Research Report

(UNHRC)

(Establishing programs to ensure livelihood resilience to combat natural disasters associated with climate change)

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Introduction

The frequency and seriousness of hurricanes, floods, droughts and wildfires are growing globally due to the escalating effects of climate change. This endangers communities significantly those residing in regions by ruining their means of living and worsening poverty. Establishing schemes to safeguard livelihood resilience is crucial in lessening these consequences and fostering long term growth. This document examines approaches and projects aimed at enhancing community resilience, against disasters while underscoring the significance of adaptation strategies,involving the community and adopting sustainable methods. The report seeks to offer policymakers and stakeholders a framework for creating and executing resilience programs by examining case studies and creative strategies. .

Definitions of Key Terms

Climate Resilience:

The ability of communities, ecosystems, and societies to withstand, adapt and recover from the impacts of climate change and its effects.

Adaptive Capacity:

The ability to adjust to changing circumstances such as climate change, potential damages and to take advantage of new opportunities.

Sustainable livelihoods:

Practices that try to ensure a long term economic stability and environmental health. This ensures that regular people can still have a stable life in spite of changing circumstances.

Early warning systems:

Systems that are designed to give an early warning in case of a crisis or disaster. These systems such as Earthquake detectors, large weather models and Telescopes.

Crisis:

A significant disruption to daily life, posing a threat to health, safety and well-being, often requiring a harmonised and immediate response.

Climate Change:

Long term changes in weather conditions, these changes are primarily driven by human activities such as burning fossil fuels.

Natural Disaster:

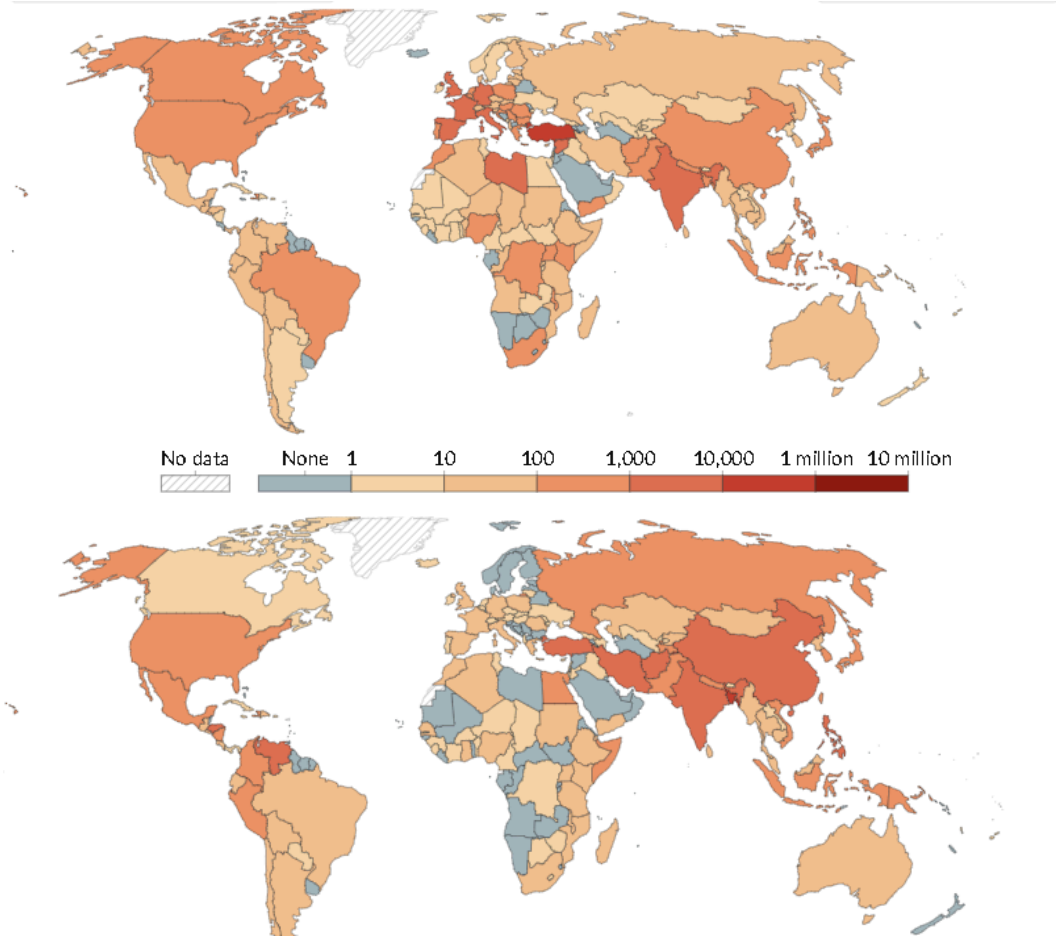
Extreme weather events that cause significant damage and disruption to communities.

General overview

As the earth heats up, we are seeing an increase in the frequency and intensity of natural disasters such as hurricanes, floods, droughts and wildfires. This poses a major threat to nations and communities worldwide, particularly those in vulnerable regions. This also threatens to exacerbate already existing gaps in wealth and livelihoods. Establishing programs to ensure these livelihoods is crucial in mitigating these effects and to create sustainable development.

Current situation:

We are currently seeing that major natural disasters are having a very different impact based on the current economic status of the impacted region. The 2011 Tohoku earthquake only had 19759 Fatalities, whilst being the second biggest of the century. Meanwhile the 2010 Haiti earthquake whilst not even being in the top 10 had more than 160,000 fatalities. This perfectly captures the effects that good planning can have on affected communities.

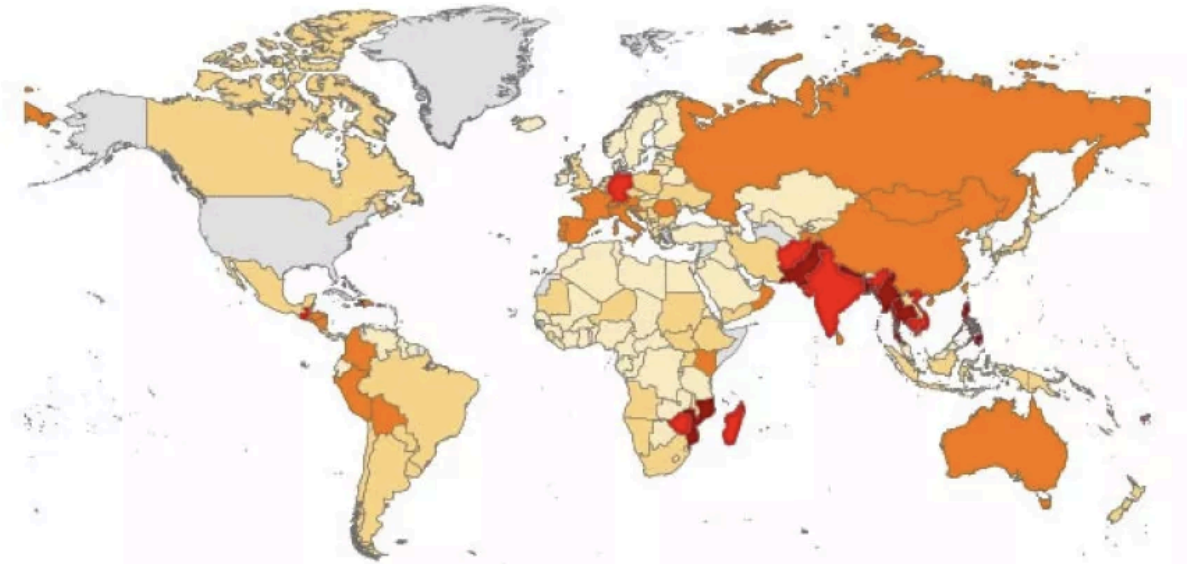


Source: https://ourworldindata.org/natural-disasters Decadal Average annual number of deaths from disasters in 2020

These graphs show the difference in the total number of deaths from disasters between 1990 (below) and 2020 (above). As you can see as countries such as China lift out of poverty, their total number of deaths greatly reduce, even tho their population has increased immensely.

International efforts, such as the Sendai Framework of Disaster Risk Reduction and the Paris Agreement are current attempts trying to solve this crisis. These initiatives have shown that proactive measures can significantly reduce the impact of natural disasters. Early warning systems are also currently being implemented by individual nations but there is yet to be a harmonised Un affiliated attempt at a global implementation.

Despite progress, significant challenges remain. Funday constraints and a lack of political will prove major obstacles in achieving a harmonised response. Furthermore there is also a need for greater coordination and collaboration among individual member nations to ensure a more effective response.



Source: https://www.germanwatch.org/en/cri global climate risk index

This map shows which areas are under a greater risk of disaster. This map does not only take natural disasters into account, but also economic strains that could form in trying to combat climate change. Furthermore this also shows that it is not a localised problem and a nation such as Turkey, which had a great amount of casualties in 2023 is one of the least affected nations.

Changing weather patterns is also proving as a pain point. We are seeing an increased amount of irregularity in rain patterns, which is creating more drought and worse harvests in some areas. In some areas there is an increased amount of rain, which is creating dangerous situations such as mudslides.

Key Components of Resilience Programs:

Effective resilience programs typically include these key components:

1. Early Warning Systems
2. Risk Assesment
3. Sustainable Practices
4. Policy Integration at all levels of goverment

5. Community Engagement
6. Global Cooperation

Importance of Livelihood Resilience

Livelihood resilience is crucial to ensure that communities that are affected by natural disasters can quickly recover without major negative consequences to the economic status of civilians. Natural disasters can devaste local economies by destroying infrastructure, homes and businesses. It is important to maintain economic stability and reduce long-term economic impacts of disasters. Disasters can also disrupt supply chains which can lead to food shortages and surge pricing. Moving from a Just in time supply system to stockpiling products with a long shelf life in expectation of natural disasters could help mitigate this disaster.

Programs aimed at enhancing livelihood resilience can help mitigate the adverse effects of natural disasters and climate change, ultimately contributing to more sustainable and resilient communities. As the impacts of climate change continue to grow, the importance of establishing and strengthening livelihood resilience programs.

Major parties involved

The USA: The United States is the largest industrial power of our time. The country has recently kickstarted its transition to green energy and is (at the time of writing) a major proponent of green energy, hosting many heavy hitters in the area in its borders, such as Tesla and NextEra Energy. (After November sixth, all of the above may have changed!)

The PRC (China): The People's Republic of China is the second industrial power in the world at this point in time and is expected to grow further in the next century. The country emitted 30% of global CO2 in 2022, dwarfing all other countries in comparison. The country is innovating quickly on electric vehicles.

India: The Republic of India is a major emitter, emitting 3520 megatons of CO2 in 2022. India is a nascent economic power and her emissions are expected to grow even further in the coming years.

Russia: The Russian Federation is a major producer of raw resources and a major emitter of carbon. Russia has a lot to lose from climate plans, because the majority of their exports are coal, oil and gas, and may wish to sabotage climate negotiations.

Great Britain: The United Kingdom of Great Britain and Northern Ireland is not as large of an emitter as the other states on this list, emitting only 384 tonnes of CO2 in 2023. It does however host major oil companies such as Shell, and has major sway in the Commonwealth of Nations.

Saudi Arabia: The Kingdom of Saudi Arabia is one of the most important producers and refiners of oil and is also a major emitter of CO2. The country has made some minor steps towards a green transition, but has mostly paid lip service to the concept.

EU: The European Union is the only party on this list that is not a country. It is instead a supranational organisation of independent states. It has made major strides towards a green transition, like passing the Green Deal. It is perhaps the strongest proponent of wind, nuclear and solar power on the world stage at this moment.

Timeline of Key Events

June 1972: Establishment of the United Nations Environment Programme, an organisation within the UN responsible for coordinating responses to environmental issues

1992-1993: Establishment and ratification of the United Nations Framework Convention on Climate Change, an international treaty among countries to combat "dangerous human interference with the climate system".

17 December 2018: The United Nations General Assembly affirms the Global Compact on Refugees, which acknowledges that climate, environmental degradation and natural disasters increasingly interact with the driving forces behind refugee movements

22 June 2022: Bangladesh faces the worst floods in 122 years, affecting 4,3 million people directly.

6 February 2023: A M_w 7.8 earthquake struck southern and central Turkey and northern and western Syria, affecting 23 million people

Previous attempts to solve the issue

In 2010 the United Nations Development program (UNDP) proposed the 3x6 structure. The name reflects its functions, consisting of 3 guiding principles (Inclusion, ownership and sustainability), each principle having 2 sequential components (6 total). With this approach UNDP aimed to build resilience by providing more income opportunities, promoting savings and investment in sustainable communities.

(https://www.undp.org/sites/g/files/zskgke326/files/publications/BROCHURE_3x6_Toolkit_Building_resilience_through_jobs_and_livelihoods.pdf)

In 2021 the World Bank introduced an action plan on Climate Change Adaptation and Resilience. It has 3 core objectives, being boosting adaptation financing; driving a mainstreamed, whole-of-government programmatic approach and developing a new rating system to create incentives for, and improve the tracking of, global progress on adaptation and resilience.

(https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2021-09/World%20Bank%20Group's%20Action%20Plan%20on%20Climate%20Change%20Adaptation%20and%20Resilience.pdf)

In 2010 the Climate and Development Knowledge Network (CDKN), a global initiative was established. They hope to help decision-makers in developing countries design and deliver climate compatible development. To do this CDKN offers plenty of resources including research papers, policy briefs and case studies.

(https://cdkn.org/)

The Global Climate Change Alliance Plus (GCCA+) is a flagship initiative of the European Union established in 2007. This initiative aimed to fund multi-year programs that support climate change adaptation and mitigation.

(https://capacity4dev.europa.eu/groups/gcca-community/info/1-about-gcca_en)

Possible solutions

1. Helping communities establish early warning systems, develop emergency response plans and other forms of disaster preparation and risk reduction.
2. Engaging and educating the public, and ensure the entire community is included.
3. Researching climate resilient agriculture to help secure food sources. (https://www.downtoearth.org.in/agriculture/climate-resilient-agriculture-systems-the-way-ahead-75385#:~:text=Climate%2Dresilient%20agriculture%20(CRA)%20is%20an%20approach%20that%20includes,farm%20incomes%20under%20climate%20variabilities.)
4. Creating international laws on the subject to enhance cooperation
5. Meeting the key requirements as laid out in General Overview

Further Reading

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2. https://www.undp.org/publications/building-resilience-through-livelihoods-and-economic-recovery
3. https://policy-practice.oxfam.org/resources/toward-resilience-a-guide-to-disaster-risk-reduction-and-climate-change-adaptat-297422/
4. https://www.youtube.com/watch?v=dQw4w9WgXcQ

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MOST IMPORTANT SOURCE ↓↓↓↓↓↓

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