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Forum: Sustainable Development (SF2)

Issue: Promoting international scientific research and cooperation for better understanding and reducing risks of natural disasters with a special emphasis on ocean-related disasters.

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Introduction

As natural disasters have turned out to be real dangers to human life and the world economy, governments and universal associations are collaborating to advance worldwide and local hazard administration, and to enhance the ability to alleviate the impacts of debacles. The effect of natural disasters is demonstrating an expanding pattern by and large and has been quickened by human factors, for example, neediness, populace development, and urbanization. As per the Sendai Framework for Disaster Risk Reduction 2015– 2030, worldwide catastrophes in the previous 10 years have guaranteed 0.7 million passings, caused 1.4 million wounds, furthermore, brought about 23 million individuals losing their homes. More than 1.5 billion individuals are assessed to have been influenced by some type of catastrophic event, and the subsequent monetary misfortunes are assessed at more than one trillion US dollars. The harm caused to women, children, and individuals in defenseless conditions is especially pulverizing. Disaster damage is expanding in both developed and developing nations, which shows that advance in science and innovation and financial improvement have not essentially added to a decrease in a disaster hazard. The inquiry has been raised of why such harm and losses keep on increasing despite the program made in the scholastic group as for understanding disasters and hazards and the improvement of handy techniques to lessen disasters.

Definition of Key Terms

Natural Disaster: a natural event such as a flood, earthquake, or hurricane that causes great damage or loss of life.

Marine Debris: Also known as marine litter, is human-created waste that has deliberately or accidentally been released in a lake, sea, ocean or waterway.

UNISDR: United Nations Office for Disaster Risk Reduction

UNDRO: United Nations Disaster Relief Organization

HFA:(Hyogo Framework for Action):The HFA is a 10-year plan to make the world safer from natural hazards.

Background Information

Early international disaster reduction activities can be followed back to the International Decade for Natural Disaster Reduction. It brought issues to light of the essentialness of cataclysmic event decrease. In 1994, the First World Conference on Disaster Reduction was held in Yokohama, Japan, building up the controlling standards for the Decade for Natural Disaster Reduction. In December 1999, the UN General Assembly embraced the International Strategy for Disaster



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Reduction (ISDR) to actualize follow-up action for the accomplishments of the decade, and to advance the proceeding with improvement of disaster reduction the world over. At that point, in 2005, the Second World Conference on Disaster Reduction was held in Hyogo Prefecture, Japan, and the Action 2005– 2015: Building the Resilience of Nations and Communities to Disasters, was received by the Conference and has turned into the global plan for debacle decrease. In December 2006, the United Nations General Assembly consented to establish the 'Joined Nations Platform for Space-based Information for Disaster Management and Emergency Response-UNSPIDER' as another United Nations program.

The Role of Knowledge in Disaster Risk Reduction

Debacle chance decrease arrangement and practice require learning for educated basic leadership and facilitated activity. Despite the fact that the information generation and execution forms are basic for catastrophe chance diminishment, these issues are from time to time methodically tended to top to bottom in a debacle studies and arrangement programs. While endeavors and upgrades have been made concerning information and data, just constrained assets are focused on enhancing learning administration structures and incorporating learning frameworks at various spatial levels. The as of late received Sendai Framework for Disaster Risk Reduction 2015– 2030 tends to information related issues and gives the chance to feature the basic part of learning in a disaster hazard diminishment.

The way that individuals manage the danger of calamities, including their utilization of science and innovation, is essentially reliant on how they see debacles and hazard. There are a wide range of theoretical framings of the debacle issue, which has often led to confusion, crossed purposes and contradiction. For instance, the rich and the poor experience disasters in an unexpected way, and disaster risk will be seen in an unexpected way, for instance, by a land engineer, a back service official, an crisis supervisor, a community leader, a peril researcher or a subsistence villager.

Relationships Between Disasters and Development

While death may not be the best pointer, it offers some knowledge about the connections between debacle misfortunes and improvement. An investigation by the United Nations Development Program (UNDP, 2004) found that a large number of individuals on the planet experience the ill effects of disasters every year, with a lopsided offer in less created nations, and that these calamities assert progressively high tolls in the death toll. The examination demonstrates that low-and medium-improvement nations have comparative misfortune designs because of cozy connection amongst passings and level of advancement. For instance, Guinea Bissau (low advancement) and Bulgaria (medium improvement) encounter low levels of death, yet Venezuela (medium improvement) and Sudan (low improvement) encounter large amounts of death. Notwithstanding, high-advancement nations reliably encounter low levels of passings related to disasters. In particular, no high-advancement nations experienced more than a normal of 10 deaths for each million and more than a normal of 500 deaths for every year. Both of these figures are surpassed by various medium-and low-advancement nations. Further, nations named high advancement to speak to 15 percent of the uncovered populace, however just 1.8 percent of the deaths.

Sustainable Development with Disasters

Sustainable development offers a promising open approach point of view for directing choices to make more disaster- resilient social orders and groups. The committee's aim is to characterize sustainable development and discuss about how this idea can be connected in ways that incorporate catastrophe and improvement issues.



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What Is Sustainable Development?

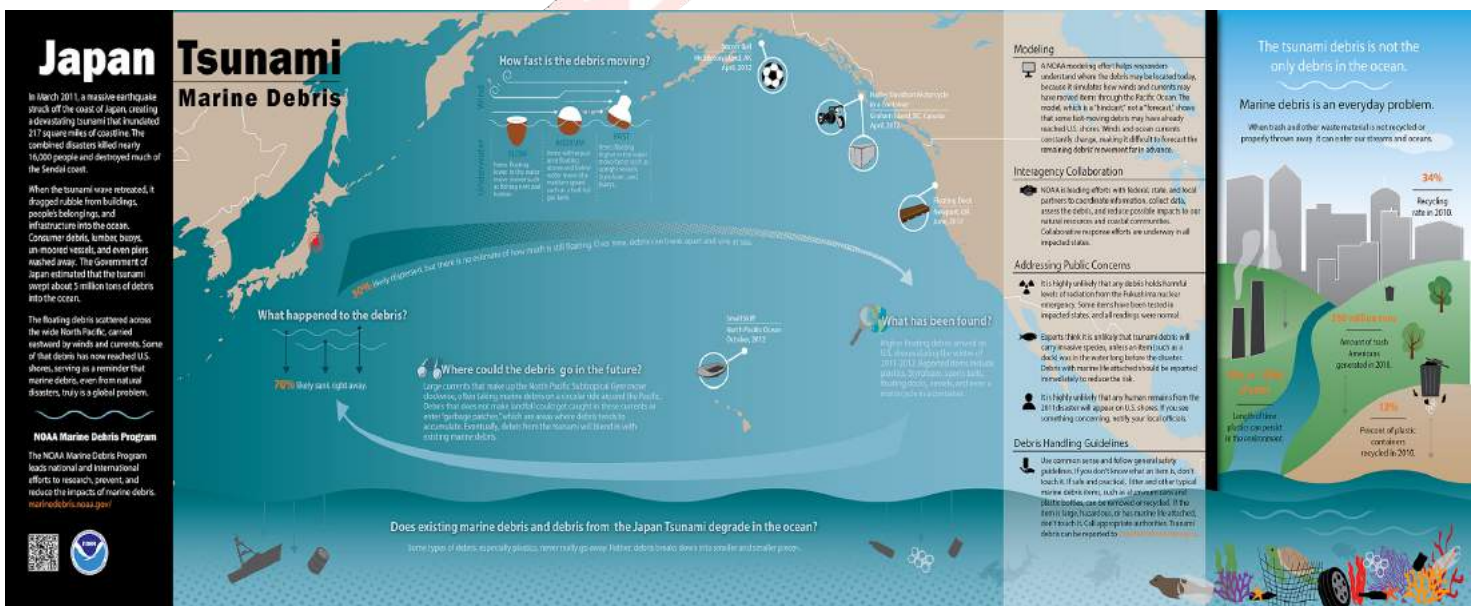
By the turn of this century, disaster and hazards administration had progressed toward becoming empowered by the difficulties of accomplishing the objective of practical improvement. The idea of reasonable improvement tries to concentrate consideration on coordinating frequently contending standardizing dreams about environmental cutoff points, monetary advancement, and intergenerational value, as reflected in the commonplace meaning of the report Our Common Future by the World Commission on Economic Development (WCED, 1987:8): "Supportable improvement is advancement that addresses the issues of the present age without bargaining the capacity of future ages to address their own issues." As its United Nations source authenticates, practical improvement is a worldwide vision. It has been taken up by multinational advancement foundations, for example, the World Bank and UN associations, national government bunches in created and creating nations outlining preservation systems, and NGOs (non governmental associations) dynamic in the overall natural development.

How Do Natural Disasters Contribute to Marine Debris?

Natural disasters such as, sea tempests, hurricanes, tidal waves, and avalanches can possibly create an enormous measure of marine debris. The high breezes, storm surge, heavy rains and flooding related with these calamities can pull vast structures, family unit articles, and open air things into encompassing waters.

As found in the wakes of Hurricanes Katrina and Rita, and post-tropical tornado Sandy, some flotsam and jetsam stays in shallow waters, making wellbeing risks for individuals, deterring route channels, and undermining regular assets. Quick activity is expected to evaluate and evacuate the flotsam and jetsam with a specific end goal to keep up route courses, guarantee safe sailing and recreational exercises, and secure touchy environments.

Solid tides and streams likewise do the flotsam and jetsam to ocean, where it might take a long time to a very long time to achieve arrive once more. The Japan seismic tremor of 2011 and the subsequent tidal wave wrecked entire groups, making an expected five million tons of flotsam and jetsam. A lot of this flotsam and jetsam stayed along the bank of Japan, however a part of it was washed into the Pacific Ocean. While a portion of the destruction in the long run sank to the sea depths, garbage from the fiasco once in a while keeps on showing up on U.S. furthermore, Canadian shores.





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Timeline of Major Events

1988:	<p>Universal Decade for Natural Disaster Reduction</p> <p>Reviewing that in 1988 numerous calamities, for example, surges in the Sudan and Bangladesh, tropical storms in the Philippines, typhoons in Latin America and the Caribbean, grasshopper invasions in Africa, the GA perceives the requirement for diminishing the effect of catastrophic events and respects the advance report of the Secretary-General on the arrangement for the International Decade for Natural Disaster Reduction and solicitations to build up a structure of activity.</p>
1990:	<p>The GA asks the global group to actualize completely the International Framework of Action of the IDNDR to set up national panels and reaffirms the requirement for the secretariat of the Decade to work in close co-task with UNDRO</p>
1994:	<p>The First World Conference on Disaster Reduction was held in Yokohama, Japan, establishing the guiding principles for the Decade for Natural Disaster Reduction.</p>
1995:	<p>The GA chooses to gather an end occasion of the Decade to encourage the full reconciliation of catastrophe diminishment into the substantive endeavors for supportable advancement and natural assurance by the year 2000</p>
2004:	<p>The Indian Ocean Tsunami</p>
2005:	<p>It underwrites the Hyogo Declaration and the Hyogo Framework for Action 2005-2015: building the strength of Nations and groups to catastrophes embraced by the World Conference on Disaster Reduction, held at Kobe, Hyogo, Japan, from 18 to 22 January 2005, and reviews the normal articulation of the exceptional session on the Indian Ocean calamities: hazard diminishment for a more secure future.</p>
2007:	<p>First session of the Global Platform on Disaster Reduction</p>

Tsunami: Asia's Deadliest Natural Disaster

The Indian Ocean Tsunami in 2004 murdered more than 220,000 individuals as indicated by the United Nations and made millions destitute, making it one of the deadliest catastrophic events in mankind's history. The Tsunami which transmitted on 26 December 2004 from the epicenter close to

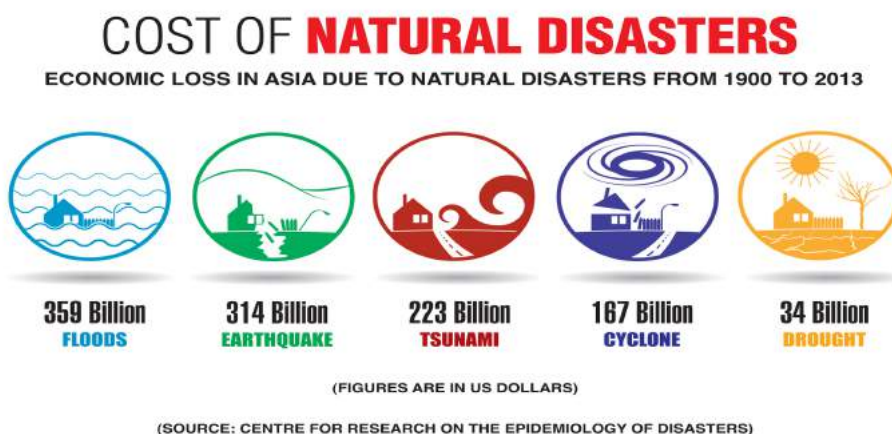


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the West shore of the Indonesian island of Sumatra, pummeled into the coastline of 11 Indian Ocean nations, crushing everything which came in its way. The casualties were for the most part the helpless and living in remote regions. Over the losses, numerous more individuals were accounted for missing, the greater part a million people were left without a home as whole towns were obliterated. Other than annihilating parts of Indonesia, the torrent wreaked devastation in Sri Lanka, India and Thailand and in numerous different nations. The uncommon land scope and the quantity of individuals executed made the Tsunami one of the most exceedingly terrible cataclysmic events in Asia. The diagram exhibits that Indonesia was the hardest-hit nation by the Tsunami, trailed by Sri Lanka, India, Thailand and others.

Economic Loss Due To Disasters

From earthquakes to floods to other catastrophic events, the previous century has seen pulverizing debacles. Every disaster has deserted passing and demolition and immense monetary loses. Major monetary misfortunes in the district are prevalently because of tremors and waves, the area's most damaging calamities which incidentally likewise happen habitually. To put the budgetary misfortunes for one year in context, in 2012 alone Asia lost US\$15 billion because of cataclysmic events, as indicated by information discharged by the Center for Research on the Epidemiology of Disasters (CRED). This is a drop from 2011, when the area recorded a stunning \$300 billion misfortune for the most part because of Japan's tidal wave and Thailand's surges. In the event that you take a gander at the bigger picture, debacles have taken an overwhelming toll on the district's economy over the most recent 100 years. Especially surges have caused more monetary harm than some other natural disasters.



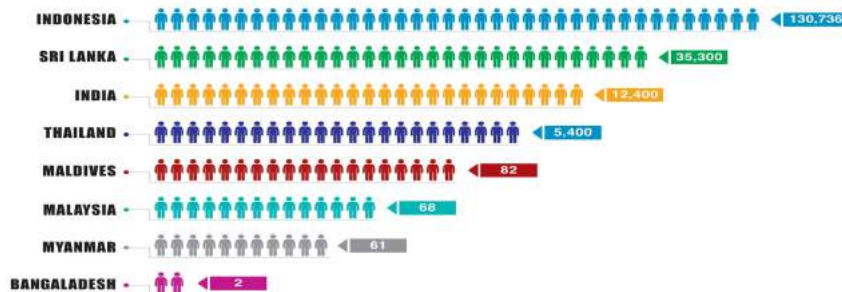
Major Countries and Organizations Involved

Asia and the Pacific is the most debacle inclined locale on the planet. Topographically, the locale is described by dynamic structural plate developments in the Pacific and Indian Oceans, which have been the source of major tsunamis and earthquakes.



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INDIAN OCEAN **TSUNAMI DEATH** TOLL IN ASIA



(SOURCE: ASIAN GOVERNMENT WEBSITES & UNITED NATIONS)

The Indian and Pacific Oceans

The Indian and Pacific Oceans additionally frequently create tropical twisters and tropical storms. The area is home to youthful mountain ranges which are particularly inclined to seismic tremors, avalanches, streak surges, torrential slides and Glacial Lake Outburst Floods (GLOFs). Topographically it is a locale of physical decent variety with islands, mountains, broad coastlines, woods, deltaic fields and abandons. The climate and atmosphere frameworks are driven principally by rainstorm fluctuation and snow cover elements, which both add to the recurrence and seriousness of surges and dry spell. A few noteworthy streams move through the locale, regularly over a few national fringes, and an extensive part of the populace lives in the fruitful valleys of these waterways. Since 1970, the area has been hit by more than 5000 fiascos causing more than two billion fatalities furthermore, influencing the lives of more than six billion.

Japan

On 11 March 2011, Japan was struck by an extent 9.0 quake, with the epicenter 130 kilometers from its upper east Pacific drift. The seismic tremor created a staggering torrent with waves evaluated to have come to 38 meters. The results of the seismic tremor and torrent in terms of passings, wounds, financial and natural harm were colossal.

Bangladesh

The worst disaster in terms of loss of life occurred in 1970, when Cyclone "Bhola" struck Bangladesh and caused a tempest surge that executed 300,000 individuals and influenced 3.6 million more. Around twenty years after the fact when a more serious tornado struck a similar area in Bangladesh, 138,000 individuals kicked the bucket and 15 million individuals were influenced, turning into the second biggest tempest as for fatalities, however remarkably less individuals passed on due basically to calamity hazard administration endeavors in the nation.

Indonesia

Following the ejection of a volcano on the island of Krakatoa, waves achieving statues of 40 meters submerge islands, obliterate many towns and slaughter more than 36,000 individuals.

Myanmar



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Typhoon "Nagis" executed a comparable number of individuals in Myanmar in 2008. Tempests also, surges are yearly occasions in a few sections of the locale.

The Phillippines

The Phillippines is frequently crushed by tropical storms, counting the Super Typhoon "Haiyan" in November 2013 which slaughtered more than 6,000 individuals and dislodged.

Previous Attempts to Solve the Issue

International Strategy for Disaster Reduction (First session of the Global Platform on Disaster Reduction)

The GA observes with incredible premium and valuation for the holding at Geneva, from 5 to 7 June 2007, of the main session of the Global Platform for Disaster Risk Reduction, the successor component of the Inter-Agency Task Force for Disaster Reduction, as a helpful gathering for Member States and different partners to evaluate advance made in the execution of the Hyogo Framework for Action, upgrade consciousness of catastrophe hazard lessening, share encounters and gain from great practice, distinguish remaining holes and recognize activities to quicken national and neighborhood usage.

Possible Solutions

To solve this worldwide issue, it is essential to take useful activities to decrease the dangers for catastrophe through interdisciplinary participation in which information and data is gathered and v deliberately coordinated, past peril composes and explore disciplines. Transdisciplinary collaboration is likewise required, in which scientists and different partners like government officials, managers, private companies, and common associations share information and data; trade learning, background and thoughts; and talk about issues from alternate points of view.

Useful Links For Further Research

<https://link.springer.com/article/10.1007/s13753-015-0052-7>
<https://www.unisdr.org/partners/united-nations/unesco>
<https://www.unisdr.org/2005/wcdr/wcdr-index.htm>
<https://www.unisdr.org/who-we-are/history>
<http://www.scj.go.jp/ja/info/kohyo/pdf/kohyo-23-t225-1-en.pdf>

Bibliography

<http://www.wcdrr.org/wcdrr-data/uploads/874/Science%20is%20used%20for%20Disaster%20Risk%20Reduction,%20UNISDR%20STAG%20report%20to%20the%20WCDRR.pdf>
<https://www.unisdr.org/2005/wcdr/wcdr-index.htm>



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National Disaster Risk Reduction and Management Council (NDRRMC), Republic of the Philippines. (2014). NDRRMC Update: Updates re the Effects of Typhoon “YOLANDA” (HAIYAN). 17 April.

Anttila-Hughes, J. K., & Hsiang, S. M. (2013). Destruction, disinvestment, and death: Economic and human losses following environmental disaster

Bündnis Entwicklung Hilft (Alliance Development Works) and United Nations University Institute for Environment and Human Security (UNU-EHS) (2014). World Risk Report 2014. Bonn, UNU-EHS.

