Date: __/__/____

Brain Storming

③ climate change mitigation
② disaster-resilient infrastructure
① Improve environmental governance

way forwards

② limited human role in some disasters → asteroid impacts, deep-sea volcano
① Nature's inherent Unpredictability ↳ Japan

counter arguments

Natural Disasters: Urah or Nature or man-made Crisis?

Man-made Crisis → Why?

① climate change intensifying disasters → cyclone (I.O), hurricane (atlantic)
② deforestation and land degradation (31%, Pak floods)
③ development and disaster-deadly combination → england, America (51 in 10) → harvey + Mumbai, Karachi
④ poor environmental governance → vietnam, Pak
⑤ Population pressure and settlement in risky zones → Dhaka, Manila
⑥ Industrial pollution and global warming
⑦ Destruction of mangrove forests → Indian ocean 2004 cyclone
⑧ Overexploitation of natural resources → china, poland, south Asia

Time: 12:10 – 3:05

Date: 17/10/25 English Essay (Sir Ali Shahab)

Mahnoor khan
RWP-08-74

Natural Disasters: Wrath of Nature or Man-made Crisis?

Outline

1. Introduction:
   - 1.1. Hook
   - 1.2. Background
   - 1.3. Thesis: Mother Nature's wrath is inevitable and sometimes unpredictable, but natural hazards, when intersect with human activities and vulnerable assets result in deadly and disasterous outcomes. Climat change, deforestation, infrastructure in the path of natural disasters, poor environmental governance and population pressure are some factors which convert nature-born hazards into human-made crisis.

2. Why are Natural Disasters Man-made Crisis:
   - 2.1. Climate Change Intensifying Disasters
     - 2.1.1. Intense cyclones in Indian Ocean and Hurricanes in Atlantic Ocean.
   - 2.2. Deforestation and Land Degradation
     - 2.2.1. only 31% forest covers left
     - 2.2.2. Deforestation in Northern Areas of Pakistan – intense floods of 2022, 2025

Date:__/__/____

2.3. Development and Disaster- Deadly Combination
- 2.3.1. Urban flooding in Mumbai, Karachi
- 2.3.2. 1 in 10 houses in England in disaster prone areas
- 2.3.2. Hurricane Harvey - America

2.4. Poor Environmental Governance
- 2.4.1. Case study of Vietnam
- 2.4.2. Pakistan's failed disaster management

2.5. Population Pressure and Settlement in Risky Zones.
- 2.5.1. Role of social vulnerabilities in shaping the outcome of disasters
- 2.5.2. Coastal - construction of Dhaka, Manila

2.6. Industrial Pollution and Global Warming
- 2.6.1. Intense heat waves
- 2.6.2. Glofs in Himalaya

2.7. Destruction of Mangrove forests
- 2.7.1. 2004 cyclones in Indian Ocean

2.8. Overexploitation of Natural Resources
- 2.8.1. Mining triggered earthquakes in China and Poland
- 2.8.2. Water Scarcity in South Asia

3: "Wrath of Nature" – Counter Perspective

3.1. Nature's Inherent Unpredictability
Rebuttal: Successful steps taken by Japan

3.2. Limited Human Role in Some disasters
Rebuttal: Asteroid impacts, deep sea volcanic eruptions - Rare disasters

Date: __/__/____

4. Way Forward.
   - 4.1. Improve environmental Governance
   - 4.2. Disaster resillient Infrastructure
   - 4.3. Climate Change Mitigation

5. Conclusion

The Essay

When a 7.0 magnitude earthquake in Haiti killed 200,000 people, and an even stronger 8.8 magnitude earthquake in Chile killed only 500 people, it became clear that mother nature is not cruel but it is human's carelessness which increases death and destruction. Every year, nearly 60,000 people lose their lives to such natural disasters. It is true that natural hazards are inevitable and unavoidable but human history has shown how negligance on the part of humans has intensified the outcomes of such hazards. Poverty, ethnic discriminations, social inequalities further exacerbate the disaster's outcome by forcing poverty affected people and marginalized communities into disaster-prone areas. United Nations Office of Disaster Risk Reduction (UNDRR) has repeatdly warned human settlements in disaster-prone areas makes human societies more vulnerable to disastrous outcomes of such calamities. Hence, it will not be wrong to claim that Mother Nature's wrath is inevitable and sometimes unpredictable but

Date: __/__/____

natural hazards, when intersect with human achvities and vulnerable assets result in deadly and disasterous outcomes. Climate change, deforestation, infrastructure in the path of nature, poor environmental governance and population pressure are some factors which convert nature-born hazards into human-made crisis.

The first and foremost contribution in the intensification of natural disasters is of rapidly changing climate patterns. Since the past few decades, human achvities have severely interrupted the natural system's working. Humans, through urbanization, land degradation, industrial revolution, exploitation of natural resources, deforestation have disrupted the climate patterns and have triggered a massive change in precipitation patterns, seasonal variation, glacier melting, unprecedented floods, wild fires and ecosystem distruction. Intense cyclones in Indian ocean and devastating hurricanes in Atlantic are a stagsering example of how human's intervention can intensify natural disasters. Rise in temperature of ocean surface provides moisture for cyclones and hurricanes to cause even more devastating outcome. Hence, until climate patterns continue to change the way they are changing today, such intense natural disaster can't be avoided.

Date: __/__/____

Deforestation and land degradation further intensify disasters. Half of the World's surface was once covered with forest cover but today only 31% of earth's surface is covered with forest. Trees act as natural buffers to stop or reduce the intensification with which water flows from upstream. These trees are also responsible for preventing soil erossion. With massive cutting of trees, not only are humans intensifying the destruction caused by floods but also causing soil erosion and land degradation at an alarming pace. The intense floods of 2022, 2025 in Pakistan had far worse impacts in terms of death and destruction because of massive scale deforestation in northern areas of Pakistan. Had there been more forest cover or trees to stop the intense inflow of waters from upstream, the derastating impacts of these flood could have been avoided.

Unchecked development and construction when intersects with disasters proves to be a deadly combination. Poor building code enforcement and construction in disaster prone areas by humans plays a major role in shaping the outcomes of disasters. The poor infrastructure and lack of an efficient water drainage mechanism in cities like Mumbai and Karachi result in destructive urban flooding. This urban flooding not only disrupts normal day-to-day activities of citizens but also causes disease outbreaks like diarrhea, dengue etc.

Poor infrastructure and town planning in some developed countries is also contributing to devastating outcomes of natural disasters. In England, one in ten houses are constructed in disaster prone areas. Similarly, the Hurrican Harvey in America also exposed the vulnerability of America's infrastructure and poor development patterns in dealing with natural disasters. Hence, until construction and town planning is not properly regulated, the impacts of such disasters will continue to put the lives and possessions of many in danger.

Hazards are inavoidable but disasters can be managed if effective policies and their regulation is made possible. Poor governance in terms of environment has played a major role in triggering disasterous outcomes of natural hazards. lack of adequate and effective policies, unregulated town planning and construction, disregard for environmental issues exacerbate the death and destruction caused by natural disasters. In Vietnam, for hydropower construction projects, many low-income and ethnic minority communities have been forced out of safe areas and are forced to

Date: __/__/____

settle in disaster-prone areas. Recent natural disasters, have severly caused death and destruction in these marginalized settlements but despite being aware of this, the government and policy makers of vietnam continue to show negligance and have failed to change their development approach. The recent floods of 2025 in Pakistan are a staggering example of how failed disaster management can cause deaths and destruction beyond control. Hence, strict enforcement of building codes, efficient policies and their regulation is the need of the hour.

Population explosion has also forced human settlement in risky zones which puts the life and assets of many at stake. These social vulnerabilities play a major role in shaping the outcome of disasters. Income inequalities, inflation and poor standards of living results in creation of "parallel societies", where in one part of city people enjoy all urban facilities and are safe from major impacts of natural disasters, but on the other hand, those forced to settle in coastal areas or slums are more prone to death and destruction. These social inequalities make one faction of society more vulnerable to wrath of disasters. Many coastal settlements in Dhaka and Manila put the lives of many at risk of death due to intense cyclones in these geographical areas. Hence, until population explosion

Date: __/__/____

and population triggered settlement in risky zones is not managed, natural disasters will continue to take the lives and assets of many, further pushing people below the line of poverty.

Industrial pollution is the biggest challenge mankind has to face today, because not only is it negatively affecting the health of humans, it is also triggering global warming. Harmful chemicals released by industries create a layer in atmosphere and trap heat thereby increasing the temperature of Earth. Global warming has completely changed the climate patterns of precipitation and have triggered the worse droughts mankind has had to witness. 2025 was a year of intense heat waves not only in the southern hemisphere but also in the north, and if it continues in years to come, disasters like intense flood will become intense, inevitable and unpredictable. Recent events have highlighted the intense pace at which glaciers in Himalaya are melting resulting in Glacial lake outburst flooding (GLOFs) which have severly impacted Pakistan and Nepal. Hence, if industries continue to pollute environment, human activities will exacerbate global warming, intensifying natural disasters and the distruction they bring along with them.

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Destruction of mangroove forests and other water bodies e by humans have also interrupted the nature's buffer mechanism. Mangroove forests play a major role in dissipating wave energy and intensification, hence reducing the destructive nature of cyclones and floods. The intense destruction caused by 2004 cyclones in Indian Ocean was directly caused due to destruction and replacement of ~~the~~ coastal mangrove forests with construction of buildings. Nature has created its own defence mechanisms but when humans interfere in nature's system, death couldn't be avoided. Hence, preservation of mangrove forests is crucial for controlling damage caused by natural disasters.

Overexploitation of natural resources in the form of mining, drilling and irrigation using underground water disturbs the Earth's crust. Overexploitation of resources can also trigger disasters and other disasterous outcomes associated. For example, there have been many earthquake incidents in the past few years because of excessive mining and drilling in China and Poland. Extensive mining and drilling is directly associated with disturbance created in Earth's crust and tectonic plates. Similarly, overuse of underground water for irrigation and agricultural purposes have resulted

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in water scarcity in South Asia. Hence, human activities such as mining, drilling, if unregulated and extensive can disrupt nature's system.

A counter perspective to associating natural disasters with man-made interventions is ~~by~~ associating natural disasters ~~with~~ as "wrath of nature" and claiming Humans have very little part to play in disasterous outcomes of such calamities.

Many argue that nature is inherently unpredictable and disasters such as earthquake, tornado, volcanic eruptions, flood can't be controlled by human interferance. Though, it is true that these disasters are born of nature but what makes them disasterous is human vulnerability. Earthquakes don't kill, it is vulnerable infrastructure which kills many and destroys assets. The best example of which is how Japan has successfully built climate and disaster resilient infrastructure by strictly following building codes. Due to strict enforcement of building codes and efficient disaster mangement and early warning systems, Japan has now impressively reduced the number of casualties caused by harmful natural disasters.

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There also exist another counter narrative that humans have very limited role to play in some disasters like asteroid impacts, deep sea volcanic eruptions. But, the point here is that such events are extremely rare and such rare disasters can not undermine the role humans play in trissering other massive and frequent natural disasters such as earthquake, floods, heat waves, tsunami, cyclones etc. Such rare natural disasters can not justify negligance on the part of humans to curb the disasterous impacts of more frequently occuring natural disasters.

There still exists hope, if humans try to reverse the irresponsible decisions they have taken, collective effort can reduce the impacts of these disasters. Humans, in the past have been able to take responsible actions and curtail disasterous outcomes. Joint effort and strict policy enforcement can resolve the issue of disaster-prone destruction and help tackle human vulnerabilities to natural disasters.

The most important step humans can take in this regard is to improve their environmental governance. By introducing efficient disaster-risk management authorities, efficient early warning systems, strict enforcement and regulation of ~~by~~ disaster resilient building codes, awareness and training programs of

Date: ___/___/_____

general public, reforestation of mangrove forests and associated policy implementation, the disasterous outcomes of natural hazards can be avoided.

By investing in disaster resillient infrastructures casualities and destruction to assets can be effectively reduced. Construction should only be allowed in zones safe from disasterous impacts. Infrastructure close to coastal areas should be strictly restricted. Vulnerable assets close to coastal areas should be shifted to areas safe from destructive impacts of natural disasters. By adopting building codes japan has introduced to effectively reduce disaster's negative impacts, other underdeveloped countries can also benefit.

The last but not the least, major trigger of natural disasters and destruction is climate change. By taking steps to successfully mitigate climate change Glofs, unprecedented floods, droughts, disturbed precipitation patterns and biodiversity loss can be dealt with. In this regard, strict regulations on capitalists to reduce their carbon footprint, collective efforts to introduce policies and raise funds to build disaster resilient environment can help effectively reduce the number of casualities caused by disasters of cruel nature.

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Natural hazards are inevitable, but it is human's influence which shapes the outcomes of such natural disasters. This can be more of a source of hope than despair. Because if it is humans who possess the ability to turn natural hazards into crisis, they possess the ability to reverse their irresponsible actions to re-establish an environment which is safe for humans and all other living forms. By improving environmental governance, building disaster resilient infrastructure, taking steps to mitigate climate, introducing early warning systems and raising awareness among general public on how to deal with sensitive disaster-prone situations, humans can indeed reduce the number of casualities these disasters bring along with them. There exists solid evidance where countries by taking efficient steps have reduced their vulnerability to natural disasters. Japan has introduced efficient building codes and early warning systems to deal with earthquakes. Netherland has introduced efficient water draining system and flood resistant infrastructure. Bangladesh has taken steps to reduce the vulnerability of its coastal areas to the devastaty cyclones of Indian ocean and has shown progress. These examples suggest that even though mother nature's wrath can be unpredictable and inevitable at times, but by taking proactive steps, humans can reverse their irresponsible actions and policies and come up with a way to convert and shift this man-made crisis into a disaster-resilient and safe environmental, which can ensure the survival and well being of all that inhabit it.