

Modern-day Malthusians warn that Malthus will ultimately be right: the world will be less and less able to feed itself. They are anxious to apply their pessimism to developing countries – population keeps expanding, no new land is being created, crop yields have increased considerably and may have peaked, and the environment may not tolerate the pressure of more intensive agriculture. We read that China's demand for grain will exceed its own production capacity and take the rest of the world's surplus – Malthus is moving east! While these arguments seem persuasive, the evidence to the contrary is compelling: prices of agricultural commodities in real terms are at their lowest level in history, and crop output continues to rise faster than population.

The fact is that the world food situation has improved dramatically for most of the world's consumers. Output of cereals, the world's main food source, has increased 2.7 per cent per annum since 1950, while population has grown by about 1.9 per cent per annum. Cereal yields have increased at 2.25 per cent per annum. Not all people in the world today have adequate diets and there is no doubting the desperate circumstances of some peoples, but diets for most of the world's consumers have improved dramatically and per capita calorie consumption in developing economies has increased by some 27 per cent since the 1960s. It should continue to improve, and food will be cheaper than it is today.

Sub-Saharan Africa remains the primary exception to these general developments with stagnant or even declining per capita consumption levels. Population growth of 3 per cent has outstripped food production growth of 2 per cent per annum and countries are not generating the export earnings they need to import what they lack. There are serious problems of hunger and malnutrition. But here the problems extend well beyond agriculture.



The world food outlook



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# The world food outlook

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The following symbols are used in tables:

- .. not available
- zero
- . insignificant
- n.a. not applicable



## Preface

Contrary to recent reports, there is no worldwide food crisis, and the fact that market prices are continuing to decline in real terms tells us that the people most closely involved, that is those who are putting their money into investing, producing, storing and consuming, obviously do not think that there will be a crisis in the future. To create a seeming crisis situation, we are regaled with figures of up to 1.3 billion people in absolute poverty, with warnings of an impending slowdown in agricultural production growth, and with threats of increasingly adverse environmental effects. We are not told very often that the bottom of the range of estimates of absolute poor is 300 million. Seventy per cent of the estimated absolute poor are supposed to be found in South and Southeast Asia. Yet reconciliation of these numbers with the fact that this part of the world has experienced the highest per capita income and the highest food production growth rates over the past decade or more is never attempted. In the face of ever-improving indicators of food production, incomes, health, infant mortality and population growth rates, and while all the forecasts of doom have proved wildly wrong in the past, we are warned that doom is still around the corner.

The world's population is still growing, more food will be needed, and agricultural productivity will have to continue to increase. These are problems to be solved while reducing the environmental impact of agriculture – which means developing more environmentally friendly farming practices. Public decisions about these matters should be made in the light of reason and good information, however. Unfortunately, there is a prevailing mood that to get something done, a crisis situation has to be created. This book was written in the belief that calm reason provides the best basis on which to proceed. It looks objectively at what has been happening to food production and consumption in the past thirty years or so and what is likely to happen in the next twenty years and sees no cause for alarm.

The first draft of this book was written when the authors were members of the International Trade Division of the World Bank, and grew out of



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more than a decade's work on the prospects for world food production, consumption and trade. It has subsequently benefited from comments by various people. We would especially thank Ross Garnaut and Don Plucknett. Finally, Don and Merlinda join me in thanking the publications staff at the National Centre for Development Studies, in particular, Michaela Forster and Maree Tait, for knocking the book into shape and making it a good read as well.

Ronald C. Duncan



### **Abbreviations**

CGIAR Consultative Group on International Agricultural Research

CIAT International Center for Tropical Agriculture

CIMMYT International Maize and Wheat Improvement Center

CMEA Council of Mutual Economic Aid

CPI Consumer price index
DNA Deoxyribonucleic acid
EC-10 European Commission 10

EU European Union

FAO Food and Agriculture Organization of the United Nations

GATT General Agreement on Tariffs and Trade

GDP Gross Domestic Product

GLASOD Global Assessment of Soil Degradation

HYV High-yielding variety

ICRISAT International Crop Research Institute for the Semi-arid Tropics

IFPRI International Food Policy Research Institute

IFS International Financial Statistics

IIASA International Institute for Applied Systems Analysis

ILO International Labour Organisation IMF International Monetary Fund

IPCC Intergovernmental Panel on Climate Change

IRRI International Rice Research Institute

OPEC Organization of Petroleum Exporting Countries

SSB State Statistical Bureau (China)

UN United Nations

USDA United States Department of Agriculture

WEFA Wharton Econometrics Forecasting Associates (University of

Pennsylvania)

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