1. There are multiple pathways through which agriculture affects human health and nutrition. Understanding these pathways and how they operate is essential to design agricultural policies to achieve nutrition goals. I was invited to talk about the key issues in agriculture that may affect food security and nutrition.

2. As I see it, there are six such key issues:

   a. Large fluctuations in food production and dramatic food price volatility leading to increases in transitory food insecurity and malnutrition, particularly among the poorest rural and urban populations, many of whom are already suffering from chronic food insecurity and high rates of child morbidity and mortality. The production fluctuations are caused in large part by changing weather patterns, irregular rainfall patterns and extreme weather events leading to droughts, floods, wind damage and resulting crop and animal losses. The impact on food price volatility is amplified by irrational or poorly informed expectations by speculators, traders and farmers, volatility in oil prices and the close relationship between food and oil prices, and government interventions in international food trade to protect government legitimacy and keeping domestic food prices low benefitting domestic consumers and reducing producer incentives to expand production. This situation calls for improved risk management instruments such as more appropriate food trade rules, discontinuation of subsidies for biofuel production that competes with food production for resources, investments in productivity-increasing and risk-reducing research and technology, rural infrastructure and domestic markets, access to credit and social safety nets.

   b. Continued strong increase in the demand for food, particularly foods of animal origin and a diet transition that leads to increasing obesity and chronic diseases while at the same time increase diet diversity and reduce micronutrient deficiencies. Although lower rates of population growth reduce the rate of increase in food demand, rapid increases in the demand for foods of animal origin places upward pressures on the rate of growth in the demand for feed. Increasing investments in unit-cost reducing technology and efficient and competitive food marketing systems are needed along with

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1 Prepared for Panel Discussion on “Agriculture, Nutrition, and Health: Where are we now, Where are we headed, and Where do we want to be?” at IFPRI Conference on “Leveraging Agriculture for Improving Nutrition and Health” New Delhi, February 10-12, 2011.
policies that provide enhanced production incentives. Fiscal policies may be needed to adjust relative prices if the expected diet transition does not correspond to society’s wishes.

c. Failure to pursue sustainable management of natural resources and policies to mitigate and adapt to climate change. A full costing approach, in which the costs associated with unsustainable use of natural resources and negative contributions to climate change are fully added to production costs, is warranted. To be viable in a globalized trading environment, a full costing approach must be based on international agreements. Single country attempts would lead to distorted competition and incentives to pursue unsustainable production where full costing is not implemented.

d. Complacency in developing country governments with respect to the meeting of future food needs and associated failure to prioritize investments in sustainable productivity increasing research and technology, rural infrastructure and domestic rural markets. A strong decreasing trend in food prices during the period 1974–2000 led to complacency and low priority to investments in agriculture and rural areas. Large food price fluctuations during the last few years have caught the attention of policy-makers in both developing and developed countries. International commitments to increased investments in agricultural development and improved food security culminated with commitments by G8 and other countries at a meeting in L’Aquila, Italy in the amount of $20 billion. A relatively small share of the commitment has been released through The Global Agriculture and Food Security Program (GAFSP) and other vehicles. Initiatives by the Gates Foundation, USAID, DIFID, World Bank and several other organizations have made significant contributions. Some developing country governments, e.g. China and Ethiopia, have also expanded investments in agriculture, rural development and improved food security. However, many developing countries appear not to have made significant increases in such investments and only a few of the African countries have achieved the agricultural investment goals agreed to within the NEPAD/CAADP framework.

e. Prioritizing expanded global and national food production instead of improved food security and nutrition. According to the FAO, between 800 million and one billion people suffer from undernourishment, meaning insufficient access to the dietary energy needed for a healthy and productive life. The consequences of food price volatility are particularly severe for these people because they are close to or below long-term subsistence levels and they have little or no effective risk management tools. Making such tools available, including those mentioned above, are likely to more effective to achieve food security and nutrition goals than investments and policies aimed at the expansion of global food supplies. Merely expanding food supplies may be of very limited benefit to these population groups unless their access to food is enhanced. Pursuing the goal of expanded food production rather than food security goals may result in a worsening of food security and nutrition. Recent and on-going international land acquisition in low-income countries resulting in capital-intensive agricultural production and the removal of smallholder families from the land, they have cultivated but to which they do not have legal title, is an illustration of such a situation.

f. Failure to explicitly incorporate gender-specific labor demand and power structures and the human health situation into the design and implementation of agricultural policies and projects. On the assumption that rural areas in most developing countries contain many unemployed or underemployed workers, policies and technologies should be labor using rather than labor saving. Increasing rural employment would be expected to reduce poverty and improve food security and nutrition. However, from a food security and nutrition perspective, it is critically important to understand how the policies and technologies would affect women’s labor demand and how increasing demand for women’s time will affect other activities traditionally performed by women such as child care, agricultural work, cooking and the fetching of water and firewood. Furthermore, the impact on women’s control of household incomes and gender-specific decision-making may be an important pathway between agricultural development and nutrition. The standard prescription of labor using technology may also need revision in cases where illnesses such as HIV/AIDS, Malaria and TB have reduced labor availability and labor productivity.
3. An integrated policy and investment approach for the food system, natural resource management, climate change and human health and nutrition is essential to achieve sustainable food security and good nutrition for all. Whether in policy-making, training or research, the continuation of past and current separation of activities within disciplinary or sectorial compartments is no longer viable and must be replaced by a holistic problem-solving approach.²