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FOOD RESOURCES



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FOOD....

- ☐ Food is any substance consumed to provide nutritional support for the body.
- ☐ It is usually of plant or animal origin, and contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, or mineral.
- ☐ Out of thousands of edible plants and animals around 3 dozen types form major food of humans
- ☐ Agriculture is the source of majority of food components



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MAJOR FOOD SUBSTANCES...

- ☐ Wheat
- ☐ Rice
- ☐ Maize
- ☐ Potato
- ☐ Barley
- ☐ Oats
- ☐ Sweet potato
- ☐ Sugarcane
- ☐ Pulses
- ☐ Millet
- ☐ Sorghum
- ☐ Vegetables
- ☐ Meat
- ☐ Milk
- ☐ Fish



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SOURCES OF FOOD

- ☐ Staple foods
- ☐ Agriculture
- ☐ Meat, milk and products
- ☐ Livestock



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MORE FOOD...MORE PRODUCTION

- Agricultural improvement by: new machines, hybrid technology, improved varieties, excessive fertilizers, irrigation etc.
- Milk, poultry and meat products: Hybridisation techniques, improved sanitary conditions, disease control, medicines, OVERGRAZING



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OVERGRAZING AND ITS IMPACTS

Overgrazing:

- ☐ Grazing on grasslands or pastures.
- ☐ Available areas under decline

Impacts:

- ☐ Land degradation
- ☐ Soil erosion
- ☐ Loss of Useful Species



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IMPACTS OF EXCESSIVE AGRICULTURE

- ❖ Traditional agriculture and its impacts
- ❖ Modern Agriculture and its Impacts:

Impacts of HYV (high yield varieties)

Fertilizer related problems

Pesticide related problems

Water logging

Salinity problem





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TRADITIONAL AGRICULTURE

- ▮ Deforestation due to Slash and burn technique
- ▮ Clearing of forests for new land area
- ▮ Depletion of Nutrients





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HIGH YIELD VARIETIES

☐ *Encourage MONOCULTURE*

- ☐ *These crops demands controlled irrigation.*
- ☐ *These crop should be irrigated at right time as per the schedule and in right quantity.*
- ☐ *Most of the HYV seeds are dwarf varieties.*
- ☐ *They need higher doses of fertilizer.*
- ☐ *HYV crops are highly susceptible to pests.*





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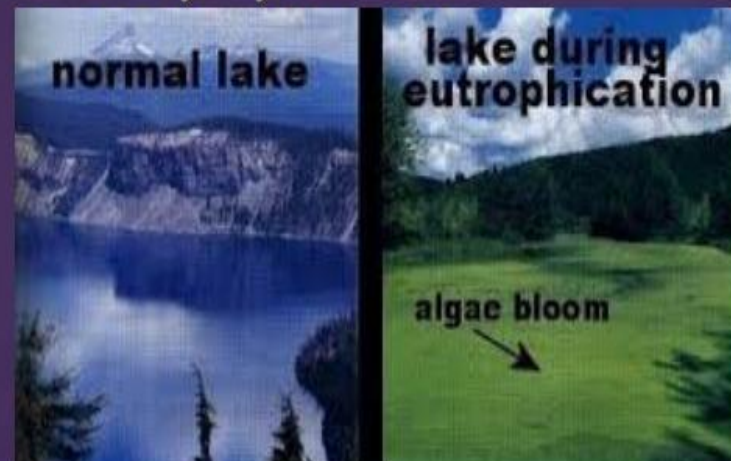
FERTILIZER RELATED PROBLEMS

- ✦ N, P, K are essential macronutrients
- ✦ Highly used to get boost in production
- ✦ They cause MICRONUTRIENT IMBALANCE

Eg: Punjab and Haryana soils suffer from severe deficiency of Zinc.

- ✦ Nitrates pollute ground water. Conc more than 25 mg/l....causes Blue Baby Syndrome

- ✦ Eutrophication





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WATER LOGGING AND SALINITY PROBLEM

- ❖ Over irrigation is the major cause
- ❖ Inadequate drainage leads to high water column
- ❖ Pore spaces drenched with water
- ❖ No adequate gaseous exchange
- ❖ 1/3rd of cultivable land affected by salts
- ❖ Accumulation of salts like NaCl, sodium sulphate, calcium and magnesium chloride
- ❖ High electrical conductivity and high sodium percentage
- ❖ Water evaporates and leaves behind a white crust of salt
- ❖ Punjab and Haryana face problem





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Energy Resources



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Energy Resources

Energy

Renewable

(Non Conventional)

- Solar Energy
- Water Energy
- Wind Energy
- Bio Mass

Non Renewable

(Conventional)

- Oil
- Coal
- Natural Gas



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Snaps

Renewable Energy



Non Renewable Energy





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Solar energy:

Research and application in the field of solar energy have opened new vistas in the direction of fulfilling world's future energy requirements.

It is especially drawn attention for its practically free steady supply and pollution free use.

This resource can especially be tapped more effectively in the regions where there are long run shine hours.



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Solar Energy





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Wind Power:

The power of wind is being used in running mills, irrigation of fields and carrying out other farm activities.

According to DNES, Government of India, 20,000 MW electricity can be generated from the wind alone.



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WIND ENERGY





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Hydro power:

It is considered to be the cheapest source of electricity. The Brahmaputra basin has the highest hydropower potential and nearly 30% of the country's production.

Next to it rank the Indus, Godavari and Ganga basins respectively.

Apart from economic consideration development of such projects is beneficial for irrigation and other purposes



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Atomic power:

Atomic power appears to be the only hope for large-scale energy requirements when fossil fuels are exhausted.

Atomic energy has its application not only in generation of electricity but has successfully been used in chemical and food processing industry.

atomic energy generation are cost of construction and maintenance of plants and also disposal of radioactive wastes.



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Atomic Power





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Bio-energy:

Organic wastes provide an important renewable source of energy.

It is considered to be advantageous in view of its relatively cheaper supply, and are of organic wastes in its generation reduces the impending threat of pollution due to their release in environment.



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NON-RENEWABLE SOURCES OF ENERGY



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- Let's learn about **fossil fuels**, which are non-renewable energy resources.
- Fossil fuels are formed from the remains of plants and animals that lived and died long ago.





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- Over time, the remains of dead plants and animals are changed into energy-rich fuels, called fossil fuels.
- Some examples of fossil fuels are-
 - I. Coal
 - II. Petroleum (oil)
 - III. Natural Gas
 - IV. Gasoline



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Measures for Energy Conservation





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- Creating Awareness.
- Improve efficiency of equipments, machinery and appliances.
- Upgrade all equipments through technology.
- Substitutes should be made available.
- Non- renewable sources should only be used when the substitutes are not available.
- Alternatives should be made available.
- Energy Audits should be made compulsory in large production units.



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- Budget allotment should be made for energy conservation plans.
- Improvise management and maintenance to avoid losses.
- Need for modernization and renovation of plants.
- Increasing use of railways as compared to roadways.
- Efficient systems for household sectors.