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### IMPACT OF NATURAL DISASTERS ON EMERGING ECONOMIES

Abstract: this article explores the impacts of natural disasters which effects development in emerging economies like destruction of infrastructure, losses in agriculture , unemployment, education, bad impacts on health.

Key words: natural disasters, emerging economies, government debts and disaster identification.

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### ВОЗДЕЙСТВИЕ СТИХИЙНЫХ БЕДСТВИЙ НА СТРАНЫ С РАЗВИВАЮЩЕЙСЯ ЭКОНОМИКОЙ

Аннотация: в данной статье рассматриваются последствия стихийных бедствий, которые повлияли на функционирование развивающихся экономик,

такие как разрушение инфраструктуры, потери в сельском хозяйстве, безработица, образование, негативное воздействие на здоровье.

Ключевые слова: стихийные бедствия, развивающиеся экономики, государственный долг и идентификация стихийных бедствий.

The broadest economic impact of natural disasters emerges in an emerging economy. Rather than continuing progress, usually it takes so much of time for developing. Some immediate impacts resulting from natural disaster include:

- Destruction of infrastructure (about 20-50%): roads, bridges ,water systems and power plants these all gets damaged and usually interrupt economies , daily life and travelling facilities . Repairing them may take many years and may costs national budgets down.

- Losses in agriculture (about 19%): In most emerging economies usually agriculture forms a back bone to countrie's economy; droughts, floods, and hurricanes this natural calamities destroys all the crops and livestock and thereby this decreases the farmers income and leave communities food short.

- Unemployment (about 5%): destruction of business, factories and other sources of employment pulls many people into poverty and can effect countries economic stability. In this case the small business gets more effected and usually in smaller and undeveloped countries the small business have priority but due to natural disasters these people get more effected and get more poverty.

- Education (about 10-30%) : due to destruction of schools , may students get dropped out of the school . Often, families suffering financial distress have children stay home to help rebuild or earn income

- Impacts on health (5-10%): Poor sanitation, access to medical care, and displacement lead to outbreak diseases; while, survivors have a larger psychological toll which is mostly ignored.

Douse yourself in unmanageable housing and displace thousands of families into temporary overcrowded houses. This over time leads to the formation of informal settlements with substandard living conditions. [1].

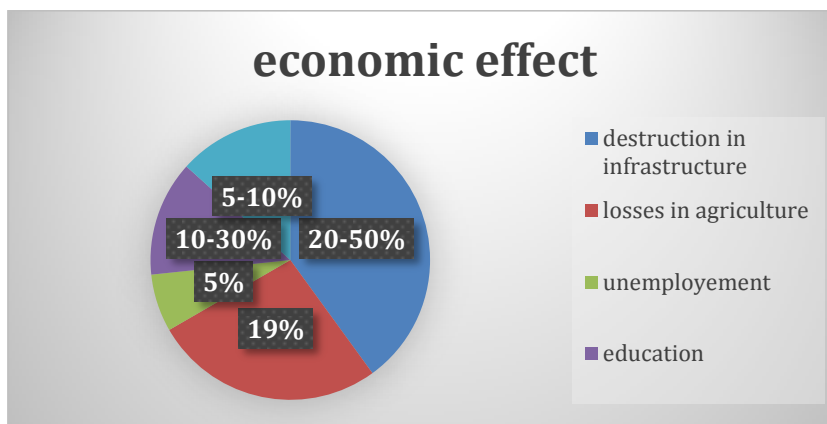


Figure 1 - The broadest economic impact of natural disasters emerges in an emerging economy

Global Average: 2-5% of government debt is attributed to natural disasters.

Regional Breakdown:

1. Asia: 5-10% of government debt is attributed to natural disasters.
2. Latin America: 3-6% of government debt is attributed to natural disasters.
3. Africa: 2-5% of government debt is attributed to natural disasters.
4. Europe: 1-3% of government debt is attributed to natural disasters.

Country-Specific Examples:

1. Japan: 10-15% of government debt is attributed to natural disasters, primarily earthquakes and tsunamis.
2. United States: 2-5% of government debt is attributed to natural disasters, primarily hurricanes and wildfires.
3. Indonesia: 5-10% of government debt is attributed to natural disasters, primarily earthquakes and volcanic eruptions.
4. Philippines: 3-6% of government debt is attributed to natural disasters, primarily typhoons and earthquakes [5].

Climate change is already worsening due to the increased frequency of natural disasters. Rising sea levels and severe weather patterns, affect developing economies the most because they usually lack the infrastructure and financial resources to adapt.

1. Disaster Resilient Infrastructure: Construction of buildings, roads, and energy systems stronger and with climate nature resilience can reduce damage and save lives.

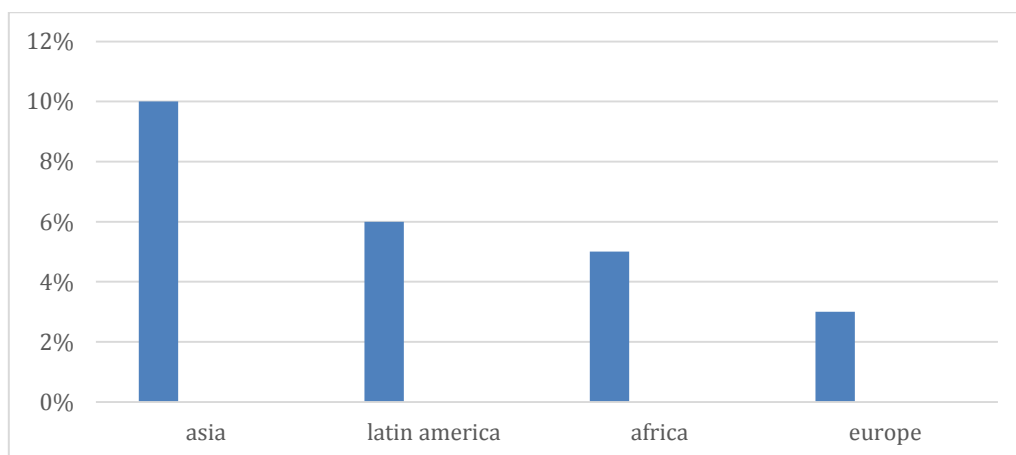


Figure 2-Regional breakdown of different countries

2. Early Warning Systems: New and modern technology together with campaigns to create audience awareness would help communities prepare for disasters so as not to face the full blunt of the disaster.

3. Diversified Economies: By venturing into areas such as technology and manufacturing, economies will lessen their dependence on agriculture while at the same time make them more resilient.

4. International Support: Global organizations might come forward as the distributor of funds and technical help toward preparing and recovering from disasters by fogging emerging economies.

5. Insurance Schemes: Disaster insurance to farmers, businesses, and vulnerable communities can shield the financial harm and speed recovery [2].

In recent years, the world has witnessed devastating natural disasters that have claimed thousands of lives and inflicted massive economic damage. The 2004 Indian Ocean tsunami, which affected several Southeast Asian countries, resulted in over

200,000 fatalities. Similarly, the 2010 Haiti earthquake claimed approximately 230,000 lives. According to the Emergency Events Database (EM-DAT), the frequency and severity of natural disasters have increased dramatically over the past three decades. Between 1970 and 2012, the world experienced around 10,000 natural disasters, affecting over 7 billion people and causing estimated damages of over \$2 trillion. From an economic growth perspective, the impact of natural disasters is not straightforward. Traditional neoclassical growth models suggest that the destruction of capital drives countries temporarily away from their balanced-growth path. In contrast, endogenous growth models provide less clear-cut predictions. Some models, based on Schumpeter's creative destruction theory, even suggest that natural disasters can accelerate re-investment and upgrading of the capital stock, leading to higher growth rates (Cavallo et al., 2013; Loayza et al., 2012). However, the actual impact of natural disasters on economic growth remains a topic of ongoing research and debate [3].

Disaster identification involves recognizing and classifying potential disasters based on their characteristics, severity, and impact.

#### Natural Disasters:

1. Geological Disasters (earthquakes, volcanic eruptions, landslides, rockfalls)
2. Hydrological Disasters (floods, droughts, storm surges, tsunamis)
3. Meteorological Disasters (hurricanes, tornadoes, cyclones, blizzards, heatwaves, cold waves)

#### Man-Made Disasters

1. Technological Disasters (industrial accidents, nuclear accidents, chemical spills, oil spills, transportation accidents)
2. Societal Disasters (wars, conflicts, terrorism, civil unrest, riots)
3. Biological Disasters (epidemics - infectious diseases (e.g., COVID-19, Ebola; pandemics; animal-related disasters (animal attacks, insect infestations, animal-borne diseases)

4.Environmental Disasters (pollution-related disasters, climate-related disasters) [4].

In conclusion, natural disasters have a profound and far-reaching impact on the economy, particularly in emerging economies. The destruction of infrastructure, losses in agriculture, unemployment, impacts on education, and effects on health all contribute to significant economic challenges. The data highlights that 2-5% of government debt is attributed to natural disasters, with regional variations and country-specific examples demonstrating the substantial economic burden. Furthermore, the importance of mitigation strategies cannot be overstated. Investing in disaster-resilient infrastructure, implementing early warning systems, diversifying economies, providing international support, and establishing insurance schemes are all crucial steps in reducing the economic impact of natural disasters. It is essential for governments, international organizations, and local communities to work together to develop and implement effective strategies for disaster risk reduction and management. By doing so, we can minimize the economic burden of natural disasters and promote sustainable economic growth and development. Ultimately, the economic impact of natural disasters is a pressing global issue that requires immediate attention and collective action. By understanding the effects of natural disasters and implementing proactive measures, we can reduce the economic vulnerability of emerging economies and promote a more resilient and sustainable future for all.

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