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Creating synergies between Voluntary Certification Standards (VCS) and regulatory frameworks: Case studies from the FairWild Standard

Bryony Morgan and Anastasiya Timoshyna

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Abstract

The FairWild Standard (FWS, www.fairwild.org/) provides guidance on sustainable collection and fair trade of wild-harvested plants, fungi and lichen. Created through a multi-stakeholder consultation process, it forms the basis of a third-party audited certification scheme, with over 20 companies currently involved in production and trade of certified ingredients. Beyond certification, FWS is influencing corporate policy and practice related to biodiversity conservation and sustainable livelihoods, and is aiding implementation of international policy (CBD, CITES) and development of national and local resource management systems.

Implementation of the FWS as a Voluntary Certification Standard (VCS) involves an interplay between the voluntary regulation of industry practice and the regulatory frameworks already in place. Wild harvesting takes place in contexts with varying governance, legislation, institutional settings and ownership. Harvest may take place on public or community-owned lands, as well as on private land. The regulatory frameworks (e.g. management and permit systems) are similarly diverse. This paper explores different scenarios in which the FWS has been implemented, and the resulting interplay between the VCS and the regulatory framework. Examples presented include wild-harvesting projects from the certification scheme taking place in different scenarios, ranging from long-term exclusive leases for harvesting on public land, to annual permit systems for harvesting from public forests, and harvesting on land under private or community ownership. Experience is also reviewed of using the FWS in projects involving reform of the legislative/ regulatory framework for wild plant collection, engaging industry and community stakeholders to develop effective governance systems for wild resources.

Finally, the paper draws together lessons learned, comparing actual experience with assumptions inherent in the FWS, and provides some reflections on potential future approaches.

Key words: Non-timber forest products; medicinal plants; certification; sustainability standards; wild harvest; regulation

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Introduction

Wild plants, fungi, and lichen are a significant source of ingredients used in industries producing pharmaceuticals, cosmetics and foods, as well as in local medicines and other products supporting health and livelihoods. Such wild resources are often referred to collectively as non-timber forest products (NTFPs) or non-wood forest products (NWFP), but may come from many types of ecosystems and habitats in addition to forests.

Trade chains for these species are typically long and complex, making it difficult to link products to the source of supply. End users may be unaware of wild collection being the source of ingredients, or even the 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, complexities that make comprehensive trade monitoring or separation by species or origin (wild or cultivated stocks) close to impossible (Shanley, Pierce, Laird, López Binnqüist, & Guariguata, 2015). However, their economic importance is clear. According to the Food and Agriculture Organization of the United Nations (FAO) (2015), the global value of non-wood forest products (NWFP) of plant and animal origin was estimated as USD20.6 billion in 2010. This is likely a substantial underestimate as NWFPs are rarely captured in national statistics (Shackleton & Pandey, 2014). Estimates of the scale of trade are dependent on customs codes, which can be challenging to include comprehensively in trade estimates given the variety of species involved and difference between how they are captured in national reporting. In a recent International Trade Centre (ITC)-TRAFFIC study (2016), the export of medicinal and aromatic plants (both wild-collected and cultivated) from China was estimated at over 1.3 billion kg, with a reported Customs value of over USD5 billion. The global reported trade in plants for medicinal purposes alone (customs code HS1211, a subset of those analysed in the ITC study) was valued at over USD3.4 billion in 2014 (United Nations, 2016), and is increasing.

Pressures on wild resources can pose major ecological and socio-economic challenges. The conservation status of medicinal plants is poorly known (Secretariat of the Convention on Biological Diversity, 2010), but for plants globally, it is estimated that one in five plant species is threatened with extinction in the wild (Brummitt, et al., 2015). Plants have been used by humans over millennia and, in that time, have been pretty resistant to collection pressures. However, the existing and growing market demand creates an important driver of increased harvesting pressure, for both long-traded species and species that were not traded internationally in the past (e.g. for superfoods or cosmetics).

NTFPs make an important contribution to rural livelihoods, as well as having cultural value. Harvesters are often among the poorest and most vulnerable members of society. Wild plants can provide a supplementary source of income for households, providing seasonal work for villagers in rural areas. There is a need to improve the contribution these resources make to livelihoods, increasing both the amount and the security of income from the trade, and supporting value addition locally.

Regulating wild harvest and trade

Use of wild resources can be controlled through regulatory systems at subnational, national and international levels, the effectiveness of which affects conservation outcomes for species and habitats, as well as their short and long-term contribution to rural livelihoods.

A wide range of wild-harvested plants, fungi and lichen are used and traded, domestically and internationally. It is estimated that 60,000 plant species are used for medicinal purposes globally (Schippmann, Leaman, & Cunningham, 2006).

A complete list of all plants used in medicine does not exist, but at least 30,000 species of plants with a use documented in traditional systems and national pharmacopoeias are included in the Global Checklist of Medicinal Plants[1]. Plants used in traditional medicine are not only important in local health care, many are important in international trade based on broader commercial use and value (an estimated 4,000-6,000 species according to Iqbal (1993)).

Traditionally an economic activity with little or no formal regulation, over the past few decades the harvest and trade of NTFPs has become much better incorporated into subnational and national legislation, e.g. through the expansion of forestry law. Use and trade are also regulated at international levels. However, there is generally less control of legality and sustainability as compared with the trade in timber species, for example, and a lack of management planning for the majority of species harvested (Laird, Wynberg, & McLain, 2009). At the subnational level, customary law and traditional use systems for the management of wild resources remain important in governing use through less formal controls. However, while they often prove very effective in managing harvest at local levels, without formal legal status they may be overwhelmed by sudden increases in demand. Traditional systems are also vulnerable to loss of knowledge and weakening of local institutions and customary management and controls through the high levels of rural-urban migration occurring in many parts of the world.

An important driver of new and reformed legislation is the implementation of multilateral environmental agreements (MEAs), as commitments made under e.g. the Convention on International Trade in Endangered Species of Fauna and Flora (CITES) and the Convention on Biological Diversity (CBD) are translated into national law and regulations. For many plant species, controls under CITES provide the major (or only) legal instrument to address the sustainability and legality of international trade. Trade in species listed in CITES Appendix I is generally not allowed; trade in species listed in Appendix II requires determination by authorities that trade is legal and sustainable (a Non-detriment Finding (NDF)[2]) before it is permitted.

Commitments under the CBD affect the use and trade of wild plant resources in a variety of ways, reflecting the Convention's multiple objectives of biodiversity conservation, sustainable use and benefit-sharing. A particularly active area of legislation development at present is arising from implementation of the CBD's Nagoya Protocol on Access and Benefit Sharing (ABS) (UNEP, 2010). The CBD's Global Strategy for Plant Conservation provides a target-oriented framework, which was translated into the national context by some countries through national strategies for plant conservation (e.g. Mexico, China) or regional-level commitments (e.g. the European Strategy for Plant Conservation). Another important international framework for conservation and sustainable use of medicinal plants is provided by the Guidelines on Conservation of Medicinal Plants (WHO, IUCN & WWF, 1993). In its Traditional Medicine Strategy (2013), the World Health Organization (WHO) prioritizes finalization of an update of this document, which will provide important guidance to members.

1 An output of the Medicinal and Aromatic Plant Resources of the World (MAPROW) database, supported by the IUCN-SSC Medicinal Plant Specialist Group.

1 An NDF decision is a science-based assessment that allowing 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 its own methodology. The German CITES Scientific Authority (Bundesamt für Naturschutz, BfN), TRAFFIC and WWF Germany have developed a nine-steps guidance for NDFs for perennial plants (Leaman & Oldfield, 2014). These nine steps include evaluating both conservation concerns and management measures that may be in place to mitigate identified risks.

At the national level, control of use and trade is often characterized by a constellation of overlapping legislative requirements, reflecting the responsibilities and objectives of different ministries, as well as commitments made under international agreements. Wild plants typically have a low profile (their economic importance, contribution to rural livelihoods, health-care systems, and conservation value being under recognized), and there is often limited coherence to the applicable legislative and regulatory framework, and a lack of resources invested into coordinating policy approaches.

Users of wild plant resources may hence find themselves navigating a confusing array of:

- **Laws establishing access and use regimes** for NTFPs, including e.g. management and harvest permit systems. Often part of forestry legislation; in some cases regulations cover the management of individual species (e.g. South Africa's Biodiversity Management Plan (BMP) for *Pelargonium sidoides* (2013)).
- **Laws protecting species and habitats** e.g. protected areas legislation, national "red lists" of protected species (e.g. EU Habitats Directive).
- **Laws aimed at consumer protection**, regulating aspects of quality, safety and authenticity. For example, the norms of organic agriculture standards are regulated through legislation in major markets. The European Directive on Traditional Herbal Medicinal Products (THMPD) regulates the marketing of herbal medicinal products on the basis of efficacy and safety in the EU Member States. In China, processes of formulation and production of traditional Chinese medicine (TCM) are regulated throughout.
- **Laws establishing intellectual property regimes** (access to and use of genetic / biological resources) e.g. ABS laws responding to the CBD's Nagoya Protocol.

Where regulations on use and trade of wild plants are in place, they are often overly general, lacking 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. Implementation of policies and laws that are in place is often weak. Key aspects, such as permit systems, may exist only on paper. As with any other area of policy implementation, enforcement is often recognized as a bottleneck to effective implementation of even well-designed regulations.

There is evidence that poorly designed and / or implemented regulations can exacerbate levels of unsustainable harvesting, and potentially result in increased levels of inequity in resource access (Wynberg, Laird, Van Niekerk, & Kozanayi, 2015) (Mulliken & 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, Pierce, Laird, López Binnqüist, & Guariguata, 2015). The result can be a highly bureaucratic and ineffective system, creating new bottlenecks, opportunities for corruption and incentives to by-pass the law.

The FairWild Standard and wild plant resources use and trade

With the aim to support improved governance and management of wild plants in trade, the FairWild Standard (FWS) was created through the combined efforts of a number of organizations[1] concerned with conservation and development issues related to use of wild

resources, as well as the involvement of industry partners. Standard development began in 2004, and legal registration of the FairWild Foundation (FWF), as the institutional vehicle to manage the Standard, took place in 2008.

Developed through a multi-stakeholder consultation process, the FWS provides best practice guidelines for sustainable harvest and equitable trade of wild plants, fungi and lichen. Version 2.0 (FairWild Foundation, 2010a) comprehensively covers social, environmental and economic issues. It is designed to provide a bridge between high-level conservation agreements, and local conservation and development needs, allowing verification of sustainable practices. In implementation, a distinction is made between species determined to be at low, medium or high risk of unsustainable collection, with more stringent management and monitoring requirements in place for the latter. This classification is made through an assessment of risk factors for overharvesting, taking into account situations where such factors are unknown (IUCN/SSC Medicinal Plant Specialist Group & FairWild Foundation, 2014).

Recognizing the difficulties in establishing effective regulations, FWS was intended to play an important role in managing the sustainability of resource harvest and trade through voluntary compliance mechanisms, as well as supporting implementation of existing laws (Fig 1). As outlined in the FWS (FairWild Foundation, 2010a)(p. 2), Principles and Criteria can be used to:

- provide guidance for resource management
- support implementation of existing regulatory and policy frameworks
- serve as a basis for internal monitoring and reporting (voluntary codes of practice)
- support the FairWild system of certification.

Implementation of FWS as a VCS framework has been a major focus of FWF's efforts in recent years. The certification scheme allows verification of sustainable harvest and fair trade of wild plant ingredients – typically not addressed by other standard systems – and enables communication of sustainable sourcing to consumers through FairWild labelling. Under the FairWild certification system, now operational for more than five years, 24 species have been certified in eight source countries, and over 20 products are now sold on the market labelled as "FairWild". More than 20 pioneering companies are participating across the value chains. The scheme is also providing improved incomes to local communities involved in harvesting through its fair-trade approach to more than 1,000 collectors, including the Samburu people in northern Kenya tapping Frankincense (*Boswellia* and

Box 1. Principles of the FairWild Standard

1. Maintaining wild plant resources
2. Preventing negative environmental impacts
3. Complying with laws, regulations, and agreements
4. Respecting customary rights and benefit sharing
5. Promoting fair contractual relationships between operators and collectors
6. Limiting participation of children in wild collection activities
7. Ensuring benefits for collectors and their communities
8. Ensuring fair working conditions for all workers of the FairWild collection operations
9. Applying responsible management practices
10. Applying responsible business practices
11. Promoting FairWild buyer commitment

From FairWild Foundation (2010a)

1 Organizations involved include TRAFFIC, WWF, IUCN, the German Government's Federal Agency for Nature Conservation (BfN), the Swiss Import Promotion Programme (SIPPO), Institute for Marketecology (IMO), and Forum Essenzia e.V. For history, see (Kathe, 2011) (Morgan & Timoshyna, 2010).

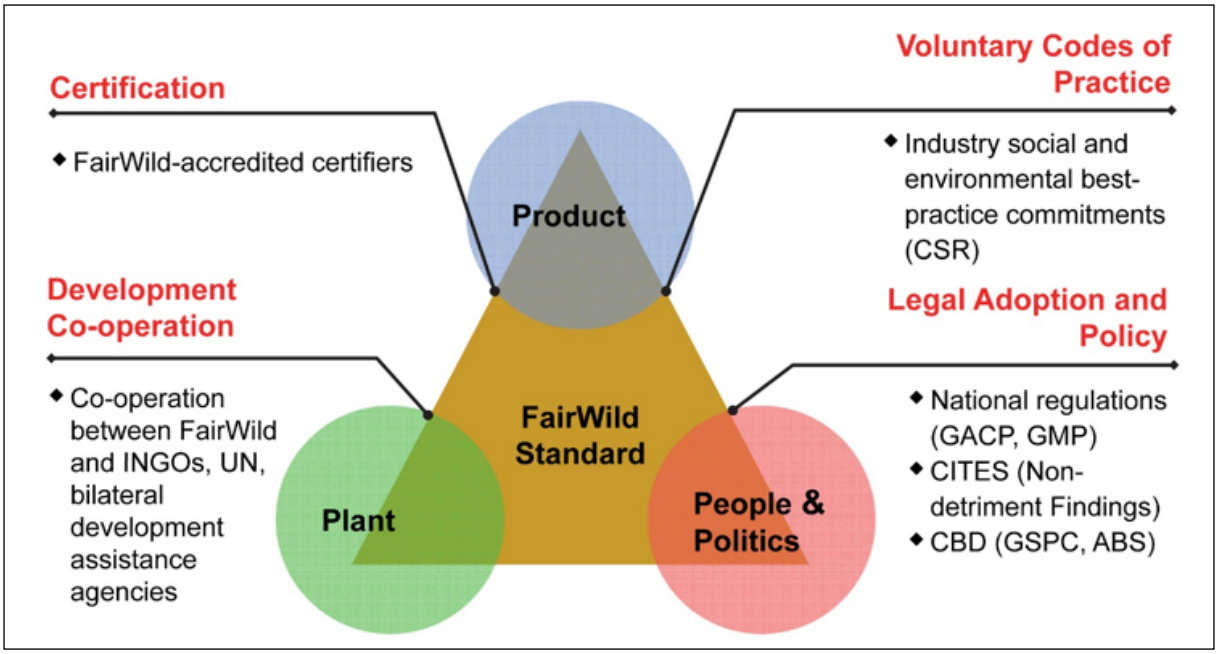

Fig 1. Implementation approaches for the FairWild Standard: Version 2.0. Figure extracted from FairWild Foundation (2010a), p. 2.

Commiphora spp.) resin, community groups harvesting Ayurveda ingredients in sacred groves in India's Western Ghats, Liquorice (*Glycyrrhiza* spp.) harvesters in Kazakhstan, Spain and Georgia, and Roma plant collectors in Central/Eastern Europe.

Beyond certification, some companies are using the FWS as a basis for responsible sourcing through their internal policies and sourcing practices. The FWS is also being used in a range of contexts in conservation / development projects aiming to improve the status of wild plants in trade and benefits arising from their use.

FWS and regulatory frameworks

The FWS comprises ten sustainability principles for wild plant collection operations and one for buyers of ingredients (Box 1). The principles are global and normative, i.e. not aligned to any specific national laws. The FWS is a private standard, the content of which is not subject to regulation (as opposed to e.g. organic standards, which are regulated in major markets). However, compliance with laws, regulations and agreements is a core feature. In addition to compliance with requirements relevant to wild collection and trade (Principle 3), 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. Principle 4 includes respecting traditional uses, practices and customary rights, whether or not these are enshrined in national law.

Hence, in FairWild certification there are multiple areas of potential interplay between the requirements of the VCS and those of the regulatory context. To enable sustainable wild collection, an important aspect is the establishment of access and use rights for harvest of the target species. This is particularly important for controlling resource use in areas under public or community ownership, which may have multiple resource users. The FWS recognizes that a collection operation may not have full control over resource use in the collection area, hence there are multiple

references to the roles and responsibilities of other parties, and to the overall regulatory system in place (see Box 2 for selected requirements of Control Points (CPs) of the FWS performance indicators (FairWild Foundation, 2010b)).

The regulatory system controlling resource use by multiple users may be established either by the state, or through customary use systems and cooperation. The "norm" under the FWS is that either a functioning regulatory system or an equivalent adequate system to ensure the integrity of the collection area is in place (CP 1.3d, score 2). In situations where no functioning regulatory system is in place, the operation may still be certifiable, depending on the likelihood that unsustainable levels of harvest and other damaging activities are taking place. A situation where more than one company / community collects without management agreements is considered as higher risk (FairWild Foundation, 2010b)(Table 2, p. 4). In situations where there are no conflicts or potential threats to collection activities, certification can still be granted (CP 1.3d, score 1). Depending on the situation and species concerned, a high level of scrutiny in the audit may be required, together with efforts of the collection operation to gather evidence of overall harvest volumes.

In places where a regulatory system is not functioning, where there are multiple resource users or conflicts over use, or where there is evidence of decline in the population status of target species, the collection operation may not be certifiable. This would not necessarily be due to any fault of the applicant company.

Examples of VCS-regulatory interplays in practice

Certification

As illustrated in Figure 1, the FWS may be implemented in different regulatory contexts. A review of the wild collection operations participating in the certification scheme demonstrates the wide degree of variation that is found in practice. In India's Western Ghats,

Box 2: Selected "norm" requirements of FWS on laws, regulations and agreements

Principle 3: Complying with laws, regulations and agreements

Collection and management activities shall be carried out under legitimate tenure arrangements and comply with relevant laws, regulations and agreements.

3.1 Tenure, management authority and use rights: Collectors and managers have clear and recognized right and authority to use and manage the target resources

- **CP 3.1b** Ownership, tenure or user right details are known and confirmed over a time-scale that is long enough to fulfil the stated resource management objectives
- **CP 1.3d** Functioning regulatory system protecting the management area from unauthorised activities: in place OR collection management operation demonstrates equivalent adequate system to ensure collection area's integrity
- **CP 3.1e** The collection operation holds a valid collection permit / agreement for all collected plants. If no system of permit exists, it can be confirmed that collection management operation has the right to use and manage the collected resources.

3.1 Laws, regulations and administrative requirements: Collection and management of target resources comply with all international agreements and with national and local laws, regulations and administrative requirements, including those related to protected species and area.

- **CP 3.2b** The management plan, procedures, work instructions and contracts meet relevant legal, regulatory, and administrative requirements regarding the collection management and export, including export permits.

FairWild Foundation (2010b)

certified wild collection of *Terminalia chebula* and *Terminalia bellirica* takes place on a mix of privately owned lands, in sacred groves and within protected areas. Implementation of FairWild certification has required demonstration of compliance with a wide range of laws and regulations, not least India's ABS regulations, which came into effect during the first year of certification. The project is now highlighted as one of the few available examples in practice where benefit-sharing agreements are being developed (Sarnaik, 2016). According to Sarnaik and Hiremath (2014), the process of going through certification also helped resolve lack of clarity about tenure and access and use rights. The certification gave an incentive for the *Mahadev Koli* tribal people of Bhimashankar Wildlife Sanctuary to work through legal processes to clarify land records and officially claim ownership of the *T. chebula* trees on their land, thereby opening economic opportunities domestically, as well as the potential international trade in certified ingredients (Sarnaik & Hiremath, 2014). By the end of 2015, claims over some 1,300 trees of *T. chebula* had been legally registered (Sarnaik, 2016).

In Kazakhstan, Hungary, Poland and Bulgaria, collection under the certification scheme is mainly occurring on publicly owned land. However, the situation regarding regulation of harvest varies extensively. In Kazakhstan, long-term leases are in place for the Liquorice harvesting operation, granting exclusive land-use rights for a period of almost 50 years. Due to the remote nature of the project, at present there appears to be very little risk that other resource users will attempt to harvest. In Hungary, collection permits are required; these are issued based on results of resource assessments carried out by forest management agencies, and good access to data and cooperation with the authorities is reported. In Bulgaria, the system is more sophisticated, but also rather

bureaucratic. Nearly all species require permits for commercial harvesting, with only a few common species exempted, such as Dog Rose (*Rosa canina*) and Nettle (*Urtica dioica*). Forest management authorities carry out resource assessments, but the results are usually not available to companies. Permits for commercial harvesting are issued annually, or for even a shorter period, and are limited to defined collection areas; permits for resource use in a particular area usually cannot be obtained on a long-term basis. Permits can be relatively expensive, and have to be paid for in advance. In Poland, inventories on state-owned land are carried out only for timber, and no collection permits are required for NTFPs.

In implementing FairWild certification, collection operations must demonstrate compliance with the regulatory framework affecting resource use as well as compliance with national labour laws, etc. Verification of this legal compliance may however be difficult in practice. FairWild certification requires an onsite annual audit including office-based checks of relevant documentation; inspection of facilities, work processes and records; and field visits to collection sites including observation of sustainable harvest management and interviews with harvesters and other relevant stakeholders. Methods are outlined in the FairWild Standard Operational Procedures: Audit and Certification (Version 4/2015) (FairWild Foundation, 2015). However, a comprehensive overview of existing laws and policies is rarely available to guide this process, and there is necessarily a reliance on information disclosure by operators and other parties interviewed during the audit. At present there are only one or two FairWild-certified operations per country, hence audits are mainly carried out by international inspectors, who are not necessarily familiar with the details of the national legislation (and indeed, cannot be expected to be expert in all aspects). As the scheme develops, and more national inspectors are trained, increased local knowledge should be available. In some situations, use of a multi-disciplinary / multi-cultural team may also be appropriate, and audit and certification methodologies will evolve over time. However, refined approaches and tools for establishing legal compliance of the wild collection operations would potentially be useful in addition. Chen, Timoshyna and Oldfield (2015) proposed learning from the experience of the WWF Global Forest & Trade Network (GFTN)-TRAFFIC Timber Legality Framework (WWF, 2009)[1], and potentially adapting this framework for NTFPs and other wild-harvested plants to support the implementation of the FWS and certification scheme.

Certification and beyond

While certification has proven a useful mechanism to gain industry attention and drive action on sustainable sourcing of wild ingredients, it is not the only approach used in practice. The FWS has also informed development of resource management systems at local, regional and national levels, and supported other voluntary actions on sustainable sourcing by industry (where certification is not a goal due to a lack of market demand, cost considerations or other factors). Initiatives experimenting with the application of FWS principles in different scenarios have typically involved partnerships of industry, civil society and government actors, with the voluntary leadership of industry actors an important factor in achieving success. Analysis of existing policy and regulation with the aim of eventual reform has also been an important component of such projects. For example, the project "Engaging China's Private Sector in sustainable management of medicinal plants – the multiplier effect (EGP-MAPs)" financed under the EU-China Environmental

1 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. The framework includes nine principles encompassing the entire supply chain, together with specific principles on environment, conservation and social legislation.

Governance Programme (2013-2015) aimed to improve sustainability of the Traditional Chinese Medicine (TCM) sector in China through an approach based on the FWS, linking manufacturers and traders in voluntary partnerships for sustainable production and trade, as well as raising government awareness and capacity for the support of sustainable management of wild plants (Timoshyna, Chenyang, Zhang, Morgan, & Tsipidis, 2015). In this case, support for introduction of FairWild certification was also an explicit project goal, and the project involved exploring the regulatory landscape for international VCS themselves, as in China government oversight and approval is needed for international standard schemes to operate (an unusual situation, in the global context).

In addition to piloting sustainable sourcing in practice, the EGP-MAPs project developed a policy report (TRAFFIC, 2015a) with recommendations and models for replicating the approach. The report recognizes the multiple agencies responsible for management of the medicinal plant resources, and directs recommendations to four distinct stakeholder groups: legislative and law enforcement agencies (focus on strengthening management and control of resources), specialized government agencies for enabling and implementing policies (focus on encouragement and promotion of sustainable use of medicinal plant resources and the set-up of incentive measures), research institutions, and companies and industry associations. The recommendations were developed with the input of industry and civil society stakeholders involved in the project, and include development of laws and regulations that better support sustainable use and the implementation of best practices, including applicable international VCS. The report also drew on experience from an earlier project financed under the EU-China Biodiversity Programme (ECBP). This pilot project established sustainable harvesting of

Southern Schisandra (*Schisandra spenanthera*) and ultimately supported development of "The Notice of Traditional Chinese Medicine sustainable plant management in Ningshan County, Shaanxi Province", a first county-level regulation of harvest, management, trade of wild medicinal plants in this part of China (a Global 200 Ecoregion, and important habitat for the Giant Panda, *Ailuropoda melanoleuca*) (TRAFFIC, 2015c).

Although civil society and industry actors are more typically active in promoting and implementing VCS, government agencies are also seeing the value of using VCS to support the implementation of laws and regulations and achievement of policy goals. For example, in Morocco, support to the pilot introduction of FairWild certification was built into a United Nations Development Programme - Global Environment Facility project executed by the High Commission for Water and Forests and Fight against Desertification (HCEFLCD), with government agencies and extension services actively engaging activities (Morgan & Ottens, 2013). The *Kosovo National Strategy on Non-wood forest products (NWFP) Sector 2014 – 2020*, developed with the support of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, recognizes the value of the FWS in developing and applying laws regulating the collection of NWFP, and also includes technical support and facilitation of access by resource users to certification schemes such as FairWild under one of its three implementation pillars. Through the strategy, a holistic approach is being taken through the establishment of a new legislative and regulatory framework, as well as support for sector development and value addition (TRAFFIC, 2015b).

In other cases, this approach has focused on developing a resource management plan on a broader species/area basis, with careful stakeholder engagement to gain the voluntary commitment and endorsement of industry groups sourcing from the site. This has been trialled in Bosnia and Herzegovina, including a pilot with Bear Garlic (*Allium ursinum*) that also supported development of provincial regulations on NTFP use (Timoshyna, 2010), (TRAFFIC, 2015d), and also in South Africa/Lesotho, with the development of the *Pelargonium sidoides* BMP (Newton & Timoshyna, 2012). The possibility of certification to support implementation of such management plans has been raised, with industry and stakeholder interest apparent. While efforts are often NGO/government led, companies are also recognizing the value of a coordinated approach. Enquiries to the FairWild Foundation have included whether all companies collecting from the same area could be certified together, as part of a broader initiative for a region.

Looking into the future, there are numerous other opportunities where the FWS may be used to support the implementation of laws, regulations and government policy. For example, in Viet Nam (where the FWS is currently being used in community-based resource management), there is a possibility that the FWS can support on-the-ground implementation of Viet Nam's national target of all traditional medicine companies implementing Good Agricultural and Collection Practices (GACP) by 2020. While most certification pilots to date have been with lower-risk species (which are usually without legal protection), FWS certification can also support management of threatened and protected species. Certification of CITES-listed species would make an interesting and useful pilot, complementing existing CITES processes, such as NDFs. FWS could also be used as a reference framework to verify compliance with public procurement policies on sustainable and legal sourcing, such as are increasingly being used to promote the use of legal and sustainable timber (Brack, 2014) and are starting to be applied in other sectors.

Discussion

The FWS has proved to be a flexible tool that can be implemented in many different regulatory contexts – as revealed by the range of systems in place for operators currently participating in the certification scheme. Implementation is more straightforward in situations where tenure and use rights are clear: there is private property / exclusive access; or for common access resources, a functioning regulatory system controls access by multiple users. However, such a system is not essential for certification. FairWild's risk-based approach also allows for verification of sustainable practices in situations where a functioning system is absent, but it is determined there is low risk of conflict between user groups or damage to the resource and its habitat. To a certain extent, the certification can provide structure and assurance in situations where regulatory systems are absent or dysfunctional. However, this requires careful monitoring through the annual audit, as these situations can change quickly.

In reviewing cases from the certification scheme, we reflect that, so far, site selection has tended to favour sites with clear tenure, and either private ownership or functioning regulatory systems controlling access and use, or where resources are relatively abundant and there are few conflicts with other users (e.g. in Central Europe). Site selection is also often influenced by the need for collection to be certified organic, which is often easier to implement on privately owned land. In India, although a range of stakeholders benefit from the project, and the achievements of the project team in a complex social setting should not be underestimated, site selection has favoured inclusion of privately owned lands[1], and sacred groves where a fairly well-defined management structure exists through the local temple. Enquiries from potential certification scheme applicants in USA also favoured pilots of FWS on private land, as they anticipated this being more straightforward than on public land.

A bias towards selection of "easier" sites in the certification is perhaps understandable – certification projects are to a large extent self-selected by industry, and it is in their interest to choose those with higher likelihood of success. However, in the broader implementation of the FWS, there are a number of challenging projects with complex user-group situations. Certification in situations where there are multiple user groups is difficult, but also possible. The FWS and certification scheme can provide a structure and incentive for the collection operation to work through and resolve conflicts with other users. As discussed at a recent workshop "*FairWild Standard and certification scheme for sustainable wild collection: from audit to market*" held at the 2016 BioFach Organic Trade Fair in Nuremberg, Germany, incorporating the activities of other or illegal collection into resource management plans is a concern for FairWild certification scheme participants (FairWild Foundation, 2016). Participants called for more cooperation and support from government agencies; also their potential involvement in auditing and assurance processes. Ultimately, participation in VCS such as FairWild may help to build support for the design of effective regulatory systems that enable access and use by multiple users.

To support implementation and verification of FWS requirements on legal compliance in practice, there is also a need for companies and auditors to have access to clear overviews of existing laws, policies, and norms, potentially through adapting the existing WWF GFTN-TRAFFIC Timber Legality Framework to NTFPs. Such assurance will become increasingly important; as countries move to crack down on wildlife crime, industry users are coming under pressure to demonstrate legality of wildlife products in the country of origin. For example,

1 Although as noted by Sarnaik and Hirenath (2014), conservation on private lands has always been one of the project's objectives.

the US Lacey Act in its 2008 amendments makes it illegal for importers to source wildlife products that were illegally obtained in their country of origin. It includes all plant products in its scope, although only the trade in timber products is presently being monitored in practice.

Verification of sustainable collection according to the FWS can also help to reveal poorly designed and functioning regulatory systems, highlighting key issues for further discussion and potential improvement. A frequent complaint of resource users is of bureaucratic and ineffective regulatory systems; for example, permits that are difficult to obtain, and not based on scientific methods and accurate information. The certification scheme is helping to convene a group of actors who may ultimately call for changes in legislation and regulation, as well as improved implementation mechanisms. It provides a platform for experience exchange, learning from other projects globally. It is too soon to see any regulatory changes resulting as a direct outcome of a FairWild certification project (as, for example, in China, where application of the FWS in non-certification approaches under the ECBP project contributed to development of local legislation), but this may be possible in the future.

The FWS can therefore support efforts to develop effective regulation of sustainable wild harvest. Voluntary approaches can play a role in making space for experimentation in less-than-optimal situations, establishing new norms, and perhaps ultimately opening space for well designed and implemented regulation with the support of resource users. As highlighted in conversations at the annual Global Sustainability Standards Conferences of the ISEAL Alliance[1],

1 The ISEAL Alliance is the global membership association for sustainability standards, with a mission is to strengthen sustainability standards systems for the benefit of people and the environment (www.isealalliance.org).

the experience of many standard-setting organizations is that by providing a high bar, they can also help to highlight the poor practices of the worst performers, and raise standards through regulation.

The FairWild sustainability principles provide guidance on how such regulations should look: science-based, using accurate information about value and status of the resource, and flexible according to the local situation, while maintaining respect for traditional-use systems, local institutions, and community ownership, and remembering that, in some contexts, state-sponsored regulatory systems may be inappropriate, and better left to local management. Future projects for the FairWild Foundation and partner organizations could be to gather more case studies and guidance on how to develop effective regulations that support wild plant harvest and trade according to the FWS principles. Based on this, a capacity-building toolkit could be designed to support government agencies in the development and implementation of better regulations. On a final note, considering the importance of NTFP resource use to livelihoods of the poorest communities, both voluntary and regulatory approaches need to consider the issue of equity, ensuring access can be maintained and benefits shared with those who need them most.

References

Brack, D. (2014). *Promoting Legal and Sustainable Timber: Using Public Procurement Policy.* London: The Royal Institute of International Affairs, Chatham House. Retrieved from https://www.chathamhouse.org/sites/files/chathamhouse/field/field_document/20140908PromotingLegalSustainableTimberBrackFinal.pdf

Brummitt, N. A., Bachman, S. P., Griffiths-Lee, J., Lutz, M., Moat, J. F., Farjon, A., . . . Nic Lughadha, E. M. (2015). Green plants in the red: a baseline global assessment for the IUCN Sampled Red List Index for Plants. *PLOS ONE, 10*(8).

Chen, H. K., Timoshyna, A., & Oldfield, T. (2015). Trading and preserving forests: Towards sustainable and legal trade in timber and non-wood forest products. *Paper submitted to the XIV World Forestry Congress, Durban, South Africa 7-11 September 2015*.

FairWild Foundation. (2010a). *FairWild Standard: Version 2.0.* Weinfelden, Switzerland: FairWild Foundation.

FairWild Foundation. (2010b). *FairWild Standard: Version 2.0 / Performance Indicators.* Weinfelden, Switzerland: FairWild Foundation.

FairWild Foundation. (2015). *FairWild Standard Operational Procedures: Audit and Certification.* Zurich: FairWild Foundation. Retrieved from http://www.fairwild.org/certification-documents/

FairWild Foundation. (2016). *Strong FairWild presence at world leading organic food fair.* Retrieved from http://www.fairwild.org/news/2016/3/2/strong-fairwild-presence-at-world-leading-organic-food-fair.html

Food and Agriculture Organization. (2015). *Global Forest Resource Assessment 2015. Desk reference.* Rome: FAO. Retrieved from http://www.fao.org/3/a-i4808e.pdf

Government of South Africa. (2013). *Biodiversity Management Plan for Pelargonium Sidoides in South Africa 2011–2020.* Pretoria: Government of South Africa. Retrieved from https://www.environment.gov.za/sites/default/files/gazetted_notices/nemba10of2004_bmforpelargonium_sidoides.pdf

International Trade Centre. (2016). *Sustainable Sourcing: Markets for Certified Chinese Medicinal and Aromatic Plants.* Geneva: International Trade Centre. Retrieved from http://www.intracen.org/publication/Sustainable-Sourcing/

Iqbal, M. (1993). *International trade in non-wood forest products. An overview.* Rome: FAO.

IUCN/SSC Medicinal Plant Specialist Group & FairWild Foundation. (2014). *Risk Classification of species proposed for FairWild Standard implementation - Explanatory Notes.* Weinfelden, Switzerland: FairWild Foundation.

Kathe, W. (2011). The new FairWild standard – a tool to ensure sustainable wild-collection of plants. *Medicinal Plant Conservation, 14*, 14-17.

Laird, S. A., Wynberg, R. P., & McLain, R. J. (2009). *Wild product governance: Laws and policies for*

sustainable and equitable non-timber forest products use. A collaboration of United Nations University, Centre for International Forestry Research, People and Plants International, Environmental Evaluation Unit, University of Cape Town, and the Institute for Culture and Ecology. Retrieved from http://archive.ias.unu.edu/resource_centre/policy%20brief_Oct_09_rev3.1.pdf

Leaman, D. J., & Oldfield, T. E. (2014). *CITES Non-detriment Findings Guidance for Perennial Plants.* Bonn, Germany: BfN.

Morgan, B., & Ottens, B.-J. (2013). Medicinal and aromatic plants of Morocco - National strategy puts FairWild into action. *TRAFFIC Bulletin, 25*(1), 12.

Morgan, B., & Timoshyna, A. (2010). Fair and sustainable trade in wild plants on a firm footing: FairWild Foundation launches a revised Standard. *TRAFFIC Bulletin, 23*(1), 6-8.

Mulliken, T., & Crofton, P. (2008). *Review of the Status, Harvest, Trade and Management of Seven Asian CITES-listed Medicinal and Aromatic Plant Species.* Bonn, Germany: Bundesamt für Naturschutz (BfN).

Newton, D., & Timoshyna, A. (2012). Sustainable management of *Pelargonium sidoides* in South Africa and Lesotho. *TRAFFIC Bulletin, 24*(2), 47-49.

Royal Botanic Gardens, Kew. (2010 and 2012). *Plants under pressure a global assessment. The first report of the IUCN Sampled Red List Index for Plants.* Royal Botanic Gardens, Kew.

Sarnaik, J. (2016). FAIRWILD certification- an enabling framework for building capacity of local communities, implementation of ABS and truly sustainable livelihoods. *Presentation to the Sixth IPSI Global Conference (IPSI-6), 12-14 January 2016.* Siem Reap, Cambodia. Retrieved from http://satoyama-initiative.org/en/12-14-january-2016-the-sixth-ipsi-global-conference-ipsi-6-in-siem-reap-cambodia/

Sarnaik, J., & Hiremath, U. (2014). Medicinal and Aromatic Plants: Conserving Biodiversity and Sustaining Livelihoods in the North-Western Ghats, India. *TRAFFIC Bulletin, 26*(1).

Schippmann, U., Leaman, D. J., & Cunningham, A. B. (2006). A comparison of cultivation and wild collection of medicinal and aromatic plants under sustainability aspects. In R. J. Bogers, L. E. Craker, & D. Lange (Eds.), *Medicinal and aromatic plants. Agricultural, commercial, ecological, legal, pharmacological and social aspects.* (pp. 75-95). Dordrecht: Springer (Wageningen UR Frontis Series 17).

Secretariat of the Convention on Biological Diversity. (2001). *Sustainable management of non-timber forest resources.* Montreal: SCBD (CBD Technical Series 6).

Secretariat of the Convention on Biological Diversity. (2010). *Global Biodiversity Outlook 3.* Montreal: SCBD. Retrieved from https://www.cbd.int/gbo3

Shackleton, C. M., & Pandey, A. K. (2014). Positioning non-timber forest products on the development agenda. *Forest Policy and Economics 38*, 1-7.

Shanley, P., Pierce, A. R., Laird, S. A., López Binnqüist, C., & Guariguata, M. R. (2015). From Lifelines to Livelihoods: Non-timber Forest Products into the Twenty-First Century. In L. Pancel, & M. Köhl (Eds.), *Tropical Forestry Handbook.* Berlin Heidelberg: Springer-Verlag.

Timoshyna, A. (2010). Bosnia and Herzegovina - New Rules for Use of NWFPs. *TRAFFIC Bulletin, 23*(1), 9.

Timoshyna, A., Chenyang, L., Zhang, K., Morgan, B., & Tsipidis, V. (2015). *Engaging China's private sector in sustainable management of medicinal plants—the multiplier effect.* Cambridge: TRAFFIC. Retrieved from http://www.traffic.org/egp-maps

TRAFFIC. (2015a). *Engaging China's private sector in sustainable management of medicinal plants—the multiplier effect: Project policy report.* Cambridge: TRAFFIC. Retrieved from http://www.traffic.org/egp-maps

TRAFFIC. (2015b). *Factsheet: National Strategy on Non-Wood Forest Product Sector of Republic of Kosovo.* Cambridge: TRAFFIC. Retrieved from http://www.traffic.org/egp-maps

TRAFFIC. (2015c). *Factsheet: Promoting sustainable harvesting of Schisandra sphenanthera in Upper Yangtze Ecoregion.* Cambridge: TRAFFIC. Retrieved from http://www.traffic.org/egp-maps

TRAFFIC. (2015d). *Factsheet: Sustainable management of wild plant resources through the application of FairWild Standard principles in Bosnia and Herzegovina.* Cambridge: TRAFFIC. Retrieved from http://www.traffic.org/egp-maps

UNEP. (2010). *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.* Retrieved from https://www.cbd.int/abs/text/

United Nations. (2016). UN Comtrade database - Export value of products reported in code HS1211 in 2014. Retrieved from http://comtrade.un.org/db

WHO, IUCN & WWF. (1993). *Guidelines on Conservation of Medicinal Plants.* The International Union for Conservation of Nature and Natural Resources (IUCN), Gland, Switzerland, in partnership with The World Health Organization (WHO), Geneva, Switzerland, and WWF – World Wide Fund for Nature, Gland, Switzerland.

World Health Organisation. (2013). *WHO Traditional medicine strategy 2014-2023.* Geneva: World Health Organisation.

WWF. (2009). *WWF's Global Forest and Trade Network Common Framework for Assessing Legality of Forestry Operations, Timber Processing and Trade.* Gland, Switzerland: WWF. Retrieved from http://gftn.panda.org/?202483/Framework-for-Assessing-Legality-of-Forestry-Operations-Timber-Processing-and-Trade

Wynberg, R., Laird, S., Van Niekerk, J., & Kozanayi, W. (2015). Formalization of the Natural Product Trade in Southern Africa: Unintended Consequences and Policy Blurring in Biotrade and Bioprospecting. *Society & Natural Resources: An International Journal, 28*(5), 559-574.