

# DROUGHT CONDITIONS AND MANAGEMENT STRATEGIES IN GHANA

Capacity Development to Support National Drought Policies

4 -7 May 2015

M PLAZA, ACCRA

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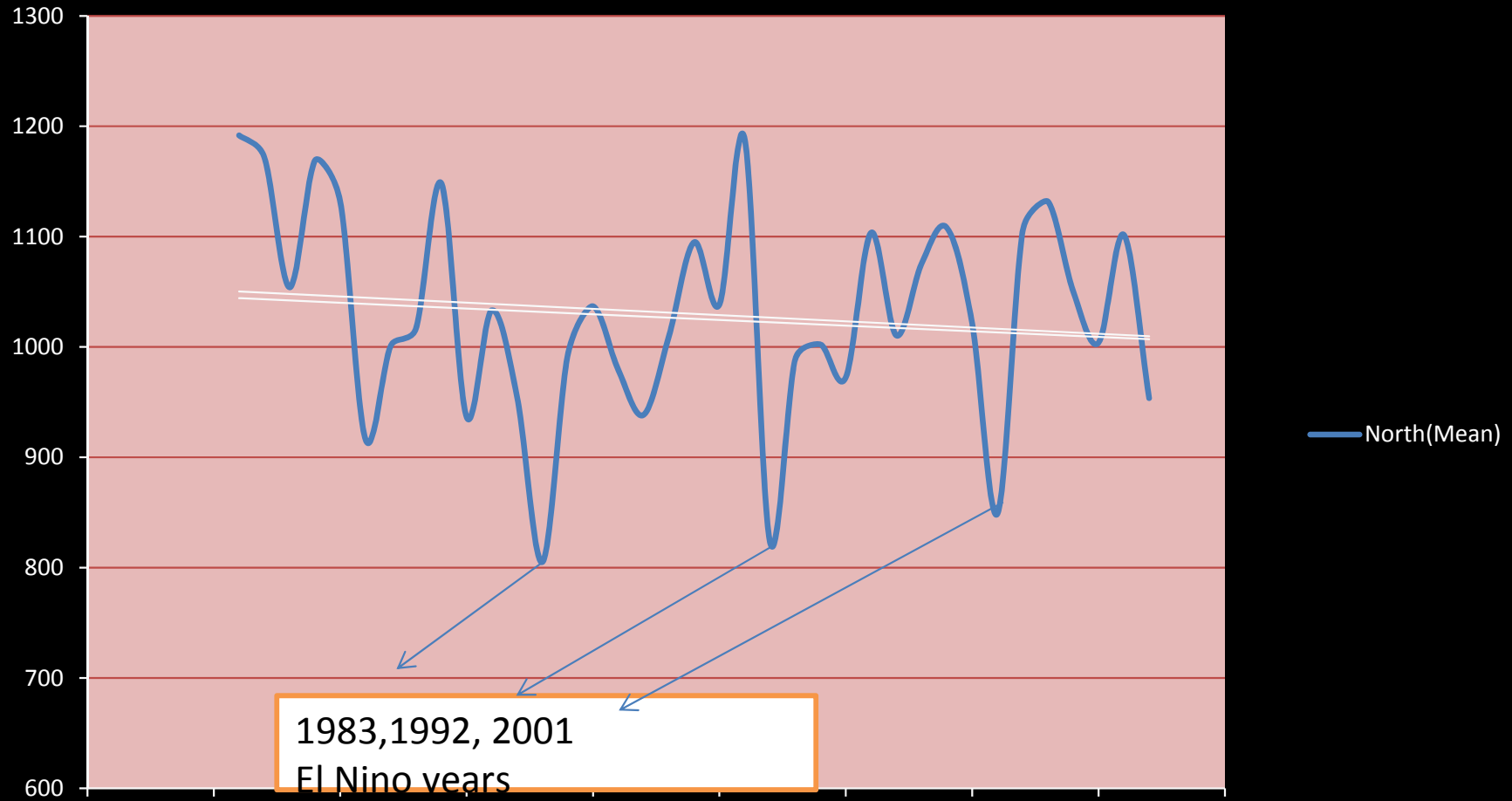
Accra -Ghana



# Hydrological inter connectivity



# Drought occurrence



**Rainfall variability here can be as high as 400mm between seasons**

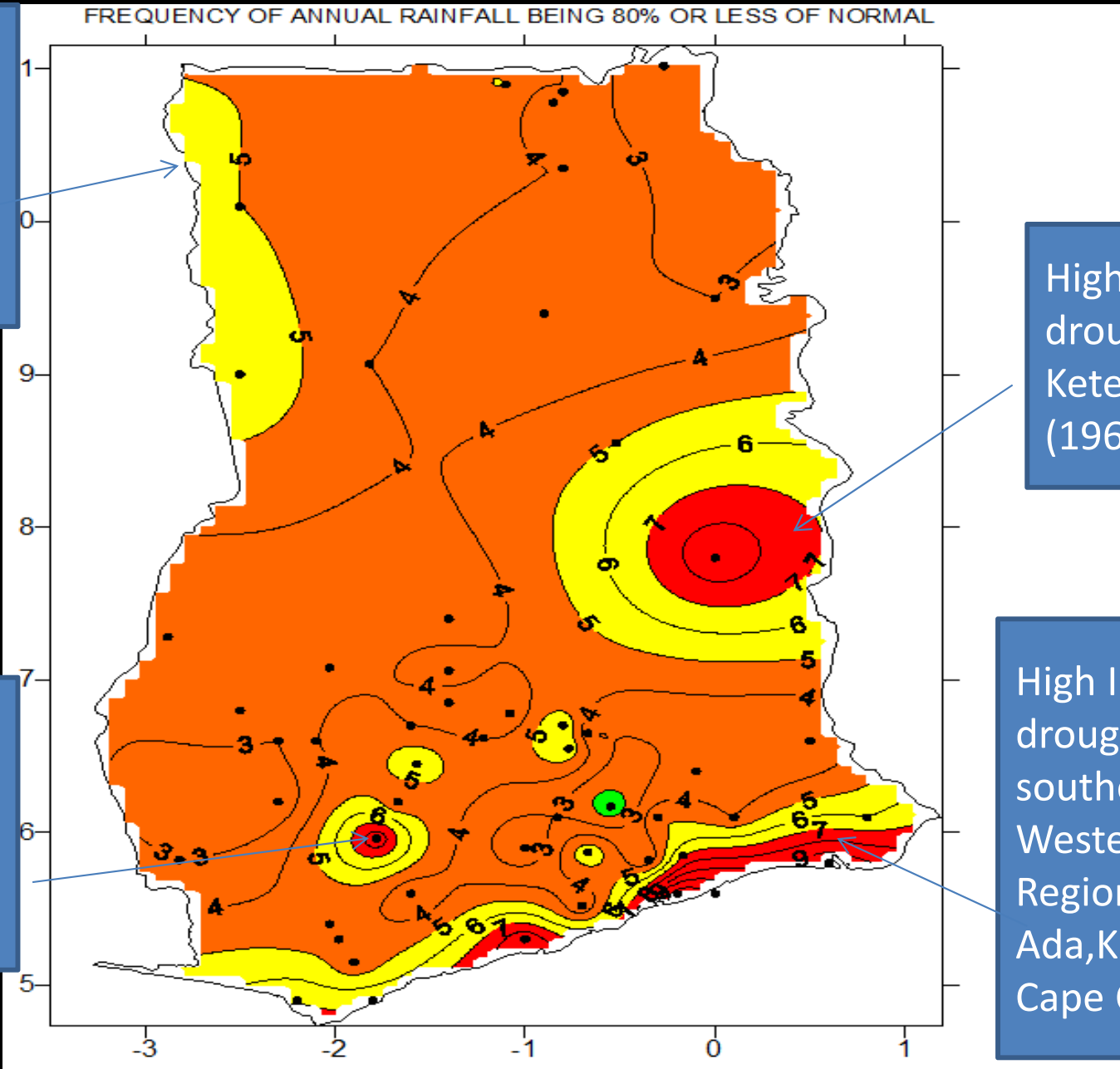
# Frequency of annual rainfall being 80% or less of normal

High Incidences of drought to the Western parts of northern Ghana

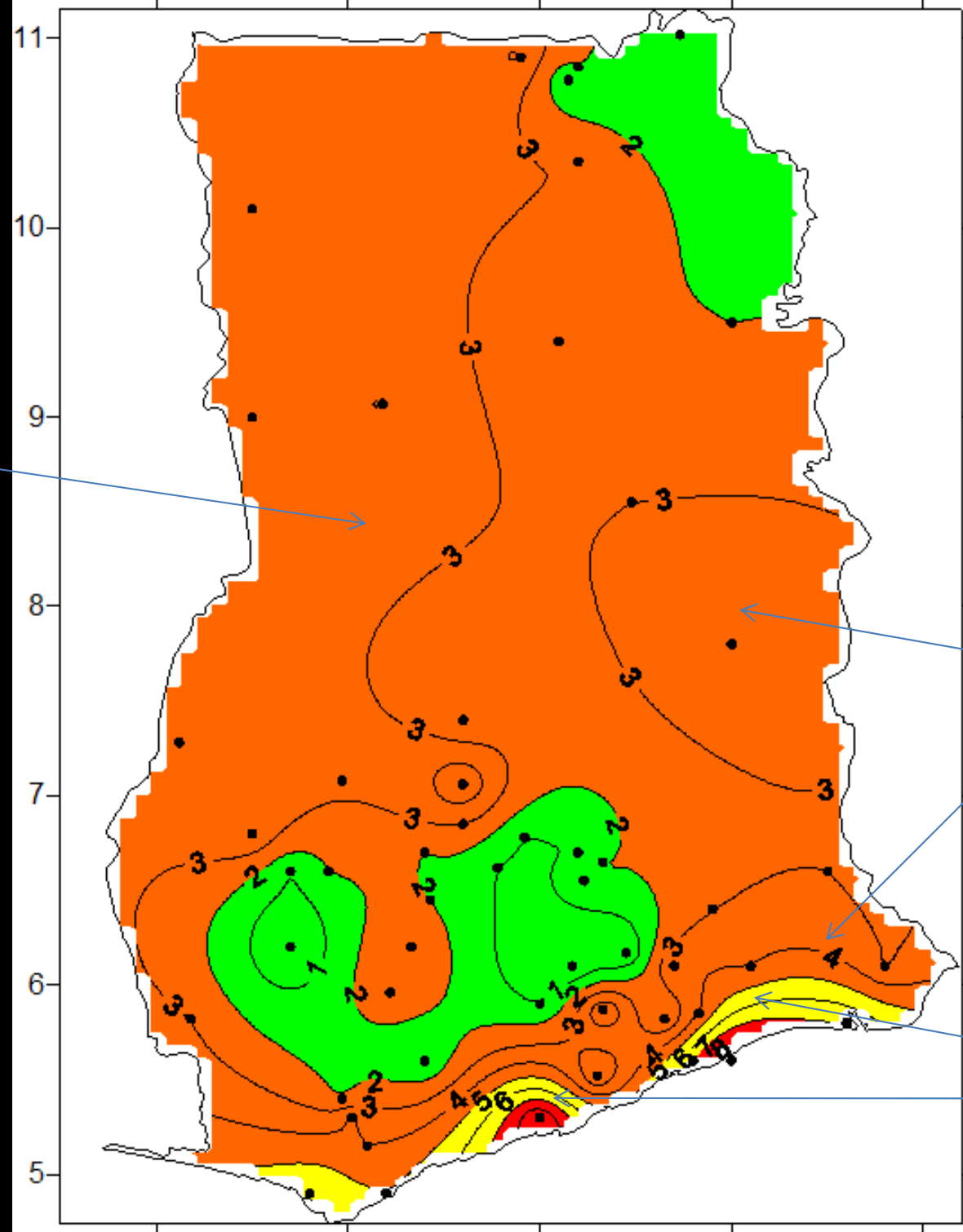
High Incidences of drought around Nkwanta area.

High Incidences of drought around Kete-Krachi (1961-2007)

High Incidences of drought around southern Central, Western and Volta Regions, like , Ada, Kpetoe, Tsito, Cape Coast etc



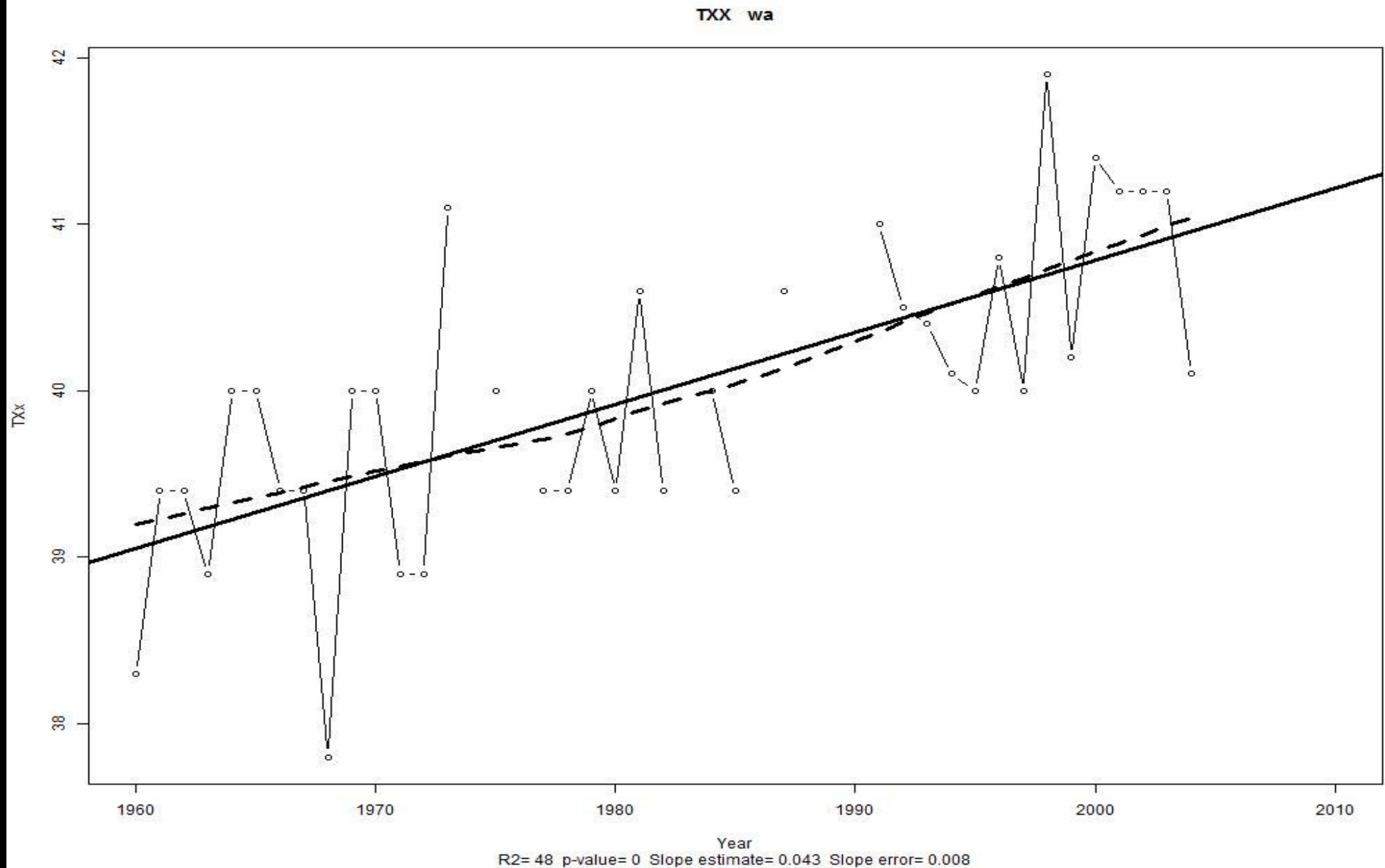
FREQUENCY OF ANNUAL RAINFALL BEING 75% OR LESS OF NORMAL



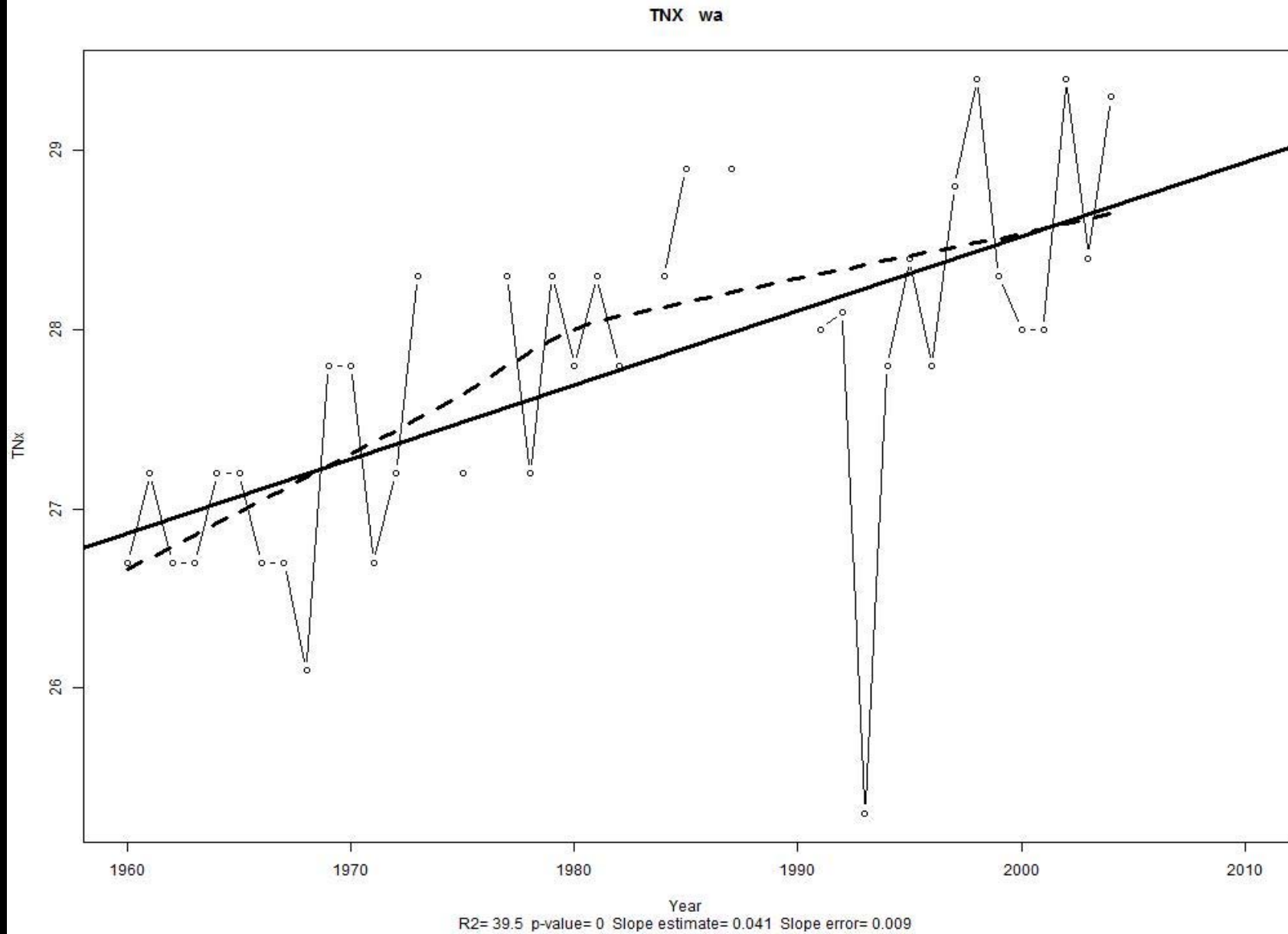
Here high Incidences of drought covering most of the Western part of Ghana. (1961-2007)

Areas around Kete-Krachi, Southern Volta, Central and Western Regions as well as Eastern Coasts are much affected (1961-2007)

# Monthly Maximum Value of Daily Max Temp for Wa

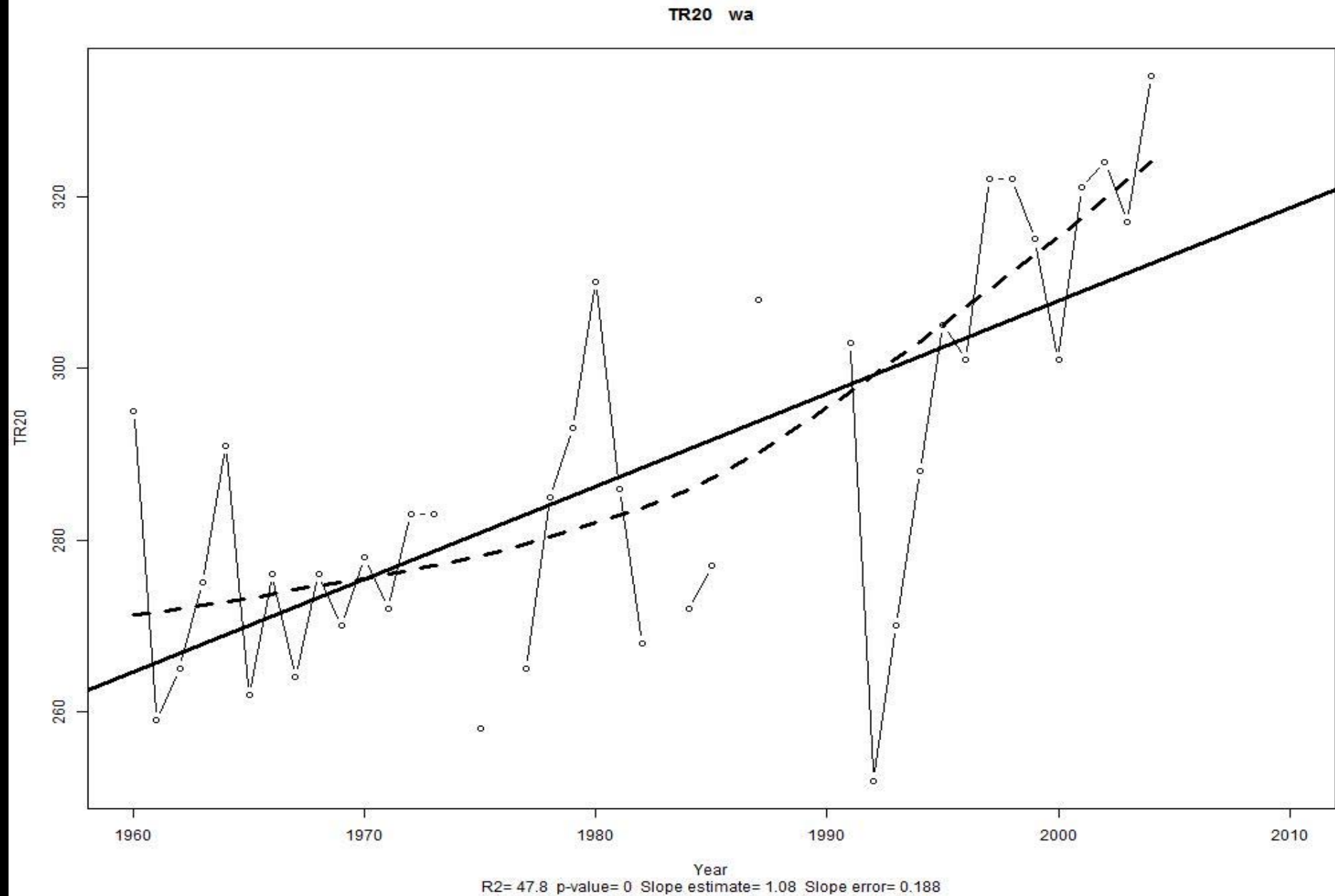


# Monthly Minimum value of Daily Min Temp for Wa





# Annual Count when Daily Minimum Temperature >20 degrees for Wa



# Monitoring and Early Warning

## MONITORING INSTITUTIONS

- Ghana Meteorological Authority
- Ministry of Food and Agriculture
- Hydrological Services Department
- Water Resources Commission
- Environmental Protection Agency
- Research Institutions (Water Research Institute, Soil research Institute, and Universities)



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# Vulnerability Assessment

Vulnerable sectors in order of severity

- Energy
- Agriculture and food production
- Industry
- Water supply
- Fisheries

# Most Vulnerable Groups

- Women and Children
- Small scale farmers without irrigation infrastructure
- Unskilled industrial workers

# Emergency relief and drought response

- Key institution – National Disaster Management Organization (collaborating with other sectors through the Hydro-meteorological disaster committee)
- Other groups –(CSOs, WFP)
- Measures are mainly in the form of food relief

# Mitigation Measures

- Building resilience in food production systems
  - Involving soil fertility improvement and soil water conservation measures focused on the Guinea and Sudan Savanna zones in the north
  - Formulation of a riparian buffer zone policy for protection of river and micro water sheds (2013)
  - Capacity development for development of community micro watershed plans in vulnerable communities



## Training in Soil conservation methods



Courtesy: EPA, Wa-Ghana

# Improving Soil Carbon through training in production and application of compost

- Sample of prepared compost



Courtesy: EPA, Wa-Ghana

# Need for Knowledge Skills on Drought Management

- National Committee for Drought and Desertification inaugurated to facilitate actions to combat drought
- Absence of an integrated national geospatial information infrastructure
- Low level of skills for soil fertility and soil water conservation

I thank you for your attention