CHAPTER 4

Concluding observations: varieties of deprivation

This survey has concentrated mainly on food, i.e. the problems related to both its quality and quantity or, more specifically, its excess or inadequate consumption. While the study has dwelt on both aspects, for obvious reasons the emphasis has been on the problem of inadequate food access in large parts of the developing world.

World availability of food, as measured by per caput DES, increased by over one-tenth in the two decades between 1969-71 and 1990-92. More impressive was the achievement of the developing countries as a group, where per caput DES increased by almost one-fifth. Despite such progress made in improving the aggregate availability of food, one in every five people had inadequate access to food in the developing world at the start of the present decade. In absolute numbers, this translates into about 800 million people without access to adequate food.

These figures, however, indicate a certain improvement over the situation two decades ago when one person in three in the developing regions – with a total population of about 900 million – had inadequate access to food. The most significant improvement occurred in Asia, especially East and Southeast Asia, and to a lesser extent in the low-income countries of South Asia. Nevertheless, the overall scale of the food inadequacy problem remains enormous. What is more, hardly any progress was made in large parts of the world, especially in sub-Saharan Africa where the proportion of population with inadequate food increased slightly and the absolute number almost doubled in the two decades starting from 1969-71. Latin America and the Caribbean also faced hardship in the "lost decade" of the 1980s, when the proportion of the population with inadequate food remained practically constant and the absolute number increased by about one-third.

Food deprivation is a major contributor to the broader problem of undernutrition that besets much of the developing world and parts of the developed world as well. At the start of the present decade, two out of five children under the age of five in the developing world were stunted (low height for age), one out of three was underweight (low weight for age) and one out of ten was wasted (low weight for height). In absolute numbers,[11] about 200 million children under five in the developing world were stunted, 180 million were underweight and

[11] These numbers are slightly lower than those reported in 1993 (de Onis *et al.*, 1993) because the WHO Global Database on Child Growth has since been updated, either by substituting more recent survey results for some countries or by including first-time survey results for others. In both estimates, 1990 population figures were used. It would not be correct to interpret these differences as necessarily indicating a worldwide reduction in the number of undernourished children.

almost 50 million were wasted. As in the case of food inadequacy, there is some evidence that the proportion of children who are undernourished has declined in the last two decades but the magnitude of the problem remains daunting. Estimates of the numbers of undernourished schoolchildren, adolescents and adults will have to await many additional data on a worldwide basis. The coexistence of undernutrition and obesity, although not yet a general phenomenon in the developing world, is likely to be increasingly prevalent in some population groups.

Admittedly, not all the undernutrition arising from anthropometric shortfalls can be attributed to food deprivation alone because inadequate food consumption interacts in a complex manner with other forms of deprivation, such as unhygienic environments or lack of access to health care, to produce a state of undernutrition. However, inadequate access to food is the most basic of deprivations and goes hand in hand with most other forms. Food inadequacy may thus be a good indicator of general deprivation in its various manifestations. The remainder of this chapter examines these associations.

First, the 98 developing countries covered in this survey were classified into three groups according to their prevalence of food inadequacy: high, medium or low. Countries in which the proportion of people with inadequate access to food lies above the mean for all the developing countries are classified in the "high" food inadequacy group; countries in which the proportion lies within 1 SD below the mean are classified in the medium food inadequacy group; and countries in which the proportion lies further below are considered as belonging to the low food inadequacy group.[12] Using the same procedure, i.e. by taking the mean and the mean -1 SD as the cutoff point for the classification, countries were classified into high, medium and low groups also in terms of per caput GDP (adjusted for parity of purchasing power), the human development index (HDI) published by the United Nations Development Programme (UNDP, 1995) and the prevalence of underweight children as reported in Chapter 3.

Figure 8 compares the degree of food deprivation (the proportion of the population with inadequate access to food) with the level of nutritional deprivation as measured by the proportion of underweight children among the population under five years of age. An association between the two clearly exists, although it is not perfect. Contrasting the highly deprived countries with those with low levels of food deprivation, the proportion of countries with a high prevalence of child weight deficiency declines (from 55 to 8 percent) while the proportion with a low prevalence

[12] There were 37 countries in the "high" food inadequacy group, 40 in the "medium" inadequacy group and 21 in the "low" inadequacy group.

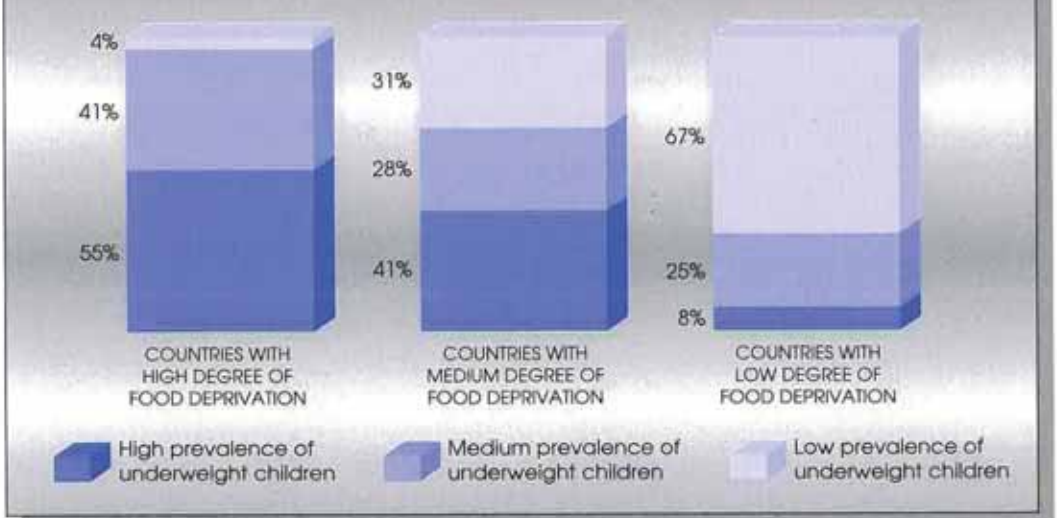
of child weight deficiency increases (from 4 to 67 percent). The proportions of moderately food-deprived countries tend to fall in between. To some extent, therefore, food deprivation and poor nutritional status go together, but the exceptions are also quite significant. As can be seen from Figure 8 two out of five countries with a high degree of food deprivation had only a moderate prevalence of weight deficiency, while one in ten countries with a low degree of food deprivation had a high prevalence of weight deficiency.

The absence of a strong association between food deprivation and nutritional status is to be expected in view of the points made earlier about multiple determinants of nutritional status.[13] It is quite possible that, in some countries, despite a high prevalence of food inadequacy, a moderate improvement can still be made in nutritional status by acting on other determinants such as hygiene and health care while, in other countries, the poor provision of hygiene and health care maintained a low nutritional status despite low degrees of food inadequacy.

[13] An additional reason is that food inadequacy figures refer to the whole population, covering both adults and children, while the prevalence of weight deficiency refers only to the subpopulation of children under five years of age.

FIGURE 8

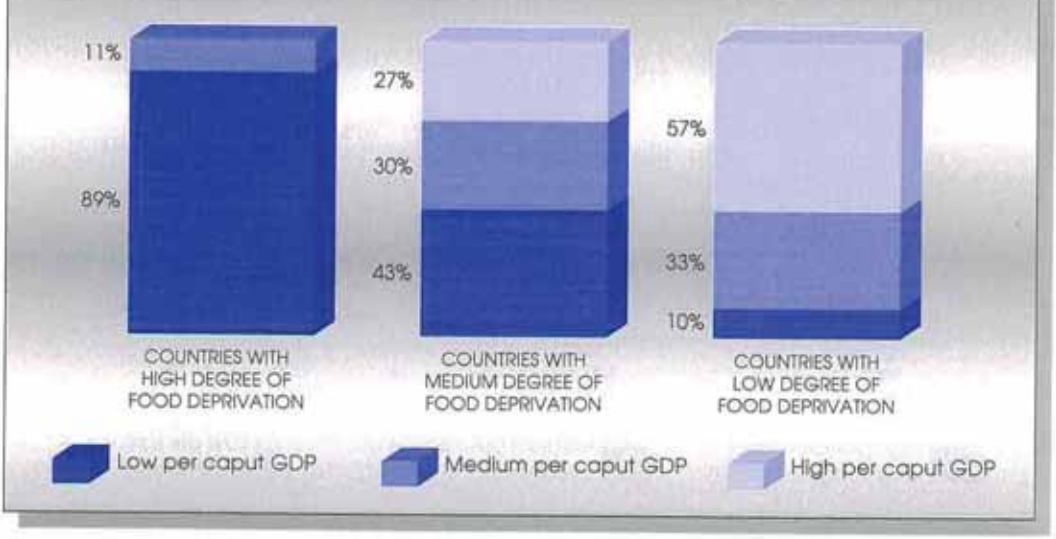
DISTRIBUTION OF DEVELOPING COUNTRIES CLASSIFIED ACCORDING TO DEGREE OF FOOD DEPRIVATION AND PREVALENCE OF UNDERWEIGHT CHILDREN (UNDER 5 YEARS)



But the observed association is much closer between food deprivation and indicators of general socio-economic development such as a low per caput GDP and a low HDI. Figure 9 shows the cross-country association between food deprivation and per caput GDP. As many as 89 percent of highly food-deprived countries belong to the low GDP group. It is not surprising that countries with the highest degree of food inadequacy are generally the poorest, but the exceptions are of some interest. One in ten countries in the high food inadequacy group is in the medium-income range, while one in ten countries in the low food inadequacy group is in the lowest income range. This shows that, while there is a close association between general levels of food adequacy and economic affluence across countries, it is sometimes possible to reduce food inadequacy substantially even at low levels of national income, just as it is possible to encounter countries with high degrees of food inadequacy at higher levels of national income. In other words, moderate increases in national income may not be a guarantee of corresponding reductions in food inadequacy, just as a low income need not be an insurmountable obstacle to improving the national level of food adequacy. One caveat should be borne in mind: this cross-country analysis does not establish cause and effect; rather, the associations merely suggest that these relationships are amenable to appropriate policy measures.

FIGURE 9

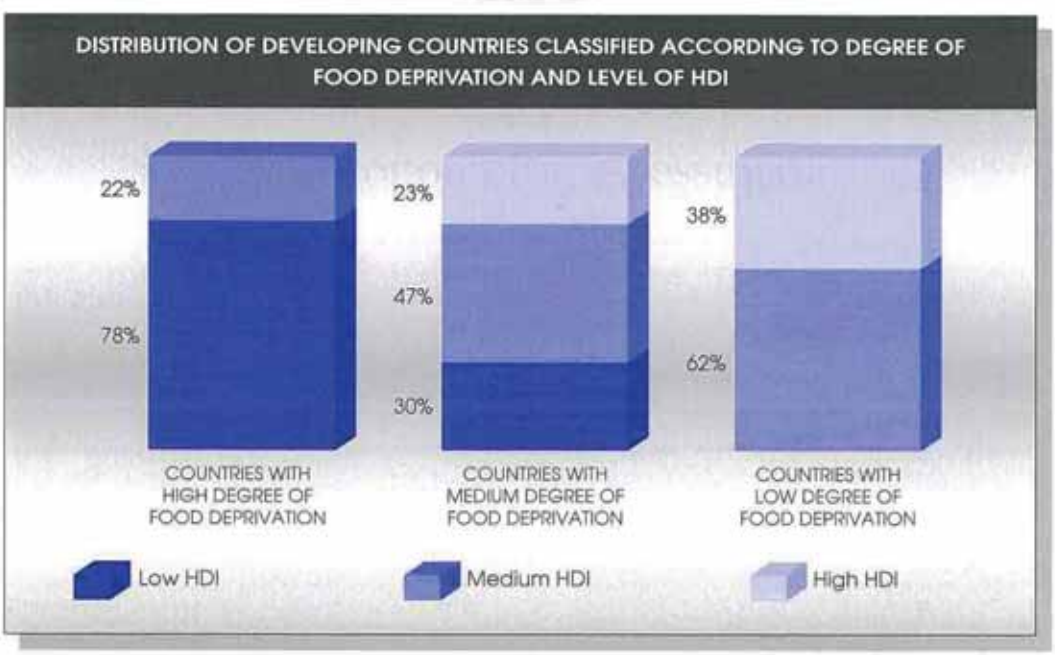
DISTRIBUTION OF DEVELOPING COUNTRIES CLASSIFIED ACCORDING TO DEGREE OF FOOD DEPRIVATION AND LEVEL OF PER CAPUT GDP



The HDI is a more comprehensive indicator of general welfare since, in addition to per caput GDP, it also considers the levels of literacy and life expectancy at birth. The association between this indicator and food deprivation is again found to be close (Figure 10). Nearly 80 percent of the countries with a high degree of food inadequacy are also characterized by low levels of HDI; on the other hand, among the countries with a low level of food inadequacy there is none with a low level of human development. Once again, it is useful to note the exceptions. One in five of the food-deprived countries are characterized by a medium HDI, which indicates that, unless appropriate measures are taken, high levels of food deprivation can persist even when the combination of overall economic development and improved access to education and health facilities has succeeded in bringing about a moderate improvement in general human welfare.

This brief discussion highlights two issues of policy interest: i) Although it is essential to reduce national food inadequacy to combat the problem of child undernutrition, there are other risk factors besides inadequate access to food. ii) While measures to eliminate general deprivation – as indicated by a low per caput GDP or HDI, for example, will often go a long way towards improving food access, there is no guarantee that they will. On the other hand, it may be possible to reduce

FIGURE 10



food inadequacy substantially even when general socio-economic deprivation persists.

A more in-depth country-by-country analysis, which is beyond the scope of this survey, would provide greater insights into the relative effectiveness of food and non-food inputs to improve child nutritional status and the synergistic effects that exist between these inputs.