

Protection of Houses and Shops in Flood

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Abstract - Main aim to publish this journal is to avoid social, economical, physical losses due to sever condition of flood in village and urban area. As the flood water enters into the houses, shops offices etc. it makes huge loss of property, structure, furniture. We suggested idea will reduces the loss to the great extent, which include pre-flood arrangement.

Key Words: Protection of structure, Flood condition, Plastic sheets or paper.

1. INTRODUCTION

In flood prone area, difficulties are seen every year during rainy season. Areas near to river mostly gate affected by flood, as the floods water enters in to nearby locality .Sometimes flood takes huge incarnations which are unimaginable. It will leads to great losses of property, materials, furniture, life's etc. We cannot prevent the flood but some preventive measures, avoid losses to great extent.

2. OBJECTIVE

- To prevent economical losses.
- To avoid structure losses.
- To minimize post flood treatments of cleaning and sanitizing.

3. TYPES OF SYSTEM

We consider the following feature for design of preventive measure.

- Height of maximum level of water
- Flow velocity of flood water
- Walls of structures
- Chances of leakage
- Water tight techniques

4. METHODOLOGY

1. Surveying
2. Literature review
3. Designing considerations
4. Precautions
5. Problem statement
6. Scope of work
7. Conclusion

4.1 SURVEYING

Flood condition faced in august 2019 in West Maharashtra and in Karnataka makes huge destructions which is unexpected we cannot fulfill the cavity.

The following images show the strength of flood. The Fig.1.1 shows the spreading of flood water in locality. The circular area is our firm which comes under water about 3 feet.



Fig1.1 Flood in 2019 at Rethare BK, Tal: Karad



Fig 1.2 Water level mark



Fig 1.3 Migration in flood



Fig.1.4 Flood effect in other area



Fig1.5 Pulling out the people trapped in the flood

4.2 LITERATURE REVIWE

The flood situation continues to worsen in southern and western India in particular in the state: Kerala, Karnataka, Maharashtra and Gujarat. Over 180 people have now died in flood and rain-related incidents in these 4 states over the last few days.

Ref: <http://floodlist.com/asia/india-kerala-karnataka-maharashtra-gujarat-floods-august-2019>

4.3 DESIGEN CONSIDERATION

The figure 1.6 shows the ideal house situated near the river area. The flood water generally not reaches up to this area but when flood takes a huge incarnation which is unexpected. The area which is belowing the maximum flood level gets affected. As the flood water get spread over the long area it makes sever effect on the houses and shops which comes under.



Fig 1.6 House situated in flood area

The design suggested first includes the blocking of toilet and bath outlet ether from inside or outside. Blocking from outside is more effective, but some time difficult when drainage system is concealed. Fig 1.7 represents the closing system. When flood water comes from outlets it is very unhygienic and disease forming. Hence it has to close first.

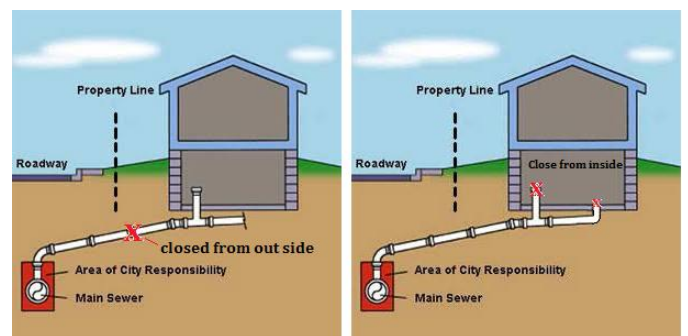


Fig 1.7 Closing of outlets

After closing the outlets, the areas from which there will be chances of coming of water are all must have to close. As shown in the figure 1.8.

The plastic paper or sheet is cut as required by keeping extra margin for fold its sides are then fold. Sticking tap can also be used it gives batter fixing. After that the paper is fixed with the door window and other openings by wooden plates. The rubber or hitlon sheets ribbon is placed in between wooden plate and plastic paper it makes exact water tight structure.



Fig.1.8 House packed by plastic paper

4.4 PRECAUTIONS

- 1 Folding of paper must be made properly
- 2 There should be no gap between paper and door or window.
- 3 Base of the paper is closed carefully.
- 5 Outlets are keeping closed.
- 6 Only paper should not be apply at any open space it will sported by cupboard or top of table.
- 7 Though such arrangement is done, then also materials have to shift for safety.
- 8 Hitlon or rubber is provided between wooden plate and plastic paper.

4.5 PROBLEM STATEMENT

1. Main problem is surface appearance will not superior. This problem mostly gets covered by providing hitlon sheet below wooden plate and fitting in screw.
2. Problems for houses made up of clay-bricks. Though clay-bricks are permeable for water but it arrest the impurity and covering of window and doors give better result than leaving as it is.
3. Operation fails when structure deep completely. We cannot make entire structure water tight, it becomes so costly, but our project basically helpful for structures which are not deep completely.
4. Result may not be 100%. For some superior structure it will be 100% for other it may 50%or 60% which is also help full as compare to total loss.

4.6 SCOPE OF WORK

1. The operation cost is very low 500/- to 1000/- Indian rupees only, so one can be apply on trial bases.
2. We can cover lot of post flood work, by taking this pre flood arrangement.

3. It reduces the disease forming nature of house after flood.
4. The losses of interior of structure are get prevented.

4.7 CONCLUSION

Severe problem of flood effect on the interior of houses and shops are get prevented by using described pre flood arrangement. The post work of cleaning and sanitizing the area after the flood, are also gate reduced. It maintains the hygienic conditions of structure.

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