Food Production and Consumption in Relation to Food Insecurity and Undernutrition in Kenya, Nigeria, Tanzania and Uganda

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This chapter complements the results presented in the previous chapter of the comparison of trends in food production in Kenya, Nigeria, Tanzania and Uganda over the past 10–50 years by analyzing the subject from a nutritional angle. It looks at the consumption perspective, using the FAO’s Food Balance Sheet (FBS) approach. Food availability for human consumption is a vital determinant of food security and FBS data show how much food is available for human consumption in a country after corrections have been made for imports and exports, changes in the volume of food stocks and other uses. The FAO expresses the final results of the FBS in terms of dietary energy (kcal), g protein and g fat per capita. Per capita statistics allow comparisons over time which corrects for population growth. Dietary energy is used in this chapter as a common unit for the different components of the FBS. Two nutritional outcome indicators are considered: the Prevalence of Undernourishment (PoU), which is the result of the distribution of available food supplies among the population; and the Prevalence of Anthropometric Failure (inadequate child growth) among the under-fives, based on the results of national Demographic and Health Surveys (DHS).

Introduction

This chapter focuses on a comparison of trends over the past 10–50 years in the availability of food for human consumption, the prevalence of undernourishment (derived from the total amount of food available) and the nutritional status of young children in Kenya, Nigeria, Tanzania and Uganda (Dietz et al. 2013; Akinyoade et al. 2013; Leliveld et al. 2013a; Leliveld et al. 2013b). It thus complements the analyses of food production in the previous chapter in this volume.

The UN’s Food and Agriculture Organization (FAO) and the World Health Organization (WHO) are hosting the second International Conference on Nutrition 21 years later (ICN + 21) entitled ‘Better Nutrition, Better Lives’ in
Rome on 19–21 November 2014. FAO/WHO member countries will be represented by top-level officials from the health and food and agriculture sectors and will consider the progress made in terms of political commitment and operational capacity since the 1992 International Conference on Nutrition (ICN) that unanimously adopted a World Declaration and Plan of Action for Nutrition. The 2014 conference will propose a flexible policy framework to address the major nutrition challenges of the coming decades. Country papers (FAO/WHO 2012) will be an essential input at the conference that will also identify priorities for cooperation on nutrition in the near and medium term.

In the run-up to ICN + 21, the FAO has provided an international set (‘suite’) of core indicators of food insecurity to assess aspects of food insecurity across regions and over time (FAO 2013). These indicators are in line with four pillars of food security – availability, access, utilization and stability. To facilitate their interpretation, they are also classified as indicators of determinants or of outcomes of food insecurity. Determinants, which can be either static or dynamic, refer to structural conditions that worsen food insecurity in the absence of adequate policy interventions, including emergency assistance. Outcome indicators capture results in terms of inadequate food consumption or anthropometric failure. Appendix A (this volume) provides time series information on a number of major indicators for different world regions and also for Kenya, Nigeria, Tanzania and Uganda.

Two of the basic determinants of availability are Dietary Energy Supply Adequacy and Share of Dietary Energy Supply Derived from Cereals, Roots and Tubers. The first represents the quantitative dimension of food availability, while the latter is a way of presenting the monotony of the diet because when people’s incomes rise, they tend to consume a more varied diet. This will include more non-staple foods like vegetables, nuts, fruit and animal products, while the percentage of staple foods they consume decreases.

One of the outcomes of access is the Prevalence of Undernourishment (PoU), the food-based estimated of the percentage of the population that is chronically hungry, while the percentage of children under five with anthropometric failure (i.e. who are stunted, wasted and/or underweight, respectively) is an outcome indicator for the utilization of food. This chapter presents current and trend data on these indicators for four case-study countries: Kenya, Nigeria, Tanzania and Uganda (see also Chapter 3, this volume). It starts by looking at food availability (as the net result of its various determinants) and then considers the outcomes in terms of the PoU and the percentage of under-fives with anthropometric failure. Particular interest is devoted to the extent to which anthropometric failure reflects the trend in food-based indicators.