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CLIMATE CHANGE SCIENCE *for* DEVELOPMENT

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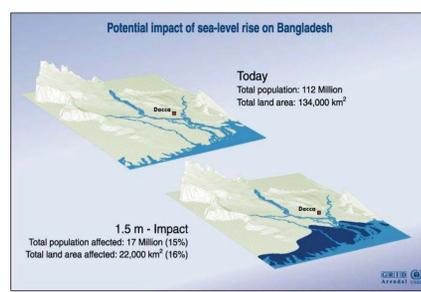
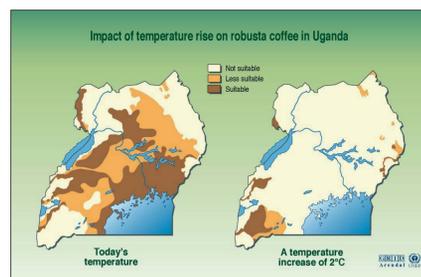
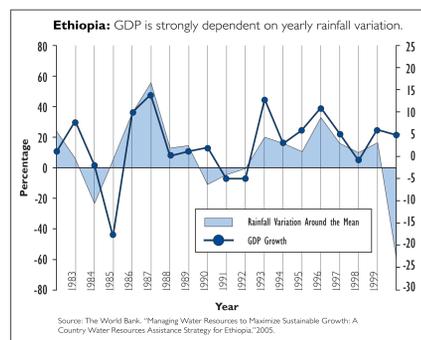
Why is climate change important for sustainable development?

Vulnerability:

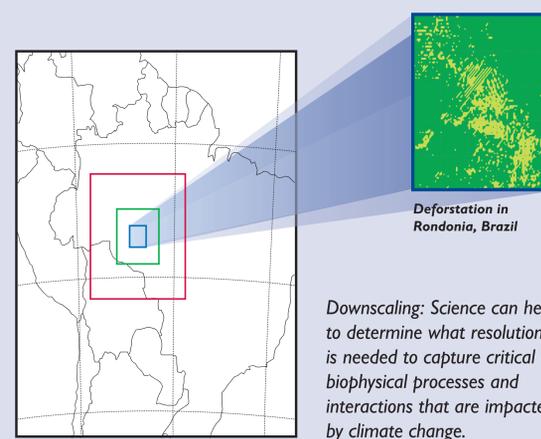
The vulnerability of developing world economies to impacts from present climate variability is likely to increase under climate change.

Resilience:

The projected impacts of climate variability and change need to be more tightly integrated into development goals to ensure that economic growth and development is resilient in the face of global change.



How can science better address climate change impacts and adaptation needs in the developing world?



1. Better modeling capacity is critical for economic development, and it benefits climate change adaptation through:
 - regional- and local- impacts models for water, forest and fishery resources, and agricultural productivity & drought
 - addressing resolution and validation concerns for downscaling that lead to information and products that can be used in the developing world

How is USAID addressing climate change in the developing world?

Energy/Emissions

Reducing GHG emissions while improving energy efficiency and promoting economic growth.

Carbon Sequestration

Improving soil fertility, enhancing food security and protecting natural resources through better soil carbon management in agriculture and forestry.

Vulnerability & Adaptation to Impacts

Biotechnology to improve drought tolerance, and pest and pathogen resistance in ag crops. Protection and habilitation of mangrove systems

Addressing the Causes

Addressing the Effects

2. Greater social science input is needed to:
 - understand how disruptions in ecosystem support services affect human activities

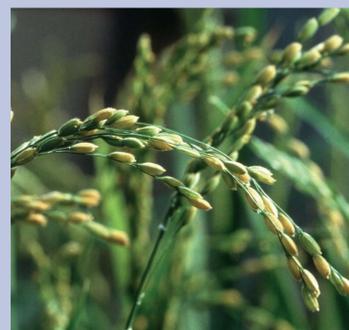
USAID pilot projects to foster climate change adaptation



Honduras: USAID is helping to identify how climate change can be factored into water and coastal zone management programs to better protect against increased flooding and coastal erosion.



South Africa: USAID is working with municipalities and government-water agencies to incorporate climate change concerns into long-term planning of new water sources.



Mali: USAID is advising agricultural development projects on how climate change could impact water-management planning decisions in irrigated lowland rice production zones.

3. Other capacity & support needs for science in the developing world include:
 - data collection and sharing that is applicable to local capability/ technologies
 - networking for regional-based scientific dialogue on climate change
 - maintenance of specialized equipment used in climate change observations