CHAPTER I: INTRODUCTION 1-----29

1.1 Statement of the Problem 1-----12

1.1.1 Flood hazard in Indian context

1.1.2 Flood hazard in the context Assam

1.1.3 Flood hazard in the context of the study area

1.2 Aims and objectives of the Study 12-----13

1.3 Research Questions 13-----14

1.4 Review of Literature 14-----27

1.4.1 International context

1.4.2 National context

1.5 Significance of the Study 28-----29
CHAPTER II: MATERIALS AND METHODS 30——54

2.1 Study area 30——46

2.1.1 Location

2.1.2 Physiographic structure

2.1.3 Relief and slope

2.1.4 Geology

2.1.5 Climate

2.1.6 Soil

2.1.7 Drainage

2.1.8 Forest

2.1.9 Population

2.2 Methodology of the study 47——54

CHAPTER III: KAMRUP METROPOLITAN DISTRICT: A HISTORICAL BACKGROUND 55——77

3.1 Pre-history 55——57

3.2 Ahom period 57——58

3.3 Districts reorganization process 58——59

3.4 Undivided Kamrup district of post-independence 59——60

3.5 Kamrup Metropolitan District: birth of the metro-based district 60——62

3.6 The trends of rainfall patterns in Kamrup Metropolitan district 62——77
3.6.1 Total rainfall and rainy days: a comparative trend analysis

3.6.2 Natural hazards

3.6.3 People

CHAPTER IV: LANDUSE-LANDCOVER CHANGE WITH SPECIAL REFERENCE TO DRAINAGE

4.1 General land-use pattern of the district

4.2 Land-use and land-cover comparison: 1991-2011

4.3 Land-use and population relation of the flood vulnerable circles

4.4 Drainage and water bodies

4.5 Vulnerability along long-section of urban drainage

CHAPTER V: POPULATION CHARACTERISTICS IN RELATION TO FLOOD VULNERABILITY PATTERN

5.1 Circle-wise population of Kamrup Metropolitan district:

5.2 Population trend of municipal area

5.3 Village-level population density and vulnerability weight

5.3.1 Village vulnerability weight of Chandrapur circle

5.3.2 Village vulnerability weight of Sonapur circle

5.3.3 Village vulnerability weight of Azara circle

5.4 Growth of vulnerable population

5.5 Sex-ratio analysis
CHAPTER VI: SOCIO-ECONOMIC STUDY:
AN ASSESSMENT OF THE SAMPLE AREA 139---158

6. General profile of the sample village and ward locations

6.1 Male-female structure

6.2 Age-group of sample house owner

6.3 Literacy trend with special reference to sample study

6.4 Occupation pattern of sample household

6.5 Income range of sample household

6.6 Source of potable water of the sample locations

6.7 House type of sample location

6.8 Health problem faced by the people

CHAPTER VII: FLOOD HAZARD VULNERABILITY OF KAMRUP METROPOLITAN DISTRICT 159------242

7.1 A brief history of Natural Hazards of the district 164---166

7.2 Circle-wise population density based flood vulnerability pattern 167--174

7.2.1 Flood vulnerability pattern of Chandrapur revenue circle

7.2.2 Flood vulnerability pattern of Sonapur revenue circle

7.2.3 Flood vulnerability pattern of Azara revenue circle

7.3 Urban flood vulnerability 174---183

7.3.1 Ward-level flood vulnerability pattern of the district
7.4 Hazard identification of the sample village and ward locations 184---218

7.4.1 Comparative longevity of residing in the place of residence

7.4.2 Type of hazard

7.4.3 Causes of hazard

7.4.4 Frequency of hazard per year

7.4.5 Hazard calendar

7.4.6 Hazard duration

7.4.7 Damage impact of hazard

7.4.8 Hazard affect

7.4.9 Pre-hazard awareness

7.4.10 Awareness-information received

7.4.11 Satisfaction with government interventions

7.4.12 Suggestion to address the issue

7.4.13 Role of non-government organization

7.4.14 Various adaptation practices

7.5 Hazard vulnerability of the sample village and ward locations 218---231

7.5.1 Location of the residence

7.5.2 Vulnerable structure of the locality

7.5.3 Livelihood security of the household

7.5.4 Resource to tackle hazard

7.5.5 Items picked up during crisis

7.5.6 Participation in decision making
7.5.7 Asset insurance

7.5.8 Vulnerability status of the houses

7.6 Assessment of vulnerability rank 232—235

7.7 Correlation of vulnerability with coping mechanism 236—242

CHAPTER VIII: SUMMARY AND CONCLUSION

8.1 Summary 244—246

8.2 Conclusion 246—252

BIBLIOGRAPHY 253—263

ANNEXURES 264—279

PLATES 280—282

PUBLICATIONS