



Department of Agriculture and Ecology



Sustainable food production through irrigated intensive farming systems in West Africa; SIFA

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Objectives

Increasing the stability of savannah agriculture as a model for some parts of Africa:

- **Introduction of water saving sustainable drip irrigation**
- **New cropping systems (cultivars, fertilizer etc.)**

Capacity building to cope with the new farming systems at Technical, Economic and Environmental levels



Ghana

Facts 20 mill. inhabitants

Capital is Accra 3 mill.

228.000 km², app. same size as UK.

65% land area to agriculture

Highest point 968 m.

Climate is tropical

Average life span 57 years

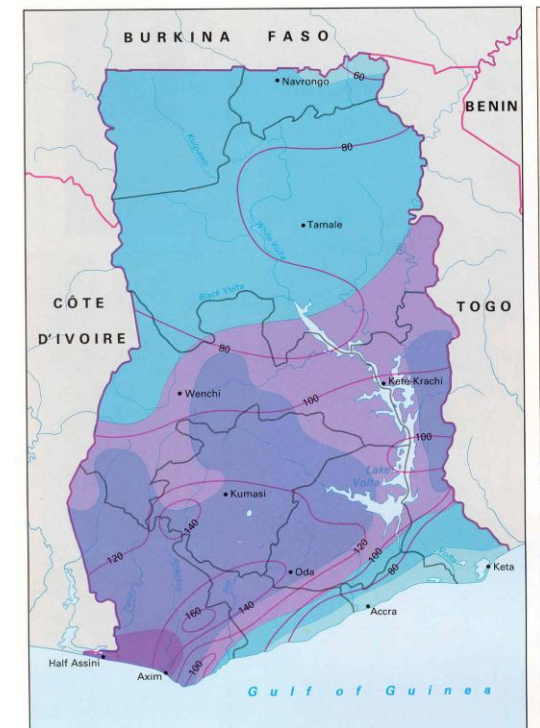
Birth rate 4 children per women

BNP ~700 USD per person, 7% growth

Agriculture

- Subsistence
- Cash crops

Ghana Rainfall



Key

Average Annual Rainfall

Millimetres

Over 2000	Very Wet
1500 – 2000	Wet
1250 – 1500	Medium
1000 – 1250	Dry
Less than 1000	Very Dry

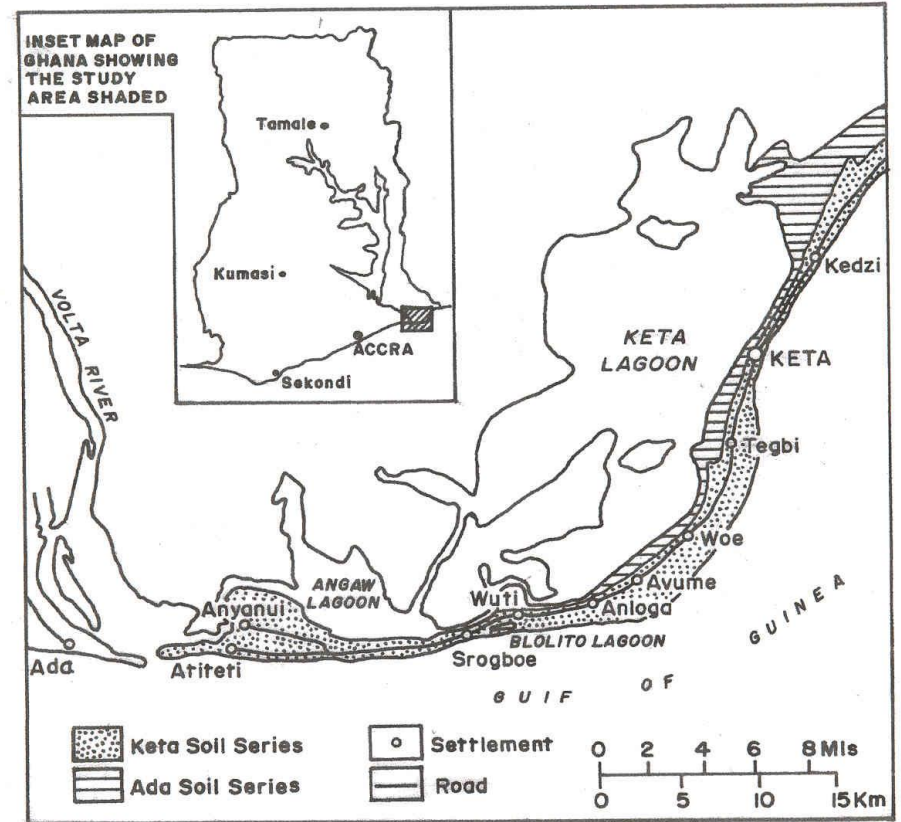
Rain Days

— Average number of days on which it rains in a year

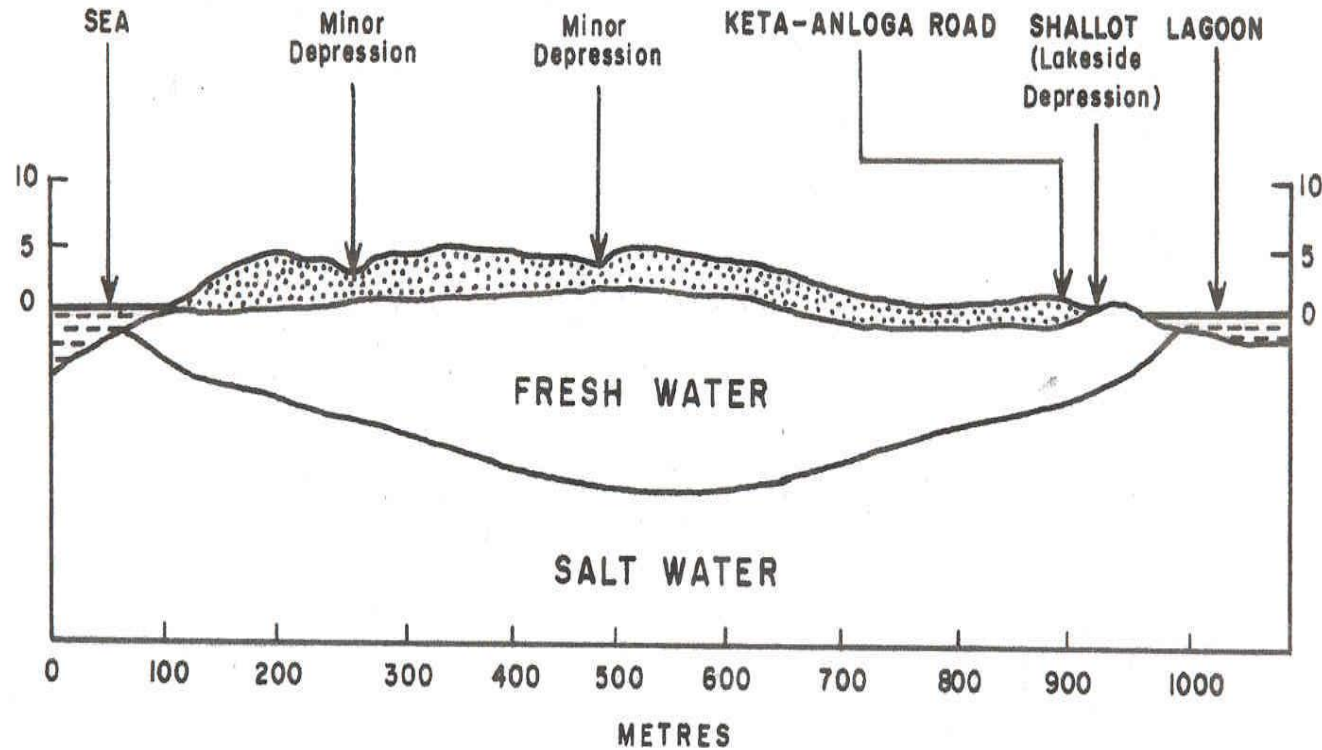
0 50 100 150 200 kilometres

1. Look at the map and write down
a) which town has more than 140 days of rain in a year?
b) which towns have less than 80 days of rain in a year?
2. Compare this map with the Vegetation map on page 12 and you will see that the rainfall and vegetation patterns in Ghana are very similar.
3. What types of vegetation are found in areas with the most rainfall?

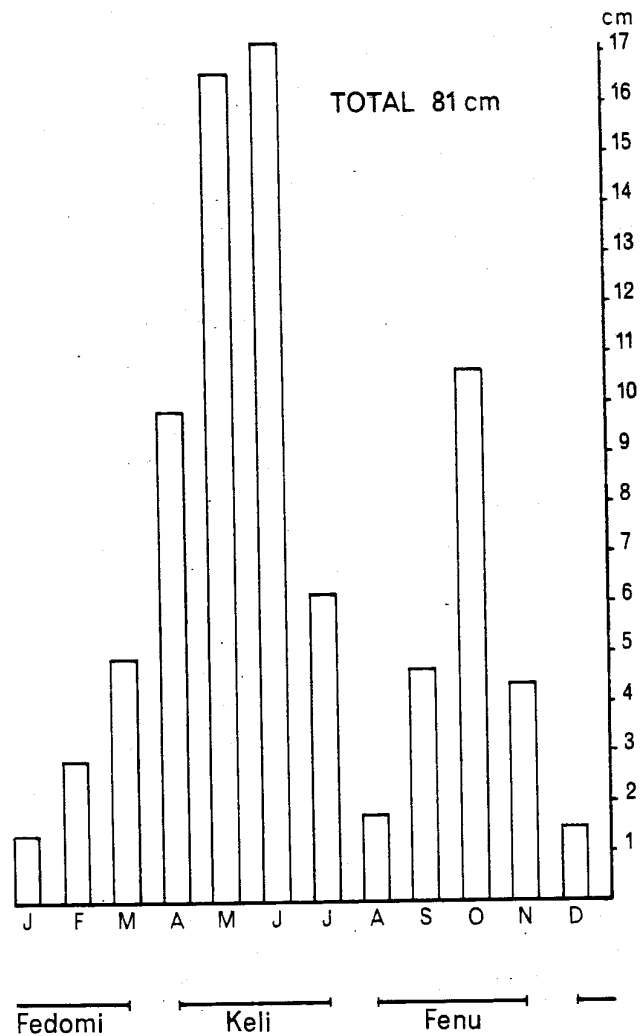
The Keta Sand spit



The Keta Sand spit



Precipitation cm Three shallot seasons



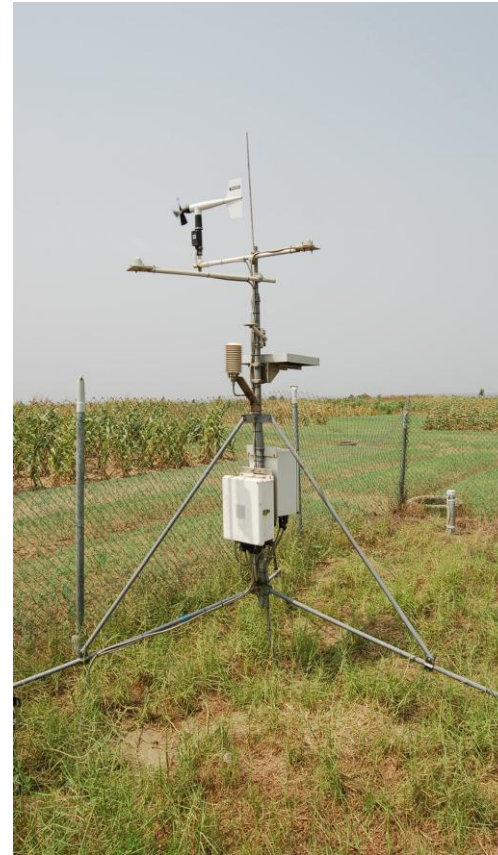
SIFA-site 8th April 2010



Shallot farming system



Irrigation by pumping



Influence of salt on the crop

8 wells monthly sampling for EC

