Preface

Sustainable development is essential if the billions of people inhabiting the Earth are to enjoy their human rights which include economic and ecological security. The key to sustainable development lies in using Earth's biological resources prudently without losing any species inhabiting it.

Need for the conservation and use of biological diversity has in recent years been amply highlighted by a number of major reviews on the state of the Earth and of human needs. The *World Conservation Strategy* made an attempt to bring together the then divergent issues of environment and development and emphasised their inseparability. The report of the World Commission on Environment and Development, *Our Common Future*, put the need to rationalise the use of our biological resources on the agenda of governments throughout the world by placing the key issues in front of the public at large. Biennial *World Resources and Environmental Data* reports and the annual UNEP *State of the Environment* reports have provided authoritative overviews of the health of our planet. The successor and complement to the *World Conservation Strategy*, *Caring for the Earth: A Strategy for Sustainable Living*, has once again drawn our attention to the need to live within the carrying capacity of the Earth.

A series of discussions held under the *Keystone International Dialogue* on the conservation and utilisation of global plant genetic resources sought to bring together the significant constituencies in a structured, off-the-record process to develop consensus recommendations and strategies regarding the availability, use, exchange and protection of plant germplasm. The recognition that biological diversity is the building block for technology and our necessary defence against global climate change gave impetus to the need for further research in this area. *From Genes to Ecosystem: A Research Agenda for Biodiversity*, published by IUBS, SCOPE and UNESCO, gave the outlines of a research programme to answer some leading questions on biodiversity and its importance for the proper functioning of biological systems from populations to ecosystems. Most recently, the *Global Biodiversity Strategy* prepared by WRI, IUCN and UNEP gave guidelines for action to save, study and use Earth's biotic wealth sustainably and equitably.

Earth's plants, animals and micro-organisms interacting with one another and with the physical environment in ecosystems form the foundation of sustainable development. The continuing loss of biodiversity is a reflection on the imbalance of human needs and wants, and nature's capacity to meet the needs. The importance of developing scientific programmes on biological diversity was realised in 1984 by the Commonwealth Science Council as stated in the Kendrew Report, *Science for Technology for Development.*

A Biological Diversity and Genetic Resources (BDGR) Project was developed in 1986 by the Commonwealth Science Council to help member countries in the conservation and rational utilisation of biological diversity and genetic resources. This project has evolved over

time and has now come to be known as the Programme on Biological Diversity and Genetic Resources. The five components of the programme cover: survey and authentication; techniques and methods; key species; economic plants; and development of appropriate networks for co-ordination of activities on a pan-Commonwealth basis. It utilises the process of multifarious interactions among different participants responsible for conserving and using our genetic resources; it can be described as using a 'bottom-up' approach as it relies heavily on the involvement of people on the ground. The initial focus for the first five years of the programme was on under-exploited plants. This has been subsequently expanded to cover animals and micro-organisms. The key activities which have been instrumental in implementing the underlying process of the programme are holding of workshop and review meetings; preparation of country reports, training courses and technical documentation; and development of networks and project proposals. Since 1985, CSC has directly trained more than 1,100 professionals. In the BDGR programme, 28 member countries have identified national co-ordinators who are grouped under seven regional networks covering the Caribbean, West Africa, East Africa, Southern Africa, Asia and the Mediterranean, South-East Asia, and the Pacific.

This document is a consolidated account of the BDGR programme. It consists of two parts. Part I gives the programme details highlighting the underlying concepts, structure and processes. Part II contains background information that will help the reader in getting a better perspective of practical aspects of the programme; it includes the text of the Convention on Biological Diversity signed in Rio de Janeiro, Brazil, at the Earth Summit by all countries except the USA.

The achievements and success of this programme are attributed to experts, scientists and the local people; and to the governments and various organisations within and beyond the Commonwealth who provided their inputs directly and indirectly between 1985–1992 and continue to help in supporting it.

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