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978-0-521-11202-4 - The Conservation of Medicinal Plants

Edited by Olayiwola Akerele, Vernon Heywood and Hugh Syge

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## **The Conservation of Medicinal Plants**

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## Proceedings of an International Consultation

*Organized by*

The World Health Organization (WHO)  
IUCN – the World Conservation Union  
and the World Wide Fund for Nature (WWF)

*In association with*

The Ministry of Health of the Royal Thai Government

*Sponsored by*

The United Nations Environment Programme

*In technical collaboration with*

The Food and Agriculture Organization of the United Nations (FAO)



World Health Organization, 1211 Geneva 27, Switzerland  
IUCN – The World Conservation Union, 1196 Gland, Switzerland  
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The views expressed in this book are those of the authors and do not necessarily reflect those of the World Health Organization, IUCN – The World Conservation Union or the World Wide Fund for Nature.

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Proceedings of an International Consultation

21–27 March 1988 held at

Chiang Mai, Thailand

*edited by*

Olayiwola Akerele, Vernon Heywood and Hugh Syngé



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## Dedication

The book is dedicated to the fond memory of our late colleague, Dr Pricha Desawadi, an outstanding public health administrator and budding conservationist. May his soul attain Nirvana.

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## Preface

Nearly all cultures from ancient times to the present day have used plants as a source of medicines. A considerable percentage of the peoples in both developed and developing countries use medicinal plant remedies and, according to the World Health Organization (WHO), the number is on the increase, especially among younger people. In the industrialized countries, consumers are seeking visible alternatives to modern medicine with its dangers of over-medication. The escalating cost of sophisticated medical care is another factor.

Over the last decade or so, WHO's Health Assembly has passed a number of resolutions in response to a resurgence of interest in the study and use of traditional medicine in health care, and in recognition of the importance of medicinal plants to the health systems of many developing countries. In answer to WHO's call, health authorities and administrators in developing countries have decided to take traditional forms of medicine more seriously and to explore the possibility of utilizing them in primary health care.

This great surge of public interest in the use of plants as medicines has been based on the assumption that the plants will be available on a continuing basis. However, no concerted effort has been made to ensure this, in the face of the threats of increasing demand, a vastly increasing human population and extensive destruction of plant-rich habitats such as the tropical forests. In some developing countries, users have to boil their plant medicines using precious wild-collected fuelwood, and so add insult to ecological injury.

Today many medicinal plants face extinction or severe genetic loss, but detailed information is lacking. For most of the endangered medicinal plant species no conservation action has been taken. For example, there is very little material of them in genebanks. Also, too much emphasis has been put on the potential for discovering new wonder drugs, and too little on the many problems involved in the use of traditional medicines by local populations.

For most countries, there is not even a complete inventory of medicinal plants. Much of the knowledge on their use is held by traditional societies, whose very existence is now under threat. Little of this information has been recorded in a systematic manner. Besides the identification and selection of medicinal plants for use in health services, there is the potential that plants hold as an inexhaustible reservoir for the

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identification and isolation of useful chemical compounds for syndromes such as AIDS, for which there is yet no known cure.

In the light of this situation, WHO, IUCN and WWF decided that it would be timely to collaborate in convening an International Consultation on the conservation of medicinal plants, bringing together leading experts in different fields to exchange views on the problems, determine priorities and make recommendations for action. The experts at the meeting included administrators and policy-makers in health and conservation, and covered the disciplines of ethnomedicine, botany, education, pharmacology, nature conservation and economics. For IUCN and WWF, this meeting was an important part of their Joint Plants Programme, started in 1984.

The Consultation took place in Chiang Mai, Thailand, on 21-27 March 1988, with the Ministry of Public Health of the Royal Thai Government as host. A wide range of topics was covered, which included a review of medicinal plant policies (utilisation and conservation) in individual countries; the need for information systems, including databases; and the part that botanic gardens can play in the cultivation and conservation of endangered medicinal species.

A lively and stimulating exchange of views took place between the conservationists, scientists and health administrators, who were meeting for the first time in the same forum. The participants prepared and issued the “Chiang Mai Declaration - Saving Lives by Saving Plants” (page xix) – which affirms the importance of medicinal plants and calls on the United Nations, its agencies and Member States, as well as other international organisations, to take action for their conservation. The Consultation also outlined and reviewed a set of draft guidelines on the conservation of medicinal plants, which will be published separately and disseminated widely to governments and relevant institutions throughout the world for adaption to local situations.

The forty-first World Health Assembly (1988) drew attention to the Chiang Mai Declaration and endorsed the call for international cooperation and coordination to establish a basis for the conservation of medicinal plants, so as to ensure that adequate quantities are available for future generations. This places medicinal plants, their rational and sustainable use, and their conservation, firmly in the arena of public health policy and concern.

Olayiwola Akerele, WHO  
Vernon Heywood, IUCN  
Hugh Synge, WWF

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WHO, IUCN and WWF wish to acknowledge the financial support provided by the Danish aid agency DANIDA and by the United Nations Environment Programme (UNEP), which enabled the participation of several delegates from developing countries; and a generous grant from the American Society of Pharmacognosy, which has helped with the follow-up to the Consultation.

The editors would like to thank most warmly Maryse Cestre, Penny Croucher, Erika Kiess and Nicky Powell for their secretarial support to the conference and in particular for their magnificent contribution to the arduous task of completing these Proceedings. They would also like to thank Sarah Stacey for the splendid work she did in promoting coverage of the meeting in the press; as a result of her work, the meeting received more publicity than any event ever before on the conservation of plants.

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## The Chiang Mai Declaration

### Saving Lives by Saving Plants

We, the health professionals and the plant conservation specialists who have come together for the first time at the WHO/IUCN/WWF International Consultation on Conservation of Medicinal Plants, held in Chiang Mai, 21-26 March 1988, do hereby reaffirm our commitment to the collective goal of “Health for All by the Year 2000” through the primary health care approach and to the principles of conservation and sustainable development outlined in the World Conservation Strategy.

We:

- Recognise that medicinal plants are essential in primary health care, both in self-medication and in national health services;
- Are alarmed at the consequences of loss of plant diversity around the world;
- View with grave concern the fact that many of the plants that provide traditional and modern drugs are threatened;
- Draw the attention of the United Nations, its agencies and Member States, other international agencies and their members and non-governmental organisations to:
  - The vital importance of medicinal plants in health care;
  - The increasing and unacceptable loss of these medicinal plants due to habitat destruction and unsustainable harvesting practices;
  - The fact that plant resources in one country are often of critical importance to other countries;
  - The significant economic value of the medicinal plants used today and the great potential of the plant kingdom to provide new drugs;
  - The continuing disruption and loss of indigenous cultures, which often hold the key to finding new medicinal plant that may benefit the global community;
  - The urgent need for international cooperation and coordination to establish programmes for conservation of medicinal plants to ensure that adequate quantities are available for future generations.

We, the members of the Chiang Mai International Consultation, hereby call on all people to commit themselves to Save the Plants that Save Lives.

Chiang Mai, Thailand  
26 March 1988