

**Climate Change Impact , Land degradation, desertification and  
drought in Sudan**

**Higher Council for Environment & Natural Resources**

General Directorate for Climate Change

Dr. Amna Ahmed Mohammed

# Introduction

- An examination of Sudan's ecological zones and climate change effects indicates that the majority of its land is quite vulnerable to changes in temperature and precipitation.
- Changes in temperature and rainfall patterns also represent a high risk to food security in Sudan's agro-pastoral-based economy.
- Changes in temperature and rainfall are likely to lead to desertification in some states.
- Changes in temperature and rainfall are likely to lead to desertification in some regions.

# Introduction ... con

- The country's inherent vulnerability may best be captured by the fact that, food security in Sudan is mainly determined by rainfall, particularly in rural areas, where 70% of the total population live.
- Changes in temperature and precipitation could cause precarious shifts in the distribution of these ecological zones, in the productive capacity of rain fed agriculture, and hence in the security of the nation's food supply.

- A high degree of vulnerability to natural and climate hazards is often pointed out in rural areas, especially amongst the poorest households and those located in remote areas



# Land degradation and Drought

- Sudan is dominated by hyper-arid, arid, semi-arid and dry sub-humid ecosystems that are seriously affected by land Degradation.

## degradation consequences

- ✓ Reduction of agricultural, forestry, range and livestock production,
- ✓ Resulting in socioeconomic and environmental deterioration and consequent degradation of the quality of life,
- ✓ Increase poverty of the local communities ,
- ✓ And cause endemic degradation

# The main Causes of Land degradation and Drought in Sudan

- Conflicts and wars with expanded refugee settlements,
- Inappropriate soil management,
- Deforestation,
- Shifting cultivation,
- Insecurity in land tenure,
- Variation of climatic conditions, and intrinsic characteristics of fragile soils in diverse agro-ecological zones.,
- Increasing agricultural productivity,
- Mining .
- Overgrazing

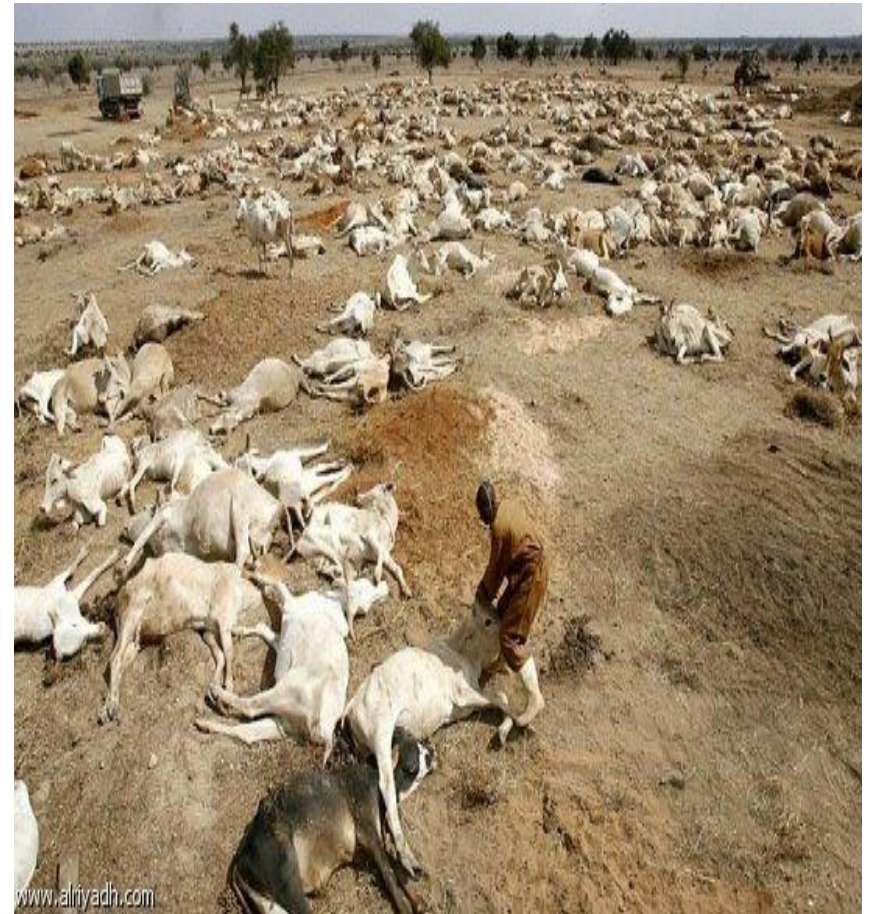
# Challenges

- lack of coordination between related institutions
- Limited financial resources
- Data sharing and information
- Governs instability
- Institutional Capacity need to be strengthen
- Strengthen policy and legislation
- Mismanagement of Natural Resources
- Environmental awareness
- Introduce more technologies
- Conflicts over resources
- weak infrastructure
- food security is mainly determined by rainfall

## Droughts in cultivated land



## Livestock drought impacts





# Ongoing Climate Change Adaptation Projects in Sudan to Address the Land Degradation and Drought

❖ Sudan Sustainable Natural Resources Management Project  
funded by GEF

❖ Gums for Adaptation and Mitigation Project(GAMS)

❖ Strengthened Protected Areas system and Integrated Ecosystem  
Management .

❖ Great Green Wall.

# Technical assistance needs

- Awareness Raising and Capacity Building
- Data sharing and networking
- Establish Institutions and framework
- Assessment for current land degradation situation
- Mapping of areas affected by land degradation and drought
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Thank you for your attention

