



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 8 Issue: VIII Month of publication: August 2020

DOI: <https://doi.org/10.22214/ijraset.2020.30921>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Research on Flood

Harshit Gaur

Final year student B.tech (fire technology and safety) IES IPS Academy, Indore

I. INTRODUCTION

A disaster which causes so, much loss of property and also become the reason of death for many lives and that disaster is named as flood. In 1931 china faces a deadly flooding due to which around 2,000,000 to 4,000,000 people got died. At that year china faces a series of flood from June to august. It was also named as 1931- yangtze-huai river floods. This flood hits major cities of china like Wuhan, Nanjing and many other cities. After that a second most disaster able flood that was faced by India in the state of Uttarakhand in 2013 in which around 5748 people got died and around 4.550 villages were got affected the reason behind this drastic disaster was the cloudburst in that state. In India many states such as Bihar, and north-east states have to face this type of disaster every year. There are many reasons behind the happening of such disaster and that are overflowing river, breaking of dam or heavy rainfall. Floods not only effect on human health and environment. It also effect the economic activity. It occurs in hydrological cycle.

A. Causes of Flood

The causes of floods are divided into three parts and that are Meteorological, Hydrological and Anthropogenic causes. In meteorological cause floods are result of extreme, intense and long duration of floods and the phenomena are like prolonged and intense rainfall, cyclones and typhoons, storms and Storm tide. Ice and snow melt, impermeable surfaces, saturated land, Poor infiltration rates and land erosion are some causes that are consider in Hydrological causes. After all the causes that are categorized than population growth, urbanization, climate changes, global warming and unplanned flood control these factors are categorized in the anthropogenic causes among all the factors mankind is the only important factor that causes a vital role in magnitude and frequency of floods in many other ways

B. River Flood

River flood can be caused by two reasons and that are due to heavy rainfall in large region or due to melting of snow. The river flooding might be caused by connectivity of different rivers to one river. Generally these types of flood occur slowly and these types of floods are seasonal and remain for many days and might be for many weeks. Presence of moisture content, Depth of snow, vegetation cover is some of the reasons that may also lead to flooding in river. River flooding has both advantage and disadvantage like two a coin have two faces. Disadvantage of floods are like loss of property and crops and many more but the advantage of this type of flood are the soil that lost their nutrients due to agriculture gets back its nutrient with the help of flooding and the regions that have watershed ecosystem and depends on flooding gets their water level increase with the help of flood. River flooding is of two types:-

- 1) Slow onset Flood: This type of flooding last longer. In this type of flooding people gets time to evacuate that region as soon as possible.
- 2) Rapid onset Flood : These type of flood occur in those rivers which have some slop or mountains with slop when heavy rainfall Happens. These floods causes due to immediate rush of water with high velocity from slope mountains. Due to this type of flood property and crops of people get damage badly. The rapid onset flood can be cause due to some obstacles that are may be natural or man-made.

II. FLASH FLOODS

This type of floods occurs in flat regions and is a fast speeding flood. It occurs in flat areas like rivers, dry-lakes and can be caused by heavy rainfall with hurricane; severe thunderstorm and the water obtain by melting of snow. This flood occurs for few hours like about 6 hours.

A. Diseases Caused by Flood

Every year when the flood comes it also take some diseases with them like malaria and many more but due to so many diseases related to flood it is divided into two forms that are water borne diseases and vector borne diseases in water borne diseases typhoid fever, cholera, leptospirosis and hepatitis A like diseases are introduce and in vector borne disease malaria, dengue and dengue haemorsphagic fever, yellow fever and west Nile fever are introduced in this category.

B. Vector Borne Diseases

Water that gets deposited by heavy rainfall at one place helps mosquito to breed and produce more mosquitos that helps to increase the chance of spread of dengue to the population that got stuck in that particular place the symptoms that a person shows when a person got suffered by malaria is his body feels like fever, tiredness and headache in some serious cases malaria can take life of a person or may make the skin yellow. The other Disease that is categorized in vector borne is dengue it is also caused by mosquitoes that are produced by steady water in this disease patient feel fever, headache, vomiting, muscle and joint pains usually these symptoms are shown in three to fourteen days after infection in serious cases of dengue patient gets low level of blood platelets and bleeding is also seen

C. Water Borne Disease

Microorganisms, bio toxins and toxic contaminants are the factors that are present in water and cause water borne disease. When the climate changes floods and many similar disasters also comes. These organisms get produced due to water that gets polluted. In this type of disease typhoid fever cholera and many other diseases are categorized in it. In typhoid fever salmonella paratyphi type bacteria is present. These types of bacteria are present in water or food and get spread to other person. It is an acute disease. In cholera it is an infection that is of small intestine. In this disease minor to major symptoms are seen. In it vomiting and muscle cramps are seen.

D. Flood Control Measures

Control of any disaster whether it is flood or earthquake or any other disaster management and control of it works on mitigation, preparation, recovery and response. On these key components management is done to control the disaster. In mitigation a pre plan is made that if any disaster happens then what steps are to be taken before it happens to save lives of many person. In preparation government employees like disaster management team make people aware that what they should do at the time of any disaster by giving proper training to them and arranging mock drills and many more such programs. In response it is planned that in much less time the disaster team can response to the location and save people lives and at last in recovery it is discussed that how government can help those people who got affected in these disaster by giving people physical infrastructure and supporting them emotionally economically are consider in recovery.

E. Specific Plan

A specific plan should be made for proper safety in this plan firstly it is seen that in disaster prone area which area is safe and how much time will be consumed to reach that area and making people aware that citizens of that area have to reach that specific place by giving training to them at regular interval and managing mock drills. So, that they get trained about what they have to do at that time

F. Situational Awareness

A situational awareness should be given to people of that area in this they have to give training that if anything happen then don't take decision in fear and without thinking. They have to first stop at place and think which side is safe and secure .what equipment they have to take to save their lives and then they should act.

III. CONCLUSION

At last for many years some states of India have to survive from flood in every monsoon and have to lost many lives and faces many economic problems by giving them proper training about what they have to do at that time and making aware them about what proper personal protective equipment they have to take and giving them proper first aid and paramedic knowledge so that if any illness like heart attack or any similar disease occur then they can help or save life.

REFERENCE

- [1] Flood rescue manual by life boats.
- [2] Assessment of the flood influencing factors and their impacts by Deogratias Mzandwa Fortunatus.
- [3] Assessment of Common Health and Social Problems of the Resident in the Core shelter of Tuguegarao city, Cagayan, Philippines.

Websites

- [1] Wikipedia.com
- [2] Resilience.acoss.org.au



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)