Chapter 1

Global Perspectives on International Agricultural Research

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Physiological factors affecting crop yields is a subject that could have life and death implications for many millions of people around the world—people who are hungry and malnourished today, as well as many more who could be in such a state tomorrow and into the future. Research relating to these factors will play a critical role in meeting future needs for food and other agricultural products.

FACTORS AFFECTING DEMANDS FOR AGRICULTURAL PRODUCTS

The need for agricultural research will be influenced greatly by the changing demand for food and other agricultural products. The effect of population growth on such demand is well recognized. Income levels and standards of living also have an important impact on this demand.

In low-income countries where a high proportion of consumer income is devoted to food, increases in income can add significantly to the demand for food. For example, it is estimated that developing country incomes are increasing at an average per capita growth rate of 3%. With an income elasticity of demand for food of 0.5%, the increase in food demand due to income growth would be 1.5%. Added to a population growth rate of 2% annually, this results in a potential increase in food demand of 3.5%/yr in such conditions.

In higher-income countries and among the wealthier classes of the developing countries, the impact of economic growth is much less because of the lower-income elasticities of demand for food. And since population growth rates are significantly lower in the high-income countries and among the wealthier classes of the developing countries, the growth of total food demand is expected to be much less than from the lower-income classes of