NOTICE : - this is the **5th set of Rest of Africa notes sent**.
- Make sure you have the first four sets of notes written down in your new notebook for **Rest of Africa.**

- Remember to attempt atleast 20 objective questions every after 3 days from the Geography objectives QB sent earlier.

AGRICULTURE

Agriculture is the growing of crops and rearing of animals.

Systems of Agriculture

Agricultural systems in Africa can be subdivided into;

(i) Subsistence /primitive farming
- Shifting cultivation
- Rotational bush fallowing
- Pastoralism

(ii) Modern/advanced farming-
- Plantation farming,
- Intensive scientific farming,
- Ranching, etc.

(a) Subsistence farming

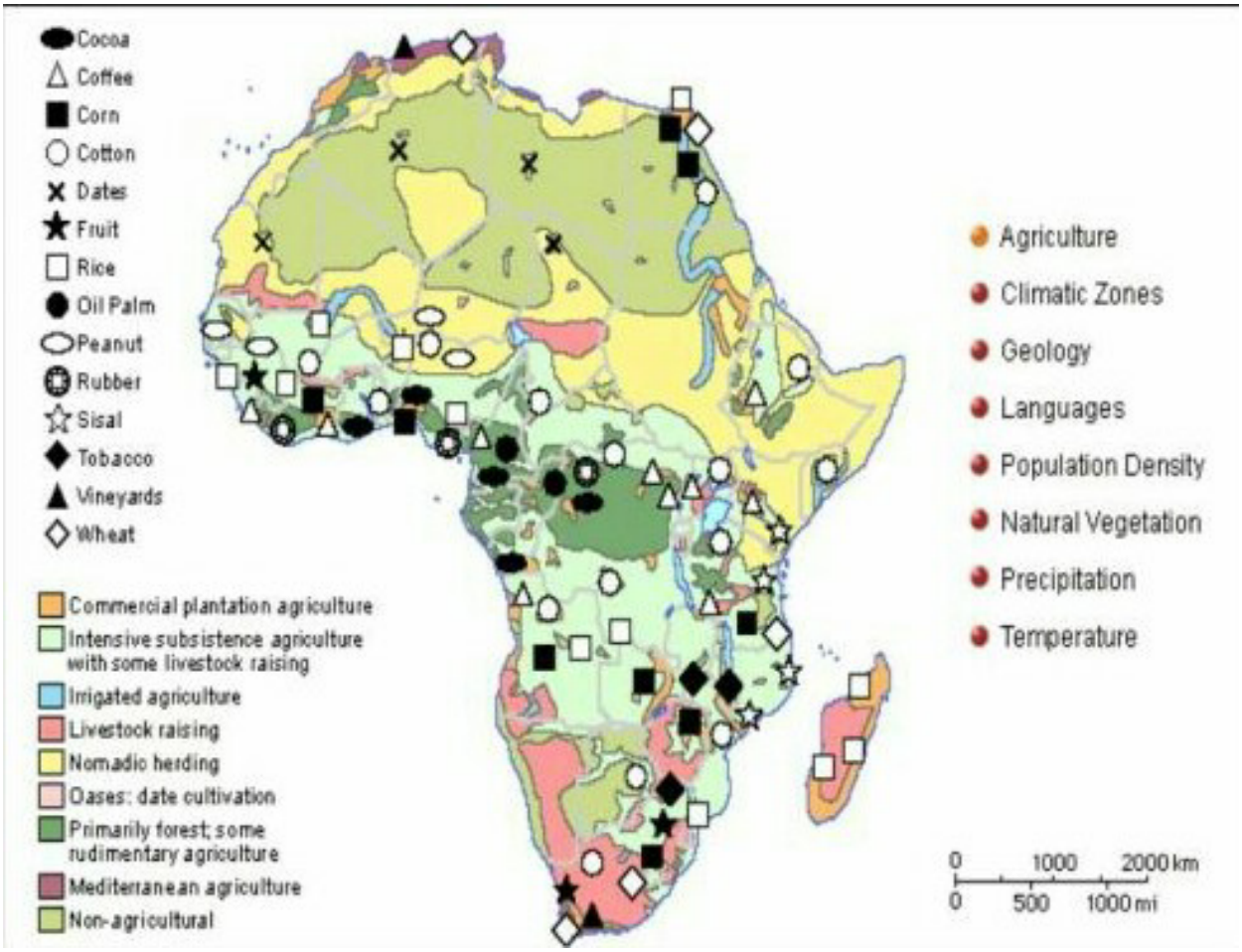
This is the practice where a farmer grows food and rears a few animals for home consumption mainly on a small piece of land.

Characteristics

1) Use of family labor.
2) Use of elementary tools/rudimentary.
3) Food crops are grown.
4) Small piece of land is cultivated.
5) Plots are fragmented and scattered.

6) Basically meant for home consumption and only surplus for sell.
7) No use of scientific methods.
8) Supplemented by hunting, fishing, fruit/food gathering.

Sketch map showing major crops and agricultural practices



Shifting cultivation

This is where land is cultivated for 2 to 3 years after it is abandoned due to low crop yields thus moving to a virgin land.

Areas of shifting cultivation include :

- Azande of DRC
- Bemba of Zambia
- Benue of Nigeria
- Chipinga district of Zimbabwe.

Characteristics

- Practiced on a small piece of land.
- Family labor is used.
- Plots are fragmented and scattered.
- Clearing away of natural vegetation.
- Use of elementary tools.
- No care is given to the crops.
- Mixed farming is practiced.
- Involves shifting from the exhausted land to a virgin land.
- No use of scientific methods or inputs.

Advantages

- High level of pest and disease control through weeding and bush burning.
- Provides time for the practice of other activities like fishing, hunting, etc.
- Very cheap due to use of family labor and elementary tools.
- Less vulnerability to disease vectors and pests through mixed farming.
- Soil gains fertility through burnt ash containing potassium, nitrate and sodium.
- High chances of acquiring virgin fertile land.

Disadvantages

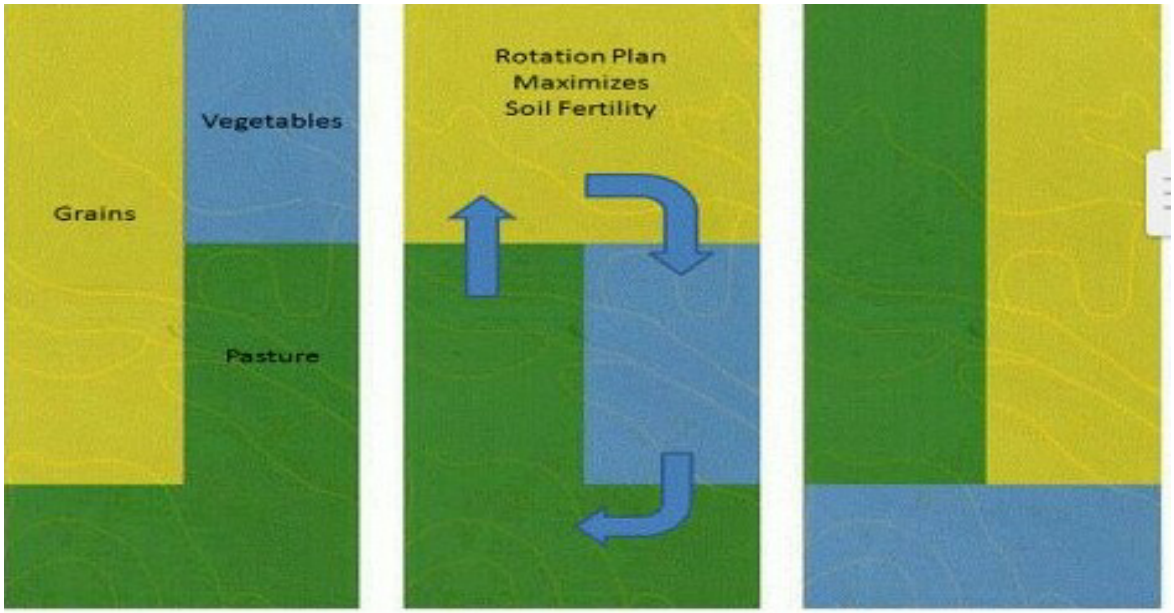
- Bush burning exposes land to agents of soil erosion.
- Limited food production.
- Only practiced in areas with sparse population.
- Its time wasting moving from one place to another.
- Promotes environmental degradation.
- Promoted land fragmentation by scattering cultivable land.
- Limits possibilities of commercial farming due to being subsistence.

Rotational Bush

This is the sub-dividing of land into small cultivable plots which are farmed at intervals.
Once yields decline,a plot is left to rest by fallowing while the adjacent one is cultivated.
It is common in:

- Ghana
- Zambia
- Nigeria.

Illustration



Characteristics

- Use of family labor.
- Limited use of scientific methods.
- Mixed farming is practiced.
- Limited bush burning practices.
- Involves movement of the farmer in the gazetted bloc.
- Permanent settlement of the farmer.
- Land is subdivided into manageable blocs.
- Exhausted land is left to fallow (gain its fertility).
- Food crops are grown and the surplus is sold.

Advantages of Rotational bush fallowing

- Encourages growth of food and cash crops.
- Land is sustainably used since one block is cultivated at a time.
- Helps maintain and increase on the soil fertility.
- High yields are obtained due to cultivating sizeable blocs.
- Provides room for modern farming through amalgamation of blocs.
- Crops are cared for hence high productivity.
- Relatively cheap due to use of family labor.
- Limited vulnerability to disease vectors.
- Limits environmental degradation since bush burning is limited.
- Growth of cash crops improves standards of living.

Disadvantages

- Absence of scientific methods affects crop yields.
- Fallowing tends to house disease vectors and wild animals in the bloc.
- Use of family labor limits greater output.
- A few cash crops are grown which does not guarantee a better living standard.

- Limits extensive commercial farming due to the small blocs cultivated.
- Land fragmentation leads to time wastage and misuse of land.

Pastoralism/ Normadic farming

This involves the rearing of livestock while moving from one place to another in search of water and pasture.

Advantages

- Promotes unity and cooperation due to communal grazing and communal ownership of land.
- Helps preserve the nomadic culture since it's a cultural practice.
- Less prevalence of pests and disease vectors due to movement.
- Less affected by natural calamities due to seasonal movement.
- It's a basic form of employment to the natives where the herdsmen derive their livelihood.

Disadvantage

- Communal grazing leads to easy spread of diseases.
- Prone to cattle raiding and rustling due to the culture.
- Local breeds are reared leading to poor yields.
- Long distances lead to tiredness of herdsmen and animals and death of animals.
- Bush burning destroys natural vegetation exposing the land to erosion agents like wind.
- It perpetuates primitive life styles in a modern civilized world.
- Burning of grass leads to environmental degradation which affects the natural vegetation and the soil texture.

Fulani community of West Africa

These are a typical nomadic community found in West Africa.
They keep: - cattle
- sheep
- goats.

They traverse the whole of West African territory in the countries of :

- Mauritania. - Senegal
- Guinea - Gambia
- Mali - Niger
- Nigeria - Sierra Leone
- Benin - Chad
-Togo - Cameroon
- Ghana - Liberia - Sudan

Sketch map showing the Fulani grazing land

Factors for the practice

- Pastoral culture as a livelihood.
- Communal owner ship of land.
- Infertile sandy soils that can't sustain arable farming.
- Limited open surface water.
- Abundant pasture especially in the southern Savannah belt.
- Sparse population in the region reserving large expanses of land.
- Relatively flat land with few geographical barriers for easy movement.
- Occurrence of natural calamities like drought, famine, etc.
- Government negligence of not effectively caring for the normads.
- Aridity of the Sahel region with limited water and pasture.
- Prevalence of pests and disease vectors that harm herdsmen and livestock.

Problems faced

- Occurrence of natural hazards like floods, famine and drought hence death of animals and herders.
- Presence of pests and diseases like ticks, tsetse flies and nagana, foot and mouth disease, etc
- Raiding and cattle rustling leading to loss of cattle and human lives.
- Limited pasture and water due to overgrazing and aridity.
- Wild animals as they look for water and pasture.
- Rearing of poor breeds that cause poor yields.
- Limited grazing land for individual livestock.
- Political instability caused by religious differences.
- Poor infrastructure especially roads to link the area to market centers.
- Limited veterinary services and extension workers for the

sick livestock.

(b) Modern/Advanced farming

This involves the growing of crops and rearing of animals on a large scale using scientific means for commercial purpose.
Modern farming systems include:

- Plantation farming
- Irrigation farming
- Ranching
- Market gardening
- Fruit growing/truck farming, etc.

Characteristics

- Practiced on a large piece of land.
- Crops are grown and animals reared basically for commercial purpose.
- Its labor intensive with paid labor.
- Capital intensive.
- Highly mechanized.
- Use of scientific methods.
- A lot of care is given to crops and animals.
- High quality seeds and exotic animals are kept.
- Specialization with dominant crop or animals.

Plantation farming

This involves the growing of one cash crop on a large piece of land for commercial purpose.

It is currently wide spread in Africa:

- Cocoa growing in Ghana.
- Palm oil growing in Nigeria.
- Rubber growing in Liberia.
- Rice growing in Senegal.

- sugarcane growing in South Africa, etc

Characteristics

- Basically owned by foreigners or a joint venture with government.
- Capital intensive.
- Labor intensive.
- Practiced on large piece of land.
- Crops are perennial in nature like rubber, cocoa, etc
- Specialization.

Advantages

- Income earning by the farmers and plantation owners.
- Government revenue through taxation and licensing.
- Foreign exchange through export trade.
- Promoted international trade and relations.
- Infrastructure development for workers and communities around.
- Provides market for industrial machinery.
- Development of out-growers schemes and market for their produce.
- Skill acquisition by the plantation workers.
- Development of agricultural research and technology with better seeds.

Disadvantages

- Promotes soil exhaustion due to monoculture.
- Over utilization of fertilizers leads to acidity and distorting the texture.
- Exploitation of labor with little pay.
- Environmental degradation as natural vegetation is cleared for farming.
- Distorts the climatic pattern of an area by replacing natural

vegetation with crops that give little evapo-transpiration.

- Great losses incurred in case of a calamity.
- Price fluctuation due to high productivity and supply on the world market.
- High competition from other producers and substitutes.
- Profit repatriation by foreigners.
- Displacement of people when more land is needed.
- Crops have a long gestation of 3 to 6 years.

Cocoa growing in Ghana

It is the second largest producer in the world after Ivory Coast with Kumasi as the main production area.

Factors for growth of cocoa in Ghana

- Extensive land especially in the south that enables expansion of cocoa plantations.
- Well drained fertile soils that enables the production of good yields.
- Abundant drainage in the south that provides water for irrigation e.g. river Tano and Pra.
- Conducive climate having rainfall totals of 1000 mm to 2500 mm and temperature of 21° to 23°C.
- Low altitude towards the Atlantic favoring mechanization.
- Abundant/cheap labor required for planting, harvesting, etc
- Adequate capital to buy farm inputs.
- Positive government policy favoring plantation farming by giving out land and part of capital to investors.
- Efficient transport and communication networks e.g. railway network linking Axim, Takoradi, Accra, etc

Harvesting and processing

1) Cocoa matures in 3 years producing pods that turn yellowish when ripe.
2) Harvesting is done with the help of a cutlass twice in a given calendar year i.e. September to January and April to July.
3) Pods are heaped on the ground and later split open using a panga.
4) Seeds are extracted and laid on the ground for fermentation covered with leaves for 4 to 6 days.
5) The fermented seeds are then placed on a raised platform for sun drying.
6) The dry seeds are then packed and taken to the state cocoa marketing board for exportation through port Tema, Takoradi, etc

Uses

- Making chocolate.
- Making cocoa butter and other cosmetics.
- Making cocoa beverages.
- Dry pods act as fire wood.

Importance

1) Employment opportunities to the farmers.
2) Farmers earn income that improves on their standards of living.
3) Government earns foreign exchange through export of cocoa and cocoa products.
4) Revenue to the government by taxing and licensing cocoa processing industries.
5) Promotion of international trade and relations with the importing countries like USA,United kingdom.
6) Favored out-growers schemes hence helping them earn a living.
7) Agricultural research has been enhanced for quality seeds and pest control.
8) Promoted industrialization especially beverage industries.

Problems faced

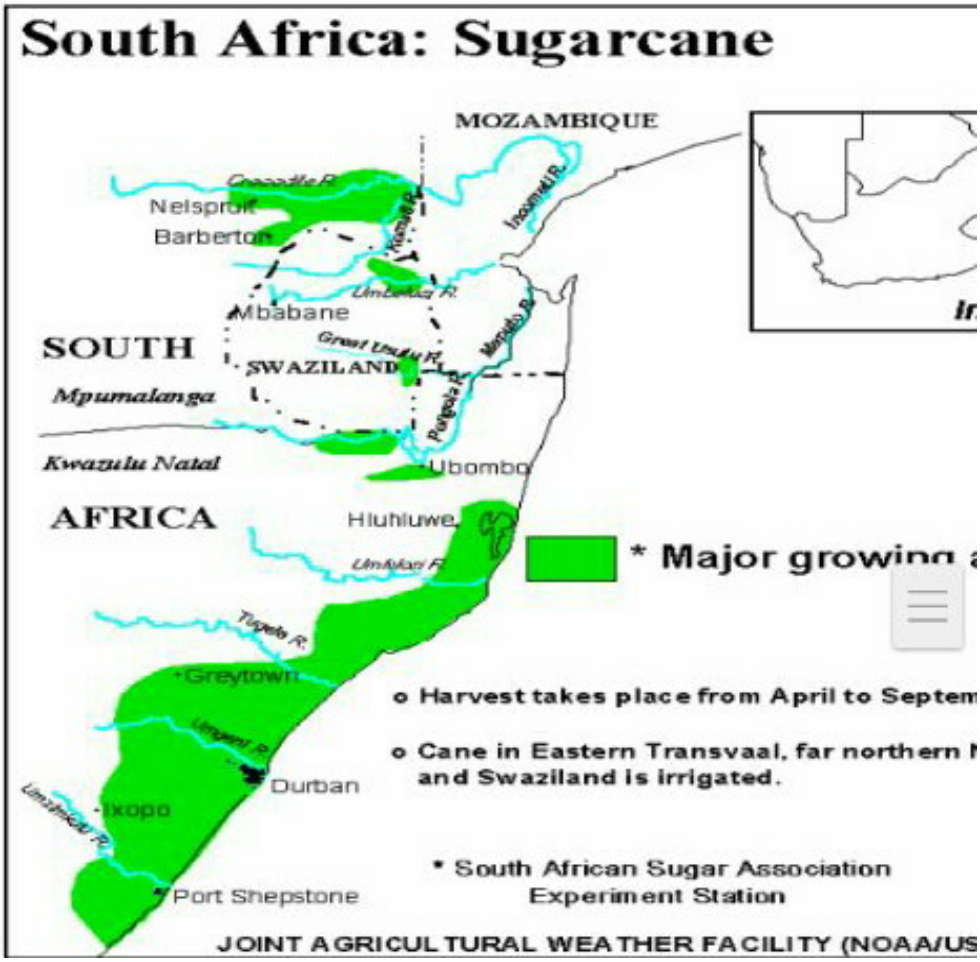
1) Competition for market from other producers like Nigeria and Cameroon.
2) Competition from substitutes like cinnamon, tea, vanilla, etc
3) Pests and diseases like swollen shoot and black pod disease.
4) Limited labor especially during the harvest period.
5) Land shortage arising from competition for settlement an industrial development.
6) Price fluctuation on the world market.
7) Unfavorable climatic conditions like heavy rains, floods in the low lands, prolonged dry spell, etc
8) Limited farm inputs like fertilizers, insecticides, etc

9) Congestion at the ports especially Accra, Tema and Takoradi.

Sugarcane growing in South Africa (Natal)

Sugarcane growing is dominant in Tongaat area in Kwa-Zulu Natal. Cane growing is restricted to the coastal areas stretching about 15 km inland covering 200,000 ha.

<u>Sketch map showing sugarcane growing in Natal</u>



Factors favoring sugarcane growing

- Hot temperatures of 15°C to 27°C caused by the warm Mozambique current.
- Heavy rainfall totals of over 1000mm per annum.
- Generally flat landscape favoring mechanization.
- Fertile well drained soils in the natal province.
- Abundant water for irrigation from river Mkuse, Umfolozi, Umzimkulu, etc
- Adequate capital from South African sugar association.
- Cheap labor by the south African people and immigrants from Angola and Mozambique.
- Ready market within south Africa and outside.
- Efficient transport and communication network especially railway and roads.

Planting and harvesting

1. For large scale growing, land is ploughed and re-ploughed using machinery, manual labor and adding of fertilizers.
2. Canes are chopped with disinfected knives in length of 40 cm and then immersed in hot water of 50°C killing disease vectors for two hours.
3. The cane is then planted at staggered intervals so as to ensure all year production.
4. Fresh planted cane takes 18 to 20 months before harvesting.
5. Harvesting is done for around 9 months between May and December.
6. After harvesting the cane leaves are removed and the cane tied in bundles to the processing factory.
7. Cut leaves are spread on the ground of the sugarcane plantation to avoid loss of moisture and land is left to fallow.

Processing of Cane

1. Harvested cane is transported to the factory by road on trucks or railway.
2. Cane is weighed, chopped and crushed.
3. Crushing is done by giant pressure machines so as to extract the juice and the cane fibre is carried away for use in the boilers.
4. Juice is mixed with slaked lime to settle out the dirt to be sent back to the fields.
5. Juice is then thickened up into syrup by boiling off the water using steam in the process called evaporation.
6. Syrup is placed into very large pans for boiling, more water is boiled off until conditions are right for sugar crystals to grow.
7. Resulting mixture of crystals and mother liquor is spun in centrifuges to separate the two.
8. Crystals are then given a final dry with hot air before being stored ready for dispatch to domestic and foreign markets.
9. The by-product of molasses is used for making cattle food and alcohol.

Importance

1. A lot of foreign exchange is earned through export sugar products.
2. Job opportunities to many people e.g sugarcane transporters, marketeers, factory managers etc.
3. A lot of income is earned by the workers improving their standards of living.
4. Development of towns like Durban, Shepstone.
5. Development of infrastructure and social amenities e.g roads and railways, hospitals etc.
6. Industrial development of sugar mills, beverage companies, etc
7. A lot of revenue through taxation and licensing of sugar

factories and plantations is earned.
8. Food stuffs for the people like sweets, sugar, molasses, etc

Problems

1. Competition from other producers like Sudan , Egypt.
2. Labor shortage during planting, weeding and harvesting.
3. Soil exhaustion due to monoculture.
4. Fire outbreaks that occur accidentally or intentionally.
5. Pests and disease vectors like leaf hopper and army worms, etc.

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END