Floods have the greatest damage potential of all natural disasters worldwide and affect the greatest number of people. On a global basis, there is evidence that the number of people affected and economic damages resulting from flooding are on the rise at an alarming rate. Society must move from the current paradigm of post-disaster response. Plans and efforts must be undertaken to break the current event-disaster cycle. More than ever, there is the need for decision makers to adopt holistic approaches for flood disaster management.

Extreme flooding events are not relegated to the least developed nations, but can also devastate and ravage the most economically advanced and industrialized nations. In the last decade there has been catastrophic flooding in Bangladesh, China, India, Germany, Mozambique, Poland, the United States and elsewhere. When floods occur in less developed nations, they can effectively wipe out decades of investments in infrastructure, seriously cripple economic prosperity, and result in thousands of deaths and epidemics. The majority of the deaths associated with such disasters can be found within the most vulnerable members of society, namely women and children. The greatest tragedy is that most of these deaths, associated post traumatic stresses, and social and economic hardships can be either avoided or dramatically reduced through pre and post-disaster investments in preparedness activities and associated infrastructure, flood plain policy development, effective watershed land use planning, flood forecasting and warning systems, and response mechanisms.
Flood disaster is a major problem in the Kaveri delta region is concerned. During seasonal disturbances this is a common phenomenon and a basic data is required to tackle this problem. Based on this background the entire Kaveri Delta was digitized and individual problems in the seasonal floods were selected to study the flood impact assessment and finally a disaster reduction model was suggested using the geo-spatial data. To study on the nature of problem, the spatial information technologies like remote sensing, geographical information system and global positioning system were used.

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