



MIGRATION PERSPECTIVE ON FLOOD SITUATION IN SANGLI AND MIRAJ AREA OF MAHARASHTRA

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ABSTRACT:

Flood is an environmental disaster which is due to heavy rainfall in catchment area of river. Flood is factor of forced migration. In this paper we are studying about the forced migration of the families due to the flood. The quantitative methodology was used for present study. After the analysing the primary data according to methodology we found major findings in study region about migration due to the flood. The findings are related to the duration, economic loss, health issues, migrated place, etc. The flood management and use of the modern techniques are necessary for the same situation. This study will useful for the future government policies related to disaster management.

Keywords: Flood, Migration, Farm, Disaster, Livestock, devastates.

INTRODUCTION:

Flood is most prevalent and costliest natural disaster in the world which devastates both life and economy at a large extent. It is defined as, "High-water stages in which water over flows its natural or artificial banks onto normally dry land, such as a river inundating its floodplain" (*Encyclopaedia, 2 Mar. 2022*). When the hazards, imposed by flood, exceed the coping capabilities of the affected population it become disaster. Environmental disasters are often considered an important driver of migration. Whenever this disasters arrives people have to leave their current places and they have to move at safe places, this movement of peoples from one place to another place is nothing but temporary migration. According to UNESCO, forced migration is "the forced

movement of people, from their locality or environment and occupational activities," with its leading cause being armed conflict.

Literature Review:

Human populations worldwide are vulnerable to natural disasters. Certain conditions such as geographical location or people's income level can affect the degree to which natural disasters impact people's homes and livelihoods. That is due to the natural disaster people have move from their place(Carey, 2005).

Gray and Mueller (2011) studied the different types of disasters can cause different types of migration. Using multivariate events-history models with panel data from Bangladesh from 1994 to 2003, they shows that on the one hand, floods have only marginal effects on migration, on the other hand, crop failures highly influence migration. Finally, they suggest that natural disasters related to climate do not necessarily have an increasing effect on overall migration but can have a long-term effect on migration of rural populations (Gray, 2012).

Ajeet Kumar and Dr. Ashwini Kumar Singh (2018) has found that the flood is both the direct as well as the indirect cause of migration from North-Bihar. The poor development indicators in Bihar are the indirect impacts of the frequent occurring floods and flood-induced disasters. These make life of the people vulnerable and force them to migrate to other places. Following are the few indicators which highlight the impact of flood in general and the causes of migration in particular, poverty, landlessness, education, health, unemployment (Ajeet Kumar, 2018).

Maharashtra experienced abnormally very high rainfall during 25th July to 13thJuly 2019, which resulted in heavy flooding in upper Krishna sub basin especially in Sangli and Kolhapur districts (committe, 2020).Due to the heavy flood situation people moved from that situation and migrated at the safe place.

NEED OF STUDY:

The migration is a universal and widely known phenomenon. The type of migration, its causes, effects and the intensity varies from place to place. The

relationship between environmental disasters and migration is one of the biggest challenges that future generations will face because of changing climatic condition. The effect of environmental disasters on migration is crucial because it has serious implications on economics, demography, and sociology. For the future management of forced migrants and their place of migration, economic condition, social awareness this study is important. Also to avoid the mistakes which are did by migrants, disaster management system and the Government in earlier disaster situation we can prevent them by the studying this topic.

STUDY AREA:

Sangli and Miraj area in Sangli district of Maharashtra State in west-central India. Sangli and Miraj city is situated on the left side of the upper Krishna river basin. Land in this region is suitable for agriculture. It has provided many politicians and bureaucrats and is often referred to as the heaven of farmers. Turmeric, sugarcane, grapes are the commercially important crops in the region. Due to MIDC and other production companies the study region is an economically stable. This area was suffered twice from the heavy natural disaster like flood in 21st century i.e. in 2005 and 2019.

Everyone would like to solve their home problems by own, like that I would like to understand the problems and suggest the conclusion for those problems about my hometown district, that's also the reason behind the choosing this study area.

In the flood situation of 2005, Floods due to incessant rains for one week had submerged selected villages in study area and 577 families who have been migrated to various Government and NGO camps. There are difficulties while migrating people due to continuous heavy rainfall and rising of water level of river.

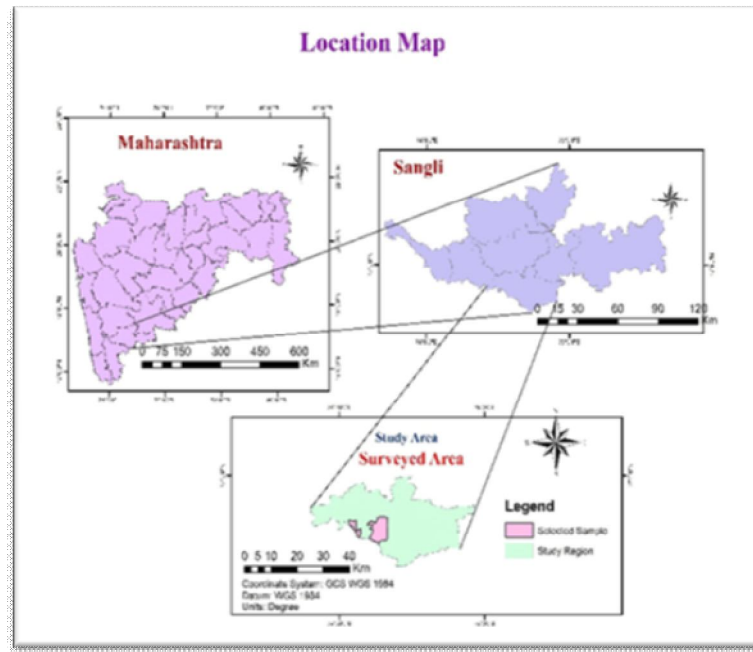


fig. 1

OBJECTIVE:

1. To study the migration of the families from Flood situation of 2019 in Sangli and Miraj area.

DATABASE:

The present study is based on primary as well as secondary data sources. For primary data, structured questionnaire has been followed. The questionnaire covered the information about flood duration, flood level, cumulative economic loss, property loss, farm in flood area, duration and the place of migration, facilities got at migrated place, etc. 50 samples are collected from the various parts of the study area. Simple random sampling and Cluster sampling method is used for this study. The dependent variables such as duration and place of migration, facilities at migrated place are used. The independent variables such as flood level, place of migration are used. The study were based on the situation of 2019 flood in study region.

For the secondary data, various reports, articles, online sources, government websites are used.

METHODOLOGY:

The methodological approach used for this study is quantitative method, as this study generalised the forced migration due to disaster. For the study of flood region with migration perspective we have to collect data about duration at migrated place, time of migration, cumulative loss during flood, conditions at migrated place.

The designed questionnaire was in the form of multiple choice, ranking and open ended questions. Likert scale were also used in questionnaire. For the survey simple random sampling and cluster sampling method were used. An excel tool were used for the arrangement and analysing the data. Text analysis and statistical analysis were did after the arrangement of primary data. By using some arithmetic functions percentages and relations between variables were calculated. Factor analysis were used for finding out the relationship between variables. While studying the migration due to flood situation the relationship between migration variables and flood variables is important.

MAJOR FINDINGS:

Days of flood: Duration of flood in the study area is for not more than the 15 days.

Level of water in the houses: The average level of the flood water on distance of less than 500m is 11.27 feet. The average level of the flood water on distance of more than 500m and less than 1km is 7.39 feet.

Cumulative economic loss in flood situation: In study area 46 per cent of flood affected peoples can't able to calculate how much economic loss they had during flood. There are 20 per cent of peoples who had economic loss in figures of lakh and 34per cent of people had economic loss in figures of thousands (Chart 1).

Property loss: The level of water in the house and the electronic property loss are directly proportional. (Wherever water level is maximum there is loss of electronic property such as Television, Refrigerator, Washing machine, etc.)

The loss of house construction is depended on the type of the construction and also the water level. (The number of mud walls/home fallen is more than that of cement constructed houses).

Farm merged in flood: There are 78 per cent of farmers who had their farm merged in flood, out of those 33 per cent of farmers had a land more than 3 Acers (Chart 1).

Livestock: There is 26.13 percent of the total livestock loss in flood situation because of the migrating the animals to the safe places (Chart 1).

Health issue: There are negligible number of peoples who suffered from the viral diseases after the flood situation. This control is due to well management primary health centres at each villages and supply of medicines to peoples.

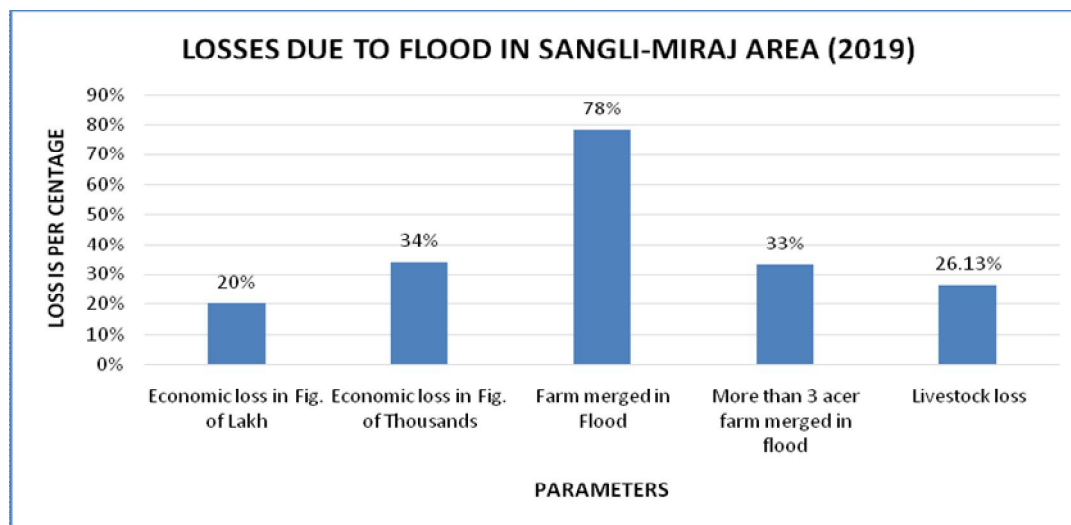


Chart 1: losses due to flood in Sangli-Miraj area (2019)

Place and Duration of Migration: The 60 per cent of the peoples from the Municipal Corporation area migrated at the places managed by the Municipal Corporation at the municipal corporation's schools. Remaining percentage of people migrated at their relative's home.

Only 30 per cent of peoples are migrated after the alert and before the arrival of flood and remaining 70 per cent of peoples migrated after the arrival flood condition. The migration of those 70 per cent of people did by the NDRF team through the boats (Chart 2).

The duration of the people at the migrated place is not more than the 15 days accept the peoples those who don't have their shelters in liveable condition (Chart 3).

The services got to the flood affected peoples at their migrated place are good. The Government, NGO's, Social workers etc. provided the essential things to the peoples at the migrated places.

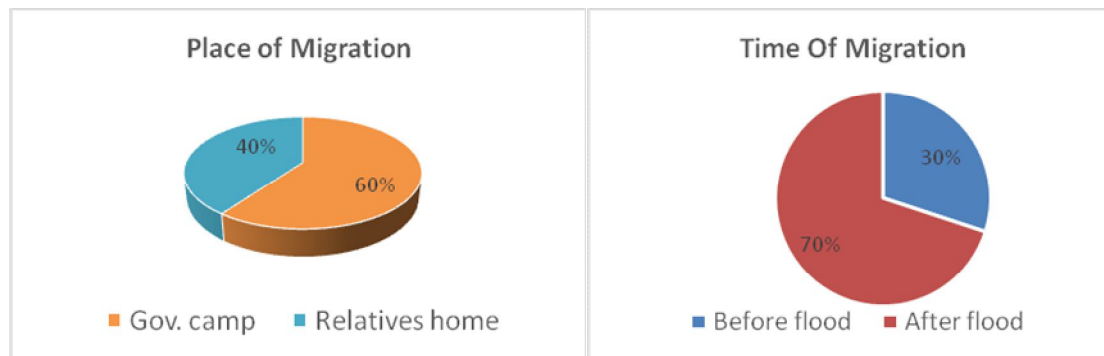


Chart 2: Place of Migration

Chart 3: Time of Migration

Income after the flood situation: There is no kind of any income for farmers sudden after the flood situation till 4-5 months. Also the income of the other people also decreased by few amounts (25 to 50 per cent) after the flood situation depend on their mode of work.

Condition of the Home after flood: The each and every home, where flood is arrived is in condition of inhabitable for living their because of the condition after the flood is very scruffy and also not good for human health.

Alert: The people who are in floodplain area they are alerted approximately before 5 days of the flood condition. Even if get alerted by the Government most of the peoples leave their places after the high rise of water level i.e. after the high risk flood situation. And few of them answered as they didn't get an alert.

After Flood services: From Government, help in the form of cash according to Ration card to the each family. The basic need Kits, food grains, clothes, drinking water, etc. are given by NGO's, social workers, political parties etc. Refunded the damage amounts of house construction damage, farming (agricultural land) damage after the Governments surveys.

ACCEPTATIONS:

- Full indemnify by government.
- Place to rehabilitation.
- Well flood management.
- Joint river project/ diverting the path of the river.

RECOMMENDATIONS:

1. Rehabilitating the settlement from the red zone to safe zone.
2. Arrangement of proper place and basic needs for the migrants.
3. The shifting of the peoples from the flood area before the arrival of flood.
Aware the peoples about the impact of flood, due to which they will migrate themselves before the flood condition.
4. The flood management and use of the modern techniques.

CONCLUSION:

Flood is most prevalent and costliest natural disaster in the world which devastates life at a large extent. These flood situation makes life of the people vulnerable and force them to migrate to other places. The effect of environmental disasters on migration is crucial because it has serious implications on economics, demography, and sociology. In the flood situation of 2005, there are difficulties while migrating people due to continuous heavy rainfall and rising of water level of river. The intensity of the flood situation of 2019 is more than the earlier flood situations. We studied the impact of flood on migration i.e. forced migration. There are direct and indirect variables for forced migration like flood duration, flood level, duration of migration, place of migration etc. If we follow the given recommendation the intensity of the impact of flood on forced migration will be decrease.

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