

Table 1: Projected Climate Changes and Their Impacts on Agricultural Productivity in the 2080s

Climate variables	Land area	Farm area
Base levels		
Temperature (°C)	13.15	16.2
Precipitation (mm per day)	2.2	2.44
By 2080s		
Temperature (°C)	18.1	20.63
Precipitation (mm per day)	2.33	2.51
Impacts on agricultural productivity (%)	Without carbon fertilization effect	With carbon fertilization effect
World (output weighted)	-15.9	-3.2
Industrial countries	-6.3	7.7
Developing countries	-21	-9.1
Africa	-27.5	-16.6
Asia	-19.3	-7.2
Middle East and North Africa	-21.2	-9.4
Latin America	-24.3	-12.9

Source: Cline (2007).