**Primary Economic Activities Revision Notes**

Primary Economic Activities
Primary economic activities are when people take resources from the earth e.g. mining, farming and forestry.
If a country is mainly involved in primary economic activities its economy is not well developed and it tends to be a poor country.

Natural Resources

(1) Water

Living things die without water.

(2) Soil

Without soil farming cannot take place and in turn no food, it is essential to our survival.

(3) Rocks

They provide use with metals, minerals and fossils fuels e.g. oil, gas.

Renewable and non-renewable resources
(Marking Scheme: 5 marks @ 2 marks for each definition and 1 mark example.)

**Renewable resources** can be used over and over again if they are managed properly (sustainable exploitation = cutting down trees for wood but replanting the area again.). They are also called non-finite resources e.g. Hydro-electricity, Solar energy, Tidal energy, wind energy, geothermal energy, forests and fish.

**Non-renewable resources** once used cannot be used again. They are also called finite resources e.g. coal, oil, gas, peat.

Water: A renewable resource

- Water is a basic natural resource needed to maintain humans, animal life and crops.
- Water covers 71 % of the world's surface but only 2.6 % is fresh water.
- Water supplies are not evenly distributed across the world, approx. 30 countries are experiencing water shortages.
- The wealth of a country has a direct bearing on the amount of water that it uses, richer countries approx. 500 litres a day (per person) but in the developing world it is only 100 litres.
- In the South water is scarce and often contaminated with diseases e.g. typhoid.
- In the North water is in plentiful supply but is often contaminated with industrial waste.
- Water consumption is doubling every 21 years and needs to be conserved.
- Conservation of water can be achieved by: fixing leaky pipes, using water efficient appliances e.g. washing machine.

Local water supply: Dublin
The water is supplied from the Wicklow Mountains as it attracts high rainfall.

The rock there is impermeable (Granite) and allows the water to be collected in reservoirs e.g. Pollaphuca reservoir.
Here it is pumped to a treatment works e.g. Ballymore Eustace, where it is purified and ready for use.

Irrigation
Irrigation is the artificial watering of land.
17 % of the world's farmland is irrigated making it highly productive.
There are large irrigation schemes in Australia, California and the Nile basin.

Case Study: A major irrigation scheme
(Marking Scheme: 10 marks)
What? The artificial watering of land. (2 marks name it)
Where? Languedoc region of France.
Why? This area receives very little rainfall during the summer.
This is a very poor region, only producing vines due to lack of water.
When? In the 1960's a major irrigation scheme was set-up.
The Rhone along with smaller rivers in the region, were pumped to supply water to a number of farms.
(4 marks outline what happened) (2 marks statement, 2 marks explain)
Effects? Positive? Now farmers are able to grow a lot of different crops and vegetables e.g. cucumbers, sunflowers.
Farmers are able to make profits selling their produce to the local tourist trade.
The area is now a wealthy region and is farmed intensively.
(Positive effects @ 2 marks) (1 mark statement, 1 mark explaining it)
Negative? There can be a build-up of salts on the land that can hinder crop growth.
(Negative Effect @ 2 marks) (1 marks statement, 1 mark explaining it)

Oil a finite resource
- Oil is called 'black gold' as it is the most valuable commodity in world trade.
- Oil reserves should be conserved as it is a non-renewable resource and will run out within the next 100 years.
- OPEC (Oil producing and exporting countries) helped to raise the price of oil in the 1970's e.g. Persian Gulf.
- OPEC broke up because of competition from natural gas, members broke production quotas and more efficient oil using technology.
- Oil is clean fuel to handle, easily transported and has useful by-products e.g. petrol.

The search for oil/natural gas in the Celtic Sea
(Marking Scheme: 6 marks, two effects @ 3 marks each, 2 marks statement and 1 mark development.)
- The government granted exploration licenses to oil companies to explore Irish waters.

- Irish waters are divided into imaginary blocks, which are rented by the oil company.
- The company will carry out detailed rock studies and drill deep test holes in the area.
- Gas was found off the coast of Kinsale and oil off Waterford (too small and expensive to exploit as prices of oil dropped in the 1990's).

Until 2003, when Shell discovered oil off the coast of Donegal (Dooish Field), oil exploration in Irish waters was costly and unsuccessful.

Positive effects:

1. It would create employment.
2. Create a local supply for domestic heating and generating electricity.
3. Reduce dependence on foreign imported oil.

Negative effects:

1. Damage the natural beauty and wildlife of the area.
2. Influx of people to the area causing a rise in living costs.
3. Pollution from oil/gas leaks.

**Higher Level Only**

Case Study: Oil in Saudi Arabia

(Marking Scheme: 8 marks)

What? Oil exploration. (2 marks name it)

Where? Saudi Arabia, Persian Gulf.

Why? 10 % of the world's oil is located here.

When? In the 1930's.

Effects? Negative? Saudi Arabia has an absolute monarchy, there is abuse of human rights and a lot of restrictions placed on women.

An area of political tension with many wars e.g. war in Iraq 2003, it spends a lot on weapons.

People experience a culture shock when they arrive there. (Two negative effects @ 2 marks) (1 mark statement, 1 mark explaining it)

Positive? Saudi Arabia was a very poor desert country with nomadic people, the discovery of oil lead to rapid social and economic change.

It has become very wealthy and oil provides vast revenues for the country, helping improve infrastructure, health, education and living standards. (Two positive effects @ 2 marks) (1 mark statement, 1 mark explaining it)

Peat exploitation

(1) Types of bogs:

- Bogs (non-renewable resource) are completely infertile and have their own unique flora and fauna.
- Some plants absorb nutrients from their own dying foliage or by catching insects.
- **Raised Bogs**: Shallow depressions found in lowland areas, can be up to 12 metres deep e.g. Midlands.

- **Blanket Bogs:** Found mainly in upland areas, 3-4 metres deep e.g. West of Ireland.

(2) Bord na Mona:
- For thousands of years bogs were exploited by hand with a sleán.
- Exploitation of bogs has increased with technological advances.
- Since the 1940's Irish raised bogs have been exploited commercially by Bord na Mona (an extractive company).
- Bord na Mona employs over 2,000 people, contributes to our exports and reduces our dependency on imported fuel.

(3) Exploitation:
(Marking Scheme: 8 marks, two explanations @ 3 marks each, 2 marks statement and 1 mark development, one explanation @ 2 marks, 1 mark statement and 1 mark development.)
- A grader is used to level the bog.
- A ditcher is used to dig drains to dry out the bog as it has 95 % water content.
- A miller harvests the peat.
- The peat is then transported on light rail tracks to the peat processing plant.

(4) Production:
- Peat is sold as turf for domestic users.
- Turf is also sold to plants for the production of electricity e.g. Ferbane Co. Offaly.
- Peat is used in horticultural products e.g. Moss Peat and compost.
- Peat Briquettes are also sold as a domestic fuel.

(5) Cutaway bogs – the future:
(Marking Scheme: 6 marks, three statements @ 2 marks each.)
- Conservationists believe that the remaining bogs should be protected and labelled World Heritage Sites.
- Bord na Mona sets aside some of the used bogs for eco park developments.
- Cutaway bogs can be used as wind farms, farming, sports pitches, wildlife sanctuary or forestry.
- The advantages of cutaway bogs are level surface, infrastructure (trains) and little residential development.

<u>Fishing a renewable resource</u>
(1) Overfishing
(Marking Scheme: 9 marks, three reasons @ 3 marks each, 2 marks statement and 1 mark development.)
- Most fish are caught at a countries continental shelf, this is an area of shallow sea just off the coast, and Ireland's extends for 320 km.
- Shallow sea = sunlight = plankton = feeding fish.
- Fish is a popular food source as it is low in fat and high in protein.
- Fish are easier to find due to new detection methods e.g. sonar and radar.
- Fish nets e.g. purse seine, drift and trawling, catch huge quantities of fish.

- Factory ships can stay at sea for months freezing and processing fish, clearing vast areas of fish.
- Since the 1960's supertrawlers have modern equipment e.g. automatic winches, to lift large nets.
- Increased number of foreign fleets in Irish waters.
- Herring have been overfished in the North Sea.

(2) Governments conserving fish stocks
(Marking Scheme: one example @ 2 marks)

- Yearly quotas.
- Embargoes (total bans) on certain fish species.
- Reducing the fishing season.
- Larger net mesh size to let young fish escape.
- Foreign fleets excluded from a country's fishing area.
- The Irish Box is a fishing area (320 km) around the Irish coast that only Irish ships can use.
- Experts believe their needs to be sustainable exploitation of fish.

<u>Farming a system</u>
(Marking Scheme: 10 marks, 2 inputs, 2 processes and one output @ 2 marks each.)
Farming is a system as it has inputs (raw materials), processes (activities) and outputs (finished products).
Inputs: Fertilisers, Machinery, Labour, Grants and subsidies from the government.
Processes: Ploughing, Milking, Planting crops and Harvesting.
Outputs: Milk, Beef, Manure, Straw, Vegetables and Corn.
There are many types of farms, some today are specialised (one product):

1. Mixed farm: not specialised in one product may have livestock and crops.
2. Horticulture/Market Gardener: Fruit and vegetables.
3. Dairy Farmer: Cattle only.
4. Pastoral Farming: Livestock only.
5. Arable Farming: Crops only.

Types of farms depend on the following tradition, soil quality, relief, rainfall and saleability.
Farming is labour intensive e.g. cows have to be milked twice daily.
Farming can also be high risk as the production cycle is very long and crops can get diseases.