EU Ambassador Angelos Pangratis. "Russia has not shown willingness to put its trade measures in line with basic WTO obligations and has continued raising a number of trade obstacles inconsistent with its WTO obligations."

Since Russia joined the WTO in August 2012, the EU has lodged two formal requests for consultations with the newly-acceded member, out of the three total complaints that have been filed.

The first of these, regarding a recycling fee for vehicles that the EU claimed favoured cars produced in Russia and its two customs union partners – Belarus and Kazakhstan – over their foreign equivalents, is now at the panel stage. A similar complaint on the same subject was also filed by Japan, although Russia has subsequently repealed the law in question.

In April, the EU filed another formal request for consultations with Russia over its blanket ban on imported pork products, in place since January of this year.

Moscow maintains that the ban is necessary to protect its porcine industry from African swine fever (ASF) due to cases found in EU member states Lithuania and Poland. EU officials saw the ban is unnecessary, given that only four ASF cases have been detected in those countries so far and the measures being taken to contain the virus.

Russia's first complaint at the global trade arbiter was also against the EU, targeting specifically a series of anti-dumping duties that the 28-nation bloc has imposed on certain Russian imports, and the cost adjustment methodologies to determine them.

# The newroom

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## Climate pre-summit sees call for global carbon price

The World Bank Group and partners have launched a statement of support for strengthening carbon prices, urging countries and leading businesses to join their support.

"A carbon price provides a necessary signal for investment in low-carbon and resilient growth, and regardless of the mechanism used, should be part of any package of policies to scale up mitigation," said Rachel Kyte, World Bank Group vice president and special envoy for climate change.

The announcement came at a two-day event in Abu Dhabi, UAE, designed to build support towards the UN Secretary General Ban Ki-moon's high-level Climate Summit to be held in New York, US this coming September.

In his opening remarks, the UN Chief urged stakeholders to take quick and definitive action to address climate change, and identified nine key areas with the greatest potential to deliver results; energy, cities and transport, finance, resilience, agriculture, and short-lived climate pollutants.

## UN lifts ban on Côte d'Ivoire diamond trade

The UN Security Council has unanimously voted to lift a moratorium on rough diamond imports from the Côte d'Ivoire. The diamond embargo was put in place in 2005, following a period of civil war in the troubled West African country, only now emerging from a decade of instability.

The Resolution emphasised the lifting of the ban came "in light of the progress made towards Kimberley Process Certification Scheme (KPCS) implementation and better governance of the sector." The Kimberley Process (KP) imposes requirements on its members – currently numbering 54 and representing 99.8 percent of global diamond production – to certify shipments of the precious stones. Members can only trade diamonds with other KP participants who have met the standards, an arrangement sanctioned by a waiver under WTO law.

Earlier in this month however, a group of UN experts expressed concern that Abidjan had not made enough effort to stem the country's illegal diamond trade.

## EU delays decision on South African citrus fruits

The EU has postponed a decision until the end of May on whether to drop a ban on South African citrus fruits. A proposal to lift the embargo had been put forward in April, in order to avoid a chronic shortage of fruit juice in Europe during the summer. The ban on the highly lucrative trade was imposed last November when 35 shipments of citrus fruits from South Africa were found to have widespread infestation of the fungal black spot disease.

According to a risk assessment conducted by the European Food Safety Authority (EFSA) last year, the fungus is not harmful to consumers but is very difficult to contain, and could threaten Europe's citrus production. A group of black citrus black spot experts from countries affected by the disease said it had identified "errors and omissions" in the EFSA's draft assessment, and that there was no recorded case of the disease having spread through fruit exports.

South Africa exports around 600,000 tonnes of citrus fruits, mainly oranges, to the EU each year.

## China bans consumption of endangered species

According to Chinese state media, the country's Standing Committee has made the consumption of animals protected under China's national wildlife protection Law punishable by imprisonment.

Individuals caught eating these endangered species now face jail time of 10 years or more. China already prohibits trade in its endangered species, however the law now defines ordering a rare species as a form of trade.

China deems 420 of its species as rare or endangered. This includes animals such as the Siberian tiger, the panda, and the Asian black bear.

Experts have attributed the country's rising income in recent years to a growth in demand for exotic animal products. Lang Sheng, Deputy Head of the Legislative Affairs Commission said "Buyers are a major motivator of large-scale illegal hunting." Conservationists have largely welcomed the move.

## China moves forward with duties on EU polysilicon

The Chinese Ministry of Commerce (MOFCOM) at the end of April confirmed final anti-dumping and anti-subsidy duties on imports of solar-grade polysilicon from the EU, a raw material used in the manufacturing of solar panels.

Following an investigation launched in November 2012, the ministry said that a causal relationship had been found between the alleged EU dumping and subsidies, and the material injury suffered by China's domestic producers. The EU's exports of polysilicon to China were valued at €700 million in 2011, according to the European Commission.

One German company, Wacker Chemie AG, will be exempted from the measures due to its previous "price commitment." The world's second largest polysilicon maker reached a price undertaking deal with Beijing in March, pledging to not to sell the solar material on the Chinese market below a minimum price. At that time, the Commission indicated that Wacker Chemie AG accounts for a significant portion of polysilicon exports from the EU to China. According to Reuters, however, the measures will affect other exporters.

## India lifts mining ban in top iron-ore state

India's Supreme Court has lifted a 19-month old ban on mining in Goa, the country's top iron-ore producing state. Operations will be allowed to resume as soon as miners obtain new leases from the state government. The court's extraction reprieve, however, is coupled with an annual production cap of 20 million tonnes.

Mining was initially banned across the western coastal state's 90 iron ore mines in September 2012, as part of a bid to tackle illegal activity in the region, reportedly causing environmental degradation.

Although the state's annual production cap represents a small slice of the country's pre-ban production highs of 208 million tonnes in the year ending April 2011, certain industry leaders welcomed the decision.

Other analysts, however, cautioned that the dynamics in global markets may have changed in the last year-and-a-half. According to Graeme Train, a commodity analyst at Macquarie in Shanghai, Beijing's recent anti-pollution drive may cause China - once a top destination for Indian iron ore - to shun the Goa's low-grade iron ore offerings.

## WTO panel established on Argentine biodiesel

The dispute (DS473) between Argentina and the EU over the latter's imposition of anti-dumping duties on biodiesel imports from the South American economy has advanced to the panel stage at the global trade arbiter, after Buenos Aires presented its second panel request to the WTO's Dispute Settlement Body.

The duties in question were confirmed by the 28-member bloc last November, following a European Commission investigation into claims that Argentina and Indonesia - the world's top exporters of biofuels - were selling their energy product to EU member states below its normal value, a practice known as "dumping" in trade parlance.

Indonesian officials have lately indicated that they too plan to take up the issue at the global trade arbiter, after being hit with similar EU biodiesel anti-dumping duties.

The development came within days of Argentine President Cristina Fernández de Kirchner forwarding a request to Congress to eliminate certain domestic taxes paid by biodiesel manufacturers, slated as an effort to support the country's industry in the face of the EU measures.

## Climate scientists warn of escalating emissions

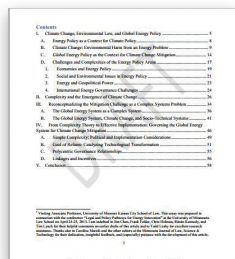
The UN panel on climate change released findings from a new report on climate mitigation in April, indicating that manmade greenhouse gas (GHG) emissions have ballooned more quickly between the years 2000-2010 than in any of the three previous decades.

Should current policies continued unchanged, climate scientists predict with high confidence that global mean surface temperatures in 2100 will soar to between 3.7 to 4.8 degrees Celsius higher than pre-industrial levels.

The mitigation report identifies a proliferation of coal use in the global energy mix during the first decade of this century as one of the main factors exacerbating emissions growth. An urgent beefing up of renewables is called for. Slowing unsustainable tree harvests and enhancing afforestation is spotlighted as a measure to soak up GHG from the air.

Mitigation, together with adaptation, form part of Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC). Under this mechanism, 197 countries are in talks to seal a global climate action agreement.

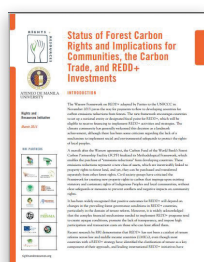
# Publications and resources



## **Complexity in Global Energy-Environment Governance – Minnesota Journal of Law, Science and Technology – February 2014**

This article calls for a re-conception of the global effort to mitigate climate change. Instead of being framed as an environmental law problem, the article suggests approaching the issue through energy policy reform. The authors conclude that reconceiving climate change as an emergent property of the global energy system can direct reform efforts to components that are most likely to produce a large-scale transformation.

The article can be accessed at <http://bit.ly/1iwgYBs>



## **Status of Forest Carbon Rights and Implications for Communities, the Carbon Trade, and REDD+ Investment – RRI – March 2014**

Using a preliminary assessment of 23 Low and Middle Income Countries, this brief from the Rights and Resources Initiative (RRI) seeks to examine the status of existing legal frameworks for Indigenous Peoples' and local communities' rights to trade carbon. The policy brief makes the case for secure tenure rights to forest land and resources as carbon becomes a marketable commodity in bid to stem deforestation and forest degradation.

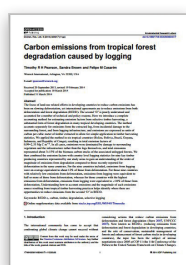
This brief can be found at <http://bit.ly/1ki83AC>



## **Spatial Analysis of Green Infrastructure in Europe – EEA – March 2014**

Targeting policymakers and practitioners, this report from the European Environment Agency (EEA) proposes a feasible and replicable methodology when identifying Green Infrastructure (GI) elements, namely natural elements that can provide ecosystem services. A key finding of the report is that the application of such methodology shows that healthy areas of green infrastructure cover approximately a quarter of Europe's land.

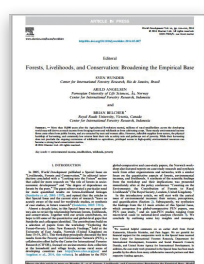
The report can be accessed at <http://bit.ly/1hMIdpT>



## **Carbon Emissions from Tropical Forest Degradation Caused by Logging – Environmental Research Letters – March 2014**

This paper makes a case for addressing forest degradation, arguing that developing countries have largely focused on deforestation as a means of tackling carbon emissions reductions. The authors introduce a comprehensive accounting method for estimating emission factors from selective timber harvesting. The paper states that understanding how to account emissions and the magnitude of each emissions source resulting from tropical timber harvesting practices helps identify opportunities to reduce emissions from forest degradation.

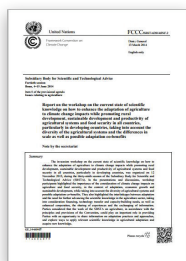
The paper can be found at <http://bit.ly/1m6jkVH>



## **Forests, Livelihoods and Conservation, Broadening the Empirical Base – CIFOR PEN – March 2014**

The Center for International Forestry Research (CIFOR) Poverty and Environment Network (PEN) has released the first instalment of a series evaluating the links between forestry and livelihoods. This study is based on 8000 household surveys carried out across 24 countries. It finds that forests and other natural areas account for about 28 percent of the household income of survey participants. Other key conclusions include the demonstration that men generate as much income from forests as women, and that the attribution of blame to the poorest farmers for deforestation may be overstated.

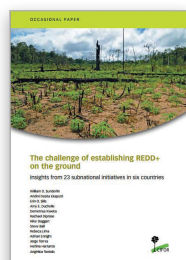
The study can be accessed at <http://bit.ly/1kSaA6r>



### **Report on the Workshop on the Current State of Scientific Knowledge on How to Enhance the Adaptation of Agriculture to Climate Change Impacts – UNFCCC – March 2014**

This note from the UN Framework Convention on Climate Change (UNFCCC) Secretariat provides a summary of an in-session workshop that took place during the 39th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA). The note concludes that participants determined that SBSTA's work on agriculture could play a significant role in knowledge sharing on adaptation practices and approaches.

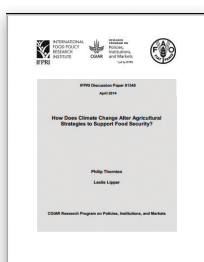
The report can be found at <http://bit.ly/1pJUukq>



### **The Challenge of Establishing REDD+ on the Ground – CIFOR – April 2014**

The Center for International Forestry Research (CIFOR) has released a report analysing the implementation of the UN's Reduce emissions from deforestation and forest degradation (REDD+) in 23 sub-national programmes in six countries. The report lists the following as steps that will improve the long-term success of the REDD+ initiative: forest tenure reform; the alignment of REDD+ planning with sectoral strategies and plans; stronger governance and actions to address illegal logging; the establishment of sustainable supply chains; and the reduction of demand for woodfuel.

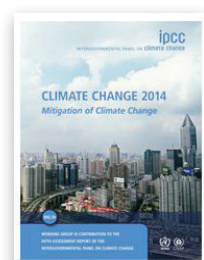
The report can be found at <http://bit.ly/1mxPvSK>



### **How Does Climate Change Alter Agricultural Strategies to Support Food Security – IFPRI – April 2014**

A new discussion paper from the International Food Policy Research Institute (IFPRI) focuses on the issue of how climate change affects the way that agricultural systems and how the UN Food and Agriculture Organization, together with the Consultative Group on International Agricultural Research (CGIAR), can support appropriate adaptation. The paper analyses five categories of responses to climate change and highlights four action areas to generate agricultural transformation that supports food security in the face of a changing planet.

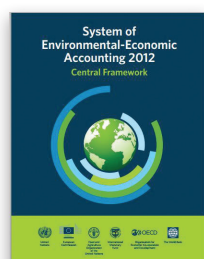
The paper can be found at <http://bit.ly/1nC9LBJ>



### **Climate Change 2014: Mitigation of Climate Change: Summary for Policy makers – IPCC – April 2014**

This summary for policy makers is Working Group III's contribution to the Intergovernmental Panel on Climate Change (IPCC)'s Fifth Assessment Report and evaluates the literature on the scientific, technological, environmental, economic, and social aspects of mitigation of climate change. The UN scientists warn of escalating emissions and call for large scale emissions reductions by 40 to 70 percent compared with 2010 by 2050. The summary assesses mitigation options at different levels of governance and economic sectors, and the different societal impact of various mitigation policies.

The summary can be accessed at <http://bit.ly/PNXfQX>



### **The System of Environmental-Economic Accounting 2012, SEEA Central Framework – UNCEEA – April 2014**

The UN Committee of Experts on Environmental-Economic Accounting (UNCEEA) has prepared an updated framework that aims to help countries compile consistent and comparable data on environmental assets, as well as the interactions between the economy and the environment. The System of Environmental-Economic Accounting (SEEA) Central Framework was adopted in March 2012, building on previous versions released in 1993 and 2003. The revised system allows for the collected information to be classified in tables, accounts, and indicators to inform policymaking on issues such as the trend and availability of natural resources.

The framework can be found at <http://bit.ly/1hMNeif>

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