



## 3055 BA SANGAM COLLEGE

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### WORKSHEET 10

School: Ba Sangam College

Name: \_\_\_\_\_

Subject: Geography

Year: 13

<b>Strand</b>	GEO 1 Physical Geography
<b>Sub strand</b>	GEO 13.1.4 Soil
<b>Content Learning Outcome</b>	Explore the importance of soil, its management and sustainability

**Perimeter Runoff Control** – practice of planting trees, shrubs and ground cover around the perimeter of your farmland which impedes surface flows and keeps nutrients in the farmed soil. Crop rotation is a systematic approach to deciding which crop to plant where in your vegetable garden.

The goals of crop rotation - helps manage organic soil fertility and also to help avoid or reduce problems with soil diseases and some soil-dwelling insects, such as corn rootworms.

#### **Keyline plans**

- The Key lines are carefully chosen to ensure maximum water collection potential
- As well as collecting water, keyline known as a key point.
- Keyline reduces soil erosion and flooding and gathers nutrients which build up soil fertility over time.

#### **Case Study: Soil erosion and Soil Management**

##### **Loess Plateau of North China**

- ✓ This region more than 2.5 of UK experiences the most rapid soil loss in the world. During and following the ice age, Atric winds transported large amounts of losses and deposited this fine yellow material.
- ✓ Following the removal of the subsequent vegetation cover of trees and grasses to allow cereal farming especially (under the directions of chairman Mao), the unconsolidated material has been washed away by the heavy summer monsoon rains.
- ✓ This material, the most carried by any river in the world, has given the Huang He its name – i.e. ‘the Yellow River.

#### **Soil degradation**

- ❖ Degradation is the result of human failures to understand and manage the soil.
- ❖ Major cause of soil erosion is the removal of vegetation cover.

- ❖ Deforestation in countries like Ethiopia- loss of trees due to population growth and more need of farmland and fuel wood leads to barren land means the effects of heavy rainfall cannot be stopped by the vegetation.
- ❖ **Rainsplash**-(the direct impact of raindrops) loosens top soil and prepares it for removal by **sheetwash** (overland flow).

### **Soil Erosion and soil Management**

- Reducing mechanical operations on wet ground
- Planting crops early in autumn to protect the soil during the winter from water erosion
- Ploughing across slopes where it is safe to do so
- Shepherding livestock and rotating forage areas
- Planting and/or maintaining hedges or shelter belts to reduce wind erosion and measure to protect the soil organic matter
- Leaving straw and other crop residues on the land after a crop has been harvested
- Including grass crop rotation etc.

### **Activity**

1. Describe some major causes of environmental degradation in China?

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 -----(2 marks)

2. Explain the name ‘Yellow River’ come into being?

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 -----(1 mark)

3. Explain some challenges associated with reforestation push ?

----- (2 marks)

4. State the purpose of “Great Green Wall”? (textbook pg 129-131)

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 -----(2 marks)

5. Explain how successful was this project?

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 -----(2 marks)

6. Define monoculture and state its advantages and disadvantages.

----- (4 marks)

7. Explain what ‘going native’ imply with regards to soil conservation.

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