

n effective, enabling and needstailored policy and regulatory environment provides the backbone to incentivizing sustainable and legal trade in wild plants, both timber and non-timber products. Combined with an adequate capacity for implementation at the national level, the enforcement of such policy and regulatory environments serves to discourage illegal and unsustainable trade both in the countries of origin and in transit, and encourages the responsible consumption of wild plants. Policy and regulatory frameworks addressing wildlife trade interact with a number of other approaches, voluntary actions by businesses and interplay with voluntary certification standards and with local governance systems supporting responsible production. This article sets the context of trade in wild plants and the existing regulatory and policy environment, provides examples of tools and approaches to ensure that current systems facilitate responsible trade, and provides ideas for further research and action.

Context of trade

Timber: Over the past three decades, the rate of deforestation around the world has been alarmingly high. Between 1990 and 1995, it is estimated that the net deforestation rate was 13.7 million ha per year in natural forests in developing countries and in the last decade, the average net loss was 5.2 million ha per year (FAO, 2012). Wood removals globally have been valued at about USD100 billion annually between 2003 and 2007 (FAO, 2010). The wood trade globally, including valueadded timber products such as door panels, flooring, furniture, is more significant, one quote measuring it at USD327 billion annually (Nellemann, 2012). Timber trade contributes to national economies through royalties and fees, and the taxation of timber industry revenue. Due to its economic contribution, much of the international focus has been on illegal logging and timber trade. The annual loss of revenue and tax income caused by illicit timber trade has been estimated at USD30 to USD100 billion (Nellemann, 2012), however the nature of illegal trade means that estimates are unreliable. A comparison of Customs data can demonstrate major unauthorized flows of timber. For example, TRAFFIC's studies of Indonesia's timber trade flows to Japan and other major markets showed major discrepancies, despite the bans on exports of logs and rough sawn timber (Chen, 2008). Political will, corruption and closed door policies have continued to hamper efforts to address the challenges of illegality.

Processing Jiaogulan Gynostemma pentaphyllum, Nam Xuan Lac collector co-operative, Bac Kan province, Viet Nam, May 2016.

SUPPORT SUSTAINABLE AND TIMBER PLANT PRODUCTS

Non-timber forest products (NTFPs): Wild plants, fungi, and lichen are a significant source of ingredients used in the pharmaceuticals, cosmetics and food industries, and in local medicines and other products supporting health and livelihoods. Such wild resources are often referred to collectively as non-timber forest products (NTFPs), but may come from many types of ecosystems and habitats beyond forests. Trade chains are typically long and complex, and end users may be unaware that materials have been collected in the wild or of their country of origin. As much of the trade is unreported and/or unregulated, estimating the scale of wild harvest is difficult. Species are traded in different forms (raw, processed), and are often aggregated in export codes, making the comprehensive trade monitoring or separation by species or origin (wild/ cultivated) close to impossible (Shanley et al., 2015). The global value of non-wood forest products of plant and animal origin was estimated at USD20.6 billion in 2010 (FAO, 2015), likely a substantial underestimate as these products are rarely captured in national statistics (Shackleton and Pandey, 2014). Estimates of the scale of trade are dependent on Customs codes, which can be challenging to include comprehensively given the variety of species involved and the difference between how they are captured in national reporting. A recent study estimates the export of medicinal and aromatic plants (both wild-collected and cultivated) from China at over 1.3 million tonnes, with a reported Customs value of over USD5 billion (International Trade Centre, 2016). The global reported trade in plants for medicinal purposes alone (Customs code HS1211, a subset of those analysed in the International Trade Centre study) was valued at over USD3.4 billion in 2014¹, and is increasing. Pressures on wild resources pose major ecological and socio-economic challenges to traded species, other plants and animals, and the livelihoods of those depending on harvests and trade, and growing market demand is an important factor in increased harvesting pressure.

EXISTING REGULATIONS AND CONTROLS

Timber: There is a growing understanding and acceptance of sustainable production, supply chain development, and consumption among industry and consumers alike. Transparent forest governance based on legality and sustainability is also a critical element of efforts to reduce the contribution of forest loss and degradation to climate change. Although only used for a handful of species, internationally, CITES (Convention

on International Trade in Endangered Species of Wild Fauna and Flora) remains the main mechanism used to address the illegal and unsustainable logging and trade in timber.

National legal measures for trade in timber that have international reach include the US Lacey Act, the EU Timber Regulation (EUTR), and Australia's Illegal Logging Prohibition Act. They provide a legal basis to action if the imported products can be proven to have violated the laws in the country of export. Such farreaching authority to defend the regulation of another country is rare. Strong policies are critically important for bringing responsible forestry and trade into the mainstream, however there is often a gap between the development and implementation of market-based legislations and the ability of companies to understand these requirements. Here, the lack of legal harmonization in government forestry management structures and a variety of regulations covering timber trade in the countries of processing and origin makes it difficult for exporters to provide and prove the supplies of legal

Customs approval is required for imports and exports in international trade. A TRAFFIC review uncovered an important gap in the verification of shipments: while it is mandatory for declaration forms to accompany all exports, these are not being submitted for verification in the importing countries and Customs are verifying incoming shipments on the basis of accompanying business documents (invoices) or shipping documents (e.g., bills of lading) (Chen, 2008).

Customs forms data, based usually on business documents, are used to compile national statistics, however there are occasional discrepancies in trade data reported in national statistics of exporting and importing countries. These discrepancies are frequently too significant to be accounted for by legitimate reasons: they are also typically due to smuggling, laundering and mis-specification at the border.

NTFPs: Traditionally an economic activity with little regulation or informal controls, over the past few decades regulation of the harvest and trade of NTFPs has become much better incorporated into legislation, e.g. through the expansion of forestry law. There is generally less control of legality and sustainability in comparison to timber trade, and a lack of management planning for the majority of harvested species (Laird et al., 2009). At the subnational level, customary law and traditional use systems for resource management are important in governing use. While they often prove very effective in managing local harvests, without formal legal status they may be overwhelmed by sudden increases in demand. Traditional systems are vulnerable to knowledge loss and weakening of local institutions and customary management/controls through the high levels of ruralurban migration.

¹UN Comtrade database, accessed 14 March 2016 (http://comtrade.un.org/db/). Export value of products reported in code HS1211 in 2014.

CITES and the CBD (Convention on Biological Diversity) provide entry points to regulating trade in NTFPs and the development of national policy and regulatory mechanisms. For many plant species, controls under CITES provide the key legal instrument to address the sustainability and legality of international trade, including the Non-Detriment Finding (NDF)2 determination for Appendix II species before they are permitted to be exported. Within the CBD, the Nagoya Protocol on Access and Benefit Sharing (UNEP, 2010) is being enacted through national legislation, while the Global Strategy for Plant Conservation provides an important set of targets (including on trade and sourcing). The contribution of wild plants to biodiversity conservation and human health is referenced in the Guidelines on Conservation of Medicinal Plants (WHO, IUCN and WWF, 1993).

At the national level, control of use and trade is often characterized by overlapping legislative requirements, reflecting the responsibilities and objectives of different ministries, and commitments made under international agreements. As the economic importance of wild plants, their contribution to rural livelihoods and healthcare systems, and their conservation value are typically being under-recognized, the regulatory framework is often inadequate. Measures in place to regulate trade in NTFPs may separately be covering, for example, the establishment of access and resource use regimes; the protection of species and habitats; consumer protection standards (e.g. for traditional medicinal products); and the establishment of intellectual property regimes.

Where regulations on use and trade of wild plants are in place, they often lack clarity on governmental responsibilities for implementation and enforcement, as well as having a poor scientific basis. If developed without stakeholder consultation and reference to existing customary laws and institutions, as well as industry practice, the broader support necessary for implementation may be lacking. As with any other area of policy implementation, enforcement is often recognized as a bottleneck to effective implementation of even well-designed regulations.

Poorly designed and/or implemented regulations can exacerbate levels of unsustainable harvesting, and potentially result in increased levels of inequity in resource access (Wynberg *et al.*, 2015; Mulliken and Crofton, 2008). New incentives and systems can be established that undermine effective local institutions and traditional controls on access and use, taking ownership away from communities. In some cases, resource management and permit systems designed for timber have been extended to NTFPs without consideration of feasibility and appropriateness and whether sufficient resources are available for implementation (Shanley *et al.*, 2015). The result can be a highly bureaucratic and ineffective system, creating new bottlenecks, opportunities for corruption and incentives to bypass the law.

Examples of Tools to Enable Better Regulations and Policies

Timber: Common Legality Framework and Customs **Export Declaration Guidance.** In order to support the development of timber trade policy and the effective implementation of existing laws, TRAFFIC and WWF's Global Forest and Trade Network (GFTN) developed the Common Framework for Assessing Legality of Forestry Operations, Timber Processing and Trade, known as the Common Legality Framework. This framework enables governments and companies to access and understand relevant aspects of laws, regulations, administrative circulars and contractual obligations that affect forestry operations, timber processing and trade. Applied to a specific country, the framework is known as a National Legality Framework. It allows for harmonization of the way in which legislations can be viewed, compiled, analysed and clarified. This tool should be able to assist stakeholders to understand what it means to be legal and to verify the legality in their supply chain. To date, the Common Legality Framework has been enshrined in national laws in 16 countries. In practical terms, the application of the Common Legality Framework has been used to help regulators and companies understand what is legal (both in exporting and importing countries). In Tanzania, the framework was used to develop the government audit checklist along the supply chain. In Namibia, the Framework is used to evaluate and assess the relevant national legislation and supply chains. In Malaysia, the Forest Stewardship Council (FSC) national Steering Committee considers the use of the National Legality Framework as a foundation for national standard-setting. In Viet Nam, the national legality framework was used as the key reference in developing the Forest Law Enforcement, Governance and Trade (FLEGT) legality definition.

The proposed Customs export declaration guidance has been piloted for use by Customs border co-operation between Kenya and Tanzania under the East Africa Zanzibar declaration umbrella of activities to combat illegal timber trade among East African countries.

NTFPs: The FairWild Standard and wild plant resources use and trade. The FairWild Standard (FWS) was developed through a multi-stakeholder consultation process with the aim to support improved governance and management of wild plants in trade (FairWild Foundation, 2010). It provides best practice guidance for sustainable harvest and equitable trade of wild plants, fungi and lichen. It comprehensively covers social, environmental and economic issues. Recognizing the difficulties in establishing effective regulations, the FWS was intended to play an important role in managing the sustainability of harvest and trade through voluntary compliance mechanisms, and supporting implementation of existing laws.

²An NDF decision is a science-based assessment to ensure that export of a species will not be detrimental to its survival. Guidance on NDFs is provided through CITES Resolution Conf. 16.7, although each Party may decide their own methodology. The German CITES Scientific Authority (Bundesamt für Naturschutz, BfN), TRAFFIC and WWF Germany have developed a nine step process for NDFs for perennial plants http://www.bfn.de/0302_ndf+M52087573ab0.html. These steps include evaluating both conservation concerns and management measures that may be in place to mitigate identified risks. Draft guidance for timber NDFs is also under development.

The FairWild Standard principles are not aligned to any specific national laws. It is a private standard, the content of which is not subject to regulation. However, compliance with laws, regulations and agreements is its core feature. In addition to compliance with requirements relevant to wild collection and trade, references to legislative and regulatory frameworks is made throughout other parts of the FWS, e.g. under social and economic criteria on labour rights, health and safety, minimum wage, etc. Compliance is not limited to those rules established by the State. FairWild also includes requirements of respecting traditional uses, practices and customary rights, whether or not these are enshrined in national law.

FairWild has informed the development of resource management systems at local, regional and national levels, and supported other voluntary actions on sustainable sourcing by industry. It was used to inform the resource management systems on a species or area basis, for example the development of sub-national regulations on NTFPs use in Bosnia and Herzegovina (Timoshyna, 2010; TRAFFIC, 2015), and also in South Africa and Lesotho with the development of the Pelargonium sidoides Biodiversity Management Plan (Government of South Africa, 2013; Newton and Timoshyna, 2012). Similar efforts are taking place in the Bac Kan province of Viet Nam in the context of a UK-government funded Darwin Initiative project, which aims to support the development of a provincial-level strategy focusing on the sustainable harvesting of plant resources, such as Jiaogulan Gynostemma pentaphyllum, the dried leaves of which are traditionally taken as a medicinal tea, and CITES Appendix II-listed Cibotium barometz. In the broader context of the sustainable use approaches to NTFPs, several countries integrated the implementation of the FWS in their policies translating the global commitments under the Global Strategy for Plant Conservation, including Japan and Mexico. In China, where government oversight and approval is needed for international standard schemes to operate, introduction of FairWild as a voluntary certification standard required analysis of the regulatory landscape. This was completed within a project with the traditional Chinese medicine (TCM) sector in China (Timoshyna et al., 2015), and follow-up through TRAFFIC's programme in China now seeks the approval of the FWS implementation, together with local partners.

PRIORITIES FOR RESEARCH AND ACTION

Looking to the future, there are multiple opportunities where tools, including the GFTN/TRAFFIC Timber Legality Framework and the FairWild Standard, may be used to support the development and implementation of laws, regulations and policies. Often viewed and addressed separately, timber and NTFP trade systems and approaches may provide a useful overlap and synergies when implemented jointly. Some of the opportunities and important research and actions in this area include:

- A need for clear overviews of existing laws and policies covering harvest and trade in wild plant resources in order to support the implementation of the FWS, classify the boundaries of the "legality" of trade in wildlife, as well as to identify potential gaps or loopholes in the existing regulatory and policy frameworks. The implementation of the WWF -TRAFFIC-GFTN Common Legality Framework for all exporting countries, and the adaptation of the Framework to NTFPs (as well as, potentially, other wildlife resources in trade) is an opportunity to address this need.
- There is a need for greater efforts in developing new, and improving existing, laws and policies covering timber and NTFPs trade, including via the participation of multiple stakeholders, and through the integration of incentives for legal and sustainable harvesting and trade practice.
- A collection of available good practices and approaches as relevant to timber and NTFPs policy and regulations would provide a valuable resource to government agencies, resource managers and users. Such collection of good practices and approaches could form the basis of the "good practices toolkit" on developing and implementing better policies and regulations in timber and NTFPs trade, and supporting governments in implementing the CBD and CITES commitments.
- The issues of the sustainability of NTFPs harvest, management and trade should be included more explicitly under the umbrella of the sustainable forestry management (SFM) approaches and systems, providing an opportunity to increase the visibility of this important sector and contributing to conservation and livelihoods. The FWS framework can be piloted to demonstrate the usefulness of the approach for ensuring the sustainability of the target NTFPs harvest and trade, while ensuring landscape-level conservation.
- There is a need for increased visibility of NTFPs trade and better reporting of timber trade, including by encouraging the use of species-specific Customs codes in reporting (in particular for the priority NTFPs species in trade), as well as reporting via national statistics.
- Further uptake of the FWS via certification and development of effective regulation of sustainable wild harvest is needed to improve the status of wild-harvested NTFPs in trade.
- While most FWS certification pilots to date have been with lower-risk species, usually without legal protection, the certification can also support management of threatened and protected species. Certification of CITES-listed species would make a relevant and useful pilot, complementing existing CITES processes, such as NDFs.
- The FWS could also be used as a reference framework to verify compliance with public procurement policies on sustainable and legal sourcing of NTFPs, such as those increasingly being used to promote the use of legal and sustainable timber.



The launch of a UK-government funded Darwin Initiative project that is focusing on the sustainable harvesting of plant resources in Bac Kan province, Viet Nam.

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