Perspectives of climate change in Ethiopia

World Environment Day, June 5, 2020

Ethiopia

- Is the second most populous with more than 110 million inhabitants
- Rainfall pattern: Bimodal; Belg (from February to May) and Kiremit (from June to mid-September)
- Weather and climate information are not available and majority of farming communities still use their traditional knowledge.
- Irrigation potential remains underdeveloped, though huge potential
- Most of the farming practices are traditional, population pressure pushes agriculture to the mountains that causes severe land degradation
- South Western region owns country's remnant tropical forests that has been exposed to land grabbing.
- North Eastern and South Eastern regions have huge and untapped potential for irrigation
- Livestock population, first in Africa with all its poor productivity, put pressure to the environment.
- For the altitudinal variations the country is rich in flora and fauna biodiversity
- Except few urban centers, majority of population use crop residues, cow dung and fuel wood for energy.

Impacts of Climate change in Ethiopia

- High rainfall variability
  - Crop varieties that require longer growing periods are now out of the cropping calendar
  - The cropping calendar that were used some decades ago are no more practiced by farmers
  - Hailstorm and flooding disasters
- Climate induced hazards like drought, flood, frost, etc. became common phenomenon
  - Drought happens almost every year that has been costing death of livestock and crop loss.
  - It demands innovative technology for adaptation and mitigation
- Loss of biodiversity
  - Crop varieties with high nutrient values couldn't fit to the changing climate
  - Plant species with special characteristics like medicinal values, are being eroded with deforestation and prolonged droughts
  - Farmers became dependent of so called improved crop varieties that mature earlier than the land race varieties
  - Local livestock breeds are being substituted by improved and it is becoming hard to find the indigenous breeds that are good for their adaptability and taste of their products.
  - Non-economic losses associated to the loss of biodiversity

Impacts contn'd

- Poor agricultural productivity exacerbated by the adverse impacts of climate change
  - Little is done by research centers in delivering adaptable agricultural technologies
  - Weak agricultural extension system to improve the existing farming systems
- Expansion of agriculture to hilly lands increased the land degradation and became sources of flood hazard for potential agricultural fields and settlement areas
  - Land use system regardless of land capability
  - Lack of land use policy with strong land administration
  - Hilly lands that supposed to be allocated for afforestation legally given to seasonal farming has aggravated the degradation
  - Severe erosion from such lands and make reforestation costly with the existing drought
- Higher energy demand caused deforestation of the remnant forests
  - People use traditional biomass for cooking and heating, leading to severe health problems and land degradation
  - The country is suffering from Energy poverty /lack access to electricity and unstable grid connectivity
  - People forced to use crop residue and cow dung that supposed to be used for enhancing soil fertility
  - Additional work load to rural children and women
- Shortage of water for drinking, irrigation and livestock
  - Mountains that used to be sources of water are bare and became sources of flooding
  - People especially women travel longer distances in fetching water
  - People forced to fetch from unprotected sources
  - Increased conflict for water

Impacts contn’d

- Livelihoods of small holder farmers severely affected by the impacts of climate change.
  - Livelihood options have been reduced
  - Agriculture couldn’t generate job opportunities to unemployed and landless youth
- Increased migration
  - Rate of irregular migration significantly increased since the past ten years
  - Economic and social reintegration of migrant returnees have become complicated

Ethiopian efforts at national, international and local levels

- At national level
  - With all its limitations the government mobilizes the mass for soil and water conservation and reforestation
  - Awareness creation and advocacy through government media addressing the nation
  - Work in protection of the remaining tropical forests with REDD+ program
  - Strongly working to generate energy from hydropower, geothermal and wind mills in large scale and household level solar technologies
  - Prepare National adaptation plans and NDCs
  - Tree planting and protection campaign in all regions
  - Promotion of energy saving technologies/stoves, bulbs

Efforts contn'd

- At international level:
  - Negotiate at international conferences like UNFCCC Conference of the parties
  - Negotiate for climate finance, funds for adaptation and transfer of technologies
  - Work in various committees and working groups representing LDCs and African groups
  - Establish pavilion at COP venues to share information

- At local levels
  - At regional and district levels
    - Mobilize the community to implement soil and water conservation interventions
    - Plant trees in protected areas
    - Utilize safety net resources for public works in those degraded and protected areas

Efforts contn'd

- NGOs at community level
  - Projects in our organization are more focused and lead their interventions with consent of right holders
  - Communities have a say on identifying their felt needs, suggest possible solutions and contribute for the implementation of projects and take over the completed projects

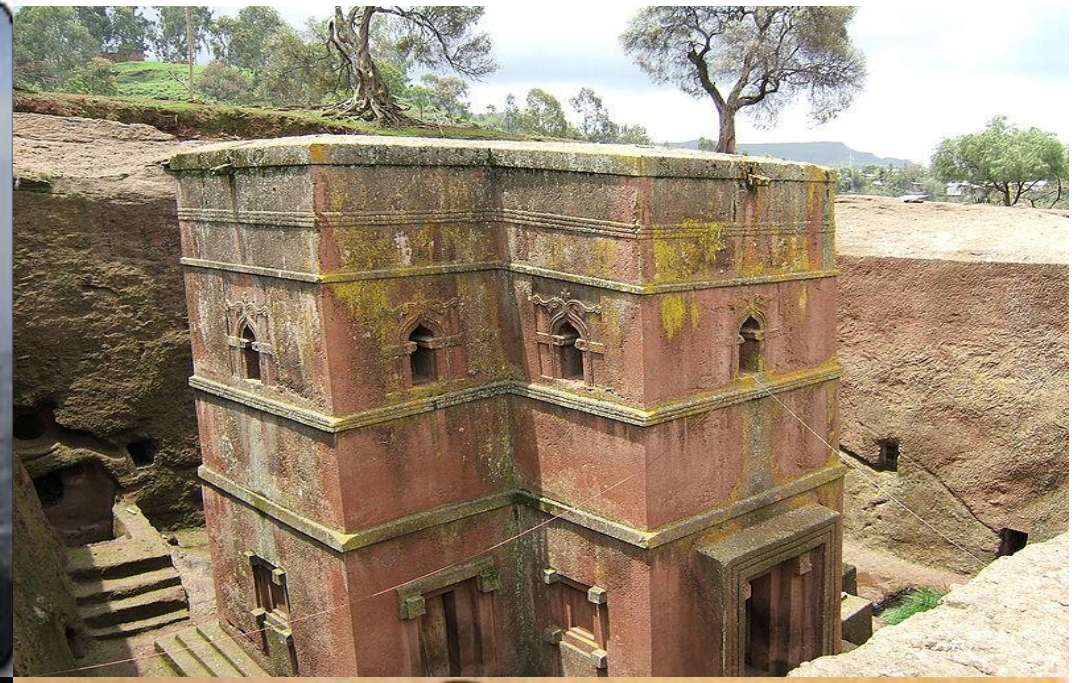
- Our efforts in climate adaptation and mitigation
  - Undertake risk assessment on vulnerable communities impacted by climate change
  - Identify available opportunities and involve communities to share their knowledge and resources
  - Focus on natural resource rehabilitation though watershed development, area closure approaches and cover with adaptable trees
  - Reforestation on hillside farms on temporary compensation arrangements/land use transformation
  - Promote on-farm seedling preparation to reduce dependency on project and government nurseries

Efforts contn'd

- Capacitating the community through organizing in Community conversation groups
- CFS/climate field school/ experienced and interested farmers do research on climate induced agricultural challenges, indigenous knowledge on climate forecast
- Establish on-farm metrology station to collect weather data and work with the district level stations
- Women organized in SHGs/women self help groups/ discuss various challenges and improve their economic, social and political roles in the community
- In-school environmental clubs aware kids through mini-media and action in seedling raising and reforestation in school compounds
- Inventory on land race crop varieties and tree species and work in biodiversity restoration
- Integrate watershed development works with fodder production, small scale irrigation and spring development for livestock and household consumption
- Promote renewable and efficient energy technologies/fire efficient stoves, biogas, household level solar lanterns
- Engage unemployed youth in non-farm activities
- Communicate challenges and efforts to national and international agencies

Challenges

- Limited capacities of delegates representing the country in international negotiations
- Lower capacities to deliver localized climate information to farming community vulnerable to adverse impacts of climate change
- Lower commitment of the state to protect the remaining state forests
- Higher turn over of local government officials
- Low access to technology for abundant resources/ village level wind and solar technologies
- More attention given to improved varieties than restoring the biodiversity
- Lower engagement of private sector in reforestation and energy sectors
- Lack of capacity and commitment of the government to scale up good practices to wider areas
- Lack of finance to initiate projects in most vulnerable communities



Thank you!