Summer project 2013 essay examples

Environment, Water

Introduction

Flooding is one of the hydrological disasters, which is mainly an overflow of a vast water mass subsequently submerging land and causing destruction to property. A natural disaster constitutes an adverse or negative environmental event, resulting from unusual earth or geological processes and usually causes harm to for example; property damage, loss of lives and general population displacement. For the overflow to be termed as a flood, it must have submerged land which is under normal circumstances not covered by water. Therefore the flood water must occupy the land normally used by man for other purposes, for example farming or even submerging a village.

Though floods usually lack consistency in their occurrence, they mostly happen in the rainy season in flood prone areas, particularly the long rains in the tropical countries. Most floods usually develop or swell slowly, while others can happen suddenly or within few minutes. These are called flash floods and they happen even without visible signs of rain or precipitation. Examples of slow developing floods include the river bank floods, whereby river water increases in volume following a series of heavy downpour. Consequently, the whole river basin becomes flooded as the water no longer follows its main course. The flash floods mainly happen as a result of busting of dam walls or dykes (Thompson 2004). This sudden flow of water causes severe damage as it sweeps nearly everything in its way. Therefore, apart from the flash floods, the slow swelling floods can be predicted to occur during the rainy season, though this largely depends on the amount of rainfall in the particular season. Flash floods are not common since they

occur accidentally and have no defined pattern of occurrence. But in some cases, they can be caused by localized heavy rain or a series of storms over a period of time.

Floods have many adverse effects on human lives and the economy. Primarily, floods cause loss of lives and damage of property and infrastructure. Loss of leaves usually develops from drowning of humans or even livestock. This happens mostly where villages or residential areas get submerged by slow rising floods, and the people become overwhelmed by the flood water before the rescue team arrives. Also, deaths can result from people being washed downstream by the flash flood water. Another effect on the human life is the loss of a livelihood, where the flood water submerges farms or even drowns livestock. Disruption of a lifestyle is also another direct effect on human lives. Blocked roadways, destroyed homes and general displacement have an adverse on human lives causing discomfort and thus lowering productivity (Powell 2009).

Also, broken power lines cause inefficiency in human activities consequently hindering productivity. In the event or flooded sewer line or burst water pipes, humans are at risk of contracting waterborne diseases for example cholera, typhoid, amoebic dysentery and others depending on the flood location.

There also exist many effects of floods on the economy. These range from the actual infrastructure damage to the rescue costs and relief supply costs. Damages on the roads usually cost the governments a lot of money to repair, while on the other side the disruption of power supply due to broken transmission lines slows down the economy by lowering industrial

productivity. Transport disruption also makes delivering of relief more costly and hinders rescue activities making the involved governmental bodies to employ more costly measures like airlifting supplies. Flood water also makes the land unworkable, thus lowering agricultural productivity which in turn stunts the economy by reducing the export product.

Among the deadliest flooding disasters is the great Central China Floods of 1931.

This was a lot of floods that happened in the Republic of China, where the death toll ranged from 145000 to 4 million deatHs. These massive floods had been caused by a combination of meteorological causes. The causes included heavy winter storms succeeded by a spring thaw and excessive rainfall which made river levels rose significantly. Together with extreme cyclones and increasing amount of rainfall, the Haui and Yangtze rivers rose, flooding the areas around and affecting more than 28 million people. Causes of death included drowning, waterborne diseases, infanticide. In some cases, flood victims grew desperate and sold their wives and daughters, and cases of cannibalism were also a cause of the deaths. (Pietz 2002)

Another flood case study is the 2000 Mozambique flood.

This catastrophe was caused mainly by the heavy downpour in February and March of the year 2000. It is estimated that 800 people lost their lives in as the heavy rain lasted for five weeks. Many people lost their homes and were forced to sleep in temporary shelters. The Mozambican naval vessels began rescuing people from rooftops, trees and other high grounds while the South African government offered its air force helicopters to airlift aid and rescued people. Due to disruption of agricultural activities, children died of starvation

while the economy suffered a major blow the farm produce constituted its main exports. Schools were closed and the education system was adversely affected and slowed down. Consequently, the Mozambique government requested 450 million dollars aid from the international community to build and restore the damaged infrastructure.

In India, four consecutive days of torrential rainfall left the Mumbai city flooded in July 2005.

Many civilians were affected as landslides and flood water swept off their homes and destroyed major transport facilities. Many villages were submerged and the displaced people took refuge in makeshift shelters in Shirovane and Ambedkar Nagar areas (O'Connor 2004). Some workers were stranded in their offices for up to three days due to the destruction of the infrastructure. Volunteers and governmental disaster management authorities swung into action to supply the affected with basic necessities. The economy was negatively affected as the submerged businesses took time to re-open, and also transport had been paralyzed.

The above shows the flooding in the five major continents with Asia recording the highest and Australia the lowest by decades.

Conclusion

The importance of acquiring information about such disasters is that the concerned bodies can predict patterns of occurrence thus enhancing their disaster preparedness and management measures to counter such events. These disasters have increased in number and intensity over time. This is partly due to the rise of construction activities which if not properly monitored degrade the drainage system making it difficult to drain flood

water. Also the increased farming activities along river banks lead to bursting the banks leading to flooding. However, all is not lost as the government can impose construction regulations directing contractors to leave space for drainages, to get rid of runoff water. Also construction of high dams and dikes can greatly reduce the occurrence of such disasters by managing run-off. In the event of such disasters, the concerned bodies can therefore try to mobilize resources quick enough to stage rescue operations and save lives.

References

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