Mapping to Improve Climate Change Adaptation Investments in East Africa

SERVIR
Eastern & Southern
AFRICA

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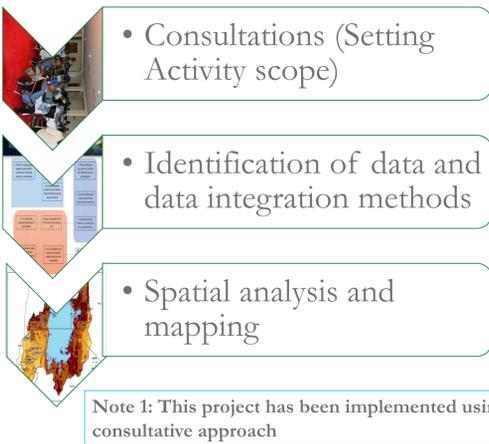
[1] Regional Centre for Mapping of Resources for Development/SERVIR E&SA, [2] PREPARED, [3] FEWS NET, [4] IGAD Climate Prediction and Applications Centre (ICPAC)

Why this project?

SERVIR E&SA is providing technical support to the Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development (PREPARED) project by integrating EO data and other inputs to identify climate change vulnerable communities and ecosystems in order to strengthen climate change knowledge and help target adaptation investments in the region. PREPARED's objectives are:

❏ Climate change adaptation technical capacity, policy leadership and action readiness of regional institutions

❏ Resilient and sustainable management of biologically significant trans-boundary freshwater ecosystems

❏ Resilient and sustainable water supply, sanitation, and wastewater treatment services
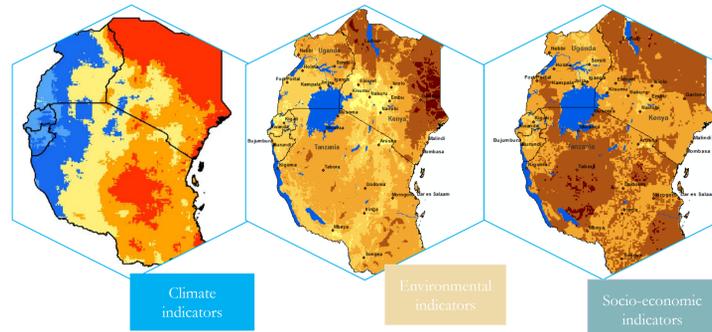
Approach/Project Activities

• Consultations (Setting Activity scope)

• Identification of data and data integration methods

• Spatial analysis and mapping

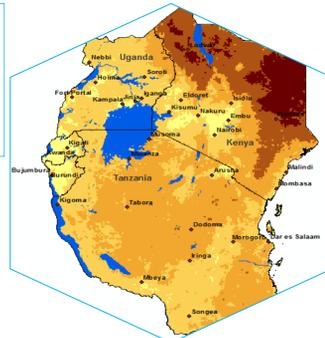Note 1: This project has been implemented using a consultative approach

Results

❏ 25 baseline vulnerability maps developed for 5 sectors

❏ 45 future vulnerability maps developed for 5 sectors

❏ 15 hub technical experts trained on climate change vulnerability mapping

❏ 60 regional technical experts from Kenya, Rwanda and Tanzania trained on climate change vulnerability mapping

❏ 23 Adaptation measures developed to enhance climate adaptation in the EAC

❏ 17 Community climate change adaptation projects established in the 5 East African countries

❏ Expansion of the work to conservancies in N. Kenya

Note 7: Hub experts have implemented a series of training workshops in Entebbe, Uganda, Kigali, Rwanda, Dar es Salaam, Tanzania and Nairobi, Kenya

Climate indicators

Environmental indicators

Socio-economic indicators

Note 2: The aim is to use best available EO, downscaled GCM and ground observation data and to use best practices in CCV mapping

Integration (overall index)

Note 3: Products from spatial integration of indicators are being used to identify community hotspots and setting up of community climate change adaptation projects e.g., in Tanzania (photo on the left and right).

Note 4: SERVIR E&SA experts are participating in climate change adaptation academies to improve their knowledge and skills in climate change vulnerability assessments and appraisal

Note 5: Products from SERVIR E&SA have been used to develop climate change adaptation measures for the 5 countries in the EAC. A total of 23 Adaptation measures have been proposed to tackle climate change vulnerability and these will form part of the EAC climate change adaptation strategy

Objectives
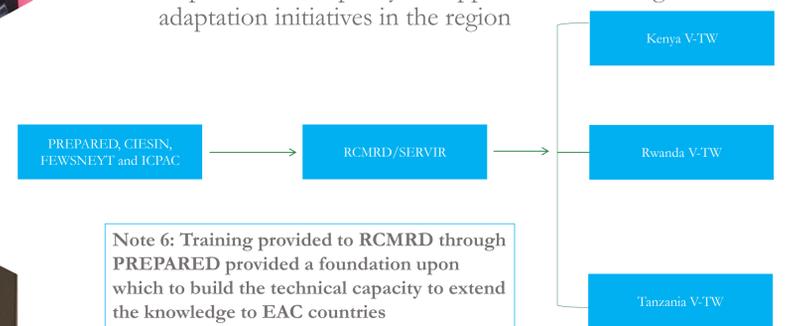
▸ Collect data required for vulnerability mapping in each sector for both EAC and Lake Victoria Basin

▸ Integrate various indicators for climate (trends, variability etc) with environmental and socio-economic indicators and map climate vulnerable areas, and communities

▸ Carry out trainings for technical experts from the East African countries

▸ Support formulation of adaptation measures

Earth Observations and Other Inputs

❏ Climate data (precipitation from CHIRPS (v1.9 and v2.0)

❏ Flood risk (Models)

❏ Land use Land Cover

❏ Population (GPW4)

❏ Soil Organic Carbon

❏ Household survey data

❏ Malaria susceptibility

❏ Poverty

❏ Others

Outcomes/Anticipated Impacts

▸ Improved understanding of climate change vulnerabilities and impacts in the East African Communities

▸ Improved technical skills for national experts in climate change vulnerability analysis and mapping

▸ Improved knowledge of adaptation options for different key development sectors in the region: Water, Energy, Agriculture and Food Security, Biodiversity and Ecosystems

▸ Improved hub capacity to support climate change adaptation initiatives in the region

PREPARED, CIESIN, FEWSNEYT and ICPAC → RCMRD/SERVIR → Kenya V-TW / Rwanda V-TW / Tanzania V-TW

Note 6: Training provided to RCMRD through PREPARED provided a foundation upon which to build the technical capacity to extend the knowledge to EAC countries

Project Partners

❏ PREPARED

❏ FEWSNET

❏ ICPAC

❏ East African Community (EAC)

❏ University of Nairobi

❏ CIESIN- NY

❏ Northern Rangelands Trust

❏ Laikipia Wildlife Forum

Project End Users

❏ East African Countries' governments

❏ Local communities

❏ Donors/development partners