Sub-Saharan Africa

- African countries are particularly vulnerable to climate change because of their dependence on rainfed agriculture, high levels of poverty, low levels of human and physical capital, and poor infrastructure.

- The negative effects of climate change on crop production are especially pronounced in Sub-Saharan Africa, as the agriculture sector accounts for a large share of GDP, export earnings, and employment in most African countries. Furthermore, the vast majority of the poor reside in rural areas and depend on agriculture for their livelihoods. (Source: "Setting Priorities for Public Spending for Agricultural and Rural Development in Africa," IFPRI, 2009)

- The crop model indicates that in 2050 in Sub-Saharan Africa, average rice, wheat, and maize yields will decline by up to 14 percent, 22 percent, and 5 percent, respectively, as a result of climate change.

- Irrigation water supply reliability, the ratio of water consumption to requirements, is expected to worsen in Sub-Saharan Africa due to climate change.

- Without climate change, calorie availability is expected to increase in Sub-Saharan Africa between 2000 and 2050. With climate change, however, food availability in the region will average 500 calories less per person in 2050, a 21 percent decline.

- In a no-climate change scenario, only Sub-Saharan Africa (of the 6 regional groupings of developing countries studied in the report) sees an increase in the number of malnourished children between 2000 and 2050, from 33 to 42 million. Climate change will further increase this number by over 10 million, resulting in 52 million malnourished children in 2050.

- Additional investments to increase agricultural productivity can compensate for many of the adverse effects of climate change. Sub-Saharan Africa needs 40 percent of the estimated 7 billion USD per year in additional global agricultural investments, the majority of that for rural roads.

Source: International Food Policy Research Institute, *Climate Change: Impact on Agriculture and Costs of Adaptation*, 2009