

Editor's Preface

The stimulus for producing this collection of important and detailed case studies on combating desertification arose from our involvement in the International Training Course on Desert Control Science and Technology sponsored by the Ministry of Commerce, which has been held in Wu Wei, Gansu, for many years under the auspices of the Gansu Desert Control Research Institute (GDCRI). The training course drew together participants from many countries, and these people were able to share their experiences as well as learn new techniques and approaches that have potential to be applied in their respective homelands.

But as we pondered the problems faced by many countries in their efforts to arrest and reverse accelerated land degradation and loss of productivity and its deleterious impacts on people and their livelihoods, we came to realize that most publications about desertification focus on the reasons for it, its proximate and underlying causes and on debates about whether humans cause desertification or whether it is all because of climate change. These matters are important discussion points, but there is still the question of ‘how *do* we go about combating desertification?’

Emphasis on the “why?” has its place, but there is an urgent need to share information about successful and proven approaches and field techniques that could be applied elsewhere in the world.

The International Training Course on Desert Control Science and Technology has been conducted by the Gansu Desert Control Research Institute (GDCRI) and sponsored by the Ministry of Commerce for 13 years now. They bring together researchers, academics, land administrators and policy makers from a wide range of African and Asian countries. The sharing of experiences, the formal lectures and study tours all help to strengthen the appreciation of the technical advances wrought in China in the field of desertification control. The Training course also provides an opportunity to consider the interplay of social, economic and cultural aspects and the importance of creating an enabling environment (legislative and regulatory) in which the integrated approach can succeed. Similarly, the need to forge a link between science and community action becomes clear.

The world's drylands occupy a vast region and are home to more than 2.5 billion people. Many of the world's regions are adversely affected by desertification. Here

the full interplay of human-induced environmental change and the often harsh and unpredictable climate is being experienced. Dryland regions have such a delicate balance between the number of people and the capacity to have food security. Many regions in Africa and Asia have undergone upheaval (social and economic) in the past 50–70 years.

The fight against land degradation in terrestrial ecosystems forms one of the most complex challenges with regard to the various global environmental problems. It is most intensively linked to human life quality and to current living conditions in the poorer countries of the drier biomes on earth. The concept of the combat of desertification, as rooted in the charter of the United Nations Convention to combat Desertification and Drought (UNCCD), can also be transferred to a wider sustainability agenda for the more humid ecosystems where accelerated land degradation, loss of biodiversity and vulnerability to climate change are emerging issues of global significance.

Serious land degradation is a problem that many countries face. The economic costs are significant but the human tragedy of crops and animals destroyed, and lives lost bring home the true nature and extent of the problem. Add to this the impact on biodiversity and the impact on global climate change as the albedo changes.

China is one of many countries around the globe facing the serious problem of desertification. The Chinese Government attaches great importance to combating desertification and to the improvement of ecosystems and the environment, and have incorporated, as a basic state policy, desertification combating, ecology improvement and environmental protection into the National Economic and Social Development Plan.

China has led a long struggle against land degradation and desertification. As early as the 1950s, the Government of China organized scientific surveys and studies on affected lands and has given priority to combating desertification in seriously impacted regions. Since the 1970s, China has initiated and implemented successively such major ecology restoration projects such as the Three North Regions Shelter Belt Development Project, the Coastal Protection Shelter Belt Project, the National Action Program to Combat Desertification, the Plain Farmland Protective Networks project and the Green Belt Establishment Project along the Middle and Upper stream of the Yellow River. All these projects have accumulated successful experiences and scored remarkable achievements, with many convincing models emerging. Since the 1990s, the National Action Program to Combat Desertification (NAP) and the Three North Region Shelter Belt Development Project have brought more than 16 million ha of farmland and 10 million ha of rangeland under effective protection.

In this volume, we draw together case studies from such diverse countries as Sri Lanka, an island nation in south Asia, Uzbekistan and Mongolia from Central Asia, China, Iran, Kenya, Lesotho and The Philippines, with its extensive archipelago, in SE Asia. This diversity, in terms of climate geography, stage of economic development and systems of governance, makes for contrasts in the approach adopted and the outcomes recorded.

We also weigh into the debate the differences between 'fighting or taming the desert' and the urgent task of arresting and reversing desertification – a totally different agenda. Spectacular and costly measures directed at pushing back the desert or 'making the desert bloom' are a distraction from the real task of implementing more sustainable land use practices and changing the enabling environment that will allow better land stewardship to take root and prosper.

The lessons to be learned from experiences in several contrasting geographic regions of the world presented here should be especially valuable in framing the action plans of the various countries in the dryland regions of Africa, Asia and the Middle East. The opportunity presented by the compilation of this report is therefore to be greatly welcomed and timely.

Many agencies in China and elsewhere have a special interest in the problems (and solutions) outlined in this report. Because many of the problems involved are transnational in their nature and geographic spread, it is important that international cooperation is promoted to effect solutions, to coordinate research and share information.

We believe that this book will prove to be of value to land managers, researchers, aid agency personnel and UN system bureaucrats – all of whom are struggling to arrest and reverse the scourge of land degradation.

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East

Proven practices

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