

## Foreword

At a global level, and particularly on islands, large numbers of plant species have become extinct over the last 200 years. An even greater number of species have had their geographic ranges, population sizes and genetic diversity reduced dramatically. Much of this change has been driven by profligate patterns of consumption, as well as the need to meet urgent human needs, especially in some of the world's poorest countries. With the human population unlikely to stabilise until 2070 at levels around nine 9 billion, and with patterns of consumption continuing to rise, it is inevitable that threats to plant diversity will also increase. In both the developed and developing world, reductions in the extent of natural habitat, habitat degradation, and the unsustainable consumption of plant resources, seem set to continue well into the future.

Against this background one very encouraging sign is that plant scientists, conservationists, land managers and the general public are beginning to work together to achieve plant conservation goals. It is now clear that collaborative work at a variety of scales, from global to local, offers the best hope of achieving our conservation aims. The Millennium Seed Bank Project (MSBP), co-ordinated from Wakehurst Place under the auspices of the Royal Botanic Gardens, Kew, is one such global collaborative effort directed toward the emergency conservation of plant diversity. Under the umbrella of the Convention on Biological Diversity and the Global Strategy for Plant Conservation, the MSBP seeks to conserve, *ex situ*, as seed, 10% of the world's flora, principally from the drylands, by 2009. This book is the outcome of an International Workshop, held at the Millennium Seed Bank in 2001, that was attended by 88 delegates (including 29 collaborators in the MSBP) from 27 countries. The meeting focused on the application of seed banking to meet global needs for the conservation and sustainable use of plant diversity.

The specific aims of the workshop were three-fold. First, to undertake a review of what is understood about the collection and conservation of seeds and fruits of non-domesticated plant species. Second, to identify the similarities and differences in the processes of seed conservation for wild and cultivated species. Third, to share the progress currently being made in the seed banking of non-domesticated plants. The results summarised in this volume will be of value to anyone working on the *ex situ* conservation of plants through seed banking. They will also be of interest to all those involved in turning science into practice to benefit plant conservation. This book is much more than just a "recipe book" on how to bank seed. It is a book of "road maps", which will help guide and inspire.

This book also seeks to establish a baseline of understanding about seed conservation against which achievements in 2009 can be measured. This status report is important as it enables us to build on our strengths. It also identifies areas of weakness where there is clearly scope for still further improvement in the conservation relevance and impact of the seed banking approach.

The editors and authors are to be congratulated for bringing together such a useful set of papers, that highlight the strengths and weaknesses in our current understanding. In so doing they also point the way for the future.

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