

## ENHANCING MANAGEMENT AND BENEFIT FLOWS IN VIET NAM'S WILD MEDICINAL PRODUCTS

AUGUST 2018

Rosa A. Indenbaum, Anastasiya Timoshyna, and Aaron Lotz



#### TRAFFIC REPORT

TRAFFIC, the wildlife trade monitoring network, is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. TRAFFIC works closely with its founding organisations, WWF and IUCN.

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Front cover photograph and credit: Collecting Jiaogulan *Gynostemma pentaphyllum*, Thi Hieu Dong from Ban Khang Village, Viet Nam. Photo credit: Tung Pham/TRAFFIC

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Collecting Jiaogulan Gynostemma pentaphyllum, Thi Hieu Dong from Ban Khang Village, Viet Nam







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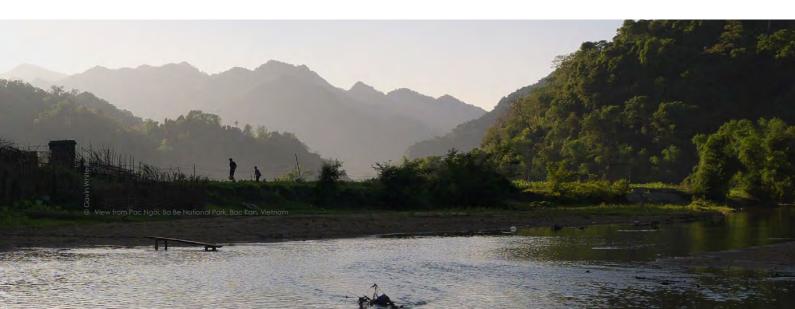
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TRAFFIC is grateful for the financial support provided to this project by the UK Government Darwin Initiative. The first year of the project was supported in part by the Keidanren Nature Conservation Fund.

## EXECUTIVE SUMMARY

Over the past two decades, illegal and unsustainable wild plant collection activities in the Bac Kan province of northern Viet Nam have led to significant local declines in wild medicinal and aromatic plant (MAP) populations. TRAFFIC has worked in this area since 2011, securing the engagement of communities in the sustainable collection of MAPs, developing a strategic partnership with the Bac Kan provincial Forest Protection Department, and commitments from buyers to purchase sustainably harvested products.

Building upon this foundation, TRAFFIC, with funding from the UK Government Darwin Initiative, carried out a project from 1st April 2015 to 31st March 2018 that promoted the conservation of MAPs by improving links along the trade chain. The project built the capacity of community members and government officials in line with the principles of the **FairWild Standard**, an internationally recognised best practice framework for sustainable use and fair trade in wild-collected plants. At least **893 low-income, rural, ethnic households, comprising over 1,000 individual collectors**, participated in the project. These households were trained on the sustainable harvesting of wild MAPs as well as business acumen related to the buying and selling of MAPs. Ultimately, these households experienced a 31% increase in income derived from wild MAPs. Underlying this project impact, significant effort was put into **safeguarding the wild plant resources for sustainable wild harvesting through development of a species and area management plan** based on thorough resource inventories and training on sustainable harvesting practices. Opportunities were identified and maximised to create an **enabling policy and regulatory environment** for the success and long-term sustainability of the project impacts, both at the provincial and national level.

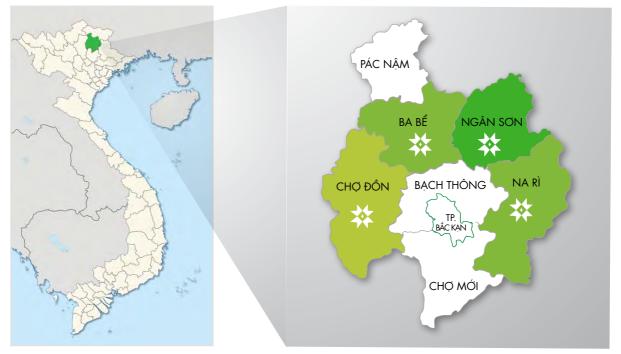


## INTRODUCTION

Viet Nam is home to about 4,000 species of medicinal and aromatic plants (MAPs), many in significant decline due to inappropriate harvesting and management practices, insufficient incentives for conservation, and weak enforcement and monitoring capacity. MAPs are usually sold as raw ingredients for food, traditional medicine and cosmetics. The harvesting and trade in wild plant resources provides an important source of income and the ingredients for traditional medicine, use of which is widespread across Viet Nam and beyond. Overharvesting and uncontrolled trade, contributing to the populations declines, are partly consequences of insufficient practical experience in sustainable MAP management, and the nature of relationships between collectors and buyers. Improving links along trade chains, coupled with building capacity in sustainable harvesting and equitable trade, is crucial for the conservation of MAPs and improved incomes for local collectors. Bac Kan province in Viet Nam, the selected project site, is an important source of MAPs and one of the key points in the trade chain of raw, unprocessed MAPs being exported to China.

MAP collection provides critical contributions to health and livelihoods (up to 20% of income) for low-income, rural communities in Bac Kan Province, where the majority of collectors are women from ethnic minority groups. In 2014, the official poverty rate in Bac Kan Province was 14.2% (national figure: 8.4%). In 2015, the project baseline household income survey estimated that within the project target group of 1,011 households in 30 villages, 306 (30%) were living below the poverty line.

TRAFFIC and the Bac Kan Province Forest Protection Department (FPD), the provincial authoritative body for forest resources, have worked on these issues since 2011, securing the engagement of communities in sustainable collection and commitments from buyers in purchasing sustainably harvested products, such as Jiaogulan *Gynostemma pentaphyllum*, Woolly Fern *Cibotium barometz, Amomum* spp, *Alpinia* spp, and other wild plant species. One hundred collectors engaged in the pilot project (2011-2015) , with 51 becoming officially registered with FPD to form a cooperative. Building upon this foundation, from 1st April 2015 to 31st March 2018, this project promoted the conservation of MAPs by improving links along the trade chain and building capacity at community and government levels in line with the principles of the FairWild Standard, an internationally recognised best practice framework for sustainable use and trade in wild-collected plants.



Project sites in Bac Kan Province

Over the past two decades, illegal and unsustainable wild plant collection activities in the four project sites in Bac Kan Province have led to significant local declines in wild MAP populations. The project sites in Bac Kan Province included the buffer zones of Nam Xuan Lac Species and Habitat Conservation Area, Kim Hy Nature Reserve, Ba Be National Park, and some communes of Na Ri District.

The majority of the project activities were implemented in the Bac Kan Province project sites piloting an innovative value-chain approach and FairWild Standard to create a win-win situation for plant resources conservation and livelihoods. However, a range of activities were also implemented at national and international levels. This created a mechanism for scaling-up and replicating the project model and enabled a supportive regulatory, policy and trade environment for long-term sustainable and beneficial trade in wild MAPs.

### **PROJECT GOALS**

- To improve market opportunities and skills in sustainable harvesting practices for wild MAPs.
- To increase the income of 1,000 low-income households at the project sites by 20%.
- To reduce the overexploitation of MAPs in these areas and provide a successful and sustainable model for replication.

### **PROJECT OUTPUTS**

**Output 1:** The feasibility and benefits (financial, product quality, and conservation) of applying the FairWild Standard to wild MAP harvest are clearly demonstrated in a value-chain approach.

**Output 2:** Sustainable-use strategies and management plans (for species and areas) are designed and operational for target MAP species harvested in the project sites.

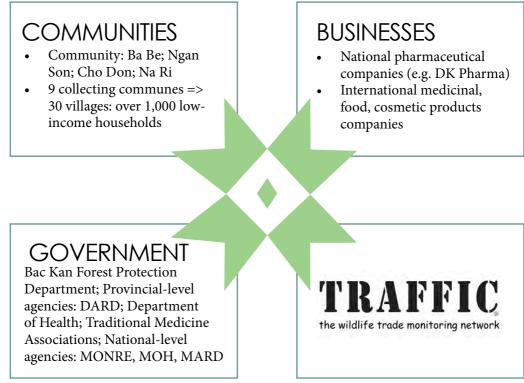
**Output 3:** An established mechanism for scaling up the application of the project model and the results and an enabling environment created in other areas.

### CHANGE EXPECTED

Increased livelihood benefits for low-income, forest-dependent, ethnic minority groups in northern Viet Nam through sustainable harvesting and equitable trade in MAP resources, contributing to improved environmental governance.

### PARTNERSHIPS

Project partners represented a diverse array of stakeholders. From Government these included the Viet Nam Ministry of Agriculture and Rural Development, Bac Kan FPD, Ministry of Health – Administration of Traditional Medicine (ATM), Ministry of Natural Resources and Environment (MONRE), and the Biodiversity Conservation Agency (BCA).



**Project Partnership Structure** 

The Bac Kan Provincial FPD was heavily involved in the project planning and decision-making as the relevant authoritative body for the activities in Bac Kan Province. BCA and ATM enabled the participation of national-level institutions in project implementation, policy advocacy, input into regulatory frameworks supporting sustainable harvesting of MAPs, quality of traditional medicine products, and the possible replication of the project concept in other provinces.

Academic stakeholders included the Hanoi University of Pharmacy, which provided training on fair pricing, entrepreneurship, business acumen, negotiation skills, and access and benefit-sharing mechanisms. The Hanoi University of Pharmacy also participated in a comprehensive review of the species and area management plan.

Industry stakeholders included two Vietnamese companies, DK Pharma and DK Natura. Initially, these companies were selected as project partners for their interest in Jiaogulan products specifically, but also for their pre-existing relationship with both TRAFFIC and Bac Kan Province FPD. As formal project partners, these companies represented industry demand for sustainably harvested wild MAPs and MAP products. These industry leaders also provided training and expertise on corporate social responsibility, MAPs-related policies, and helped secure beneficial trade partnerships for local community stakeholders (collectors and collector organisations). The project was also supported by the Vietnam Chamber of Commerce and Industry (VCCI). Further companies joined the project during its implementation and outreach also included companies in the international market to explore international market demand for sustainably sourced wild plant ingredients from the project areas.

In addition to TRAFFIC, the project included two other non-governmental organisations, GreenViet and the BioTrade Implementation Group (BIG). GreenViet brought their expertise in sustainable community development and engagement, while BIG conducted a gap analysis of current laws and policies related to sustainable management and trade in MAPs. Additional specialised expertise from project consultants was used to conduct the household surveys, develop business and product development plans, as well as the verification against FairWild and the EU Organic standards.



# PROJECT OUTPUT HIGHLIGHTS

OUTPUT 1: THE FEASIBILITY AND BENEFITS (FINANCIAL, PRODUCT QUALITY, AND CONSERVATION) OF APPLYING THE FAIRWILD STANDARD TO WILD MAP HARVEST ARE CLEARLY DEMONSTRATED IN A VALUE-CHAIN APPROACH

### Target species and value chains

The project focused on the implementation of sustainable trade practices for a selection of target species, which prior to the project were known to be in use and overexploited in the project areas: Jiaogulan, Woolly Fern (CITES Appendix II), *Alpinia* spp. and *Amomum* spp.

These species were identified through community consultations, trader and manufacturer interviews, and consultations with FPD, in terms of the likely availability of sustainable commercial harvesting quantities, the potential to establish a sustainable harvesting mechanism, and the market demand. The project ultimately focused heavily on Jiaogulan, which proved to have the strongest market and community interest. Additional wild plant species available and harvested in the area were identified through the resource inventories and added to an assortment of potentially successful products, in particular *Heliciopsis lobata* and *Zingiber cassumunar*.

### Project Target Species

Jiaogulan *Gynostemma pentaphyllum*: Jiaogulan, sometimes called the immortality herb or southern ginseng,

can be found in South and East Asia. Jiaogulan is full of antioxidants and has a wide range of health benefits. In Viet Nam it is popularly used as an herbal tea.



Woolly Fern *Cibotium barometz*: Woolly Fern, sometimes called the golden chicken fern, can be found in China and Southeast Asia. Woolly Fern is

used for the treatment of ulcers, rheumatism and coughs, among other ailments. In Viet Nam the dried stems are used for medicinal purposes. Woolly Fern is listed in CITES Appendix II, which regulates international trade in order to avoid levels of use that harm the survival of the species.



### Wild harvested plant species available in the target areas include:

Amomum spp.	Solanum hainanensis
Alpinia spp.	Lygodium flexuosum
Cibotium barometz	Mesona chinensis
Gynostemma	Heliciopsis lobata (Merr.)
pentalphylum	Sleumer
Homalomena occulta	Stephania spp.
(Lour.) Scott	Podophyllum tonkinense
Zingiber officinale Rosc.	Uncaria spp.
Tetracera scandens	Ampelopsis cantoniensis
Milletia reticulata Benth.	(Hook. et Arn.) Planch.

The approach to selecting and confirming the value chains was based on the availability of a sustainable supply of the target MAP species in the project area, as well as the commercial demand for the species. The project encouraged communitybased management, which increased domestic and potentially international market access for products while sustainable harvesting and trade of MAPs provided homegrown jobs that encouraged independence and economic growth. Activities that generated additional income for local communities from alternative forest uses were seen as important incentives for species conservation, which can stimulate community support for the sustainable management and conservation of forests.

# Building capacities to negotiate and trade equitably: trainings and exchange visits

One of the first activities of the project was to bring in the expertise of GreenViet and introduce the concept of Asset-Based Community Development (ABCD), a methodology for the sustainable development of communities that is based on their strengths and potential for sustainable longterm uptake of project interventions. Through training workshops, GreenViet facilitated the implementation of this interactive and collaborative process with all project stakeholders, starting the project off with input from all sectors involved. This methodology assisted local collectors in identifying the conservation and trade benefits of formalising their collection activities. Ultimately, collectors decided to move towards forming collectors' groups within the project sites.

In addition to technical training on harvesting and processing MAPs (covered in the next chapter), the Hanoi University of Pharmacy conducted a training workshop on fair pricing, entrepreneurship, business acumen, negotiation skills, and access and benefit-sharing mechanisms for collectors, pharmaceutical companies, and local government officials. The training helped stakeholders understand their role in the value trade chain and how to leverage their position within the chain to achieve greater benefits from the sustainable harvesting of wild MAPs. The project has further assisted improvements in the quality and added value to finished products for market sale by providing guidance on business plans, general operations, and governmental policy compliance to collecting cooperatives. All of these activities used the FairWild Standard as a framework and guideline. Over 1,000 harvesters were trained.

Lao Cai Province is home to a community-run company, Sapa Napro, that has been successful in implementing access and benefit-sharing practices for local people. In the second year of the project, collectors and FPD staff from Bac Kan Province participated in a study tour to Lao Cai Province to exchange knowledge with the community there and learn about the success of access and benefit- sharing practices first hand. In the third year of the project, collectors and FPD staff visited Quang Ninh Province to learn first-hand from the communities there that are already utilising a "One Commune One Product" model for MAP products (described further in Chapter 2).



Sustainable Harvesting Training Workshop, Na Pan Commune, Na Ri District

### Establishing collectors' organisations

In tandem with the training workshops, TRAFFIC assisted local collectors in establishing formalised groups. Prior to initiating this project, collectors operating independently encountered barriers to market access. To reduce these barriers, the project promoted the advantages of more formalised entities through village community meetings, capacity-building workshops, and the ABCD training sessions.



oking at the quality of Jiaogulan Gynostemma pentaphyllum

The project was ultimately successful in creating 15 new collectors' organisations with endorsement from local authorities and operational regulations in place. These organisations, known as collectors' groups, had 221 members by the end of the project—all of whom had been trained on the FairWild principles of sustainable harvesting, processing, and trading. Several of the collectors' groups formed during the project expressed interest in elevating their status to collectors' cooperatives in the future. One collector organisation, the Bao Chau Cooperative, was already formalised into a cooperative prior to the start of the project.

### Case Study: XUAN LAC GROUP

Xuan Lac group was an exemplary model of a successful wild MAPs harvesting group. The skills and knowledge gained via training courses on sustainable harvesting techniques and product development really paid off for the group. The Xuan Lac group's Jiaogulan tea product enhancements (e.g., traceability, origin and safety information, vacuum packaging, and increased shelf-life) increased the final price and marketability.

With the skills learned through these training courses, and with the help of TRAFFIC, the Xuan Lac group negotiated a three-year contract with DK Natura for trade in Jiaogulan. The contract was signed with a 5% mark-up on the market price for the ingredients and a commitment from DK Natura to help the cooperative improve pre-processing techniques of dried materials in compliance with quality requirements of the final product.

The trade deal gave the Xuan Lac group market access and increased its income. "After working in our group, our income from wild collection has doubled," said Mr. Huong, head of Xuan Lac group. By the end of the project, the Xuan Lac group had also entered into negotiations to sell Jiaogulan to the company VHerb. The Xuan Lac group selected Jiaogulan tea as the product to develop for the "One Commune One Product" programme from 2019 onwards.

In addition to successful trade partnerships, the Xuan Lac group successfully managed their relationship with local government authorities. Local commune authorities worked with the Xuan Lac group to complete relevant business papers (registration of collectors, record keeping), business restructuring, and finding/registering more collectors for the group.



Sustainable Harvesting Training Workshop, Vang Kheo Commune, Ba Be District



iustainable Harvesting Training Workshop, Ban Eng Commune, Cho Don District

### Case Study: BAO CHAU COOPERATIVE

Bao Chau cooperative was a great example of a wild MAPs harvesting cooperative diversifying its products and identity. Although Bao Chau cooperative was formed prior to the project, the skills and knowledge gained via training courses resulted in Bao Chau cooperative members taking the lead, utilising effective business management and product development techniques, and developing highly lucrative trade relationships.

Two purchasing contracts between DK Natura and Bao Chau cooperative were signed for the trade of Jiaogulan, *Zingiber cassumunar*, and *Heliciopsis lobata* with the intent to produce a large volume of product. Bao Chau cooperative also ventured into a transboundary deal with an Indian import company. Bao Chau cooperative intends to focus more of its business on increasing its trading volume of Jiaogulan with the Indian company.

The success of the aforementioned trade partnerships was due in part to the cooperative's foresight to upgrade the design of the product labels for Jiaogulan and Purple-Fruited Pea Eggplant *Solanum trilobatum* products from a black and white label on regular paper to a coloured label on commercial-grade paper. The new labelling resulted in an increase in the price of Jiaogulan tea from VND140,000/kg (USD6.12/kg) to VND180,000/kg (USD7.87/kg) on the domestic market, and up to VND450,000/kg (USD19.68/kg) on the international market.

Another key component of Bao Chau cooperative's success was being certified as in compliance with food safety criteria by the Bac Kan Department of Agriculture and Rural Development as defined in Decision 97/QĐ-CCQLCL. Bao Chau cooperative's production facilities were redesigned and rearranged in compliance of the food safety criteria and safe product registration. This change in business infrastructure and certification was key for improving product pricing and market access. The cooperative is technically qualified to seek further certification and registration and eligible to receive support from the "One Commune One Product" programme in 2019 on development of its three key products: herbal teas made from Ampelopsis cantoniensis, Jiaogulan and Purple-Fruited Pea Eggplant.



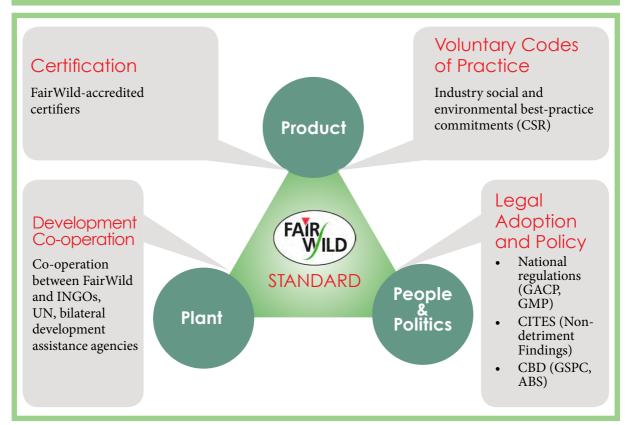
# FairWild Standard and certification scheme: Verifying sustainable wild harvesting and equitable trade

In order to assure wild plant product quality and increase market appeal both nationally and internationally, TRAFFIC used the FairWild Standard to underpin this project as a means of providing clear guidelines for local collectors and companies to produce sustainably sourced, wild-collected products while considering aspects of fair trade and social sustainability.

At the beginning of the project, FairWild was used as a tool to assess the current state of the wild MAP collection activities in Bac Kan Province and to identify means to improve them. As a result of this analysis, the project focused on training MAPs collectors on improved collection, processing, and storage methods; development of collecting and handling rules; improved traceability; and elevated market access for potentially certified products. No products achieved FairWild certification during the three-year life of the project due to the project's primary focus on the domestic market, where current demand for sustainability certified products remains insignificant. However, much of the necessary groundwork is now in place to prepare the collectors' groups to produce FairWild-certified products in the future and for the uptake of FairWild products in Viet Nam.



FairWild: The FairWild Standard is a set of 11 Principles and 29 Criteria that address ecological, social and economic requirements for sustainable wild collection of plants, plant parts, plant products, fungi and lichens, collected from natural habitats. At the same time, the FairWild Standard promotes socially responsible business practices. FairWild Certification is a third-party audited certification system for ingredients or products which indicates to buyers that the ingredients (from harvesters to traders to consumers) were legally and sustainably harvested and traded fairly.



Implementation Approaches for the FairWild Standard ©FairWild Foundation

### Market potential

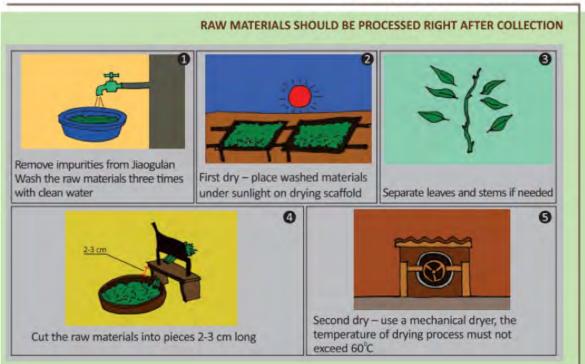
Early on, the project looked into national and international market potential for species available for wild harvest in Bac Kan Province. The market analysis found that Europe was a potential market for Jiaogulan, primarily as a food supplement, and the US market offered potential for both Jiaogulan and Woolly Fern.

TRAFFIC staff met with their counterparts in China to exchange information and share experiences working on MAPs trade. As a result, the project team gained valuable insight into market access, how to link with responsible buyers, different approaches to promoting the FairWild certification scheme, and various ways to engage pharmaceutical companies. The verification against the FairWild certification requirements and the EU Organic standards has also assisted in increased understanding of the gaps in complying with the best practices in the production of herbal ingredients, providing input into the process and quality improvements.

### The value of herb dryers (and other equipment)

The project saw the purchase of a number of herb dryers for the collectors' organisations, along with other equipment. The herb dryers in particular are of great importance to the collectors' organisations as they allow for the efficient drying of large quantities of herbs. This not only allows for large quantities in production as the dryers speed up the drying process, but producing dried ingredients improves the shelf-life and the price of the products, not to mention that drying by machine is more hygienic than more traditional means of drying, such as on the ground. The ability to dry properly, and thereby preserve, all of the harvest also means that fewer plants are taken from the wild.

The project also provided other equipment, including vacuum packaging machines to increase the shelf-life of the products, cutting machines for the herbs, and harvesting equipment for the collectors such as boots, knives, and utility gloves.



### JIAOGULAN - PROCESSING

**Process of Using Herbal Dryers** 

### Trade partnerships

From the beginning of the project, TRAFFIC spent a significant amount of time at the national and international level fostering relationships with companies interested in purchasing MAP products. In addition to the formal project partner companies, DK Natura and DK Pharma, TRAFFIC also garnered the interest of companies such as The Body Shop International, Neal's Yard Remedies, Organic Herb Trading Company, and TH Food Chain.

A Jiaogulan purchasing contract between DK Natura and Xuan Lac group was signed in Year 2 with a 5% mark-up on the market price for the ingredients. The contract also included funding for product registration as well as a three-year commitment to purchase wild MAPs from the group in Xuan Lac commune. In addition to this, DK Natura/DK Pharma were able to produce final products, namely Jiaogulan tea bags and loose leaf Jiaogulan from dry materials purchased from the group in Xuan Lac commune. TRAFFIC supported the product registration, as regulated by Ministry of Health, to enable the product to be introduced to the national market. The products were certified in March 2017 and DK Natura is now able to market Jiaogulan tea bags and dried loose leaf Jiaogulan in Viet Nam.

TRAFFIC's efforts to secure trade relationships for the collectors' groups were successful in a number of instances. For example, Xuan Lac group sold 200 kg of Jiaogulan to DK Natura at a premium price of VND17,200,000 (USD752)<sup>1</sup>. DK Natura also purchased 200 kg of Jiaogulan, 500 kg of *Zingiber cassumunar*, and 600 kg of *Heliciopsis lobata* from the Bao Chau Cooperative for a total of around VND170,000,000 (USD7,430). Bao Chau Cooperative also sold 45 kg of Jiaogulan to an Indian company for approximately VND20,250,000 (USD892).



CCuong Nguyen

<sup>&</sup>lt;sup>1</sup> May 2018 exchange rate of USD1 = VND22,700

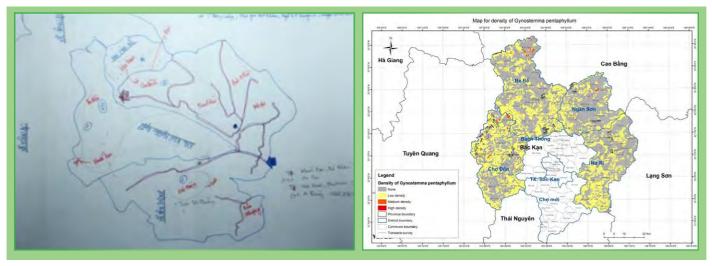
# PROJECT OUTPUT HICHLICHT



OUTPUT 2: SUSTAINABLE USE STRATEGIES AND MANAGEMENT PLANS (SPECIES AND AREA) DESIGNED AND OPERATIONAL FOR TARGET MAP SPECIES HARVESTED AT THE PROJECT SITE

#### Species and area management plan

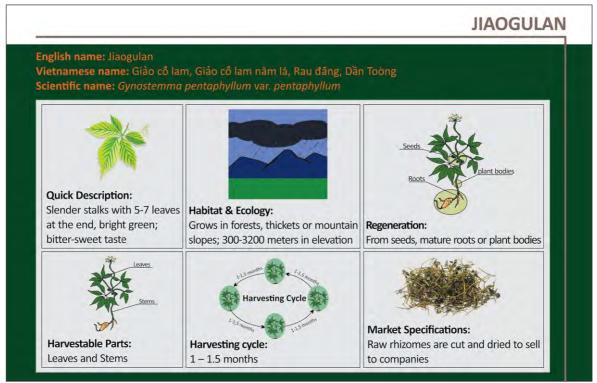
In order to identify and target the appropriate MAP species and their locations for the project, TRAFFIC initiated a resource assessment to provide the necessary foundation for a long-term species and area management plan in Bac Kan Province. The resource assessment, focusing on Jiaogulan and Woolly Fern was undertaken in the four project sites by the Institute of Ecological and Biological Resources in collaboration with the Bac Kan FPD. The survey team mapped the natural distribution of both species and estimated their populations. Once completed, the resource assessment showed the distribution and population estimates, recommended sustainable harvesting quotas, and mapped the harvest areas for both species



Initial map of the Jiaogulan resource inventory as discussed with the communities (A) and the map of density and distribution following the resource assessment (B)

The resource inventory, in addition to estimating the total sustainable harvesting quantities of Jiaogulan and Woolly Fern, evaluated the harvesting practices and knowledge of local communities at the beginning of the project.

For Jiaogulan, it was found that all above-ground parts of this species, including leaves and stem, were often collected (from March to September). This destructive practice leads to species decline and slow regeneration. In part, these practices were influenced by the harvesters' lack of understanding of the potential value of the species in use and trade. In the case of Woolly Fern, no particular collection protocol was in place, with harvesting happening spontaneously depending on the buyers' requests. There were no harvesting regulations or sustainable harvesting techniques identified in the surveyed communities. For both species, there was lack of understanding about how the harvesting conditions (e.g. harvesting in rainy season) affected the products. All this information was used in both the development of the practical training on sustainable wild-harvesting practices and better processing methods, as well as feeding into the species and area management plan.



Jiaogulan Information Page from A Pocket Guide for Sustainable Collection of Jiaogulan, Woolly Fern, and Other Medicinal and Aromatic Plants

The findings of the resource assessment then become the framework for developing the Bac Kan Jiaogulan and Woolly Fern species and area management plan. In early 2018, a group of experts from the Ha Noi University of Pharmacy, together with the TRAFFIC project team and Bac Kan FPD, finalised the management plan. The management plan provides the value chain framework and a safeguarding tool for Bac Kan authorities and stakeholders to be successful in future implementation of MAP harvesting and trade, with a focus on two target species. However, the general principles of the management plan are applicable to other species. Management tools for harvesting, processing, producing, and commercialising the products from the target species are included in the plan.

# How to harvest sustainably: Trainings and the sustainable harvesting pocket guide

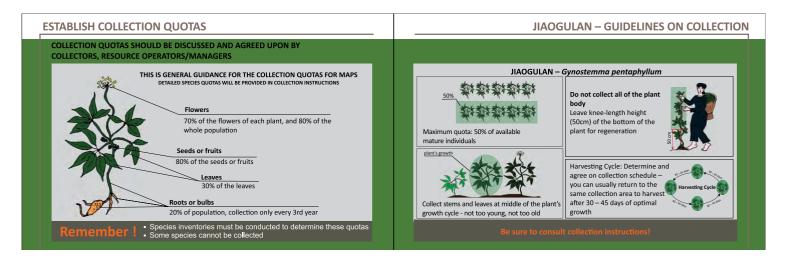
TRAFFIC set out to ensure that the project would have long-term success and develop and maintain sustainable-use strategies and management plans. To achieve this impact, a tailor-made training programme was designed and implemented by both the project staff and additional trainers reached through the "training of trainers" (ToT) programmes in the first year of the project.

Training courses on sustainable harvesting techniques and operational management of harvesting organisations were delivered in villages across Back Kan Province. These courses were well attended and encouraged participants to think about the drivers of previous actions, to self-evaluate their current harvesting practices, and enabled them to adopt a sustainable harvesting approach going forward. By the end of the project, more than 1,000 local MAP collectors participated in training activities, including training workshops and train-the-trainer sessions, on techniques to sustainably harvest wild MAPs. The collectors in the project sites also received new or upgraded processing equipment to improve the shelf-life of the dried and processed products. Participants in the training activities included local authorities, partners, and collectors from the target districts in Bac Kan Province.

In order to assist the visualisation of good practices in wild-harvesting, the project has also created *A Pocket Guide for the Sustainable Collection of Jiaogulan, Woolly Fern, and other Medicinal and Aromatic Plants*, designed to give advice on sustainable harvesting methods and species monitoring. Published in both English and Vietnamese, the pocket guide was developed over the first and second years of the project. It was then used in the training activities in the third year of the project and more than 500 copies were distributed to collectors, local community members, corporate partners, and FPD staff.

The project has also supported setting up seven signboards on sustainable harvesting that promote the benefits of collector organisation membership as an awareness raising and training tool.

In an interview with the Voice of Viet Nam, a national radio station, Xuan Lac group member Ms. Nong Thi Hue shared her experiences: "I didn't know earlier how to harvest sustainably until I was trained by the project on sustainable harvesting, such as harvesting techniques that allow the next generation to grow. Additionally, I was trained on cutting and drying harvested plants. Before the training courses, I just collected what I wanted, even uprooting plants without recognising that this practice harms the species. The project training improved my skills and knowledge a lot."



**Pre-Harvest Collection Guidelines** 



# Provincial-level strategies and policies for sustainable MAPs and economic development

TRAFFIC recognised that to ensure that sustainable harvesting practices were utilised by collectors, provincial regulations and policies must be put in place. These MAPs harvesting regulations also serve to guide and enable local government monitoring and enforcement. Throughout the project, TRAFFIC provided technical support to the Bac Kan FPD in submitting formal recommendations to the Bac Kan Province People's Committee to improve regulations for the sustainable management of MAPs.

Technical input was provided to Bac Kan FPD to strengthen regulations aligned with the provincial decision No. 3808/2009/QD-UBND. This decision approves the MAPs development programme in Bac Kan from 2010-2015 and its vision to 2020. Initial consultations with the Bac Kan FPD at the project beginning led to what would become the MAPs Product Development Plan (PDP). The former director of the National Institute of Traditional Materials, BIG, Bac Kan FPD and TRAFFIC, together developed a draft of the MAPs PDP. The MAPs PDP was finalised in early 2018 and a workshop was held shortly thereafter. The workshop was a platform for stakeholders, including the Department of Agriculture and Rural Development, "One Commune One Product" programme representatives, ATM, and BCA, to get feedback and inputs on the plan. Ultimately, the PDP was positively received and plans were made to integrate it in to the "One Commune One Product" programme. The PDP solidified



both the importance of developing MAPs products, the importance and practical implementation of sustainable and equitable trade measures, and the means by which MAPs products could be developed.



Training Workshop, Khuay Khap Commune, Na Ri District

# The "One Commune One Product" programme

During the project, Bac Kan Province began to formulate a programme called "One Commune One Product" (OCOP). The OCOP programme aims to help the province meet certain economic development goals by 2020, by lending financial and technical support to selected economic sectors, including trade in MAPs. One of the main objectives of the OCOP programme was to create effective production and business models for traditional products, such as MAPs, to improve rural economic development and improve living conditions within the province. The TRAFFIC project team worked closely with local authorities and collectors' organisations to draft the OCOP section on MAPs and select potential MAP products to register under the programme. It is anticipated that products registered under the programme will see improved market access, thus benefiting the collectors and the province. The overarching OCOP programme, including the MAPs section, was approved for implementation in early 2018.

### OUTPUT 3: AN ESTABLISHED MECHANISM FOR SCALING UP APPLICATION OF THE PROJECT MODEL AND RESULTS, AND AN ENABLING ENVIRONMENT CREATED IN OTHER AREAS

### Private-sector leadership for sustainability of wildsourcing and production in Viet Nam

TRAFFIC engaged in the promotion of wild MAPs sustainable harvesting and management to ignite interest from potential trading and manufacturing businesses. Initial project experiences and progress were summarised in various international publications (e.g., the Non-Wood Forest Products newsletter compiled by the Food and Agriculture Organization of the UN, the International Trade Center Market News Services report) and shared at several international events (e.g., BioFach 2016, Traditional Chinese Medicine Corporate Social Responsibility and Sustainability Forum).

TRAFFIC and the Viet Nam Chamber of Commerce and Industry co-hosted a FairWild workshop for local traditional medicine practitioners, pharmaceutical companies, food companies, and cosmetic ingredient producers. The workshop promoted sustainable harvesting and fair-trade practices as part of companies' corporate social responsibility (CSR) initiatives. Attendees gained a greater understanding of how fairer trade practices resulted in higher living standards for the harvesting communities and contributed to a more consistent, better quality product.

At the start of the project, the concept of the FairWild Standard—a mechanism to demonstrate sustainable harvesting, social responsibility, and fair trade—was new to the traditional medicine industry in Viet Nam. TRAFFIC promoted FairWild at workshops on sustainability certifications for national pharmaceutical companies (e.g., VHerb, Sapanapro, and Nam Duoc), disseminated information to collectors and project partners (e.g., ATM and BCA), and introduced the standard at other meetings and training courses throughout the project.



airWild Workshop with VCCI, Hanoi

### Viet Nam's policy and regulatory environment

TRAFFIC recognised that the understanding of existing national laws and policies regulating sustainable harvesting of MAPs was needed to provide a mechanism for scaling up the project in the future. With this in mind, TRAFFIC in partnership with BIG conducted an analysis of current gaps in Vietnamese policy and law regarding harvesting and trading of forest resources.

That analysis found that the existing legal framework was not comprehensive with respect to the collection of certain species, the lack of area collection maps, challenges with traceability, post-harvest monitoring and evaluation mechanisms, and benefit-sharing opportunities for local collectors. Throughout the project it also became clear that the responsibilities related to sustainable harvesting and trade of natural resources fall amongst and between multiple government ministries and departments, necessitating complex solutions.



Workshop on Legality Framework for Non-Timber Forest Product and Medicinal Plants, and FairWild Principles, Hanoi

### Improving wild collection practices

In search of opportunities to improve the existing legal framework, the TRAFFIC project team consulted various government bodies, including BCA, MARD, and the National Institution of Medicine Materials, about potentially contributing to Viet Nam's commitment to implement the World Health Organization Guidelines on Good Agricultural and Collection Practices (GACP). Later, TRAFFIC and ATM co-hosted a workshop surrounding the idea of integrating the FairWild Standard into the Good Agriculture and Collection Practices in Viet Nam. The idea was widely accepted and a proposal for integrating the two frameworks was ultimately submitted to the Ministry of Health suggesting that the FairWild Standard be integrated into the national Circular 14/2009. The Circular is now in the process of being revised with completion slated for mid-2018.

To address the issue of traceability, TRAFFIC and ATM co-hosted a forum for traditional medicine practitioners on sustainable wild collection. Attendees included BIG, DK Pharma, and Bac Kan FPD. Traceability was discussed with regards to imports and exports to/from China. The forum was an opportunity to begin the dialogue on traceability and highlight its importance.

### Practical approaches to access and benefit sharing

TRAFFIC also worked on promoting the concept of access and benefit sharing from a policy perspective. TRAFFIC and BCA conducted a study on the interface of access and benefit-sharing guidelines and FairWild principles in an effort to ensure that Viet Nam is properly implementing the Nagoya Protocol. The main findings linked the eight FairWild principles with the access and benefit-sharing rules, showing how they could be complimentary and that there were sufficient and convincing arguments for integrating FairWild into access and benefit sharing, but that stronger actions should be sought from the government on wild MAPs management. Subsequently, TRAFFIC and BCA co-hosted a workshop for pharmaceutical companies, trading firms, and health and conservation agencies to discuss a new decree related to access and benefit sharing, Decree 59/2017/ND-CP. Based on the study findings, the FairWild Standard was proposed as a best practices framework and a means by which to implement the new legislation to ensure Viet Nam's plant collection activities would meet international standards. Recommendations and comments from this workshop were shared with the government and review of Decree 59 is currently ongoing.

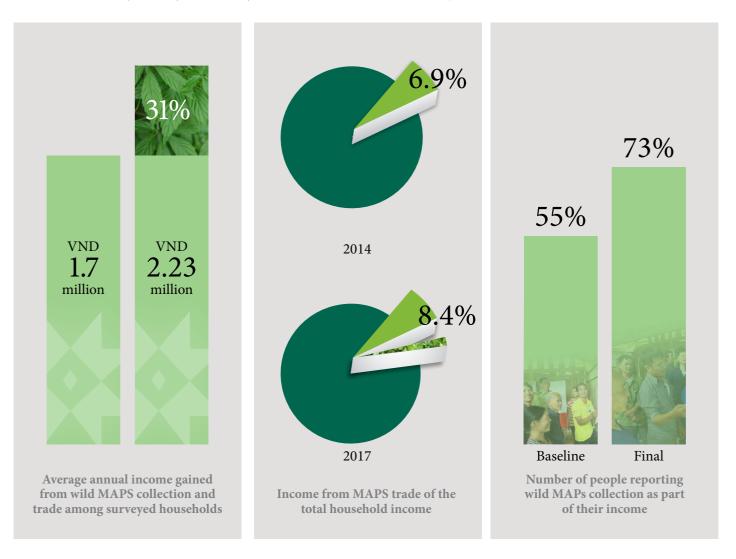
# PROJECT OUTCOMES AND IMPACTS

# Income generation, economic development, poverty alleviation and contribution to gender empowerment

The success of the project interventions was measured throughout the project period. At the beginning of the project, a baseline survey on income generated from local villagers' MAPs collection was conducted. This survey also collected information on practices, attitudes, and knowledge about MAPs collection. The survey found that annual income from trade in wild plants ranged from USD150–250 per household constituting between 10–12% of their total income.

Midway through the project, a qualitative mid-term review was conducted to evaluate overall project progress against the three outputs. The review found positive impacts at the community level, including: strengthened relationships amongst villagers through participation in the collectors' organisations, improved confidence and understanding of MAPs trade, and trusting relationships established between DK Pharma/DK Natura and the collectors.

A final assessment found that the average annual income gained from wild MAPs collection and trade among surveyed households had increased by 31% to VND2.23 million (USD98) compared with the baseline survey at VND1.7 million (USD74). In 2017, income from MAPs trade comprised 8.4% of the total household income compared to 6.9% in 2014. Not only did household income increase significantly, but the increased from 55% (baseline) to 73% (final). These results clearly demonstrate the success of the project and MAPs collectors in Bac Kan Province are now able to successfully identify, sustainably harvest, and market their MAPs products.



### Poverty alleviation

The project focused on various approaches to increase the income of collectors and alleviate poverty in Bac Kan Province. For example, the project aimed to increase the quality of MAP products as a strategy to increase their market value by improving processing, producing packaging for a longer shelf-life, and developing product certification. In addition to improving MAP product quality, the project provided collectors with the skills necessary to negotiate economically beneficial trade contracts, ensured the long-term availability of medicinal resources that the target communities can use for their own healthcare (i.e., reducing household healthcare expenses), and created a situation in which income from harvesting MAPs is consistent and garners larger incomes. As a result of all these efforts, the income of more than 1,000 harvesters rose more than 31%, and poverty in these communities decreased.

### Gender equality

A considerable portion of this project focused on empowering women and ethnic minorities. Ninety per cent of the wild MAPs collectors in Bac Kan Province are women and ethnic minorities, and the project armed these groups with a greater understanding of resource management, negotiation and trading skills, and engagement in decision-making related to MAP trade. Their empowerment was key to the success of the project and the TRAFFIC project staff actively encouraged the participation of women in all aspects of the project.

In 2018, TRAFFIC and Bac Kan FPD co-hosted a National Women's Day celebration to honour the role of women and their families in wild MAP collection and conservation as well as local economic development. The women in attendance represented the collectors' cooperatives and groups, the four target districts, local authorities, and DK Natura. Several women spoke at the event about their experiences and knowledge of MAP harvesting, highlighting their role and economic contribution towards the local economy.

By the end of the project, 415 women were trained on FairWild principles for sustainable wildharvesting and fair trade and 70 were registered as members of cooperatives or groups. Four of them became trainers themselves. One member in particular, Ms. Chu Thi Thap of the Xuan Lac group, took on a leadership role encouraging other women to participate and engage in the project. Seven women collectors also participated in exchange learning visits to Lao Cai and Quan Ninh provinces to observe wild MAP collection activities in other communities.

# Biodiversity conservation and sustainable use of natural resources

This project contributed to the concepts of equitable benefit sharing and sustainable use of biodiversity by means of Viet Nam's delivery of the Convention on Biological Diversity (CBD), the Nagoya Protocol, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). For example, the project experience was used to update and support various components of the CBD. TRAFFIC provided input for Viet Nam's National Biodiversity Strategies and Action Plans and supported the delivery of the CBD's Global Strategy for Plant Conservation (GSPC). In order to support the delivery of the Nagoya Protocol (a supplement to the CBD), TRAFFIC worked with the BCA to review and integrate current access and benefit-sharing guidelines with FairWild principles.

TRAFFIC implemented several strategies to ensure the long-term viability and sustainability of the project in Bac Kan Province. Certain tangible items, such as the equipment and the pocket guides, will be available to the collectors well beyond the life of the project. Along the same lines, the introduction and exposure to the FairWild Standard and related concepts will be long lasting. Not only has the concept of sustainable harvesting become more familiar, but strides have been made to integrate FairWild standards into national and local policy, such as Circular 14/2009 and the Bac Kan One Commune One Product Plan. Finally, the species and area management plan will help lead Bac Kan Province towards the stabilisation of MAPs and forest ecosystems in northern Viet Nam while creating incentives for area-based conservation.

## PROJECT SUSTAINABILITY AND RECOMMENDATIONS

The sustainable harvest techniques that more than 1,000 collectors obtained during the project can be applied not only to the target species of the project, but to other non-timber forest products.

Additionally, the concepts of long-term conservation and fair trade (access and benefit sharing, fair pricing, certification) can flow into other business aspects of the communities. This project has stabilised and increased MAPs-related income for these communities leading to a more secure income for forest-dependent residents.

In addition to increased MAPs-related income, with the support of stakeholders, Bac Kan FPD developed a management plan for target species and protected areas. This SAMP for Bac Kan Province created a set of management tools for all the stakeholders on the harvesting, preliminary processing, processing, production, and commercialisation of MAPs products in Bac Kan. The SAMP supports entities such as the district People's Committees, FDP, forest protection stations, the management boards of Nam Xuan Lac and Kim Hy Natural Reserves, non-governmental organisations, universities, and research institutes. The SAMP will be used in the long term as an example for provincial leaders and national decision-makers to improve resource management plans in Viet Nam and ensure the sustainability of wild MAPs collection as a source of income for local collectors. In the development of these documents, local authorities also gained knowledge and familiarity with conservation and sustainable use of MAPs. National authorities were also engaged and supportive of this project, including BCA and ATM. The SAMP will be a long-lasting tool on which stakeholders can draw to continue progressing towards widespread sustainable harvesting practices.

TRAFFIC and the Bac Kan FPD, as well as other branches of government, implemented a number of activities based on FairWild criteria aimed at maintaining the long-term sustainable use of wild MAPs. These activities became a model that was then scaled up into the development of the OCOP programme, including the OCOP-MAPs plan and the OCOP Product Development Plan. Furthermore, many corporates that were introduced to the project remain interested in the concept and could be potential collaborators in the future, for collectors in Bac Kan or elsewhere in Viet Nam.

The project has successfully achieved all of the project goals. At least 893 low-income, rural, ethnic households, or over **1,000 collectors**, were reached during the life of this project. These households were trained on sustainable harvesting of wild-MAPs as well as business acumen related to the buying and selling of MAPs. Ultimately, these households experienced a 31% increase in income derived from wild MAPs. Stakeholders will continue to harvest wild MAPs sustainably in this region and the fair-trade partnerships developed will thrive well into the foreseeable future. TRAFFIC's efforts to promote the sustainable harvest of MAPs, develop fair-trade partnerships, increase gender equality, and alleviate poverty have provided an easily replicable strategy to be implemented in other locations in Viet Nam.

### Project legacy

The project encouraged the building of strong partnerships with local authorities. It steered partnerships towards sustainable management of MAPs and improved livelihood development. The project built capacity and awareness for MAP collectors and set up successful trading relationships. To maintain the increase in annual income generated from wild MAPs collection, local authorities and other stakeholders should prioritise the continuation of training courses, including courses on topics such as product processing, market access, and brand development. Furthermore, stakeholders should ensure ecological safeguards for the sustainability of wild plant resources.

# RECOMMENDED ACTION

- The documented income increase in this project demonstrates that responsible trade in these resources presents an opportunity for sustainable economic development and biodiversity conservation, particularly in protected areas, which often include poor, marginalised communities. This can be replicated in other locations and for other species.
- The lessons learned and impacts documented from the project in Bac Kan suggest that replicating this model in different provinces of Viet Nam and the Mekong region may lead to an overall positive impact on conservation and long-term availability of plant resources and associated habitats (including through the development and implementation of the comprehensive species and area management plans establishing the monitoring of target species, and other sensitive taxa in the collection area), as well as the improvement or stabilisation of income from trade.
- In the development of community market-access and capacity-building projects, it is essential to ensure both the presence of a strong local implementing agency that can also assist with the longer-term sustainability of project outcomes and the buy-in of commercial partners before the project begins.
- It is key that best practices are used for safeguarding the resources. FairWild should be recommended as an internationally recognised best practice (e.g. by the Global Strategy for Plant Conservation), including its key requirement of developing the species and area management plan, based on the resource inventories; as well as the documentation and implementation of principles of equitable trade and benefit sharing.
- There is an urgent need to continue supporting the implementation of responsible trade and sourcing practices for wild plants in the private sector in Viet Nam. This became clear through feedback and engagement of the private sector through peer-to-peer learning sessions and training on the FairWild principles in the scope of Corporate Social Responsibility.
- Creating an enabling policy and regulatory environment at appropriate levels (provincial, national), which integrates the safeguards for sustainable use of wild plant resources and the incentives for responsible practices provides an important framework for private-sector practices. The policy recommendations developed in the scope of the project provide the basis for such legislative and policy frameworks and further assist Viet Nam in the delivery of its commitments under international multi-lateral environmental agreements (including CITES, CBD, the Nagoya Protocol) and the Sustainable Development Goals.
- Further activities to develop an intra-agency coordination mechanism for the sustainable and legal sourcing and trade in wild plants is needed to ensure that policies are well-designed and effectively implemented.

### ACRONYMS

ABS	Access and Benefit Sharing
ABCD	Asset-Based Community Development
ATM	Ministry of Health - Administration of Traditional Medicine
BCA	Biodiversity Conservation Agency
BIG	BioTrade Implementation Group
CBD	Convention on Biological Diversity
СоР	Conference of the Parties
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSR	Corporate Social Responsibility
FPD	Forest Protection Department
GACP	Good Agricultural and Collection Practices
GSPC	Global Strategy for Plant Conservation
GSPC	Global Strategy for Plant Conservation
INGO	International non-governmental organisation
IUCN	International Union for Conservation of Nature
MAP(s)	Medicinal and Aromatic Plant(s)
MONRE	Ministry of Natural Resources and Environment
NBSAP	National Biodiversity Strategies and Action Plan
NGO	Non-governmental organisation
ОСОР	One Commune One Product Plan
PDP	Product Development Plan
SAMP	Species and Area Management Plan
TM	Traditional Medicine
ТОТ	Training of Trainers

## PROJECT OUTPUTS

(available from the project team, please contact traffic@traffic.org):

- 1. Resource inventory (VN and EN)
- 2. National Market Potential Report (EN)
- 3. International Market Potential Report (EN)
- 4. Species and Area Management Plan (VN and EN)
- 5. One Commune One Product Medicinal and Aromatic Plants Plan (VN)
- 6. A Pocket Guide for the Sustainable Collection of Jiaogulan, Woolly Fern, and other Medicinal and Aromatic Plants (VN and EN)
- 7. Qualitative Impact Evaluation (EN)
- 8. Review of Policies for Medicinal Materials Development Based on the FairWild Standard and the Legality Framework for Non-Timber Forest Product in Viet Nam (EN)
- 9. Baseline Income Evaluation Report summary (EN)
- 10. Mid-term Qualitative Impacts Evaluation Report summary (EN)
- 11. Final Income Evaluation Report (EN)
- 12. FairWild Standard V2.0 (VN and EN)
- 13. FairWild Performance Indicators (VN and EN)
- 14. Project flyer (VN and EN)



TRAFFIC, the wildlife trade monitoring network, is the leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

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