



#### Rainfall anomalies in Northern Nigeria



- The key source of drought in the region is the seasonal rainfall
- Studies have reported a trend towards drier conditions since the last seven decades.
- Decadal results of Cramer's test show that:
  - the 1930s appeared wetter than normal
  - 1940 1949 had below average rainfall
  - The trend continues with 1970 1980 being the driest



## Summary of Losses from Selected Droughts



- 1968 1974
  - About 300,000 animals (13% of livestock population in North Eastern Nigeria) perished
  - Agricultural yields fell to about 40% of normal yields
  - Population at risk were about 7.5 million
- 1982 1986
  - About 5 million metric tonnes of grains lost
  - About 120,000 Animals
  - Other losses resulting from conflicts, severe constraints on biological productivity, and forced migrations.

#### Livelihood strategies to cope with droughts (1)

- Farming System
  - Farming techniques
    - Early planting
    - Mixed cropping
    - Wetland farming
    - Early maturing/drought resistant crops
    - Increased spacing of crops
    - Change in farm locations
  - Technology
    - Farm implements
    - Water exploitation methods
    - Water storage methods
    - Food storage methods





# Livelihood strategies to cope with droughts (2)



- Pastoralists
  - Movement, usually southwards in search of pasture
  - Herds diversification
  - Herd splitting
  - Re-stocking
  - Exchange of animal dung for crop residues
  - Sedentarization



## Livelihood strategies to cope with droughts (3)

- General
  - Livelihood diversification
  - Reduction in consumption
  - Sale of assets
  - Exploitation of resources not normally exploited
  - Migration





#### What needs to be done

- Enhance adaptive capacities
- Early warning systems and drought information systems
- Design acceptable and sustainable adaptation strategies and programs