Reviews in Brief


The volume reviews the food and agricultural situation during 1999-2002 in the world as a whole and at regional levels. It also focuses on the current state of scientific and economic evidence regarding the potential of agricultural biotechnology, particularly genetic engineering, to meet the needs of the poor. Beginning with this issue, the report intends to focus on one important theme in agricultural and economic development each year, providing an in-depth analysis of its socio-economic implications and exploring policy options better to meet the needs of the poor in developing countries. In subsequent issues it plans to address international trade, domestic agricultural markets and related global issues that influence the livelihoods and food security of the poor.

The thematic issue “Agriculture Biotechnology: Meeting the Needs of the Poor?” constituting Part I of the volume explores the potential for agricultural biotechnology to address the needs of the world’s poor and food insecure and reviews the historical record of agricultural research in promoting economic growth and food security. The study includes two special contributions by eminent economists, Norman E. Borlaug and M.S. Swaminathan, which highlight the importance of genetic engineering for accelerating agricultural development. It is found that biotechnology is capable of benefiting small, resource-poor farmers by lowering production costs for farmers, enhancing the nutritional content of foods and improving the control of plant and animal diseases. The emerging evidence suggests that all countries need strong and dynamic capacity at the technical, institutional and management levels for the successful and sustainable application of biotechnology in food and agriculture. It recommends targeted investment in agricultural research, extension and regulatory capacity to ensure that the potential of agricultural biotechnology reach the poor. The study also presents an analysis of the socio-economic impacts of technological change in agriculture and surveys the current evidence regarding the safety of transgenic crops for human health and the environment. In this context the study provides an analytical account of the FAO/WHO (Food and Agriculture Organization of the United Nations/World Health Organisation) guidelines for the conduct of foods safety assessment of foods derived from modern biotechnology laid down by the Codex Alimentarius Commission (CAC). It is suggested that these set of guidelines should serve as a benchmark for member governments in the regulation of their food industry and for promoting food safety for developing transgenic foods.

Part II of the volume provides an overview of the current food and agricultural situation at the world and regional levels, including the latest data of the number of
undernourished people, commodity production, trade and price trends and agricultural investment, support and external assistance, production and trade in fisheries and forestry. The facts presented in the review of global agricultural situation reveal that agricultural output growth in the world in 2002 was less than 1 per cent as compared to output growth in 1999. Growth in developed and developing countries significantly slowed down during the last three years. Worldwide 842 million people are undernourished or chronically food insecure. The report highlights the progress made in reducing undernourishment in the developing countries. The incidence of undernourishment has declined from 28 per cent of the people two decades ago to 17 per cent during 1999-2001. Many countries in all the regions of the world are facing serious food shortages caused by natural and human-produced disasters. As of mid-2003 nearly 38 countries worldwide were facing acute food shortages requiring international assistance with more than half of these countries in Africa. Besides, it reviews specific issues of emerging importance for agriculture like the decline in international commodity prices, agricultural trade and issues relating to trade in fishery and forest products.


This research report attempts to analyse the determinants of agricultural productivity, natural resources management, and poverty alleviation under a wide range of watershed projects in India with particular reference to two states, Andhra Pradesh and Maharashtra. The analysis is carried out by addressing three main research questions: (i) which projects performed the best; (ii) what approaches enabled them to succeed and (iii) what additional characteristics of particular villages contributed to achieving these objectives. The projects covered in this study are governed by three different institutions, viz., projects covered under India’s Ministry of Agriculture and Ministry of Rural Development, under various non-governmental organisations (NGOs) and under NGO and Government of Maharashtra collaboration. They followed three different approaches: the government projects focused largely on technical improvements; the NGO projects focused more on social organisation; and the collaborative projects tried to draw on the strengths of both approaches. The data for the analysis were obtained at the village, household and plot level. The village-level analysis is confined only for Maharashtra state covering 70 villages; the plot-level data were collected from 29 villages from both these states and approximately 12 plots were sampled in each of 13 villages in Maharashtra and 16 in Andhra Pradesh. The analysis compares the conditions in the study villages before and after the projects were implemented. Quantitative analysis at the village level
examines the performance indicators such as changes in access to irrigation water, employment opportunities, soil erosion and conservation on uncultivated lands and drainage lines, and availability of various products such as fodder from the common (government revenue) lands. At the plot level, performance indicators include changes in cropping intensity, yields, soil erosion on cultivated lands, farmers’ land improvement instruments, and annual net returns to cultivation. The findings of the analysis in both the states indicate that participatory projects perform better than their more technocratic, top-down counterparts, but projects that combined participation with sound technical input performed the best of all. The better performance of the more participatory projects seems to be related to the complex, often site-specific livelihood systems prevalent in the study area. The study offers some suggestions for improving the impact of watershed projects and other development efforts in the future.


The volume embodies the proceedings of a regional seminar on “Integrated Plant Nutrient Supply System on the North East Hill Region” held at Medziphema, Nagaland and organised by the Department of Agronomy, Nagaland University and The Fertiliser Association of India- Eastern Region. The Seminar was organised with a view to sharing on a common platform the knowledge-based information and experiences generated by various R&D and other institutions over the years and to formulate and identify priority R&D programmes for the North Eastern Hill region. It includes sixteen papers and the presentation of each paper has its own importance. The first paper deals with fertiliser production, marketing and use in India with special reference to East and North-Eastern region. Another paper discusses the importance of integrated plant nutrient supply (IPNS) and sustainable agriculture. Two papers analyse integrated nutrient management with respect to fruit crops and one paper with respect to vegetable crops. The importance of IPNS in direct seeded and transplanted rice has been discussed in the next two papers. The subsequent seven papers discuss the scenario of agricultural production and fertiliser consumption in the north-eastern areas, various soil testing measures, issues related to farmer and extension workers and the importance of biofertilisers and neem and issues related to fertiliser policy and related aspects are highlighted. The last two papers have elaborated in detail about the fertiliser use in different crops and nutrient supply systems in Nagaland. The volume would serve as a useful guide for students, researchers, planners and for those concerned with the improvement of crops in the region.