

United Nations Conference on Trade and Development

The Biotechnology Promise

**Capacity-building for Participation of
Developing Countries in the
Bioeconomy**



United Nations

New York and Geneva, 2004

NOTE

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UNCTAD/ITE/IPC/2004/2

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PREFACE

At its fourth regular session held in Geneva from 17 to 22 May 1999 the United Nations Commission on Science and Technology for Development (CSTD) selected as the substantive theme for the inter-sessional period 1999-2001 "National capacity-building in biotechnology". This theme included the following: human resource development through basic science education, research and development, as well as their interdisciplinary aspects; the transfer, commercialization and diffusion of technology; increasing public awareness and participation in science policy-making; and bioethics, biosafety, biodiversity, and the legal and regulatory matters affecting these issues to ensure equitable treatment.

It was recognized that developing countries were deriving only limited benefits from biotechnology due to declining investments in public agricultural research and development. Furthermore, the dominant role of developed countries' private sector in biotechnology makes it difficult for developing countries' public sector research to benefit from the new innovations.

Agricultural biotechnology offers the potential for increasing and improving food production capacity and promoting sustainability. However, few countries and private firms own most of the agricultural biotechnology innovations. The investment in public agriculture research systems in developing countries has declined. The objective of the meeting was to identify areas of concern and recommend possible strategies that could promote equitable use of resources.

A planning meeting was held in Cambridge, Massachusetts, from 2 to 3 September 1999, in conjunction with the international conference on "biotechnology in the global economy", which was co-organized with Centre for International Development at Harvard University. Thereafter, the CSTD bureau decided that three panels would be organized to address the main aspects of biotechnology, capacity-building, legal and regulatory issues, and public awareness and participation.

The first CSTD panel on "capacity-building in biotechnology" was held in Tehran, Islamic Republic of Iran, from 11 to 13 April 2000. The main objective was to identify key priorities and steps for developing countries and countries with economies in transition to build their capacity to monitor, assess, regulate and manage the impact of biotechnology applications and ensure their safety as well as generation of knowledge for the development of biotechnology by developing human resources through education, training and research.

The second panel addressed legal and regulatory issues in biotechnology and was convened in Geneva, Switzerland, from 3 to 5 July 2000. This panel examined issues related to intellectual property rights (IPR), biosafety, bioethics and other regulatory policies areas relating to the transfer and diffusion of biotechnology in the key sectors of agriculture, health and environment. The objective of the meeting was to identify the key issues and capacity-building needs that were necessary ingredients for building legal and regulatory frameworks for equitable access and protection of innovations as well as safe use of biotechnology products and services.

The primary objective of the third panel, on public awareness and participation in science policy, held in Tunis, Tunisia (14-16 November 2000), was to analyse and devise a process for building public awareness about the opportunities and challenges presented by biotechnology through the development and promotion of dialogue amongst scientists, the biotechnology industry, policy makers and the public. The Commission recognized that the public does not sufficiently trust many national regulatory regimes as providers of balanced and accurate information on complex issues in science and technology. It also noted that the public understanding of biotechnology issues was very low. Therefore, it was important to find alternative communication mechanisms for public participation in policy development.

This report draws on materials from the panel sessions, country case studies and expert background papers addressed by the CSTD in the course of its undertaking to meet the above objectives of the theme of the inter-sessional period 1999-2001. Additional materials cited were generated in the course of compiling the report and from experts and publications. Given the volume of materials and similarities in the content of the national reports and case studies, all documents cited are represented in a summarized form.

This report was prepared for the United Nations Commission on Science and Technology for Development by Victor Konde, in collaboration with Albert Sasson, under the direction of Mongi Hamdi. Overall, guidance was provided by Khalil Hamdani. Comments on the report were received from Professor Richard Braun and Drs. Phillip Aerni, Susan Musembi, Peter Singer and Andy Simpson. Production assistance was provided by Laila Sède. The views expressed in this report do not necessarily represent those of the Commission. Similarly, the selection and/or editing of country reports and reproduction of selected sections of background reports prepared for UNCTAD do not necessarily represent a bias on the part of the Commission.

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