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IMPACT OF INFORMATION MANAGEMENT SYSTEM TOWARDS NATURAL DISASTER DATA

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ABSTRACT:

Natural disasters are evaluated to have asserted around 3 million lives around the world since 1960, and also extremely influencing the livelihood of around 1 billion people. The harm caused to property is surveyed at well finished US \$ 400 billion.

Despite the fact that floods today don't guarantee the same number of lives as the tempest surges, they influence both urban and rural residential regions and in addition agricultural areas and make the best harm property. In a few zones floods trigger avalanches and mudflows assert a noteworthy number of lives. Floods are the most incessant and therefore the most dangerous common peril influencing the locale.

The majority of the great disasters related with tropical twisters have been caused by storm surges in Asia. Tempest surges happening a few hours ahead of time of the land fall of a tropical typhoon can hit a beach front region while individuals are as yet being cleared and can in this manner cause greatly high death toll and material harm.

Keywords: *information management system, natural disaster*

1. INTRODUCTION

Dry seasons may influence extensive parts of the populace, causing human wretchedness in the locale, especially if healing measures are not taken ahead of time. In spite of the fact that dry seasons by and large happen in semi-bone-dry or abandon atmospheres in Asia, they may likewise regularly extremely influence regions where the normal precipitation levels are sensible. The primary topographical dangers that influence Asia are the quakes, tidal waves, volcanic ejections and avalanches. The district covers numerous territories of high seismic movement and volcanism. It has been

evaluated that amid the last 300 years, over 2.5 million have passed on around the globe because of quakes and that about 75 percent of these fatalities happened in Asia and the western Pacific. Volcanic ejections in vast island countries of Asia situated at the western Pacific Rim have likewise asserted an extensive number of lives. Tidal waves are among different perils that influence these countries.

Earthquakes are somewhat hard to foresee and when such forecast can be made, there is generally brief period to issue satisfactory notices to the people. Be that

as it may, opportune expectations of volcanic emissions in the countries of the district have empowered the concerned experts to empty the people from danger zones before any damage was supported. In many countries of the region, it is step by step being perceived that the underlying and most fundamental reaction to disaster must be at the local level and that the group must be all around educated about disaster preparedness measures and be made caution at the time of disaster.

Natural hazards delivered by the powers of the nature, whereupon human society can have extremely constrained control, are the fundamental driver in the production of natural disaster. Other than the typical natural forces, there is the amazingly important human factor which enhances the level of devastation and in this way changes occasions of natural hazards into disasters. Rapid population growth in the locale is one of the principle components in expanding of powerlessness to natural hazards causing natural disasters. In any case, the higher rate of populace development straightforwardly brings about high population density and larger amount of physical frameworks. High population densities definitely result in high death tolls, and high property estimations unavoidably result in high misfortunes if fitting preventive measures are not attempted previously. Increasing population weight in the countries of the area causes home of danger inclined grounds. The regularly declining land-individuals proportion in the long run forces people to occupy peril inclined negligible grounds in expanding numbers. The other impact of quick population growth; which has an immediate bearing on natural disasters, is the indiscriminate

improvement and broadening of urban areas. The fundamental element of urban growth driven by these variables in the district is the expanding rise of ghettos and squatter territories at the remote zones. These are the most defenseless territories with high disaster risks where natural hazards regularly achieve disaster proportions. The floodplains of South Asia bolster a portion of the most noteworthy densities of population on the planet and the substantial thickness of population in the beach front condition is presented to dangers of flood disaster through cyclones, typhoons and tsunamis.

REVIEW OF LITERATURES

The effect of natural disasters is considerably higher in the developing countries than in the developed countries, and it is normally poor people who are generally influenced. In the calamitous violent wind of 1991 in Bangladesh, for example, the vast majority of the losses were people endeavouring to squeeze out a living along the seaside flatlands. Natural disasters, especially those over and again influencing certain territories, adverse effect interest in those spots, and in addition on the non-formal economic sector. The level of disaster preparedness is a main consideration in the alleviation of natural disasters, with the accessible innovation. Most natural disasters, especially violent winds, surges, and dry seasons, can be estimate ahead of time. Be that as it may, in the vast majority of the developing countries, disaster preparedness measures, particularly the early cautioning frameworks, are deficient. Not the greater part of the general population can be cautioned in time, and in numerous spots there are insufficient

disaster preparedness measures, for example, satisfactory number of effortlessly open violent wind safe houses and clearing hardware.

Disasters are conditions, which upset ordinary working of the group, and cause boundless human material and economic losses that can't be controlled and counteracted by locally accessible assets. Disasters bring wretchedness to individuals and genuinely influence the advancement procedure of the group. In any case, they generally invigorate changes, which perpetually help the procedure of human alteration, and advancement and that are the reason we might acknowledge them as a test to changing dangers into circumstance. On the off chance that a pre-cautioning framework is developed and on the off chance that we legitimately get ready activity design by gaining as a matter of fact from disasters before, we can beat these dangers by diminishing mortality, grimness and monetary misfortunes by giving prompt safeguard, help, restoration and reconstructive administrations.

This implies at each level all disasters and alleviation administrations should be recorded regarding time, length, influenced areas, population, sort of impacts, size of impacts, group and Government responses and result, and the disaster preparedness plans and help administrations should be assessed to comprehend the weaknesses and for refreshing and planning more powerful and sensible readiness design. Disaster management implies arranged and orderly approach towards comprehension and solving problems in the wake of disasters. Pragmatic experience has demonstrated certain that dedication of

assets to disaster preparedness in the group yields better outcomes both as far as economy and adequacy contrasted with sinking assets in a specially appointed way in safeguard and restoration. Tragically that when a disaster strikes people, organizations/administration are not set up for disaster relief plans. They don't get ready activity designs or don't bear on drills and be in preparation to meet the disaster situation to relieve the resultant harm. Simply after a calamity strikes to specific region, the group and the organization around there wind up touchy and start planning. Till that they trust that most noticeably bad won't come to them, and when the most noticeably awful comes, they feel vulnerable and confront misfortunes as far as human lives and physical devastation of properties, harvests and whole developmental process.

DATA PROCESSING & APPLICATION DEVELOPMENT

(DPAD) Data processing and application development part contains thematic application analysis tool, which divides into thematic applications for natural disaster, namely Flood, Forest Fire, Oil Spill, Landslide and Hot Installation and other disasters involve with the certain region. These thematic products and disaster application management system employ relative data processing input such as satellite data. Figure 2 represents a satellite-based data processing for forest fire as an example of data processing and application development part. Thematic products and disaster application management system will also employ relevant model of the disaster for decision-making tool in a Geographic Information System (GIS) environment. This system gives an efficient and reliable hazard

forecasting and monitoring. Satellite or ground based early warning, detecting, monitoring, and mitigation are functionality of the system by creating thematic maps, situational analysis, vulnerability analysis, damage and risk analysis, using GIS.

DECISION SUPPORT SYSTEM (DSS)

DSS is an information system for disaster management and relief. It is a central database, where data and information can be made available on-line basis. It is an intelligent system, to help planning activities. It is also an electronic-based correspondence system report generator that can be modified according to the user. Whole responsibility of this part are; damage assessment, thematic hazards maps, proposed solutions, early warning, Decision support, risk prediction, and situational analysis.

CONCLUSION

Disasters pose genuine risk to normal life and in addition to the procedure of improvement. These hits with sudden savagery, tearing bodies, pulverizing lives, families and structures separated. Natural disasters are both sudden and powerful. Human helplessness to them is a well-established marvel. A disaster is the aftereffect of a prompt circumstance or the consequence of a long set process, which upsets typical human life in its built up social, conventional and economic system. This is because of demolition of the environment, which is caused by additional conventional natural destructive wonders or human prompted dangers bringing about human hardship and enduring past recuperation unless outside

guide is acquired. The term 'disaster' owes its birthplace to the French word 'Disaster' which is the blend of two terms, 'des' signifying 'awful' or abhorrence and 'aster' signifying 'star'. In prior days a catastrophe was thought to be misfortune because of some ominous star. These days, the idea has changed and the term 'disaster' is regularly used to indicate any odd occasion, be natural or artificial, which achieves sudden and immense agonies to humanity.

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