



Survival Clothing For Flood Affected People

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Objective

- To create *design solutions*, that improve the peri and post-disaster quality of life of flood affected people.
- Consideration is given to functional values like protection, floatation, and communication in emergency situations; to expressive needs including emotional design, health, and sustenance; and to the aesthetic attributes related to design elements.

Background

Among all the catastrophic events happening around the world, floods are the most frequent category. In the year 2017 alone, 57 million people were affected by floods, while 85% of economic damages (see Fig 1) were due to storms (CREC 2018). Floods are so common that they are rarely out of the news, yet their impact is often underestimated (Durham and Maslin 1999).

Despite several advances in survival equipment, people still perish in large numbers, in very little time and often without any known organic cause (Leach 1994). There is a real need for survival gear that is climatically appropriate, culturally sensitive, and economically viable (Alexander 2006) (Klynman, Kouppari, and Mukhier 2007). Most survival gear or kits available in the market, or those recommended by regional organizations such as the American Red Cross society (see Fig 2), are a mountain of specialized equipment. They are often complex and sometimes complicated to use (Ayres 2016).

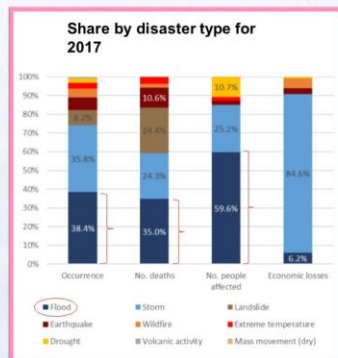


Fig 1. Source: CREC "Natural Disasters in 2017: Lower Mortality, Higher Cost." Cred Crunch, Belgium, January 3, 2018.



Fig 2. American Red Cross: Deluxe 3-Day Emergency Preparedness Kit

Methods

- This study uses a qualitative participatory design approach to prioritize the needs of flood affected people.
- The primary data for this research will be sourced through field surveys conducted in flood affected areas chosen during the course of research.
- Relevant information might be collected from residents of the selected study sites with the help of a questionnaire or interviews. This information will help in holistically understanding the survival needs across various stages of the flood.

Stages of Research

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| Phase I | Needs identification and formulating research questions |
| Phase II | Preliminary design ideation and prototype development |
| Phase III | Test the prototypes in actual flood scenarios and receive feedback |
| Phase IV | Design refinement and implementation of the proposed ideas. |

Are the existing survival gear life saving?



1. UB Photos. "Indian Army with NDRF and SDRF personnel arrived at Majuli to carry out rescue operations in Assam, India", 2016. 2. AP Images. "Wilford Martinez, right, is rescued from his flooded car by a Harris County Sheriff's department officer in Houston", 2017. 3. SOL. "Survive Outdoors Longer Urban Survivor Kit" 2017. 4. UNCHARTED Supply Co. "The Seventy2 Survival System" 2016. 5. Kingii. "Kingii Inflatable Wristband" 2015. 6. IANS. "IAF rescuing people from flood-ravaged regions in Chennai, India", December 15, 2015.

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