***MODULE 1 ASSIGNMENT Cover Page***

***Course Name: Diploma in Disaster Management***

***Course Code: D015***

***Student Name: Michael***

***Word Count: 2371***

1.With relevant examples define the following

a) Disaster management

According to the International Federation of the Red Cross and Red Crescent Societies disaster management “can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters” (About disaster management, n.d). For example, India have a disaster management strategy in response to floods during monsoon season as the presence of a flood has is seen as “not inevitable; they are preventable and often the consequence of poor land planning” (Rao, n.d). As a result, Government of India launched their own national policy (Disaster Management Act, 2005) which states its purpose is “to provide for the effective management of disasters”.

b) Hazard

A hazard is something that is a danger to human life this in relation chemical or nuclear substances. An example of this include the infamous Chernobyl incident of 1986. In this case a nuclear power plant exploded which saw deaths as well as radioactive effects to be found up to 1600 miles away from the scene as well as the evacuation of 135,000 people from the area. It is still illegal to live in Chernobyl today (Module 1 notes, n.d).

c) Emergency

An emergency is a “serious, unexpected and often dangerous situation requiring immediate action” (oxforddictionaries.com, n.d). An example of an emergency in terms of disaster management would be the event of the earthquake in Haiti in 2010 and the subsequent response following the incident. The effects of the earthquake in distress in terms of medical resources as 60% of health facilities were ruined alongside 10% of medical staff were either killed or fled the situation. The response to this tragedy saw over 91 million euros donated for emergency relief (msf, 2010).

d) Disaster

Due to the diverse nature of a disaster a variety of incidents can be defined as such. These incidents can come in the form of a natural disaster, this involves elements of the environment out of human control. Examples of these types of disasters includes floods, earthquakes, bushfires, landslides, tsunami’s, drought, volcanic eruption and cyclones (Module 1 notes, n.d). However, this just covers what we know as a “traditional disaster”. Since the late 1940s we have come to understand that disaster includes man made events such as civil unrest, terrorism, high jacking and conflict with conventional arms (Module 1 notes, n.d). The key defining factors in what classifies an event as a disaster is four-fold. This is that they “cause grievous human casualties, economic and social loss and damage to the environment” (Module 1 notes, n.d). A disaster can also cause disruption to essential services, damage to property, disruption to production, damage to national and infrastructure and disruption to governmental systems, and psychosocial after effects (Module 1 notes, n.d).

e) Vulnerability

According to be in a state of vulnerability is to be at risk of being attacked or harmed (en.oxforddictionaries.com, n.d). In the context of disaster management California would be an example of vulnerable state as they have 6 million dollars’ worth of funds dedicated to wildfire recovery with funds dedicated to supporting those who have lost their homes, employment and suffered physical or mental health problems because of fire devastation (Wildfire Relief Fund, 2019).

f) Risk

A risk is a situation that has the potential to become a disaster or misfortune. For example, it would be a risk to live on the coast of Bangladesh as there are a reported 22 sites at constant risk of a disaster as “riverbank erosion is one of the major natural disasters” (Siddique, 2019). A news reported stated that the country was reported to be in danger of losing 2,270 hectares (Siddique, 2019).

2. Explain the challenges facing disaster management in developing countries.

Developing countries have a set of unique challenges in terms of disaster management. One of them being the fact that as they are still developing as a country a large portion of government spend will go towards the development of the country in terms of education, healthcare and employment leaving little in reserve in the case of a disaster. As a response to this they often have had to rely on international donor countries and organisations to help in the event of a disaster (Module 1 notes, n.d). In addition to this, opportunities for a good quality of life are so low that people have had to settle in areas which are at risk of disasters such as floods and islands which are vulnerable to sea inundation. The problem does not stop there however as the inundation destroys the crops via over salinity causing food shortages, which could lead to famine and eventually people having to seek refugee status (Module 1 notes, n.d).

3. Identify three types of disasters and explain the counter measures to be taken for each of

them.

The types of disasters I am looking to explain will be a mix of natural and man-made disasters.

One type of disaster is a Volcanic Eruption.

This sees an eruption of lava causing damage to structures and the surrounding environment. This can also include damage to crops which could see a food shortage as well as airborne ash (Module 1 notes, n.d) which puts air travel at risk as was documented by the 2010 Icelandic volcano eruptions. This event causes mass global disruption as all air travel was grounded due to the presence of volcanic ash clouds which saw 107,000 flights cancelled over 8 days resulting in about 10 million passengers inconvenienced (Bye, 2011). Despite the disruptive capabilities of volcanos, they are quite predictable allowing experts to prepare for it. In preparation for an eruption the authorities can issue evacuation plans allowing them to relocate people in a timely and orderly fashion. They can also develop a monitoring and warning system to be able to detect the threat of an eruption (Module 1 notes, n.d).

Another type of disaster is a Tropical Cyclone.

A cyclone can be identified by its circular shape often reaching up to 200 miles in diameter, the eye, the eye wall and the rain band (Zehnder, n.d). The event of a cyclone is one that sees an intense storm from the sea which happens typically in “low atmospheric pressure, high winds and heavy rain” (Zhender, n.d) Landslides followed by flooding are a likely bi product of a cyclone as well as destruction to major buildings, roads, essential services as well as loss of life and livestock (Module 1 noted, n.d). The intensity of a cyclone is such that the storms can range between 74 and 150 miles per hour (Zhender, n.d). Although these events can be cataclysmic their damage caused by them can be controlled to a certain extent. Authorities can plan to control the devastation as they tend to be seasonal as they appear “Every year during the late summer months (July–September in the Northern Hemisphere and January–March in the Southern Hemisphere)” (Zhender, n.d). This allows them to put precautionary measures in place such as boarding up buildings, closing public facilities, moving people as well as providing the correct education and awareness to the public (Module 1 noted, n.d).

The third and final type of disaster I am going to describe is a wildfire.

Although a reported 80% of wildfires are started by people a quarter of the largest 20 wildfires in California history have been attributed to nature whilst two are currently under investigation are under control (fire.ca.gov, n.d). The reason why I have picked California as case study for wildfires is because they are the state reported to have suffered from the second most wildfires in 2017 with experiencing 9,560 and 9,827 respectively (iii.org, n.d). Wildfires tend to spread rapidly in high wind and temperatures. Due to the rapid spreading nature of the fires the devastation can be brutal as the effects can see destruction to buildings, livestock and human life (Module 1 notes, n.d). However, the fires tend to happen seasonally and in wildfire prone areas so with adequate preparation the ferocity of the fires can be minimised. This can happen by educating the population to ensure that they know what to in the event of a fire. Authorities also have access to effective monitoring and warning systems which will allow them to make an accurate risk assessment (Module 1 notes, n.d).

4. Using your own examples, explain the importance of having trained personnel in effective

disaster management.

It is extremely important to have trained personnel in order to execute effective disaster management as first and foremost their expertise will be invaluable in the challenge to a disaster. On the contrary, in the event if a disaster an unexperienced volunteer could be a hinderance rather than a help (Module 1 notes, n.d). This was the case in July 2018 as during the rescue of a soccer team in Thailand it was reported that “overzealous volunteers working on own arrived on site and began pumping water into the ground, forcing it back into the partially flooded Tham Luang Nang Non cave in northern Thailand” (Hjelmgaard & Bacon, 2018)They attempted to drain the cave, however they inadvertently ended up doing the opposite, this was a method that they had taken upon themselves without the authorisation of the operation commander (Hjelmgaard & Bacon, 2018)

5. Outline the steps/processes in the disaster management cycle with the help of a diagram

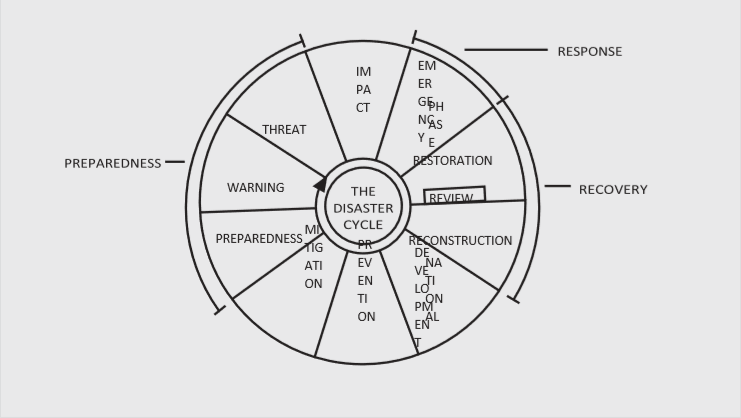
The disaster management cycle essential a loop of steps that take place in the event of a disaster. The most important factor of cycle is to illustrate that each step continues one from the other and that the cycle is non- stop (Module 1 notes, n.d). This is due to the fact that disasters tend to happen in the same places over again meaning the management is a cycle as shown in figure 1 below.

Figure 1

The properties of the cycle should include the preparedness, this stage takes into account the warning and threat. The following section is the impact of the disaster. This is followed by the response and recover stages which comprise of the emergency phase, restoration, review and reconstruction. This is subsequently followed by redevelopment, prevention and mitigation before eventually rounding back off to the preparedness stage (Module 1 notes, n.d).

The preparedness phase is the point where in which the government and relevant authorities have their chance to prepare for the disaster by setting up counter measures in order to ensure they are ready for action in the event of a disaster (Module 1 notes, n.d). This step can involve detecting the threat, public education and awareness, warning systems as well as training and tests exercises. This can also involve taking precautionary action such as closing public spaces such as schools and offices, storing food and water supplies as well as cutting crops to limit the damage (Module 1 notes, n.d).

The following step on the cycle is the impact stage which is exactly that, the point of the disaster.

Next, we have the response phase. At this point first, we have the emergency stage where we see the counter disaster plans in action, the evacuation of the surrounding population, delivering emergency services in the way of food shelter and medical assistance (Module 1 notes, n.d). This part of the cycle sees the beginning of the restoration stage which leads in the recovery phase. This entails measuring the rehabilitation status of those in the aftermath of the disaster. It also includes starting the rebuilding/ replacement of houses and buildings (Module 1 notes, n.d).

Subsequently we have the redevelopment phase. This point in the cycle seeks to ensure that the effects of the cycle are analysed and considered when the development for a national policy on disaster management (Module 1 notes, n.d). This phase includes building that can withstand the effects of disasters typical to the region such as earthquake resistant buildings in Japan (ealestate-tokyo.com, 2018).

6. What are the impacts of disaster management on National Development?

Due to the unforgiving nature of a disaster the impact it has on national development is far reaching as it has the sudden impact as well as the long-term effects that come with the tragedy. This means that for countries prone to disasters they must dedicate a large portion of their national development strategy towards disaster management. First and foremost, the government need to acknowledge the need to have a clear policy in the event of a disaster (Module 1 notes, n.d). This is clear in the case of Uganda who have been subject to disasters in the way of floods, drought, earthquakes and more as over the last 20 years and as a result in 2014 produced “The National Policy for Disaster Preparedness and Management” (ug.undp.org, n.d). This is a document produced to control the damage caused by disaster as it “the extent of the country’s vulnerability to hazards and covers a range of policy actions that allowed the country to make the strategic shift from an emergency response orientation to a comprehensive disaster risk management approach” (ug.undp.org, n.d). This impacts the national development of the country as a large amount of time and effort has been spent to produce effective measures in disaster management as it had become clear that the frequency and severity of the disasters had stunted the development of the nation because that disaster has on a country. Such as the current plan and budget for development having to be put aside as funds must be reallocated to manage the disaster (Module 1 notes, n.d). In addition to this, the creation of a national policy for disaster management impacts national development as it takes top government minister time to plan and create such a document. Although this is a necessary process as a nation must do so to minimalise the damage done by a disaster. This process will severely slow down national development in comparison to countries who don’t have to dedicate resources to the creation of such as task take time and money from a national budget. Not only this but national resources such as farmland, schools, medical facilities as well as major exports are at risk of destruction by disaster.

Bibliography

References

[www.fire.ca.gov/communications/downloads/fact\_sheets/Top20\_Acres.pdf](http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Acres.pdf)

About disaster management (n.d) - IFRC. Retrieved from <https://www.ifrc.org/en/what-we-do/disaster-management/about-disaster-management/>

Bezpiatchuk, Z. (2018). The people who moved to Chernobyl - BBC News. Retrieved from <https://www.bbc.co.uk/news/resources/idt-sh/moving_to_Chernobyl>

Bye, B. (2011). Volcanic Eruptions: Science And Risk Management. Retrieved from <https://www.science20.com/planetbye/volcanic_eruptions_science_and_risk_management-79456>

Diver dies in Thailand cave rescue attempt. (2018). Retrieved from <https://www.bbc.co.uk/news/world-asia-44734385>

Emergency Definition of emergency in English by Oxford Dictionaries. Retrieved from <https://en.oxforddictionaries.com/definition/emergency>

Emergency response after the Haiti earthquake: Choices, obstacles and finance Médecins Sans Frontières (MSF) International. (2010). Retrieved from <https://www.msf.org/emergency-response-after-haiti-earthquake-choices-obstacles-and-finance>

Facts + Statistics: Wildfires (n.d). Retrieved from <https://www.iii.org/fact-statistic/facts-statistics-wildfires>

Fires & Wildfires (n.d). Retrieved from <https://texashelp.tamu.edu/browse/by-type/naturally-occurring/fires-wildfires/>

Hjelmgaard, K., & Bacon, J. (2018). Thailand cave rescue: Former Thai navy SEAL dies from lack of oxygen. Retrieved from <https://eu.usatoday.com/story/news/world/2018/07/05/thailand-cave-race-drain-water-caverns-before-new-rains-arrive/758692002/>

Ltd., P. (2018). Earthquake resistance of buildings in Japan - PLAZA HOMES. Retrieved from <https://www.realestate-tokyo.com/news/earthquake-resistance-of-buildings-in-japan/>

Rao, J. Preparing for the monsoon (n.d). Retrieved from <http://unicef.in/Story/293/Preparing-for-the-monsoon->

Siddique, A. (2018). Bangladesh may lose 2,270 hectares of land to erosion. Retrieved from <https://www.dhakatribune.com/bangladesh/environment/2018/07/09/bangladesh-may-lose-2-270-hectares-of-land-to-erosion>

The Disaster Management Act, 2005. (2005). Retrieved from https://ndma.gov.in/images/ndma-pdf/DM\_act2005.pdf

Twigg, J., & Mosel, I. (2017). Emergent groups and spontaneous volunteers in urban disaster response. Environment And Urbanization, 29(2), 443-458. doi: 10.1177/095624781772141

vulnerability Definition of vulnerability in English by Oxford Dictionaries. Retrieved from <https://en.oxforddictionaries.com/definition/vulnerability>

Wildfires Information and Facts. (n.d). Retrieved from <https://www.nationalgeographic.com/environment/natural-disasters/wildfires/>

Wildfire Relief Fund - California Community Foundation. Retrieved from <https://www.calfund.org/wildfire-relief-fund/>

[www.fire.ca.gov/communications/downloads/fact\_sheets/Top20\_Acres.pdf](http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Acres.pdf)

Zehnder, J. tropical cyclone (n.d). Definition, Causes, Formation, and Effects. Retrieved from <https://www.britannica.com/science/tropical-cyclone>