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## **Sustainable wild collection of medicinal and aromatic plants: Practice standards and performance criteria**

### **Background**

Medicinal and aromatic plants (MAP) have been an important resource for human health care from prehistoric times to the present day. According to WHO, the majority of the world's human population, especially in developing countries, depends on traditional medicine based on MAP<sup>1</sup>. Between 40,000 and 50,000 plant species are known to be used in traditional and modern medicine systems throughout the world. Relatively few MAP species are cultivated. The great majority is still provided by collection from the wild<sup>2</sup>. This trend is likely to continue over the long term due to numerous factors: most medicinal plants are traded locally and regionally rather than internationally, the costs of domestication and cultivation are high, and land for cultivation of non-food crops is limited. Moreover, cultivation is not necessarily the most beneficial production system. Wild collection practices secure valuable income for many rural households, especially in developing countries, may provide incentives for conservation and sustainable use of forest and other important plant areas, and can be an important factor in the source countries' local economies<sup>3</sup>.

However, over-harvesting of MAP, land conversion, and habitat loss increasingly threaten a considerable portion of the world's MAP species and populations. For these reasons, approaches to wild MAP collection that balance the needs of local, regional, and international markets with the need for conservation and sustainable use are urgently needed.

In recent years a number of initiatives have been launched to achieve a better framework for the sustainable use of biological diversity, particularly the Convention on Biological Diversity (CBD)<sup>4</sup>. Under the CBD, more specific guidance for the ecological, socio-economic, and equity basis for conservation and sustainable use of biodiversity has been articulated in the *Ecosystem Approach*<sup>5</sup>, the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits*

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<sup>1</sup> World Health Organization. 2002. *WHO Traditional Medicine Strategy 2002-2005*. WHO, Geneva.

<sup>2</sup> Lange, D. & U. Schippmann. 1997. *Trade Survey of Medicinal Plants in Germany: A Contribution to International Plant Species Conservation*. Bundesamt für Naturschutz, Bonn; Srivastava, J., J. Lambert and N. Vietmeyer. 1996. *Medicinal Plants: An Expanding Role in Development*. World Bank Technical Paper 320. World Bank, Washington, D.C.; Xiao Pen-gen. 1991. The Chinese Approach to Medicinal Plants – Their Utilization and Conservation. In: Akerle, O., V. Heywood and H. Synge (eds.), *Conservation of Medicinal Plants*. Cambridge University Press, Cambridge, UK.

<sup>3</sup> Schippmann, U., D.J. Leaman, and A.B. Cunningham. 2002. Impact of cultivation and gathering of medicinal plants on biodiversity: global trends and issues. In: *Biodiversity and the Ecosystem Approach in Agriculture, Forestry and Fisheries*. Food and Agriculture Organization (FAO).  
(<ftp://ftp.fao.org/docrep/fao/005/aa010e/AA010E00.pdf>)

<sup>4</sup> United Nations Environment Programme. 2001. *Convention on Biological Diversity: Text and Annexes*. UNEP/CBD/94/1 (<http://www.biodiv.org>)

<sup>5</sup> CBD COP5 Decision V/6 (<http://www.biodiv.org/decisions>)

*Arising out of their Utilization*<sup>6</sup>, the *Global Strategy for Plant Conservation*<sup>7</sup> and the *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity*<sup>8</sup>.

## Preparing Guidelines

Recognizing the need to develop and introduce standards and criteria for wild collection of non-timber forest products (NTFP), several efforts have been made to consider the relevance and application of various models aimed at certification of sustainable wild collection. For example, standards and criteria for ecological, social, and fair business practice elements of certification systems have been developed for application to NTFP by agricultural organizations and fair trade associations<sup>9</sup>.

More specifically relevant to medicinal plants, the 1993 WHO/IUCN/WWF *Guidelines on the Conservation of Medicinal Plants*<sup>10</sup> and the 2004 *WHO Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants*<sup>11</sup> provide general guidance and principles for the development of a global framework of practice standards and performance criteria for MAP. Of these documents, only the 1993 *Guidelines* directly address ecological and socio-economic/equity issues related to sustainable wild harvest, and these are now out of date. WHO, IUCN, WWF and TRAFFIC are currently revising these *Guidelines* through an international consultation process with the intent to incorporate broader guidance and principles related to sustainable use of biological diversity, access and benefit sharing, and fair business practices. Publication of these revised and updated *Guidelines* is envisaged for spring 2005.

## Need for a subset of Criteria and Indicators

Existing principles and guidelines for conservation and sustainable use of medicinal plants address primarily the national and international political level, but only indirectly provide the medicinal plant industry and other stakeholders, including collectors, with specific guidance on sustainable sourcing practices. For example, the revised WHO/IUCN/WWF/TRAFFIC *Guidelines on the Conservation of Medicinal Plants* will provide general principles addressed mainly to governments and other political stakeholders, NGOs, IGOs and businesses world-wide. These guidelines call for the development of concrete practice standards and performance criteria for the conservation and sustainable use of medicinal plants as a necessary practical interface between the general principles set out in the *Guidelines*, and management plans that must be developed for particular species and specific situations.

Other existing guidelines for the sustainable collection of non-timber forest products provide useful models for MAP<sup>12</sup>, but do not cover the range of guidance needed for

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<sup>6</sup> CBD COP6 Decision VI/24 (<http://www.biodiv.org/decisions>)

<sup>7</sup> CBD COP6 Decision VI/9 (<http://www.biodiv.org/decisions>)

<sup>8</sup> CBD COP7 Decision VII/12 (<http://www.biodiv.org/decisions>)

<sup>9</sup> See, for a summary and analysis: Shanley, P. A.R. Pierce, S. A. Laird, and A. Guillen. 2002. *Tapping the Green Market: Certification and Management of Non-timber Forest Products*. Earthscan.

<sup>10</sup> WHO, IUCN and WWF. 1993. *Guidelines on the Conservation of Medicinal Plants*. IUCN.

<sup>11</sup> World Health Organization. 2003. *WHO Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants*. WHO, Geneva.

<sup>12</sup> Models for NTFP that may be particularly useful for MAP include the certification system of the Forest Stewardship Council (FSC), the International Federation of Organic Agricultural Movements (IFOAM), and Fairtrade Labelling Organizations International (FLO). Other models that may be considered include natural

MAP on topics such as access and benefit sharing, participatory management practices, and quality control. The proposed work will build on these existing principles, guidelines, and standards, but will expand and extend these to provide relevant standards and criteria for the sustainable wild collection of MAP. These will benefit forest managers, industry, and local collectors by providing reputable standards of practice for sustainable wild collection against which local performance can be tested with criteria relevant to MAP.

### **Initiative by WWF, IUCN and BfN**

The initiative by WWF Germany, the IUCN Medicinal Plant Specialist Group (MPSG) and the German Federal Agency for Nature Conservation (BfN) will provide a draft framework of practice standards and performance criteria for the sustainable wild collection of MAPs. These should be applicable to the wide array of geographic, ecological, cultural, economic and trade conditions in which MAP are found. It is intended that the draft framework will build on existing standards, particularly those relevant to non-timber forest products<sup>13</sup>.

Testing the draft framework will be done in worldwide model projects carried out by other agencies, using a framework to be developed by WWF-Germany and an international Advisory Board. An iterative evaluation of the relevance of the draft standards and criteria to these model projects will be incorporated into the process and will ensure that the draft will be constantly adapted to feedback from projects and stakeholder consultations.

The drafting and consultation process will involve the expert members of the MPSG and a wide range of relevant stakeholders. This will be ensured by the formation of a technical Advisory Board which will accompany the process. Also, a network of conferences and workshops will be used to present the draft work stages to the relevant audiences and collect their feedback. These events will include the November 2004 World Conservation Forum of IUCN in Bangkok, the International Botanical Congress in Vienna 2005 and others.

The process will provide workable and tested criteria and indicators by 2006. Funding for the process is secured until including 2005 through the German Ministry of Environment, Nature Conservation and Nuclear Safety. Funding of the testing in selected harvesting situations is still open.

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resource co-management agreements with indigenous communities, and access and benefit sharing arrangements between genetic resource users and providers.

<sup>13</sup> Pierce, A.R. and S.A. Laird. 2003. In search of comprehensive standards for non-timber forest products in the botanicals trade. *International Forestry Review* 5(2): 138-147.