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Causes and Remedies of Natural Calamities: Analysis of People Perception

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Introduction:

Natural calamities originate in highly dynamic process whose elemental nature expresses It self in their unpredictable and uncontrollable characters. Those natural calamities and causes of losses human life and great material damage to economies are called disaster and catastrophes.

Natural calamities includes the earthquakes, volcanoes, mass movements, debris flow, mud flow, flood and drought, cyclones, thunder storms, snow fall, heavy rainfall, cloud bursting and diseases epidemics etc.

Objectives:

1- To study out the each type of natural calamities on a region/ area/earth surface.

2- To analysis the total damage of human beings property like agricultural, industrial sectoreconomietc.

3- To analyse the role of people/ community that for facing against these natural calamities.

4- To examines the main causes of natural calamities.

5- To find out the remedies on that natural calamities.

Methodology- The information/data is collected by primary and secondary bases in which questunaires as collected to people and books/journals/research /news papers etc.

Types of natural calamities- Natural calamities comprising of earthquakes, volcanoes, tsunami, flood, cloud bursting, cyclones, hurricane, typhoon, heavy rainfall, acid rainfall, snow fall, sever flood, diffusing of disease and so on landslids etc.Major natural calamities in India as below-

Major natural calamities in India - 2000

Types	Affected Population(in million)
Cyclone	10
Flood	260
Drought	86
Earthquake	400
Landslide	10
Avalanche	01
Fire	140

Source: Urban statistical Handbook-2000. NIUA.

Earthquake- Whenever the earth surface is vibrated due to sudden movement or isostatic adjustment, then it is said to be an earthquake take place. An earthquake is result of a sudden disturbance in the earts crust, resulting either from an explosive volcanic eruption or from some dislocation of the rock within a few kilometers of the surface.

Causes of Earthquke

1. Volcanic Eruption - Volcanoes and

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earthquake are interrelated to each other. Whenever the hot magma, have been tried to overcome on the earth surface, it shakens the earth surface near and at the volcanic event area. Due to the getting of magma from the interior of the earth on the earth surface, it imparts some shake to the country rocks and overline rock surfacial area. The volcanic earthquakes are common and aboundan and either at present active, dormant, or recently extinct. There are common along the fire ring belt in Pacefic Ocean.

2.Issostatic Adjustment-The issostaic balance between the raised and depressed blocks of land on the surface of the earth is not always maintained. When erosion takes place on the mountain, it results in deposition on the sea bed and the isostatic balance is disturbed.

In order to mountain the balance magma frm the neighbouring areas lows undr the raised surface and the earthquake occur at zones of weakness. An earthquake take place only in the isostatic adjustment is sudden and quick the earthquake which hit Utter Kashi in December 1991 was due to isostatic adjustment.

3. Faulting and Elestic Rebound theory- The horizontal and vertical movement caused by endogenetic forces result into the formation of fault and folds which in turn cause isostatic disequellibrium in the crustal rocks which ultimetley causes earthquakes of varing magnify depending on the natur and magnitude dislocation of rocks block caused by faulting and folding. Infact, sudden (famous earthquake of 1872 of California was caused) dislocation of rock blocks caused by both tesuite and compressive force trigger immediate earth tremors due to sudden maladjustment of rock block. The 1950, the earthquake of Assam was believed to have been caused due to disequellibium in crustal rocks, introduced by crustal fracture.

4.Hydrostatic pressure and Anthropogenc causs- Through the earthquakes are natural phenomena and are caused by the endogenetic forces coming from within the earth but certain human activities such as pumping of ground water and oil, deep underground mining, blosting of rocks by dynomiter for constructional purposes, nuclear explosion, large scale of water storage in vast reservoirs etc also causes earth tremer of serious consequencs. Eg Koyno earthquake of 1967 due to Koyno reservoir construction in 1962.

5. Plate Tectonic Theory- Plate Tectonic
movement is the most causes of the earthquakes.

Spatial Distrbution of Earthquakes

The earthquake belts in the world are-

1. The circum paific belt (convergent plate boundaries).
2. The mid Atlantic belt (divergent plate boundaries).
3. The mid continental belt.
4. Interplate seismicity.

Major Earthquake Regions of India

Year	Region	Magnitude	Death toll
1819	Kutch	8.0	2000
1905	Kangra	8.0	19500
1934	Bihar/Nepal	8.3	10700
1993	Latur Maharashtra	6.3	9748
2001	Gujarat	8.1	3000
2004	Andman Nicubar	9.1	2000

Major Earthquake regions of World

Year	Regions	Magnitude	Death
1556	Shenxi, China	8.0	830000
1755	Libson, Portugai	8.5	60000
1923	Kwanto, Japan	8.2	143000
1976	Tangshan	7.8	755000
2005	Andman Nicubar	7.3	NA
2015	Nepal	7.9	12345 (Aprox.)

Consequences of Earthquakes- The major consequences of earthquake are deformation of ground surface, damage and distruction of human estiblishment and structures such as building, railway lines, roads bridgs, dames, town and cities. A lot of loses of human and cattle lives and devasting fires, floods, landslides and disturbance in the under ground levels. Kathmandoo and adjustment area of the Nepal and as well as entire of Inda has been badly effective due to earthquakes of 25th April-2015 . In which above 12345 popullation and animals dead and a lot of buildings, road and other goods and commodities are damaged.

Remedies in Earthquakes- Making, a forecast about the occurrence of an earthquake in a region, place and time is still difficult proportion. The seismologists are increasing concentrating on the aspect of earthquake forecasting. One approach for making predictions is to examine the history of each plate boundary and determine the frequency of earthquake in the past. Seismologists then construct maps that provide an estimate of expected earthquake activities. Areas that are quite and over due for the earthquake are teremed as seismic gaps therefore a place that passion accumulated strain. The Chinese on the basis of seismographic studies on animal behavior, made fairly accurate predictios in the seventies. The Chinese seismologists provided a list of indicative animal behavior. Before the earthquakes, cattlerefusing to entire corais and duck refusing to enter the water, snakes coming out of hibernation and fish jumping out of water.

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