

## Study examines market potential for sustainably wild-collected botanicals

China is the world's biggest producer, user and exporter of botanical, algal and fungal substances such as medicinal and aromatic plants (MAPs) that are used in Asian systems of traditional medicine as well as in cosmetics, dietary supplements, food and beverages, and pharmaceutical products worldwide. Although it is not possible to quantify the proportion that is obtained from wild-collection versus cultivation, it is known that hundreds of native Chinese MAP species are wild-collected either entirely or partially. What is China's share of the global MAP export trade? And what is the potential market size for sustainably wild-collected Chinese MAPs if they were to become commercially available with fair and organic certifications? *Sustainable Sourcing: Markets for Certified Chinese Medicinal and Aromatic Plants*, a joint study by the International Trade Centre (ITC) and TRAFFIC carried out in 2014–15 endeavoured to answer these questions. The study was a joint activity of ITC's Trade and Environment Programme (TEP) and the project *Engaging the private sector in sustainable management of medicinal plants—the multiplier effect*, funded through the EU-China Environmental Governance Programme Project on Harvesting of Wild Medicinal and Aromatic Plants (EGP MAPs). The resulting technical paper, published in February 2016, can be found in ITC's online publications catalogue where it is freely available to download (<http://www.intracen.org/publication/Sustainable-Sourcing/>).

This sustainable sourcing study focused on international sustainability standards that can be implemented, audited and certified by independent control bodies in the global MAP value chain such as, for example, the FairWild Foundation's (FWF) *FairWild Standard*, Fairtrade International's (FLO) *Fairtrade Standard for Herbs, Herbal Teas & Spices for Small Producer Organizations* (SPOs), and the US Department of Agriculture's (USDA) *Organic Wild-crop Harvesting Practice Standard*, among other relevant standards.

Firstly the study provided a detailed description of the inclusion criteria and definitions of types of natural ingredients considered in the analyses. The research included the broadest range of known MAP ingredients regardless of their harmonized system (HS) tariff code classification. That is because many important wild-collected MAPs used in traditional Chinese medicine (TCM) are not captured within HS Code 1211 (*"Plants and parts of plants, of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes"*) but are classified in other chapters such as those provided for dried fruits, natural gums & resins, nutritional and medicinal seeds, seaweeds, essential oils, fixed plant oils, and extracts.

For the MAPs included in this study (both wild-collected and cultivated), China's total 2013 export volume and value exceeded 1.3 billion kg, with a

reported Customs value of more than USD5 billion. This represented about 15.6% of total world exports in terms of reported Customs value. In subset analysis, China had a much higher, approximately 42% share, of total world exports for the aforementioned Customs code HS 1211 (includes Chinese MAPs e.g. *Astragalus Astragalus* root, Chinese Angelica *Angelica sinensis* root, *Cordyceps* fungus, fritillary bulb, ginseng root, liquorice root, magnolia bark, rhubarb root, and *Schisandra* fruit, among hundreds of others). Precise quantification of China's exports of wild-collected MAPs was not possible due to a lack of differentiation and specificity in the tariff codes used for analysis (especially general codes that may hold hundreds of species). However, using other data sources some reasonable determinations were made as to whether a MAP is primarily wild-collected, cultivated, cultivated and also some wild collection, wild-collected and also some cultivation, or not known.

The study also examined the current scope of organic certification of MAPs in China. This was done because producer groups already participating in ecological sustainability standards and certification schemes such as organic were determined to be the most likely enterprises to consider additional value-adding with other international sustainability standards and certification schemes (e.g. FLO fairtrade for cultivated MAP crops or FWF FairWild for wild MAPs). Based on analyses of market size and trade data obtained from organic and fairtrade organizations, this study determined that there may be a current market for between 5% and 15% of China's total MAP exports (about 65.1 million kg to 195.4 million kg) with organic certification, of which 5% to 10% (3.3 million kg to 19.5 million kg) may have additional market opportunities if further valued-added with dual certification of organic + fair (whether fair trade for cultivated MAPs or FairWild for wild-collected MAPs). From the data reviewed for this study it became clear that the global market for organic products (all product categories) continues to grow year on year (consistently for the past 30+ years) and that the market for fair trade products also continues to grow (consistently for the past 15+ years). Furthermore, the market for ingredients and products with dual certification, i.e. "organic + fair", continues to expand. There may also be an emerging consumer expectation that certain types of products should be labelled with multiple certifications including "fair", "non-Genetically Modified Organism (non-GMO)" and "organic", among other assurances of value chain ethics and sustainability. This seems to be the case especially in the herbal tea sector in the USA where 100% of the FairWild® certified MAPs as well as 100% of the Fair Trade USA fair trade-certified MAPs under the subheading "herbs, herbal teas and spices" imported in 2013 were also certified organic. In 2014, 11.8% of the total retail sales value of all teas (black tea, green tea, herbal beverage teas and herbal medicinal teas) sold in the USA was organic, 7.3% was non-GMO verified, 4.8% was fair trade or FairWild labelled and 2.5% was labelled with triple certifications of organic + fair + non-GMO (Keating *et al.*, 2015).

The scope of research also included the surveying of selected companies in Europe and North America that import and use Chinese MAPs in order to elicit expert opinions on which Chinese MAPs in particular might have the highest export market potential if certified organic and fair. The most frequently mentioned MAPs by the survey respondents were Barbary Wolfberry *Lycium barbarum* fruit, Chinese Angelica *Angelica sinensis* root, Chinese Liquorice *Glycyrrhiza uralensis* root and rhizome, Chinese rhubarb *Rheum palmatum*, *R. tanguticum* and/or *R. officinale*, Chinese Skullcap *Scutellaria baicalensis* root, Cordyceps *Cordyceps sinensis* fungus, Eleuthero *Eleutherococcus senticosus* root and rhizome, Mongolian Dandelion *Taraxacum mongolicum* herb and root, schisandra *Schisandra chinensis* or *S. sphenanthera* fruit and Seabuckthorn *Hippophaë rhamnoides* fruit.

Other key findings of this study:

- The global fair trade product market is at least 11% of the size of the certified organic product market;
- 17% of the organic tea leaf imported into the USA in 2013 was also fair trade certified;
- The top “additional” sustainability certification claim for certified “fair” products is certified “organic”;
- A total of 50 countries (about 26% of all countries) have certified operations producing “fair” certified MAP ingredients for the export market;
- India ranked as #1 for highest number of operations exporting “fair” certified MAPs and highest number of “fair” certified MAP articles being exported.

Of the 129 certified organic Chinese MAP operations identified in this study, 88 have mainly cultivated plants, 27 have mainly wild-collected ones, 11 have wild-collected and some cultivated ones, and three have cultivated and some wild-collected plants. The main export destinations for Chinese MAPs (those classified in HS 1211) are Hong Kong Special Administrative Region (SAR), Japan, Republic of Korea, Viet Nam and Malaysia. For value-added Chinese herbal extracts (classified in HS 1302) the main importers are the USA, Japan, Republic of Korea, Germany and India. For certified organic products (all origins and types) the top destination markets are USA, Germany, France, Canada and the UK.

While China is active in the certified organic MAP subsector, it has only limited exports in the fair trade MAP subsector. Although China is exporting some “fair” certified articles (mainly flax, hemp, and pumpkin seeds and oils with “IBD EcoSocial” certification and some ginger and green tea with “FLO Fairtrade” certification), inspection and certification mechanisms need strengthening. No China-based control bodies are actually authorized to carry out such inspections or issue certificates to producers or traders. In the event that policies were developed and enacted that would

enable China-based control bodies to inspect and certify operations for compliance with selected “fair” standards, this study suggests that China’s share of the global sustainable MAPs market should reach a level comparable to or greater than that of the current market leader India and continue to grow with the annually increasing global demand for dual-certified “organic + fair” herbal products.

The study concludes that it is reasonable to suggest that China, as the largest producer, user and exporter of MAP ingredients worldwide, has an opportunity to participate in a fast growing sub-sector of sustainable MAP products for the global market. Furthermore, even though there are no formal mechanisms yet in mainland China for fair certification, a retail market for “organic + fair” labelled products is already growing fast in Hong Kong. Retail stores in Hong Kong already sell FLO “fair trade”, “organic wild” and “FairWild” labelled finished herbal products and a FLO member is now situated in Hong Kong, the Fair Trade Hong Kong Foundation.

Besides the market opportunities afforded as a result of value-addition through implementation of international sustainability standards that lead to “organic + fair” certifications, there is a long-term benefit of running MAP production operations in compliance with such standards because this activity contributes to improved resource management, biodiversity conservation, and long-term survival of the plant species in a healthy ecosystem, which, in turn, provides local communities with a reliable source of high quality MAP materials to sell at fair prices into the future.

## REFERENCES

- International Trade Centre (2016). *Sustainable Sourcing: Markets for Certified Chinese Medicinal and Aromatic Plants*, International Trade Centre, Geneva, Switzerland.
- Keating, B., Lindstrom, A., Lynch, M.E. and Blumenthal, M. (2015). Sales of tea & herbal tea increase 3.6% in United States in 2014. *HerbalGram—The Journal of the American Botanical Council* 105:59–67.
- Timoshyna, A. and Chenyang, L. (2015). Sustainability in the traditional Chinese medicine (TCM) sector in China: the case for industry leadership. *TRAFFIC Bulletin* 27(2):48–50.
- Timoshyna, A., Chenyang, L., Ke, Zhang, Morgan, B., and Tsipidis, V. (2015). *Engaging China’s private sector in sustainable management of medicinal plants—the multiplier effect*. TRAFFIC. Cambridge.

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