

M P MURALI

TGT (English/Sst)

AECS, Kudankulam

CLASS: VIII

Sub: SOCIAL SCIENCE

Section: GEOGRAPHY

Chapter:3 (Mineral and Power Resources)

Module:2 (Power Resources)



POWER RESOURCES

VITAL ROLE IN OUR LIVES.

NEED IN AGRICULTURE, INDUSTRY, TRANSPORT, COMMUNICATION AND DEFENSE.

POWER RESOURCES ARE DIVIDED INTO CONVENTIONAL AND NON CONVENTIONAL RESOURCES



FIREWOOD AND FOSSIL FUELS

WIDELY USED FOR COOKING AND HEATING.

MORE THAN 50% OF THE ENERGY USED BY THE VILLAGERS.

COAL, PETROLEUM AND NATURAL GAS ARE THE FOSSIL FUELS.

THESE ARE EXHAUSTIBLE BECAUSE CONSUMPTION IS GREATER THAN FORMATION.



COAL

USED AS DOMESTIC FUEL, IRON AND STEEL INDUSTRIES, STEAM ENGINES.

ELECTRICITY FROM COAL IS THERMAL POWER.

BURIED SUNSHINE: GIANT FERNS AND SWAMPS GOT BURIED UNDER EARTH MILLIONS YEARS AGO. IT IS CALLED BURIED SUNSHINE.

CHINA, USA, GERMANY, RUSSIA, SOUTH AFRICA AND FRANCE ARE THE LEADING PRODUCERS.



PETROLEUM

DIESAL,PETROL, KEROSENE,WAX,PLASTICS AND LUBRICANTS ARE THE VARIETIES PRODUCED BY PETROL.

IT IS CALLED BLACK GOLD BECAUSE IT IS VALUABLE.

IRAQ, IRAN, SAUDI ARABIA AND QATAR ARE THE OIL PRODUCING COUNTRIES.

DIGBOI IN ASSAM AND BOMBAY HIGH IN MUMBAI ARE THE LEADING PRODUCERS IN INDIA..



NATURAL GAS

FOUND WITH PETROLEUM DEPOSITS.

RUSSIA, NORWAY, AND NETHERLANDS ARE THE MAJOR PRODUCERS.

JAISALMER, KRISHNA GODAVARI DELTA AND TRIPURA ARE THE MAJOR AREAS.

INCREASE IN THE CONSUMPTION LEADS TO DEPLITION.

THE TOXIC POLLUTANTS RELEASED FROM BURNING FUELS IS A CONCERN.



HYDEL POWER

RAIN WATER OR RIVER WATER STORED IN DAM MADE TO FALL FROM HEIGHT.

ELECTRICITY GENERATED BY THIS PROCESS IS CALLED HYDEL POWER.

USED FOR IRRIGATION.

ONE-FOURTH OF THE WORLD ELECTRICITY IS FROM HYDEL POWER.

PARAGUAY, NORWAY, BRAZIL AND CHINA ARE THE LEADING HYDEL POWER.



NON CONVENTIONAL SOURCES OF ENERGY

SHORTAGE OF FOSSIL FUELS DUE TO INCREASING USE.

IT IS EXHAUSTIBLE AS PER THE PRESENT RATE OF CONSUMPTION.

FOSSIL FUELS CAUSE ENVIRONMENTAL POLLUTION.

IT COMPELS THE USE OF NON CONVENTIONAL SOURCES.

SOLAR ENERGY, WIND ENERGY AND TIDAL ENERGY ARE THE MAJOR NON-CONVENTIONAL SOURCES OF ENERGY.



SOLAR ENERGY

SOLAR ENERGY IS USED IN SOLAR CELLS TO PRODUCE ELECTRICITY.

TROPICAL COUNTRIES ARE BENEFITED BECAUSE OF ABUNDANT SUNSHINE.

USED IN SOLAR HEATERS, SOLAR COOKERS, SOLAR DRYERS, COMMUNITY LIGHTING AND TRAFFIC SIGNALS.



WIND ENERGY

WIND POWER IS AN INEXHAUSTIBLE SOURCE OF ENERGY.

HIGH SPEED WINDS ROTATE THE WIND MILL TO PRODUCE ELECTRICITY.

LOCATED IN COASTAL REGIONS AND MOUNTAIN PASSES WHERE STRONG WINDS BLOW.

WIND FARMS ARE FOUND IN NETHERLANDS, GERMANY, DENMARK, UK, USA AND SPAIN.



NUCLEAR POWER

RADIO ACTIVE ELEMENTS LIKE URANIUM AND THORIUM ARE THE SOURCES.

FUELS UNDERGO NUCLEAR FISSION IN NUCLEAR REACTORS AND EMIT POWER.

USA AND EUROPE ARE THE GREATEST PRODUCERS OF NUCLEAR POWERS.

KALPAKKAM, TARAPUR, KOTA, NARORA, KAIGA AND KUDANKULAM ARE THE MAJOR NUCLEAR POWER STATIONS.

URANIUM IS FOUND IN JHARKHAND AND RAJASTHAN

THORIUM IS FOUND IN THE MONOZITE SANDS OF KERALA



GEOTHERMAL ENERGY

HEAT ENERGY OBTAINED FROM EARTH.

HEAT ENERGY MAY SURFACE IN THE FORM OF HOT SPRINGS.

HOT SPRINGS USED FOR COOKING, HEATING AND BATHING.

USA, NEW ZEALAND, ICELAND, PHILLIPINES AND CENTRAL AMERICA HAVE THIS POWER.

MANIKARAN IN HIMACHAL PRADESH ANND PUGA VALLEY IN LADAKH ARE THE GEO THERMAL PLANTS IN INDIA..



TIDAL ENERGY

DURING HIGH TIDE, TIDES IS USED TO TURN THE TURBINE IN TH DAM TO PRODUCE ELECTRICITY.

RUSSIA, FRANCE AND GULF OF KACHCHH HAVE HUGE TIDAL MILL FARMS



BIOGAS

ORGANIC WASTE – DEAD PLANT, ANIMAL MATERIAL, ANIMAL DUNG AND KITCHEN WASTE ARE USED TO PRODUCE GASEOUS FUEL.

USED FOR COOKING, LIGHTING AND PRODUCES HUGE AMOUNT OF ORGANIC MANURE

