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Climate Change Adaptation Planning USAID's Approach White House Conference Center

**Thursday June 23, 2011
John Furlow, USAID**

USAID at a glance

- An independent agency under the general policy guidance of the US Secretary of State
- Operating in 100 countries with over 75 field offices
- \$ billions invested annually in:
 - Water and sanitation
 - Agriculture
 - Democracy & governance
 - Economic growth & trade
 - Environment
 - Education & training
 - Health
 - Humanitarian assistance



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Climate Change Impacts

Select Impacts:

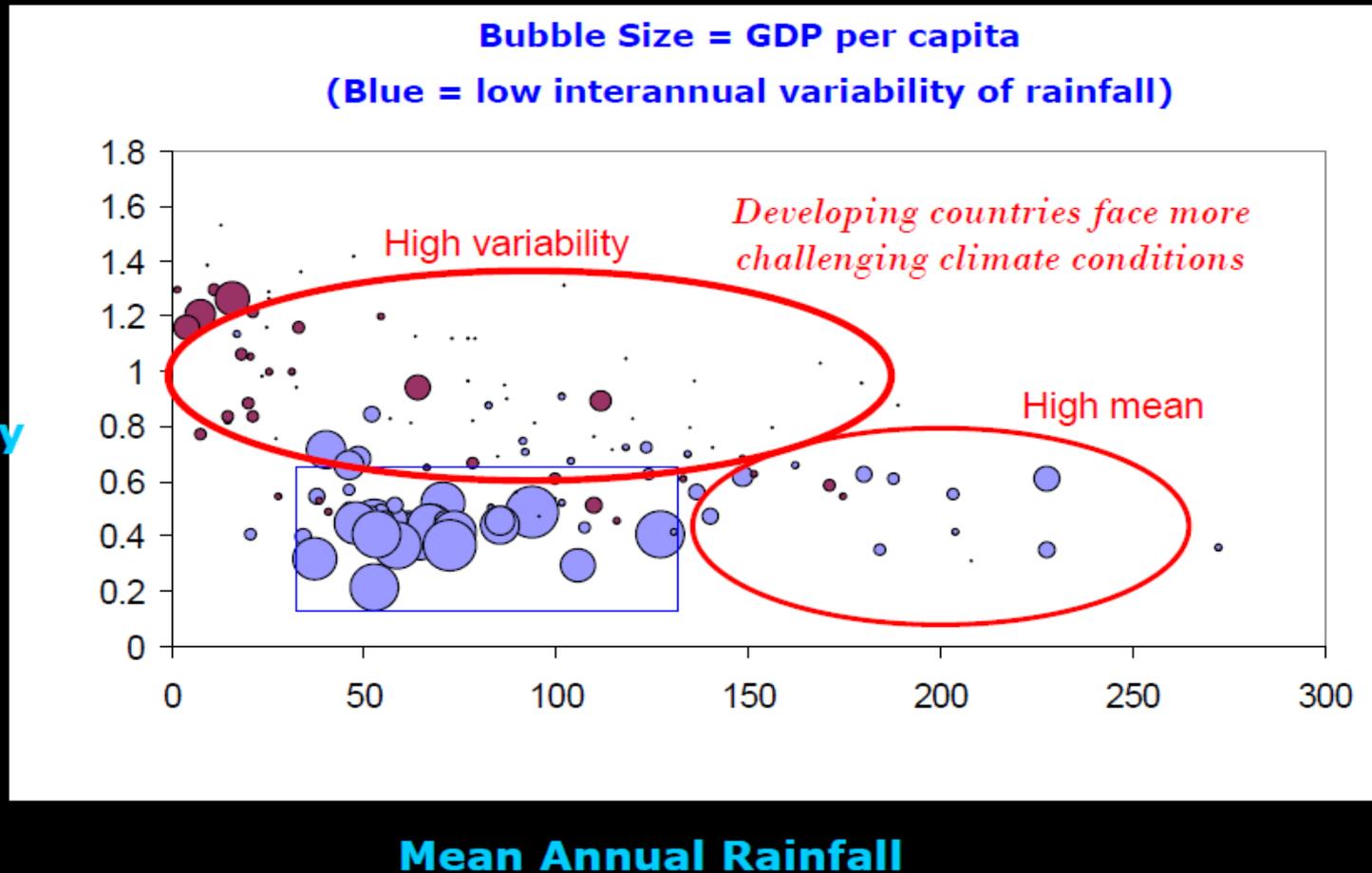
- Changes in water availability
- Changes in pollutant loading
- Infrastructure damage
- Change in forest cover
- Amplified hazards
- Sea level rise
- Increased hunger
- Spread of disease
- Loss of biodiversity



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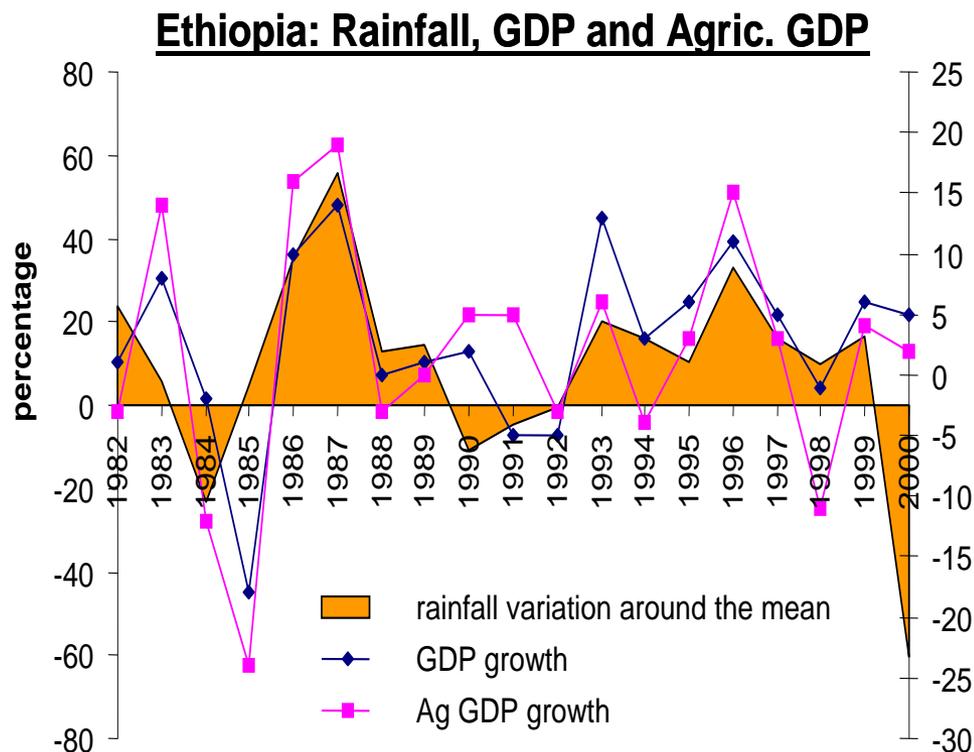
Rainfall Variability and GDP

Monthly
Rainfall
Variability



Why Adapt to Climate Change?

- Developing country economies concentrated in climate sensitive sectors
- ~70% of developing country populations derive income from agriculture



Source: The World Bank. "Managing Water Resources to Maximize Sustainable Growth: A Country Water Resources Assistance Strategy for Ethiopia." 2005.



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USAID's Climate Change Program

Overall Goal: Assist countries as they develop in ways that reduce emissions while building resilience to climate change impacts

Clean Energy: 23 countries, 11 Regions/Bureaus

Reducing net GHG emissions by spurring the deployment of clean energy technologies. Priority areas: energy efficiency, low-carbon energy, clean transport, and energy sector reforms.

Sustainable Landscapes: 14 Countries, 5 Regions/Bureaus

Reducing net greenhouse gas emissions from the land use sector (e.g., tropical forest destruction and degradation) and augmenting sequestration of carbon in landscapes, including building capacity to measure, report, and verify emissions reductions.

Adaptation: 19 Countries, 12 Regions/Bureaus

Building capacity in vulnerable countries and communities to prepare for, reduce, or cope with negative impacts of climate change; Designing resilience into development assistance.



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USAID Climate Change Budget

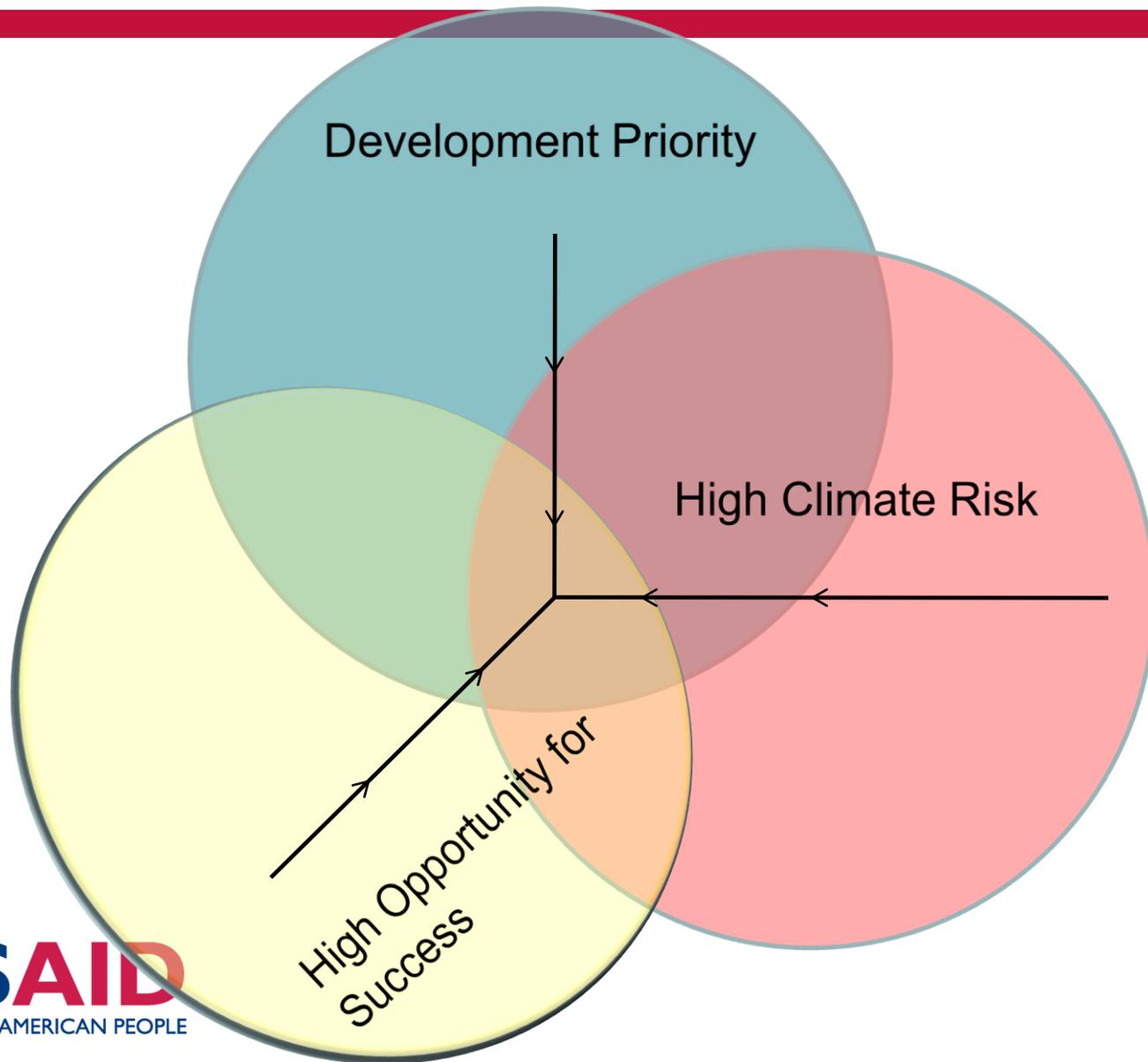
(millions of US\$)

	FY2009 Estimates	FY2010 Budget	FY2011 Request
Adaptation	24	123	187
Sustainable Landscapes	90	152	175
Clean Energy	100	109	129
TOTAL	214	384	491



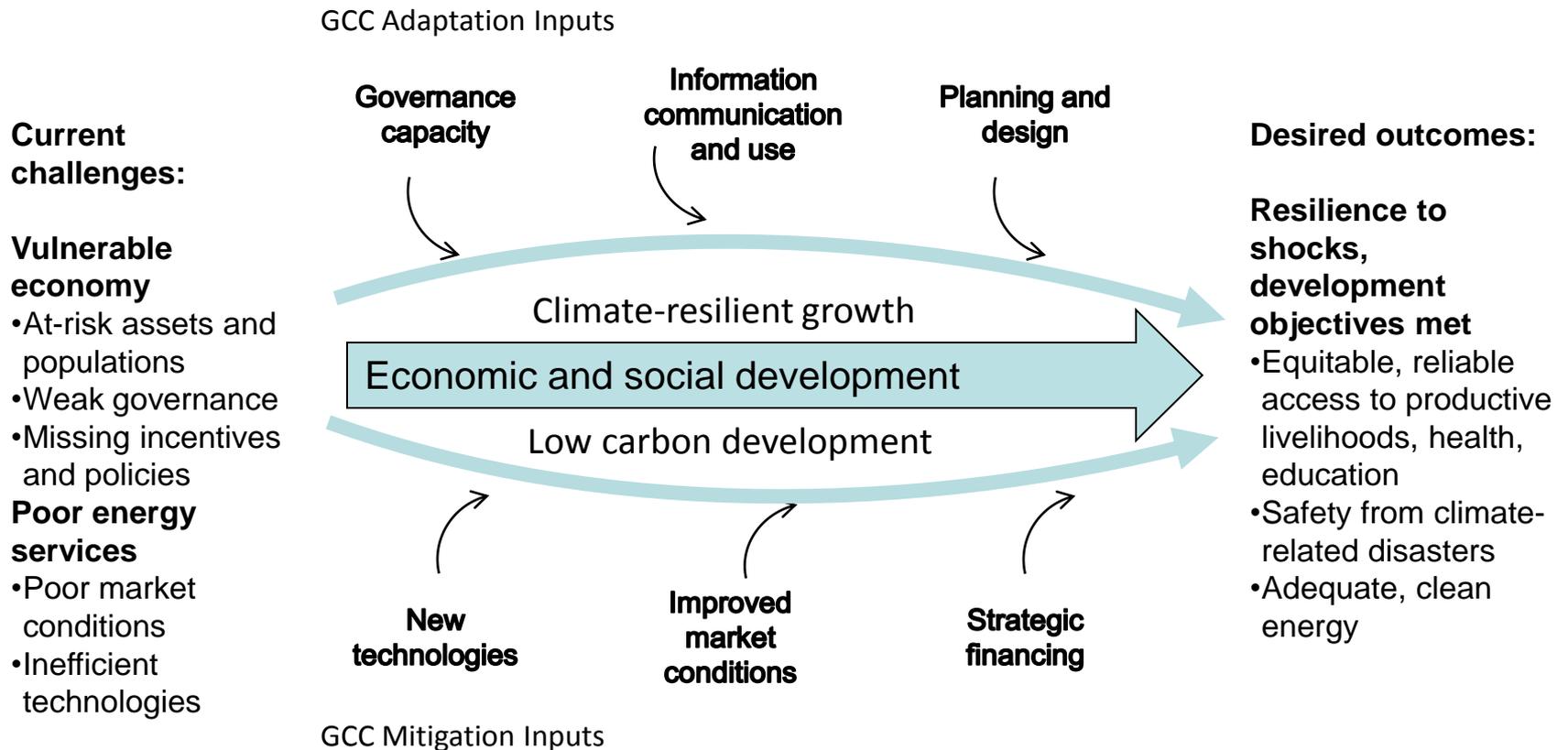
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Making the Most of Adaptation Investment



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Low Carbon, Climate Resilient Growth



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Climate Stress in the Development Context

Economic drivers / Social development objectives:

Tourism, Agriculture, Manufacturing

Inputs or essential conditions:

Natural environment, fresh water, energy, transport systems, labor, safety, governance, policy, financing, public awareness

Stressors (climate, non-climate):

Changes in rainfall, temperature, SLR, corruption, pollution

Interventions:

Information, capacity building, public awareness, freshwater management, coastal/marine management

Program design

Resilience improved



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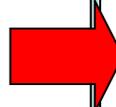
Analysis: from Objective to Response

Objective: Health, productivity, food

Inputs: Infrastructure, water, ecosystems, management, information, climate, policy

Stresses

- Poor infrastructure, maintenance
- Lack of regulation
- Increasing temps
- Rainfall variability
- Pollution



Vulnerability

Exposure

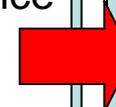
- What
- Infrastruct.
 - Populations
 - Ecosystems
- Where
- Coastal zone
 - Estuaries

Sensitivity

- Quality of infrastruct.
- Type of water source
- Housing
- Health status

Adaptive capacity

- EWS
- Governance
- Multiple sources
- Skilled decision-makers



Potential Impacts

- Damaged Infrastructure
- Illness
- Lost productivity
- Food insecurity

Responses

- Re-site activities/infrastructure
- Restore watersheds
- Improve infrastructure
- Provide forecasts
- Train managers
- Reduce demand



Some Challenges to Adaptation

Technical

- Poor historical records
- Poor current weather data
- Low local capacity
- GCM uncertainty
- Poorly adapted to current conditions

Social

- Competing Interests
- Too many challenges
- “more pressing needs”
- Poor understanding of climate change
- Intimidating topic
- Limited experience



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USAID's Challenges

- Remain true to Development Mission
- Cope with data limitations
- Build support, capacity, confidence to address climate change
- Simplify, streamline the adaptation process for non-climate experts
- Build resilience while pursuing development gains



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How Does the Climate Team effect change?

- Training: For USAID staff and partners
- Pilot programs
- Technical Assistance
- Program Design
- Tools
- Guidance



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USAID's Adaptation case studies

- **Honduras:** coastal zone development
- **Mali:** rice and potato production
- **South Africa:** municipal water sources
- **Thailand:** fisheries, rice production
- **Madagascar:** protected areas management and livelihoods
- **Coastal Hazards:** building resilience to multiple hazards
- **Andes/Himalaya:** adapting to a world without glaciers
- **West Africa:** improving information for decision making



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Adapting to a World Without Glaciers

Questions:

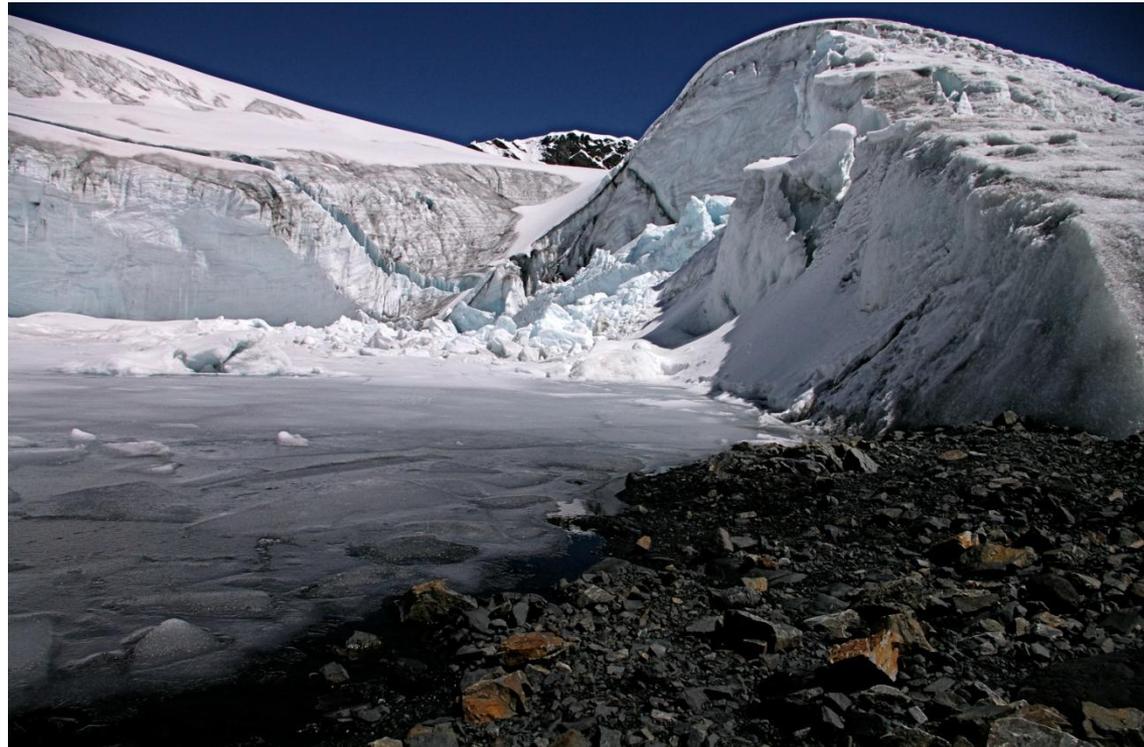
- What do you do when the water cycle changes?
- How do we begin to adapt to such a different future?
- Can USAID and NSF work together on a single project?



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Adapting to a World Without Glaciers

- Bring together decision makers and researchers
- Guiding questions:
 - What can we do now to build resilience?
 - What do we need to know to act more effectively?
 - Are the appropriate ministries helping or hurting action?



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Communicating information: Climate One Stop



About the Climate 1-Stop:

The Climate 1-Stop provides a single location to access proven climate change tools, resources and information. With a primary focus on adaptation, with clear linkages to mitigation and finance, the Climate 1-Stop facilitates those working with the world's most vulnerable to achieve robust decision making. We are a neutral group of southern and northern organizations, working at all levels, from grass roots to global. We envision a just and equitable world, where learning and collaboration overcome climate change barriers to development. To that end, we seek to build climate resilience in all sectors. We are open to all and driven by user needs.

To get started, choose one of the following...

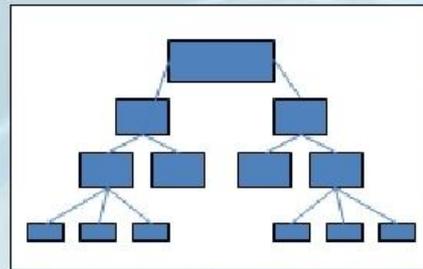
Launch Climate 1-Stop

(News, Search, Calendar, Visualize, Discuss)



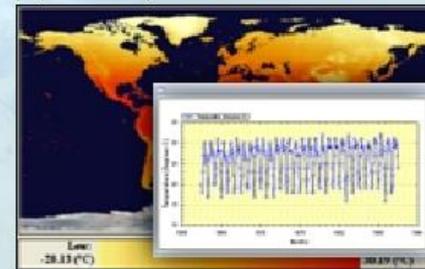
Decision Tree

(Use FAQs to find what you need)



Data and Visualizations

(Historical/predicted, maps, graphs, popular tools)



Other Resources:



[Glossary of Terms](#)



[Help/Guidance](#)

If you have any questions/comments/feedback, please contact us using the following email address:

info@climate1stop.org

Climate Mapper Tool

Data and Visualization

Map **Historical Observations** Modeled Projections Hazard Vulnerability Featured Climate Tools

Annual Average Temperature

Select a climate theme:

Temperature



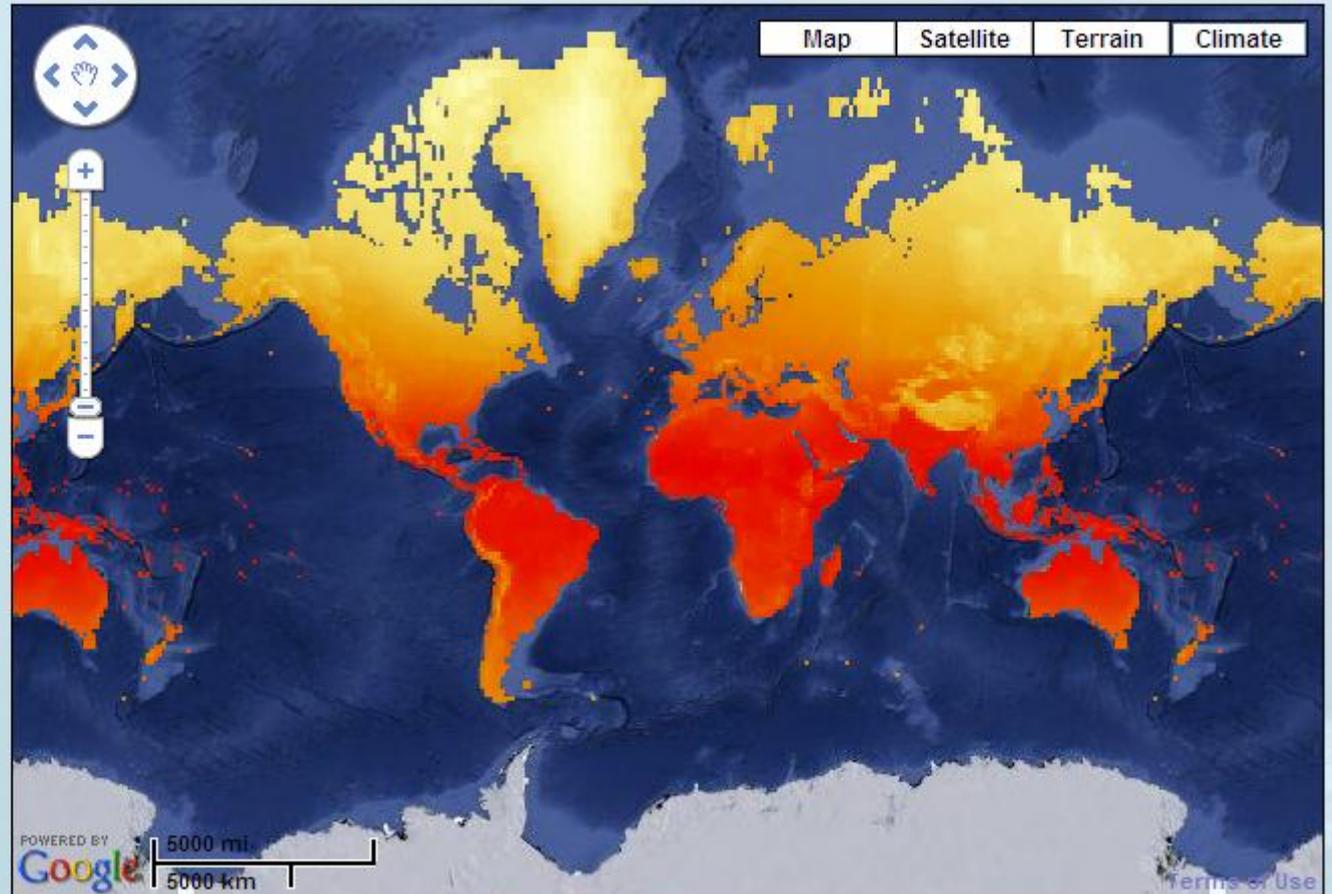
Available data for graphing:

Monthly Avg. Temperature (1901 to 2

Click the map to get a value and generate a graph for a location --->

Data Source/Info

Users of this tool have read and understand the [disclaimer](#).

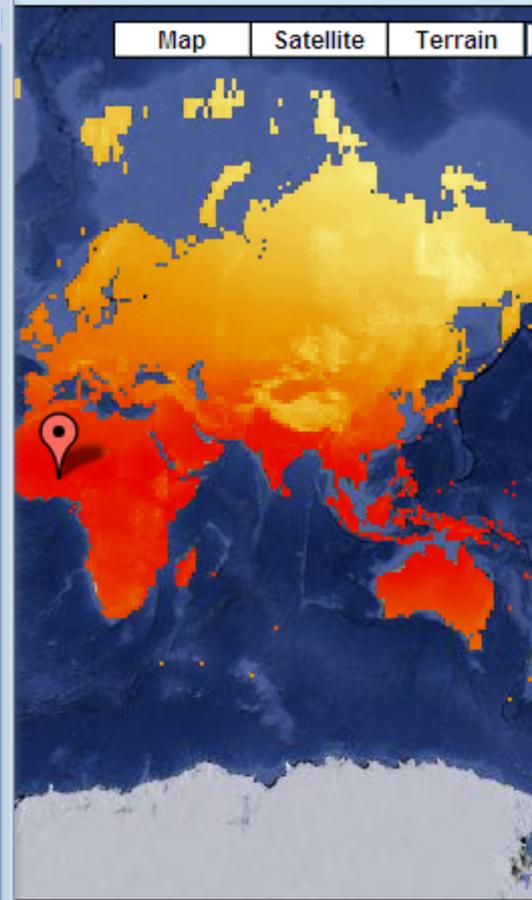
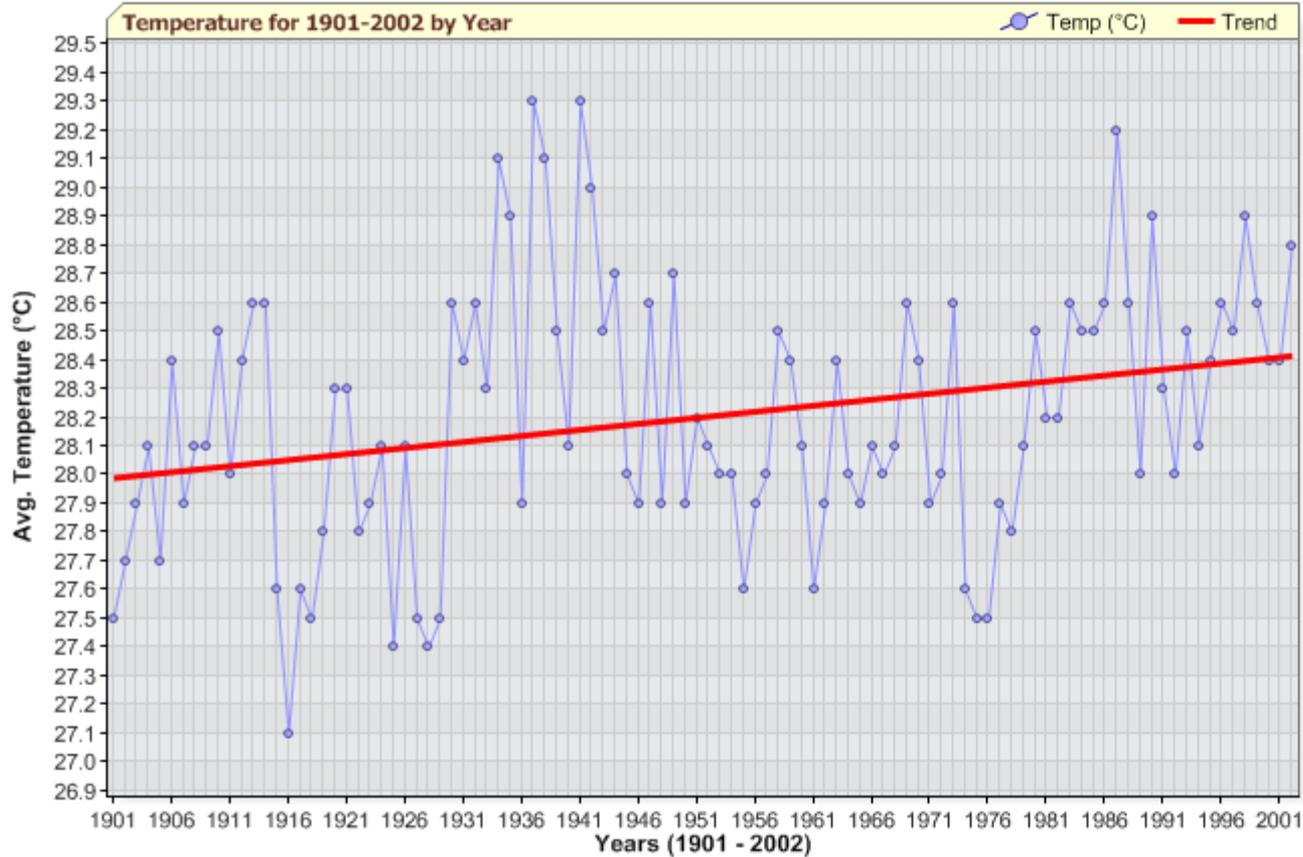


Climate Mapper Continued

Annual Average Temperature

Temperature for 1901-2002 by Year

Get Graph Data Annual Average Temperature: **28.2 °C**



High: 30.20 °C

Additional Resources

- USAID Climate Page
 - http://www.usaid.gov/our_work/environment/climate/index.html
- State Department Fast Start Finance
 - <http://www.state.gov/g/oes/rls/rpts/faststart/index.htm>
 - Climate One Stop
 - <http://arcserver4.iagt.org/climate1stop/>



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