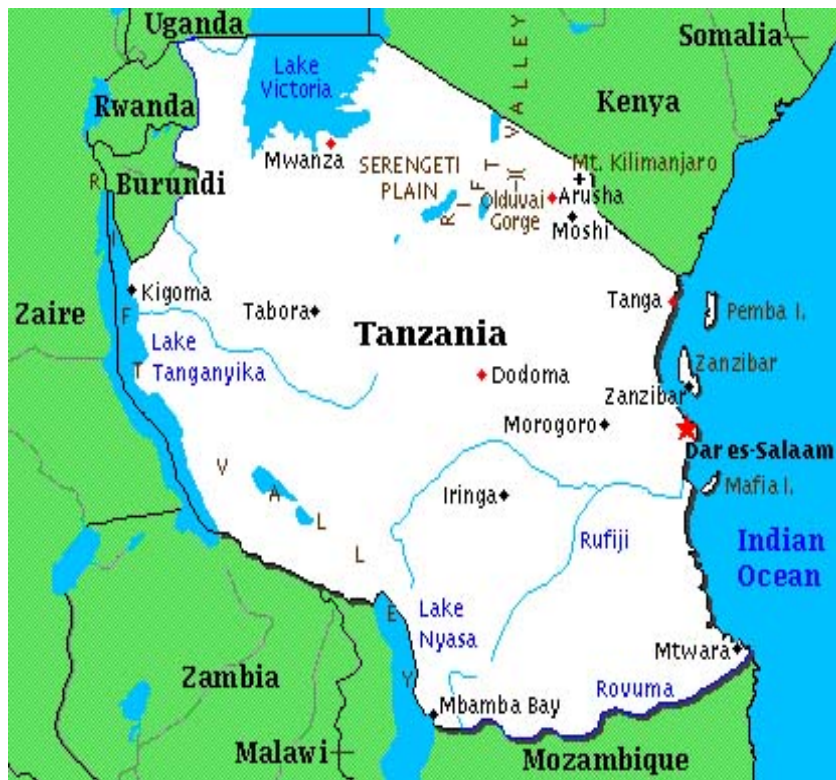


Sustainable soil Management in Tanzania



- Population: 45 million
- 7.1 Million ha
- 75% depend on Agriculture
- 95% source of food from smallholder farmers
- Agriculture sector contributes 31.7% of GDP
- 7 Farming systems

Threats of Tanzania soils:

- Soil fertility depletion
 - Low organic matter
 - Nutrient imbalances
 - Salinity/acidification
 - Leaching
- Erosion by water and wind
- Overgrazing
- Deforestation
- low levels of inputs (including fertilizer) use
- Poverty

On-going interventions

- **At micro level:** i.e., key actors
 - Farmers' innovations or coping strategies
 - Input suppliers – a little bit involved
 - Traders, processors and distributors, consumers are more less involved in addressing soils
- **At meso level:** support services such as Research and extension services, AfSIS (update soil data), AGRA (ISFM through formation of soil consortium), IITA (inoculants application), Universities (development of technologies and soil testing services)
- **At macro level:** Policy formulation: establishment of Tanzania Fertilizer Regulatory Authority (TFRA), subsidy system e.g., input voucher system, Land tenure system review, National Soil Research Institute, marketing, attracting investment in soils

Research Agenda to base on Client Priorities



**Farmer Experimentation.
Organic Manure**

Improving soil fertility by organic compost: Kondoa District



Converting sand rivers into potential arable farms : Kelema, Kondo



From gully healing and environmental protection to crop production: Choka, Kondoa



Farmer experimentation on integrated farming systems to adapt to diverse changing conditions



Challenges

- Increasing land pressure
- Over years adoption of various soil technologies has been poor/low due to:
 - weak linkages between research, extension and farmers
- Limited soil data update and information
- Ineffective partnerships by both public and private actors and fragmented efforts
- Lack of appropriate dissemination approaches
- Inadequate market access to farmers' produce

Needs and priorities

- (1) Land use/soil and water management
- (2) Validation of appropriate technologies including soil and water conservation, soil fertility management, agroforestry, water harvesting, conservation agriculture and promotion of indigenous knowledge for enhancing productivity and production
- (3) Strengthening soil mapping (including DSM) and land resources inventory
- (4) Update of soil data and information

Needs and priorities – *cont'ed.....*

(5) Environmental Management and Climate Change Resilience

- Development of new tools for risk-based sustainable soil management planning for different agro-ecological zones or farming systems.
- Research to address the loss of soil biodiversity due to commercial over-exploitation and other factors.

(6) Strengthening research infrastructure (improved soil laboratories), funding and human resources

Needs and priorities – *cont'ed*

- (7) Enhance technology transfer and partnership**
 - Promotion and creation awareness of stakeholders on sustainable soil management practices
 - Formation of stakeholder platforms at national level; eg Tanzania Soil Health Consortium (TASHCO) to enhance linkage among stakeholders and networking within and outside the country

- (8) Regular monitoring, evaluation and adoption of sustainable soil management practices**
 - Impact assessment of land degradation and interventions

Conclusion

- It is high time now that we must do more to safeguard and strengthen our capacity of securing the health of our soils to attain sustainable and quality production systems through:
 - Conducive policies
 - Strong partnership
 - Increasing funding and other resources
- Understanding of soils and addressing its problems could help us deal with other major global challenges including climate change and its impacts and the accelerating loss of soil biodiversity.
- **Tanzania** will continue establishing innovative platforms at different levels to raise awareness to communities and individual users of soils on the importance of healthy soils and to advocate for sustainable soil management practices

THANK YOU FOR LISTENING