Empowering Communities to Adapt to Climate Change in Western Tanzania

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Our work in Africa is focused on perfecting and exporting the best examples of community-led conservation across the continent’s vast communal lands and waters.
Mount Kilimanjaro: 90% loss of ice cover
Loss of 13000ha of montane forest

East Africa: increased frequency of drought over last 20 years

Lake Tanganyika: declining fish catches

Kenya: decline of birds in mountainous regions
Average yearly temperature since 1950s
Average yearly rainfall since 1950s
Future Climate Projections

- Use information about historical climate and statistical techniques to interpolate to finer spatial scale.
End-of-Century: Annual Temperature Change

Mean Temperature Change (°C)

B1  A1B  A2
End-of-Century: Annual Precipitation Change

Mean Percent Precipitation Change (%)

B1  A1B  A2

-40  0   80
Synthesis of Climate Forecasts

- Temperatures will continue to rise, across all seasons
- Annual rainfall may not vary, but we will see changes in frequency, intensity & predictability
- Wet seasons will become wetter; dry seasons will become drier
- Despite increased rainfall, it will become more arid
Greater Mahale Ecosystem

Rainfall patterns change – More unpredictable

Increased Temperature

Montane Forest
- Incidence of fire increases
- Moisture decreases

Miombo Woodland
- Incidence of fire increases
- Animal movement increases

Riverine System
- Hydrological system becomes erratic – Oscillating levels of flow

Freshwater Systems
- Wetland capacity decreases (encroachment by agriculture and grazing)

Evaporation
- Decreased water level
- Increased stratification
- Declining fish catch
Land use planning
Fisheries
Policy
Agriculture
Wildfire
Poaching
Corridors
Energy
UNITED REPUBLIC OF TANZANIA

NATIONAL ADAPTATION PROGRAMME OF ACTION (NAPA)

VICE PRESIDENT'S OFFICE,
Division of Environment, January 2007
Thank You