

PENANG SANGAM HIGH SCHOOL
GOEGRAPHY YEAR 12 WEEK: 9



- Traditional agricultural practices are fundamental but somewhat complex with regards to the available tools and scientific knowledge on plants and animals. They used their own traditional knowledge, experience and instincts to formulate appropriate agricultural practices and ideas. For instance, slash and burn is used to prepare land for farming, Even though it destroys the biodiversity and the organisms in the soil, to the ideal understanding the land are fertilized before farming commences. (Refer to diagrams below)

Slash and burn



Traditional farming bring about traditional ideas and their own form of technology these farmlands are transformed into areas of mixed farming neatly arranged into plots (Diagram below shows dry-land farming).



It can also be transformed into terraces for farming of numerous types of agricultural products. (Diagram below shows wet-land farming)



Traditional farmers have also modified their practices to utilize vacant spaces like backyards though raised plot farming as shown in the diagrams below.



Other traditional farming practices include shifting cultivation (to allow land to fallow), crop rotation and basic animal husbandary. For all traditional practices, harvesting is done manually.



Modern Practices (from late industrialization to modern times) Modern agricultural practices are based on a net work of ideas and techniques of intellectuals, specialist farmers and science technology, specified for an agricultural type, climate type and soil type

- Modern agricultural revolution – technology that allows much greater production (surplus) with less labour, but has high social and environmental costs. For example, metal plows, cotton gin, tractors (internal combustion engine), combines, chemical pesticides/fertilizers, hybrid cops, the green revolution and genetically modified crops, etc.
- Modern technology has greatly influenced modern farming practices to strive towards attaining their objectives. It might be capital intensive, however, it certainly reduces the high labour cost and allows for mass production.



Of the many modern agricultural techniques, a technique which is quite extraordinary but which has proven to be the most successful is the use of the Greenhouse. The picture shown demonstrates what a greenhouse is.



Most prominent modern agricultural practices are outlined in the resources given above are determined by the factors such as :

- the relief and soil type.
- the climate.
- the available capital and labor.
- Markets available
- Etc

Importance of Agriculture

a. Environmental importance

- i. Retention of vegetation- this is important to soil cover.
- ii. It prevents soil erosion
- iii. Retains the microclimate of that particular area.
- iv. It minimizes or avoid capillary action
- v. Retains soil biodiversity- retains the biodiversity to some extent such as retaining the food chain and food web of specific areas, thus saving most of the organisms from being extinct in a particular area.
- vi. Retains soil cycle – the presence of plants means humus for the soil which contributes to the nutrients cycle and other soil cycles.
- vii. Retains soil fertility – vegetation does not only retain soil cycles, it also retains all elements which make up the whole soil composition and also prevents soil erosion.

b. Economic importance

- i. Source of income/livelihood – it promotes employment and employment opportunities and wealth to provide for their daily needs and wants.
- ii. Promotes investments – as demands continue to vary there would continue to be an increase in investment opportunities as population grows the market continues to expand.
- iii. Increase government revenue and GDP – as commercial agriculture increases the GDP of the country also increases which means the increase in government revenue (especially due to export earning)
- iv. Multiplier effects – revenue from agricultural sales have multiplying effects into a country. This is from the revenue earned by the government which promotes development and economic growth from the earnings of a simple farmer which provides for the livelihood and social obligations.

c. Social Importance

- i. Source of fresh daily food – this is the main reasons of practicing agriculture is to provide fresh food to the farmer and his family and especially to consumers.
- ii. Source of healthy diet – it provides food from all the food groups hence it provide healthy diets to the farmer and the consumers.
- iii. promote development – it will mean infrastructural development, technical and financial assistance provided by the government, development initiated by the farmer and the development created by other investors and services which are either drawn into or decentralized into these farming areas.
- iv. Food security – finally the growth of the agricultural sector would mean food security for the people.

Problems faced by agriculture

- i. Environment – climate change, depletion of resources, natural hazard, pests, weeds, diseases
- ii. Social – political instability, land lease expiry, lack of arable land.
- iii. Economic – increase cost of production and fuel decrease in market price, competition for market.

Problems caused by agriculture

- i. environment – pollution, soil degradation, lack of biodiversity and destruction of habitats.
- ii. Economic – leakages, foreign investors/exports, increase government expenditure, expensives of maintenance, inflation (increase in price of goods)
- iii. Social – conflicts over land, poor working conditions health risk fertilizer deposits on vegetables, lack of space for development.

Ways to minimize the Problem

- i. Controlled agriculture – should be a control to cultivation, application of weedicides and pesticides even deforestation.
- ii. Sustainable agriculture – an integrated system of plant and animal production practices having a site specific application, that will cover over a long term to satisfy human and fiber needs with enhancing environmental quality.
- iii. Agroforestry – planting of plants and other trees to keep forest cover.
- iv. Appropriate technology – aquaponics, hydroponics, (to increase quality and quantity)

Contemporary issues

- i. Uncontrolled agriculture - economic Benefits or wealth gained from commercial agricultural has influenced moneyminded farmers to continue to expand their farms without regards of space, land capacity and sustainability.
- ii. Uncontrolled scientific knowledge - Uncontrolled science practices in agriculture would result in undesired agricultural products which would destabilize the equilibrium in our ecosystem.
- iii. Climate Change - Climate Change has multiple effects to our environment. eg. Doughts, Flooding,Cyclones, etc.
- iv. Coastal flooding - Coastal Flooding contributes to the destruction of agricultural land.
- v. High population growth - High population growth threatens food security and causes food scarcity.
- vi. Activity

1. Define traditional farming and provide one example of it. _____

2. Name a modern type of agriculture and mention two of its disadvantages. _____

3. Provide on environmental benefit and a disadvantage of agriculture. _____

4. In your own words explain one reason the government should focus much of its resources into agriculture especially a country like Fiji. _____

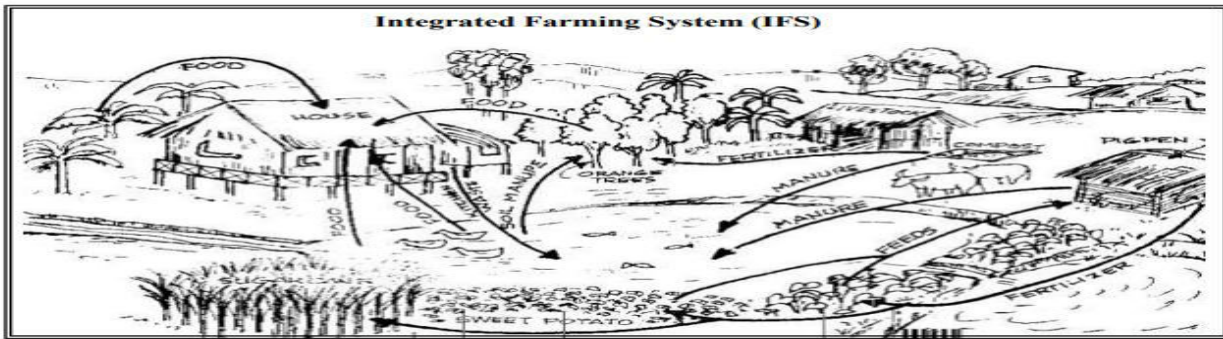
5. Explain what is aquaponic and state one of its benefits. _____

6. Describe one reason agriculture has higher multiplier effect. _____



Adapted from: <http://www.foodmanufacturing.com/news/2014>

1. Explain why small scale farmers in the countries mentioned above will be greatly affected by climate change.



Source: <http://aridagriculture.com>

2. identify one type of farming shown in the picture above and provide one benefit of the type of farming you have chosen.

THE END