Hurricane Dorian

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Tropical cyclones are observed to be formed over the Warm Ocean. It has been evaluated by the meteorological departments that a tropical cyclone is formed usally at the equator. Warm and moist air formed above the surface of the ocean moves upwards near the surfaces. As the air moves upwards, it leaves the cold air near the surface and moves away from the ocean. It shows that the movement of warm and moist air in the upward direction creates a low pressure zone below. This low-pressure area is then replaced by the air from the surroundings as high pressure air moves into the area. This cool and high-pressure air is also converted into moist and warm air and it rises from the surface. The formation of hurricane is the process in which cyclone continuously formed over the surface of the ocean (Perry & Nigg, 1985). The warm air movement in the upward direction causes the cool air to move towards the clouds and the system of clouds starts moving with the air. The entire system of winds, air, and clouds starts moving in a circle from bottom to upward direction with speed. The formation of the eye occurs in the center of the cyclone. Center of the cyclone is an area of lower pressure air and the surrounding is a high-pressure air (Le Page, 2019). It is important to understand the impact of the natural disaster on the lives of the people and how they can prepare themselves for such disasters in the future.

**Impact of Cyclones and Hurricanes on Communities**

Cyclones consist of heavy air, rain, and winds along with a high-speed hurricane. The pressure of the cyclone is of such high intensity that it can damage everything in contact including buildings and homes. The speed of the cyclone is higher than normal wind therefore, it causes greater destruction. Most affected areas due to hurricanes are coastal areas and populated areas.It damages grounds, homes, and systems that are working in the communities, for example, the water system, electrical system, and transportation system (Fagel & Watson, 2019). It brings heavy rain and a cloud of high-speed wind that causes the destruction of homes and buildings. The cyclones destroy communities and societies by pressurized air and it take all of the building material with them. The communities and societies are affected in the most destroyed and damaged form therefore; people of the communities have been observed lost from homes. The cyclones of this intensity can destroy thousands of homes.

Communities are observed to be scared and depressed due to the high-intensity cyclones and hurricanes. High alert team and groups of communities have shown that cyclone is destructive and it causes people's health resulted in depression, stress, and shock. Children and adults are observed to be most affected as they usually spend time in their surroundings. Schools, colleges and universities are affected because of the transportation system. Electric supply and water supply is damaged and people suffer (Le Page, 2019). Thousands of people spent time outside their homes and many remained lost. Studies have shown that this intensity cyclone is destructive in nature that causes the communities to severe level health and physical loss. Communities and people attending healthcare facilities have been observed to be depressed and stressful because of the lost loved ones and family members. The health of the people is severely affected as they remain in shock for hours. Children and older people are observed to be most affected individuals among communities due to natural catastrophes as they are weak and have no strength to control and manage themselves in case of a natural disaster (Louissaint, 2019).

Cyclones caused massive destruction to transportation services. High alert emergency services for 24 hours were activated however, transportation services were severely damaged. Due to the transportation issue people remained stuck in locations without water and health facilities. The researchers have shown that people cannot move from one place to the other because of destroyed systems of transport and roads. Communities have been found in shock and terror for days and even months. Healthcare facilities remained alert for delivering emergency services to people. Children and adults were observed to be most affected both physically and psychologically. Schools, colleges and universities are affected because of the transportation system. Electric supply and water supply were damaged and people suffered. Thousands of people spent time outside their homes and many remained lost. Studies have also shown that this intensity cyclone was destructive in nature that causes the communities to severe level health and physical loss. Communities and people attending healthcare facilities have been observed to be depressed and stressful because of the lose of loved ones and family members. The health of the people was severely affected as they remained in shock for hours. Different organizations such as worldwide healthcare administrations provided services to the damaged areas due to natural disasters.

**Assessment**

Communities have reported voluntarily provided services were less efficient and effective due to cyclones as people were scared to move outside and therefore natural disasters resulted in massive destruction at all levels. The unlimited and massive number of deaths have been observed in the case of high-intensity hurricanes of this type. Major affected zones were tropical areas, coastal areas and total destruction of transportation and building (Louissaint, 2019). A complete and entire damaged to places and oceans caused damage to this level that it cannot be recovered in years. Heavy rain in the cyclones caused damage to the building materials. Aftermaths including people and building remained under the influence of damage and loss. Damage to trees and grounds, severe and localized damage due to high-intensity winds and heavy rainfall caused destruction at an extensive level (Fagel & Watson, 2019). Major zones that were declared as the most vulnerable zones include Alabama, Connecticut, Maryland, New Hampshire, new jersey and Florida. Major cyclones and hurricanes that have struck the United States are hurricanes of Hawaii and California. According to an estimation, 296 cyclones have been recorded as the major hurricanes in the United States that have caused massive destruction. Pennsylvania and Rhode Island have also been observed and recorded with Hurricanes and cyclones of high intensity (Le Page, 2019).

Other strongest hurricanes of the Atlantic Ocean are Irma, Janet, Dean, Cuba, Maria, and David. These are named according to the years and ranking was based on the intensity of hurricanes. Communities and people of all ages are observed to be affected due to cyclones and hurricanes. It has been observed that healthcare facilities are present however people are unable to reach and avail that services because of the damaged transport system. High alert police and armed forces are appointed in the affected areas in case of a natural disaster (Perry & Nigg, 1985).

**Disastrous Event “Hurricane Dorian”:**

Hurricane Dorian is the most powerful tropical cyclone in the history of the Bahamas. It is recorded as the worst natural disaster for the people of the Bahamas. Not only for the Bahamas, but it is recorded as one of the intense hurricanes in the Atlantic Ocean. The record indicates that it was a one minute sustained winds, with winds peaking at 185 mph (295 km/h). In addition, the lower pressure was recorded at 910 mbar. It was the second hurricane of the year 2019 but was major than the first one. Hurricane starts forming on the 24th of August 2019 while dissipated on the 10th of September 2019 (Louissaint, 2019). The area that affected due to this natural disaster includes Eastern Canada, Lesser Antilles, Southern Greenland, Bahamas, Abaco Islands, and Iceland. Hurricane traveled towards Grand Bahamas with the same pressure and inexorable winds remained in the area for about twenty-four hours (Le Page, 2019). It became the cause of death and damages in terms of infrastructure and the environment. Thousands of trees were damaged due to the long stay of the hurricane which in the future can cause various other environmental hazards in the area.

Absolutely worst scenario occurred when Dorian passed over the Bahamas. In its tracks, there was less or more stopped dead which was alarming for the area. It was slow-moving but time duration became the main cause of major damage. More than 70,000 individuals remained left and homeless due to the cyclone. The cyclone was produced in the Atlantic Ocean from Tropical waves in the month of August. On August 28, the hurricane enthused over the Lesser Antilles and developed into a storm north of the Greater Antilles (Perry & Nigg, 1985). Dorian continued to endure quick escalation in the subsequent days to range the highest peak as a Category 5 storm by 185 mph speed of one-minute sustained winds and on September 1, the least fundamental compression of 910 millibars (26.87 inHg) (Fagel & Watson, 2019). Various environmental analysts believe that Dorian is caused due to climate change. Increase in the emission of carbon dioxide and other toxic chemicals affecting the ozone layer. The impact on the ozone layer is causing an increase in world temperature. In the case of Dorian, greenhouse gases got trap between oceans and the atmosphere. Therefore, the increase in heat leads to an increase in the atmosphere-ocean system which causes floods, heatwaves, and hurricanes like Dorian. There is research going on which assumes that hurricane due to climate change occurs within the human-warmed climate. If it turned to be true then it is crucial to consider climate change as an issue which is decreasing the life chances of humans and other living beings in the world (Louissaint, 2019).

**Preparation for Natural Disaster**

Hurricane Dorian can be stronger than before therefore, people should understand the sensitiveness of the issue and remain prepare for it. Dorian can be stronger from category 2 hurricane to category 4 hurricane in the area of southeastern U.S and Bahamas. A disaster like Dorian not only creates sudden damages but also leaves a long and lengthy process to bring lives back to normal. Due to the flood, there can be power outrage and due to high winds trees felled which can destroy transportation (Le Page, 2019)n. It is not important to have a high profile setting for the preparation of disaster instead of having a range of basic products that can save lives. The following are the products that people should keep in stock to decrease human damage.

**Do Not Get Panic and Use Common Sense**

One of the leading causes of high damage is the panicking of the people during disaster. They get panic and lose their senses at the time when they actually need quick responses and decisions to keep themselves safe (Fagel & Watson, 2019). Therefore, the first preparation for a disaster like Dorian is to keep calm and use common sense. It is important for people to understand the situation without fear and terror and respond to the disaster accordingly.

**Water**

Water is a basic necessity that becomes the reason for death during a natural disaster. The individual should always keep stock of a water bottle in such a quantity that each family member can get one gallon per day. This is really important as a human can survive without food and other necessities for long but without water, it becomes difficult for a human to stay alive.

**Food**

The second most important product is food. During Dorian people were stuck to homes and other official buildings as it was not possible to go out and travel. In such a case, non-perishable food should be stored as it becomes difficult to cook food during the disaster. Not only for people but food for pets should also be stored,

**Strong Communication Plan**

People should arrange a list of numbers that can be helpful in the time of emergency. They should know where they can meet with their relatives or even business member if the cellular system gets damaged. For the purpose, it is better to designate the out-of-area relative where all other relatives can go to ensure the safety of each member. For business members, everyone should acquire basic information like email addresses, spouse contact detail or some other emergency contact number so that people can reach their colleagues or employees.

**Utilities**

During the hurricane, Dorian researches indicate that the number of people died due to electric shock and leakage of gas. Therefore, it is necessary for the people to understand how and when they need to turn off gas, water, and power services to avoid any emergency. The set of necessary equipment and tools should be present in the house for quick shutoffs (Randolph & Lafferty, 2019). Once people turn off the service they should not turn it on until they get some professional person for it.

**Cash**

During a disaster, there can be the least need of cash as everyone tries to be saved instead of making money. However, just after the disaster, people need to buy different things like medicine and food which needs money. Therefore, it is important to keep a fair amount of cash for emergency purchasing.

**Automobiles**

People should keep their gas tank filled whenever they get a warning and should not drain car battery charging cellphones and other devices.

**Preparation by the communities**

The way individuals use planning and preventions for any natural disaster, communities should also take measures for future hazards to reduce the chances loss (Randolph & Lafferty, 2019). For this purpose, following strategies are useful to make communities prepare for the disaster like Dorian.

**Awareness and Knowledge about Disaster**

Due to fear and panic people become unable to respond correctly during a natural disaster due to a lack of knowledge. It is the key to reduce death, injuries and other damages (Le Page, 2019). The government should introduce various programs that can be arranged in schools, offices and even residential areas where officials can tell about the impact of natural disasters and how people can control damages. For the purpose, household survival plans can provide important knowledge of hazardous events to the community. Community-wide preparation and training should be encouraged by the administration. Schools, government organizations, community and church groups, business and neighborhood organizations, hospitals and medical groups, and the media should all be involved.  
**Role of Media**

Media is playing an important role in the lives of people. They get information regarding current events and the influence of media, like television and social media is great. Therefore, communities can take the help of media especially social media to train citizens regarding the prevention. Through visual impact, people can learn quickly and efficiently rather than the oral or written content. Media can teach people how to handle the situation at the time of natural disasters like Hurricane Dorian.

**Development of Private Organization**

In each nation, there is a government organization that works during the natural or man-made disaster and ensures the safety of the citizens. For instance, in America, FEMA is the organization that provides first aid to the people during the emergency and works after the disaster for recovery. However, in various cases, it has been observed that these organizations become less effective and efficient to cope with the issue which increases the chances of damages. Therefore, communities should develop some private organizations that can work with or without government organizations to help people during disasters.

**Hazard Mitigating planning**

It reduces the risk to citizens and material goods along with a reduction in the cost of recovering from a disaster. A hazard mitigation plan is crucial for the communities to become more sustainable and disaster-resistant by fixing efforts on the threats, disaster-prone areas and recognizing suitable mitigation arrangements. The planning method is as essential as the plan itself. It develops a structure for risk-based decision making to diminish damages to lives, property, and the economy from future disasters. Hazard mitigation is sustained action taken to decrease or abolish long-term risk to citizens and their property from hazards.

**Conclusion**

Hurricane Dorian was one of the most intense cyclones in the Bahamas. The cyclone was one of the most powerful and intense cyclones recorded in the Atlantic Ocean. Hurricane Dorian was recorded as strong storm that had continued sustained winds at a speed of 185 mph. Dorian hurricane was intense and hit the region of Bahamas and surronding started from the north and sustained for 24 hours. The catastrophe was one of the most striking and disastrous natural disasters recorded. More than 70,000 individuals became homeless due to the cyclone. The Drine was started in the Atlantic Ocean from Tropical waves in the month of August. On August 28, the hurricane moved over the Lesser Antilles and developed into a storm north of the Greater Antilles. Dorian continued to endure quick escalation in the subsequent days to range the highest peak as a Category 5 storm by 185 mph speed of one-minute sustained winds on September 1. It was made with at least fundamental compression of 910 millibars (26.87 inHg). The health of the people is severely affected as they remained in shock for hours. Different organizations such as worldwide healthcare administrations provide services to the damaged areas due to natural disasters. For such a disaster, people and the whole community should be prepared for damages. Communities need to know how to protect themselves from natural disasters particularly from cyclones and hurricanes. The community needs to establish cells that train people and communities regarding safety and protective measures. People should be trained to avoid damages from hurricane and hurricanes and stay at the shelter. It is not important to have a high profile setting for the preparation of disaster instead they should have a range of basic products that can save lives including food, water, tools, first aid, and communication plan. People should be moved to higher latitude level because cyclones and hurricanes usually affect ground areas. Communities should be moved to higher areas to protect them. Countries highly prone to natural disasters need to be aware of the precautionary measures.

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