

THE IMPACT OF FLOOD ON THE SOCIO-ECONOMIC LIVES OF THE PEOPLE IN POTHUKALLU PANCHAYATH WITH SPECIAL REFERENCE TO KAVALAPPARA AT MALAPPURAM DISTRICTS, KERALA

Pradeep M B	<i>Assistant professor, Post Graduate Department of Economics ,Mar Toma college Chungathara</i>
Rajesh E	<i>Assistant professor, Post Graduate Department of Economics ,Mar Toma college Chungathara</i>

ABSTRACTArticle DOI URL: <https://doi.org/10.36713/epra3191>

The present paper aims to investigating the impact of flood on the socio economic lifes of the people in Pothukallu panchayath with special reference to Kavalappara at Malappuram districts ,Kerala. Kerala is one of the most eligible aspirants for achieving a developed economy status among Indian state. Unfortunately , the unprecedented flood in Kerala in 2018 and 2019 caused extensive damage to houses, public infrastructure, agriculture crops and livestock, livelihood, businesses, eco-system and bio-diversity. The study focus on the impact of flood , effectiveness government support,intensity of flood etc. therefore through convenient sampling method used to data collection through predesigned questionnaire.

KEYWORDS ; *Socio-economic Impact, Climate change, livelihood, Flash floods***INTRODUCTION**

The study focus on the socio economic problems and livelihood of people in Kavalappara Pothukallu Panchayath at Malappuram district ,Kerala.

Floods are common natural disasters that can affect millions of peoples around the world. They destroy houses and buildings, and carry soil away from valuable farming land. Floods can also contaminate drinking water and lead to Diseases. They are often caused by rivers, but over flowing lakes and seas can also cause flooding. Flooding has always been a part of human history. Flash floods are the most dangerous kind of floods, because they combine the destructive power of a flood with incredible speed. Unpredictability flash floods occur when excessive water tills normally dry creeks and rivers, causing rapid rises of water in a short term amount of time.

A Flood is an overflow of an expense of water that submerges land. Flooding may result from the volume of water within a body of water, such as river or lake, which overflows or breaks levees, with the results that some of the water escapes its usual boundaries. while the size of a lake or other body of water will vary with seasonal changes in precipitation and snow melt, it is not a significant flood unless the water

covers land used by man like a village, city or other inhabited area, roads, expenses of farmland etc. Flood are common and costly natural disaster. Floods usually are local, short lived events that can happen suddenly, sometimes with little or no warning. They usually are caused by intense storms that produce more run off than an area can store or stream can carry within its normal channels. Floods can occur at any time, but weather patterns have a strong influence on when and where floods happen. Cyclones or storms that bring moisture inland from the ocean, can cause floods thunderstorm are relatively small but intense storms that can cause floods in smaller streams.

The size, or magnitude of a flood is described by a term called recurrence interval. By studying a long period of flow records for a stream , it is possible to estimate the size of a flood that would ,for example, have a 5 year flood is one that would occur ,on the average ,once every 5 years. Although a 100-year flood is expected to happen only once in a century. There is a one percent chance that a flood of that size could happen during any year. Flooded areas of land usually start off as very dry land. Floods are caused by heavy rains pour too much water in to rivers and other water ways .Making these natural channels unable to carry all the water rising

water flows over or breaks the banks to the waterways causing the surrounding land to be flooded. Different causes of flood can come from masses of snow melting of tidal waves floods are causes not only by rain but also by human changes to the surface of the earth. Forming deforestation and urbanization increase the runoff from rains thus storms that previously would have caused no flooding today inundate vast areas.

On 8th august 2019, due to heavy rainfall in the monsoon season, several flood affected in Kerala as a security measure in the prevailing situation of heavy rains, the government of Kerala had issued red alert in the 9 districts in northern and central kerala, orange alert in 3 districts of central Kerala and yellow alert in southern kerala. as of 14th august 2019, 121 people have been killed due to the floods across the state of Kerala over 2

Lash people have been directly affected by the flood, and have been shifted to 1318 relief camps in different parts of Kerala. The data from the Kerala state disaster management states that, as many as 1789 houses had been damaged fully in between 8 and 19 august, while the number of partially damaged houses is 14542. many people who are feared to be buried alive under them are being rescued. it is still a critical situation as the calamities interfere with rescue operation. Districts that have been severally affected include Wayanad, Malappuram, Kozhikkode, Palakkad, Kannur, Thrissure and Ernakulum districts.

On 8th august 2019, the large the Kavalappara land slide in Malappuram, parts of the western parts in Kerala buried a small community. Whilst rescue operations continue, it has been reported that 46 bodies have been recovered from the debris, whilst it is believed that further 13 people were killed. The land slide was triggered by a period of intense monsoon rainfall. The incessant rain at the disaster area made the search earthmovers arduous in the mud. The meeting also assessed as the bodies completed 17 days under the debris, it is unlikely to find them. Even if there are found, it couldn't be identified, observe the meeting in Kavalappara 48 bodies of 59 missing people were recovered from the debris. 11 more are still under the mud. The decision to end the search taken in all-party meeting held at Pothukallu panchayath auditorium with consensus from the relatives of the missing people, Malappuram district collector Jafar Malik has announced in the meeting that all 11 missing people are considered to be dead and benefits to the relatives of the dead will be availed through a special order of the government. Meanwhile, the government will give 6 lakh for buying land and 4 lakh construct house for those who lost land and house. People can by land of their choice. However, plans are being formed to find land for Adivasi people. They will give 12 lakh each. Geology department is researching the disaster area and the adjacent places to find out whether the location is safe for human inhabitation anymore. In their a hill collapsed and over 100 acre land was trapped under soil here. All the families who were staying there were trapped in the mishap. Even two-storeyed houses are completely under soil. An area in 1 km cannot be seen above the debris. The path leading to the place is completely blocked due to trees falling and mudslip. It wasn't just nature's fury that led to the landslide that claimed lives of around 60 people at Bhoodanam colony near Kavalappara in Nilambur, Malappuram, on Friday. greed of private landowners owning strips on the hilltop. There was a mud slip in the region a year ago after a few individuals who possess large chunks of land on the hilltop razed a portion of

it to create a rubber plantation. This resulted in the loss of the carpet of grass and other foliage on the hilltop as they used earthmovers to level the land. Soon after last year's mud slip, the people in the colony were evacuated by the authorities. Later, a study was conducted by officials. However, the local administration is still not certain about who had conducted the study- Geological Survey of India officials or geologist from the Mining and Geology Department.

STATEMENT OF THE PROBLEM

The study focus on the socio-economic problems and livelihood of people in Kavalappara, Pothukallu Panchayath at Malappuram District in Kerala. Flood and other natural calamities can affect people lives. It leads severe financial problems and large amount of deaths and damages.

On 8th August 2019, due to heavy rainfall in the monsoon season severe flood affected in Kerala. In the flood 121 people have killed due to the flood across the state of Kerala, over 2 lakh people have been directly affected by the flood. And shifted to 1318 relief camps in different parts of kerala. On 8 th August 2019 large landslide happened in Kavalappara. An entire colony of house was washed away in landslide. The region has recorded heavy rainfall during the period.

IMPORTANCE OF THE STUDY

Natural calamities are the most frequent type of disaster worldwide. It can be affected anywhere at any time. 2018 kerala flood has been one of the worst natural calamities of the century. This flood negatively affect the economy of kerala it also badly affected the lives and livelihood of the affected region. Again in 2019 this same were happened. This time it worst affect Wayanad district and Malappuram. In malappuram, Pothukallu panchayath were badly affected. Due to the landslide more than 50 persons lost their life in kavalappara.

The study is important because it assess and the impact of flood in Pothukallu panchayath. The study is also evaluate the role of government authorities and NGOs in flood relief program more importantly the study shows the present living condition of the flood affected families after the unexpected flood and landslide.

OBJECTIVES OF THE STUDY

- To examine the socio economic impact of flood.
- To understand the initiatives taken by government to support the flood victims.

RESEARCH METHODOLOGY

The study was carried out for impact of 2019 flood on the socio-economic life of the people with special reference to Kavalappara in Pothukallu Panchayath, Malappuram district. For this study we used simple random sampling method. This study is mainly focus on Kavalappara the worst affected ward of Pothukallu. For this study we selected 50 samples through convenient sampling method. For collection primary data we use pre designed questionnaire. Secondary data we collected from journals, newspapers, weekly and Wikipedia etc... In this research we use different techniques to analyze and interpret data. Tables, charts, graphs, diagrams were used for interpreting the data.

Primary data

Primary data is data that is collected by a researcher from first hand sources, using methods like surveys, interview or experiments. It is collected with the research project in mind, directly from primary sources that is a source of origin where the data generate.

Secondary data

It is the information that already exists for another purpose. This refers to all those data which are collected for some earlier research work. The secondary data for this work was obtained from published journals, magazine, internet etc....

LIMITATION OF STUDY

1. The collection of primary data required a lot of time.
2. The study is based on sampling technology.
3. Difficulties for getting information from flood victims.

REVIEW OF LITERATURE

Sonule B.B. and Changole V.B. (1999): They stated that, the river floods are the functions of topographic, fluvial and other activity factors. Certain decision-making processes must be followed to mitigate the danger of flood that causes tremendous loss of life and property. The major theme of this paper is to investigate the combined effects of topographic and fluvial aspects, taking the case of Shahanur River, a tributary of the Purna River in Vidarbha (Maharashtra).

Pore A.V. and Lokhande T.N., (2011): The present paper intends to analyses spatial distribution of rural settlements and to identify the direct and indirect factors affecting distributional pattern of rural settlements. For this purpose spatial pattern of size, spacing, village density etc. has been analyzed and correlated with relief, forested area, rural density, net sown area etc. Kolhapur district (MS) has been selected for the study.

Gadgil Alaka and Dandekar Supriya (2001): Author attempted to study the various weather hazards with special reference to India. And analysis of flood events during the last three decades reveals that Assam ranks first followed by Bihar, U.P., and West Bengal. All these states account for 40% of total Floods reported.

Saksena Rashmi (2007): According to this report Bangladesh, a country very vulnerable to floods, saw flash flood and landslides in the Chittagong district take as many as 100 lives and injure more than 60 people. Fish farms and rice fields were devastated and jute agriculture suffered. The capital city of Dhaka was in knee -high water during a recent flood. Due to an active monsoon rainfall 2007 water level in the majority of rivers are fast approaching the danger mark threatening to inundate more districts and areas.

Pau Bimal Kanti and Rasid Harun (1993): Present paper stated that, temporal and spatial patterns of damage to rice crops in Bangladesh resulting from river flooding are analyzed countrywide for the period 1962 to 1988 and at the district level from 1967 to 1988. Flood annually damaged approximately 4% of total rice production.

Kewalramani Gita.(2006): This paper attempts to examine the factors contributing to flooding in Mumbai Suburban District in view of the need to implement a range of measures or management practices, which would help alleviate this problem. This is vital as extreme rainfall events are likely to become more common in future due to climate change.

De U.S. and Dandekar M.M (2001): This paper analyses the data on disastrous weather events like tropical cyclones, severe thunderstorms, tornados and extreme weather events like floods, droughts, heat and cold waves in respect of fourteen major cities in India. The study brings out specific distribution of these hazards across the cities and proposes some measures to minimize the losses from natural disasters.

Sharma D.D. (2006): The present paper is based on the primary as well as secondary data and aims at giving an account of various incidences of flood and their multi-facet impacts on the state. The paper also tries to analyze the spatial similarities and differences in the flood prone areas to find out the policy imperatives for the sustainable development.

Government of India Ministry of water resources Central ground water board (2009): The report show the General information of Dhule district, and ground water information of Dhule district which is including ground water scenario, hydrogeology,

Pande Anita and Jalal D.S. (1997): They stated that geomorphologic aspects connected with the flash -flood. Slope condition, litho-structural setting including presence of major geologic structures like fault and thrust, drainage aspects etc. are studied in detail

PROFILE OF THE STUDY AREA

Pothukal is located on the way to Munderi (Asia's one of the eminent seed garden). In the Nilambur taluk of Malappuram district in Kerala . Pothukal is well known for its

greenery. A beautiful forest, charming, chaliyar river. Pothukal having all its basic amenities such as hospital, school, police station, temple, churches, mosques. Pothukal become a panchayath few years ago and it is awarded as a best panchayth in kerala for its clean and beauty environment.

General details of Pothukal panchayath

Formation year	:01.10.2000
Population	:35334
Area of land	:77sqkm
Male population	:13042
Female population	:14708
Sc/st	:1039/1294

FINDINGS

1. The study shows that number of male headed families are 88% and female headed families are 12%.
2. The study reveals that 52% of House holds under the category of below poverty line and 48% of house hold are under the category of above poverty line.
3. In the case of religion 56% people are Hindus and 32% are belong to Muslims and 12% are Christians.
4. The study reveals that 56% of households earn the annual income of below 10000 and 4% are earn above 40000.
5. The 52% wage labours and 36% of households are doing agricultural activities, 4% of persons are engaged in business activities and 8% are employed under government service.
6. The study shows that 72% respondents have concrete house and 24% have tile houses.
7. It is important to note that the most damaged asset is land. 44% respondents lost their land in flood and land sliding.
8. In the flood and land sliding 20% of respondents were get injured and 28% were infected with various diseases.
9. The very important note is that no one is fully satisfied with the rebuilding process of government. 60% of people were not satisfied with the process.
10. The study reveals that 62% of peoples were still not recovered from flood and only 2% were fully recovered.

11. The study shows that 100% of respondents get the immediate financial assistance that is RS 10000 from the government.
12. Most people lost their valuable certificates such as identity cards, property certificates and educational certificates.
13. The 44% of households are living relief camp as a part of their rehabilitation after that they were goes to their relative houses and rent houses.
14. The study shows that 52% of respondents were escaped by self and 24% respondents says that they escaped by the hands of locals.
15. They are fully satisfied to the relief measures that get from government.
16. They had fear and still shocked due to the land slide and flood
17. The majority people are not satisfy by their rebuilding process

SUGGESTIONS

1. Government should provide financial assistance to those who are not get the immediate financial assistance yet.
2. The government should fast up the rebuilding process.
3. Quarrying and construction should not be allowed in ecologically sensitive areas.
4. Introduce better weather warning system.
5. Construct building above flood water levels.
6. Proper distribution of fund.

CONCLUSION

As discussed under various sectors and across sectors, it is clear from the study that flood had adverse impact on the socio economic status of the people. To a large extent the unexpected flash flood make big loss. And it was the worst flooding in the history of Kerala and more than 70 people lost their life.

Experts say deforestation and reckless commercial interventions on land have destabilised the environment. When rain of extreme intensity pours own, the precarious will inevitably succumb, cause kavalappara hills apparently

colluded with the extraordinary rain in taking so many human lives. Elsewhere in the district too, the situation was no different. Kavalappara, experts suggest, is not a standalone disaster. Nor a once in a lifetime event. Going by the past natural disasters, especially the regular annual land slips, cuppled with the outrageous speed of environmental destruction, it is a road sign to the future.the case kerala the state had been warned several times by the various Indian ecologists, academicians, thinkers and writers that is should take care of the western ghats, a mountain range which stretches through nine districts of kerala and is one of the eight hottest hotspots of biological diversity in the world. But the warnings were ignored. The systematic destruction of the western ghats has serious consequences, threatening down kerala. The destruction of the western ghats has a history, which began way back from pre-independence period.The 2019 flood in kavalappara is partially a man made disaster. The ecological department had a statement about the kavalappara landslide. The reason behind the landslide is breaking of rocks and the mining in quarries.

REFERENCES

1. Economic review. (2018). Kerala State Planning Board, Volume 1.
2. Kerala State Planning Board.(2019,March 5).Economic review. Retrieved from the official website Kerala state planning Board: <http://www.spb.kerala.gov.in>
3. Jeroen Aerts and Wouter Botzen,(2012). Climate Adaptation and Flood Risk in Coastal Cities (Earthscan Climate)
4. Government of India Central Water Commission: Hydrological studies organization Hydrology(s)Directorate. Study Report Keralas flood August 2018.
5. Insights Mind maps.General studies -3 ;Topic - Disaster and Disaster management.
6. The KERALA FLOOD OF 2018;combined impact of extreme rainfall and reservoir storage Article in Hydrology and Earth system science Discussions September 2018