



Upazila Disaster Management Plan

Upazila: Bagha, District: Rajshahi

Plan Developed by

Upazila Disaster Management Committee, Bagha, Rajshahi

Coordinated by



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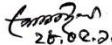
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মুখবন্ধ

বাংলাদেশ একটি দুর্যোগ প্রবণ দেশ। ভৌগোলিক অবস্থান, জলবায়ু ও আবহাওয়ার তারতম্যের কারণে স্থানভেদে এদেশে প্রতি বছর বন্যা (নদীবাহিত/বৃষ্টিপাত জনিত), টর্নেডো (ঘূর্ণিঝড়), খরা/অনাবৃষ্টি, ভূমিকম্প, ঘন কুয়াশার মত বিভিন্ন ধরনের আপদ আঘাত হানে। বাংলাদেশ একটি নদীমাতৃক দেশ হওয়ায় প্রায় প্রতিবছর এলাকা ভিত্তিক নদী ভাঙনের শিকার বহু লোক ভিটেমাটি ছাড়া হয়ে নিঃস্ব হয়ে পড়ে এবং নদী-খাল ভরাট জনিত কারণে এলাকা ভিত্তিক অধিবাসীদের সংশ্লিষ্ট নানা ধরনের আপদের সম্মুখীন হতে হয়। এ ছাড়াও মানব সৃষ্ট ও শিল্প কারখানা জনিত বিভিন্ন ধরনের আপদ প্রতিনিয়ত মানুষকে আতংকগ্রস্ত করে রাখে। এ সমস্ত আপদের প্রভাবে সহায় সম্পদসহ জান-মাল, পশু সম্পদ ও ফসলের ব্যাপক ক্ষতি সাধিত হয়। এর ফলে শুধু আক্রান্ত জনগোষ্ঠী-ই ক্ষতিগ্রস্ত হয় তা নয়, জাতীয় সম্পদ এবং অর্থনীতিতেও ব্যাপকভাবে এর প্রভাব পরিলক্ষিত হয়। দুর্যোগ প্রবণ দেশ হলেও পূর্বে দুর্যোগ ব্যবস্থাপনা পরিকল্পনার মাধ্যমে মানুষের সহায় সম্পদসহ জান-মাল, পশু সম্পদ ও ফসলের ক্ষয়ক্ষতি হ্রাস করার সুদূর প্রসারী কোন পরিকল্পনা গ্রহণ করা হয়নি। সুষ্ঠু পরিকল্পনা ব্যতিরেকে শুধুমাত্র ত্রাণ ও পুনর্বাসনকেই বেশী প্রাধান্য দেয়া হয়েছে। সম্প্রতি বাংলাদেশ সরকার সমন্বিত দুর্যোগ ব্যবস্থাপনা কর্মসূচীর (CDMP-II) মাধ্যমে দুর্যোগ ব্যবস্থাপনা পরিকল্পনা বিষয়ক এক কর্মসূচী হাতে নিয়েছে। এই কর্মসূচীর আওতায় প্রাথমিকভাবে সমাজের বিভিন্ন স্তরের জনসাধারণ, ইউনিয়ন ও উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটির সমন্বয়ে স্থানীয় ঝুঁকি চিহ্নিত করে তা পর্যালোচনার মাধ্যমে দুর্যোগ ব্যবস্থাপনা পরিকল্পনা প্রনয়নের উদ্যোগ নেয়া হয়েছে। দুর্যোগ ব্যবস্থাপনা পরিকল্পনায় স্থানীয় আপদসমূহ চিহ্নিত করে দুর্যোগ পূর্ব প্রস্তুতি গ্রহণ ও ঝুঁকি নিরসনের জন্য বাঘা উপজেলায় কার্যকরী একটি দুর্যোগ ব্যবস্থা পরিকল্পনা প্রনয়ন করা হয়েছে যা স্থানীয় পর্যায়ে দুর্যোগ ঝুঁকি মোকাবেলায় সুদূর প্রসারী অবদান রাখতে পারবে বলে উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটি মনে করে।

কর্ম পরিকল্পনাটি প্রনয়ণে এলাকার নারী-পুরুষ, কৃষক-ভূমিহীন, প্রবীণ ও তথা প্রদানে সক্ষম অন্যান্য স্থানীয় জনগোষ্ঠীর প্রতিনিধি, ইউনিয়ন এবং উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটির (UDMC) সদস্যবৃন্দ সরাসরি সম্পৃক্ত ছিলেন। বিশেষ করে অত্র এলাকায় কর্মরত 'সুশীলন' এর কর্মকর্তা ও গবেষকদের নিষ্ঠা ও অক্লান্ত পরিশ্রম স্থানীয় পর্যায়ে পরিকল্পনা প্রণয়নে যথাযথ অবদান রেখেছে। এ কর্ম প্রচেষ্টা ও অক্লান্ত পরিশ্রমের ফলে রাজশাহী জেলার পবা উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটি একটি বাস্তবসম্মত দুর্যোগ ব্যবস্থাপনা কর্মপরিকল্পনা প্রণয়ন করতে সক্ষম হয়েছে। অত্র উপজেলায় প্রণীত দুর্যোগ ব্যবস্থাপনা পরিকল্পনায় দুর্যোগ মোকাবেলায় গুরুত্বপূর্ণ বিষয় সমূহ প্রাধান্য লাভ করেছে। তন্মধ্যে উল্লেখযোগ্য হচ্ছে পরিবার ও সমাজ পর্যায়ে দুর্যোগ ঝুঁকি সম্পর্কে গনসচেতনতা সৃষ্টি, স্থানীয় সম্পদ ব্যবহারের মাধ্যমে দুর্যোগ পূর্ব প্রস্তুতি গ্রহণ এবং দুর্যোগ কালীন সময়ে অপসারণ, উদ্ধার, চাহিদা নিরূপণ, ত্রাণ ও তাৎক্ষণিক পুনর্বাসন ব্যবস্থার জন্য স্থানীয়ভাবে প্রণীত পরিকল্পনার অনুশীলন ও প্রয়োগ, দুর্যোগ পরিকল্পনায় অংশগ্রহণ এবং কার্যকর অংশীদারীত্ব যা বাস্তবায়িত হলে আপদ সংশ্লিষ্ট স্থানীয় ঝুঁকি সমূহ অনেকাংশে হ্রাস পাবে এবং জনগণের সহায় সম্পত্তি, জানমাল এবং ফসলের ক্ষয়ক্ষতির পরিমাণ কমিয়ে আনা সম্ভব হবে। পাশাপাশি দুর্যোগ পূর্ব, দুর্যোগ কালীন ও দুর্যোগ পরবর্তী প্রস্তুতি গ্রহণ, দুর্যোগ ঝুঁকি হ্রাসে স্থানীয় অবকাঠামো ও অ-অবকাঠামো, সামাজিক সম্পদ ও নিরাপদ স্থান সমূহের তালিকা প্রনয়ন, ঝুঁকির কারণসমূহ চিহ্নিতকরণ, সর্বাধিক বিপদাপন্ন এলাকা চিহ্নিত করণ, ঝুঁকি নিরসনের উপায় চিহ্নিতকরণ, জলবায়ু পরিবর্তন এবং তার সম্ভাব্য প্রভাব নিরূপণ, উন্নয়ন পরিকল্পনার প্রধান খাত সমূহ চিহ্নিত করণ এবং বিভিন্ন সামাজিক সংগঠন সমূহের স্বেচ্ছাসেবক তালিকা প্রনয়ন করা হয়েছে।

২০১৪ সালে সিডিএমপি'র সহায়তায় প্রণীত দুর্যোগ ব্যবস্থাপনা পরিকল্পনাটি প্রনয়নে যে সকল সরকারী এবং বেসরকারী সংস্থা ও ব্যক্তিবর্গ সক্রিয়ভাবে অংশগ্রহণ ও পরামর্শ প্রদান করেছেন তাদেরকে আমি আন্তরিক ভাবে ধন্যবাদ জ্ঞাপন করছি। আমি আশাবাদী, স্থানীয় জনগন, স্থানীয় প্রশাসন ও বিভিন্ন সরকারী বেসরকারী প্রতিষ্ঠানের সমন্বয়ে বাঘা উপজেলায় প্রণীত দুর্যোগ ব্যবস্থাপনা পরিকল্পনাটি দুর্যোগ ব্যবস্থাপনা কমিটি ও সংশ্লিষ্ট সেক্টরের (সরকারী, আন্তর্জাতিক ও জাতীয় এনজিও, দাতা সংস্থা ইত্যাদি) জন্য একটি সার্বিক পরিকল্পনা হিসেবে কাজ করবে।


26.02.18
মোঃ নুরুল ইসলাম
সদস্য সচিব
উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটি ও
উপজেলা প্রকল্প বাস্তবায়ন কর্মকর্তা
বাঘা উপজেলা
রাজশাহী জেলা


26/02/18
মির্জা শাকিলা দিল হাছিন
সভাপতি
উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটি ও
উপজেলা নির্বাহী অফিসার
বাঘা উপজেলা
রাজশাহী জেলা

Preface

Bangladesh is a disaster prone country in the world. Due to Geographical disadvantage, the environment, losing balance of power, are facing various catastrophe like inundation, Tornados, drought, Erosion of river, earthquake, various cyclone, fogginess, white squall and so on. Bangladesh is river mothered country. The erosion of river for over flow of water, destroy the location of river side and all the inhabitants lose their all sort of livelihood and livestock and took shelter being pauper in the hovel on the high land or roads. Not only that, but also, men and industries' created catastrophe become the bane for calamity and people use to live in alarming plight. And also, by the horrific effect, all sort of assets, lives, livelihood, livestock and other resources of the locality may fall in danger. It does not destroy only the located people, also create obstacle for National and economical resources of the country. Though it is a disaster prone country but long term' Disaster Management plan' has not been prepared for saving the human being, their all sort of resources, livelihood, animals and other asset, rather have been given importance to rehabilitation and on relief. Recently Government of Bangladesh has taken an initiative on the subject 'Disaster Management Planning' through CDMP 2. To implement the plan in action, primarily has taken an initiative for indication 'Disaster Risk' through conversation with all sorts of local people, Union and Upazila Management Committee. For Preparedness and reducing risk 'Disaster Management Plan' has provided to Bagha Upazila by indicating 'local disaster risks' through 'Disaster Management Plan' which will be efficacy for the forthcoming days.

At the time to providing the Plan all classes of people like male, female, cultivator, landless people, aged person, local elite persons, Union and Upazila Disaster Management Committee Members (UzDMC) were congregated. Locally this conspicuous doings have been done by the hard toiling of Shushilan Staffs and related analysis individuals. Disaster Management Committee of Bagha Upazila under Rajshahi District has provided this plan by efficacy toiling and restless endeavor. All kinds of important heart rending calamities as, awareness creation among family members and locality, to take preparation for facing risk would have to use local recourses, replacement of living assets and people to a safety place, rescue impediment people, necessary goods indication, and relief distribution have been included in the Upazila 'Disaster Management Plan'. If that plan come into being all kinds of calamities would be reduce and all sorts of materials of the people would be safe. Not only that, but also have included preparation before and after disaster, mitigation disaster by using Local resources, social assets, safety places, indication the causes of disaster, disaster warning sign, mostly disaster prone location, climate changes and its horrific effect, development sectors and name of the local volunteers as well as organization.

I am giving thanks from my core of heart to those very persons who have taken part and have given advice, like all Government and Non-Government Organizations and local persons to perform the conspicuous act in good manner. I am confident; this Disaster Management Plan which has prepared by the coherent cooperation of local people, Local Governances and other local organizations should help to Disaster Management Committee and other sectors (Government, International and National NGO, as well as Donor) to perform all acts as a overall plan.

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Chapter One

Information about the locality

1.1 Background

Bangladesh is a disaster prone country in the World Map. It is the most vulnerable devastated country among others, caused by the effect of climate change.” Climate will be changed in future” this was the prediction. But it is not true. At present it is happening periodically in the country. The omens of the climate change horrific effects in future are now going to be apparent and it is surrounding with dreadful effect in the development act of the country and lives of human being. The atmospheres of the country are deteriorating day by day, The southern zone of the country is devastating by cyclone and inundation, North-west zone is by drought and storm wind, water layer in the ground of the country is very low, North-East and Middle zone of the country are devastating by overflow of water, Hill-tribe is devastating by declivity, soil collapse and erosion of river is becoming the bane to destroy the country with mournful and terrible plight. “In future the effect of climate change will be the horrific” has not been destined as well as have not taken step for probable prevention and disaster management.

Recommendation of ‘Disaster Management Plan including Risk Reduction and Contingency plan’ has delivered to City Corporation, Municipality and Upazila. CDMP has given more importance to Disaster Management Plan. Sustainability, efficacy, productivity, the line of action in connection with the subject are depends on related organization, institution and the masses participation. Disaster Management plan will be organized for three to five years. Every districts of the country have to face disaster in every year and among all Rajshahi district is the most disaster prone. Rajshahi district is situated beside Padma. As a result all the Upazila have to face disaster. Due to Geographical distinctiveness, sunray, erosion, cyclone, coldness, inundation and downpour are the main causes for climatic disaster. Historical place, Bagha Upazila of Rajshahi District is situated beside the river Padma. Here is a hearsay that once spiritual Hajrat Shah Dawla came here and lived beside Padma to circulate Islam religion in this location. Then there were many tigers used to live there. Henceforth, the name of the place is Bagha. Now the name is preserved there, though tiger is out of scene. Not only that but also this Upazila is very famous for mango in country and abroad.

Bagha Upazila is a disaster prone location. All the people survive there with risk of terrible calamity. Lack of preparedness on calamity and effective induction course on premonition of horrific disaster, any efficacy step yet had not been implemented, though the location is facing catastrophic calamity in every year as well as even has not been seen the scene of initiative for ‘Disaster Management Plan’ in the Upazila level for mitigate disaster. This ‘Disaster Management Plan’ has delivered to Bagha Upazila which will help the local people and institution to mitigate the risk of calamity by creating awareness and capability. This document will be alive there to enliven the people. This document will be renovated by considering ‘Scientific information, Priority of national development, perceiving the effect of climate change for the forth coming days. The social atmosphere, economical development,

natural history, short explanation of structural planning, internal framework, probably effect of climate change, explanation of different technique of Bagha Upazila have narrated in the document in chapter I to 2 as well as have cited the activities performance plan of 3-5 years for building up more capability to management disaster and power of protection. In chapter 4 and 5 have narrated the framework for developing capability and competency of general people, specially social worker, political person, development worker who will take part to in Disaster Management Plan.

To keep up the consecutive of safe and protection policy of poor and imperil hapless people and integrating with development of country, the ‘Disaster Management and Ministry of Relief’ have taken an initiative as well as decision under “CDMP” to implement ‘Multipurpose Preparedness Plan ‘as a part of the object to alleviate disaster. All aspect of the Upazila, like Upazila level Disaster Management Plan, economical development of the local people to face the forthcoming calamity caused by climate change, development of education, hygiene, dwelling place and indication priority to develop technically other structure have narrated in the document vividly. So, it is need of necessary for everybody to know the importance of the document.



Figure1.1: Bagha upazila porishad

1.2 The Main Object

The category of disaster probably may be changed. So, in this respect it is needed to include and exhibit into the Nationally Policy Specification all sort of efficacy initiative at field level to face the climatic disaster as well as reduce the risk. The Disaster Management and Ministry of Relief have taken an initiative of ‘Multiple Planning’ under “CDMP” for risk analysis and mitigation. Under the Multiple Planning the Government has taken a long term disaster facing initiative avoiding Relief and Rehabilitation depending risk reducing performance.

The main objects are narrated bellow:

- To create awareness about risk of disaster among the people of the family and society by innovating practical existing way.
- To mitigate risk by using local resources as well as establish the system permanently by the endeavor of local people.
- Should have to need to follow and establish the plan locally for replacement, rescue, relief distribution and rehabilitation.
- Needed a skilful planed document for a certain place and period.
- This Document will help Disaster Management Committee and Related sector (Government, international and National NGO and Donor) to serve as an overall plan.
- This Document will give direction to related partner for endorse plan and implementation.
- This Document will enliven the community to take part in Disaster Management activities as well as to perform efficacy act.

1.3 Introduction of Bagha Upazila

Bagha Upazila was established on 14th September -1983. It is situated beside the river 'Padma'. There 6 Unions and 2 Municipalities are in the Upazila. Near about there are two lac various religion's people living here, also many aborigines (Saotal) living there. It is distance from Rajshahi 48 Km.

1.3.1. Geographical position of the Upazila.

- This Upazila is under Rajshahi District.
- Election Center-57, Rajshahi-6
- Name of other Upazila which have surrounded Bagha Upazila. It is narrated bellow: In the North side-Charghat Upazila, in the east- Bghatipara and Lalpur Upazila of Natore District, in the South and West –Daulatpur Upazila of Kushtia District.
- Short narration of river, road, embankment and so on of the Upazila:- Panoramas of the Upazila are very beautiful for its flowing river, various trees, paddy, various categories house, moving cattle and etc. Natural lands are high and plane. Two rivers are running through the Upazila. Embankment have established beside river in three Unions. Communication and transportation systems are maintaining by Motorcycle, Rickshaw, Van, Cycle, Bus, Boat and Railway carriage.

1.3.2 Dimension

As per assessment of Bagha Upazila in 2011 its dimensions are 185.16 sq.km.

Table1.1: Upazilla Union & Unionwise Name of Mouza

Name of Upazila	Name of Union	Name of the location/village/area in every Union
Bagha Upazila	Arani (21)	Bererbari,Varatipara,Arani, Chak singga, Gosar and Hamidkur. Total : 06
	Bajueba (22)	Boroshagati, Chandipur, Satari, Dhakachandragati, Hijalpally, Jotjoyram, Khudisaigati, Bagsayesta, Bajubagha. Total = 09
	Bawsha (23)	Amarpur, Bawsha, Dhandoho, Dhigha, Arpara, Horina, Khajabaria, Sharifabad. Total=08
	Gargari (55)	Brakshmandanga, Cakenayet, Chandpur, Arajichandpur, Dawadpur, Ashrafpur, Jotashahi, Kalidashkhali, Karari, Polashi Fataypur, Nawshara, Khanpur, Khayarhat, Lakshminagar, Fataypur, Palashi, Char Rajapur, Sharehat, Shibrampur, Shultanpur. Total=19
	Monigram (63)	Boro Shadiar, Banukar, Binodpur, Gangharampur, Habashpur, Helal Baria, Hossainpur, Atorpara, Autghari, Kalabaria, Mahadipur, Monigram, Parashota, Parashota Araj, Ruppur, Horirampur, Balihar, Tulshipur,. Total = (19)
Pakuria (79)	Aliapur, Bujurga Islam, Chowmadia, Debattar Binodpur, Ghowrangapur, Gokulpur, Jot Kadirpur, Jotnashi, Kadirpur, Kaligram, Keshabpur, Kishorpur, Malindaha, Pakuria, Balarampur. Total=15	

Source: Upazila Parishad, 2014

1.3.3. Population

All kinds of religions (Muslim, Hindu and Khristian) are living from the ancient period in the Upazila together with peace and harmony. Person of every religion took part in other religion rite and do not neglect their activities, also not show antipathy, animosity and malignance. Total inhabitants of the locality are 184183 and among them 92010 are male and 92173 are female. There 900 person live in one sq.km and rate of growth of population is 2.53%. Numbers of person are narrated below:

Table 1.2: Union basis male, female child, cripple and cretin

Area	Male	Female	Child % (0-17)	Old % (60+)	Cripple/ Cretin %	Total No of person	Family	No of Voter
Arani	5170	5202	9.11	5.7	1.3	10382	2664	6989
Baju Bagha	7055	8828	15.13	7.45	1.8	13883	3618	9581
Bausha	14186	14211	21.26	11.18	1.7	28397	7529	18976
Gargari	13973	13830	13.60	9.75	1.9	27803	6409	19167
Manigram	15919	15779	16.36	9.47	2.0	31698	8234	21452
Pakuriya	13750	14097	21.63	9.05	2.3	27847	7184	16897
Bagha Municipality	13807	13728	19.13	8.7	1.9	27623	8534	19871
Arani Municipality	8517	8077	22.78	9.12	2.1	16594	6123	10207
Total	92377	91806	16.48	8.03	2.07	184183	46711	102864

Source: BBS, 2011

1.4 Structure and Non-Structure

Bagha is originally agricultural Upazila. Almost people survive on agricultural products. So, many agricultural institutes have been built up. All the area of the Upazila is under electricity. There are few quantity of other industries and handicraft industries have established. Main productive institutes are hen- duck cultivation, cattle farm, rice mill, printing press, cold storage, brick field and various handicrafts. Communication systems are very well and that has assisted to increase business institutions.

1.4.1. Infrastructure

Embankment

Bagha Upazila is situated beside the river. Erosion of river is the main problem. So, to protect the location, 16 km roads, height 15 ft and broad 25 ft have built up. It have been protecting Mnigram, Pakuria and Gorgari Unions.



Figure1.2: Embankment

Sluice gate

There three sluice gate are situated beside in the Upazila. It is in Monigram, Pakuria and Gargari and it is also being used for evacuation water. Downpour, inundation and cyclone are always become bane in every year for the inhabitants. But change of climate its effect are being horrific and catastrophic. In this plight sluice gate is the most important for its effective services. It is helping to evacuate water at the time inundation.



Figure1.3: Sluice Gate

Bridge / Calvert

There are 317 Bridge and Colbert in unions and Municipality of Bagha Upazila. Among them quantity of 84 are on the Upazila Road and 77 are on Union road, 110 are on village road “A” and on “B” village road are 46 Colbert.

Road / Communication system:

There are 460 km. roads are available in Bagha Upazila. Among them 294 km are concrete, 175.48 are semi concrete and 25.14 are brick roads. Not only that 30 km water ways are available there.

Table1.3: Type-wise Number of Road & Length.

Upazila	Type of roads	Quantity of Roads	Total length
Bagha (10)	Upazila Road	12	77.84 km
	Union Road	13	82.12 km
	Village Road “A”	86	176.93 km
	Village Road “B”	114	122.77

Source: Field Trip, 2014

Irrigation System:

Barendra Multiple Development Association (BMDA) has taken some important steps to save agricultural activities from the effect of climatic change and geographical circumstances. Through the project “Rain Water reservation and Irrigation” BMDA has taken an initiative it is narrated bellow: (a) Will have to take water from river Padma to the local canal by pipe and should have to use in due time.(b) Should have to choice crop which is needed few quantity of water to cultivate as well as should have to encourage the farmers to follow instruction. (c) Should have to take initiative to reservation rain water in canal, pond or selected place. BMDA is assisting in various aspect to the famers to run their activities with full of go. At present there are 14473 tubes well along with 45 deep tubes well in Bagha Upazila.



Figure1.4:Deep tubewell under borendro irrigation project

Hat & Bazaar:

Though Bagha upazila is a agricultural location, but industries like Auto rice mills, Oil mills, Coarse Flour mills, Saw mill,Brick field and etc. are available. There are 48 Bazaars in Bagha Upazila and those are supplying all sorts of daily usable essential goods and commodities for the people three times in a week. Not only that but also, many goods are being exported through the Bazaar. Here is narrated about Bazaars in Union wise:

In Bajubagha Union – 4 Bazars: - Jotraghob

Bazaar, Barkhadia Bazaar, Amodpur Bazaar and Tepukuria Bazaar.

In Gargari Union – 8 Bazars:- Khaer Hat,Kanpur Hat, Chok Rajapur Hat,Chandpur Hat,Dadpur Hat,Sharer Hat,Polashi Fotaypur Hat and Sultanpur Hat.

In Pakuria Union – 11 Hat &Bazaar:- Pakuria Hat & Bazaar, Alaipur Gabtoli Para hat, Alaipur Mohajon Para hat, Chowmadia Hat, Kishorpur Hat & Bazaar, Keshobpur Hat & Bazaar and Panikamra Hat & Bazaar.

In Monigram Union – 5 Hat: - Mirganj hat, Monigram hat, Binodpur hat, Hilalpur Hat and Horirampur Hat.

In Bawsa union – 5 Hat & Bazaar: - Digha Hat, Bawsa Bazaar,Foteypur Hat, BishnuMondal hat and Horipur Bazaar.



Figure1.5:A market in upzilla

1.4.2. Social Resources

Development of Social resources in a certain area depends on the monetary social position. Communications, Religion and Education Institute, ritual place, Field, monetary Institute. G.P.O. Office, Cultural Organization, plantation and so on are known as Social Resources.

Various development activities of N.G.O. are also indicate Social Resources. All are available in the Upazila.

Houses

Almost houses of 6 Unions and 2 municipalities under Bagha Upazila are made of mud. Somewhere are seen brick-built house. But it is a few. Hovels are seen more in the rising sandy land of river. At present it is seen that somebody are trying to build up brick houses.

In bellow are narrated mud house, hovels, semi concrete house and brick-built houses by Grape feature.

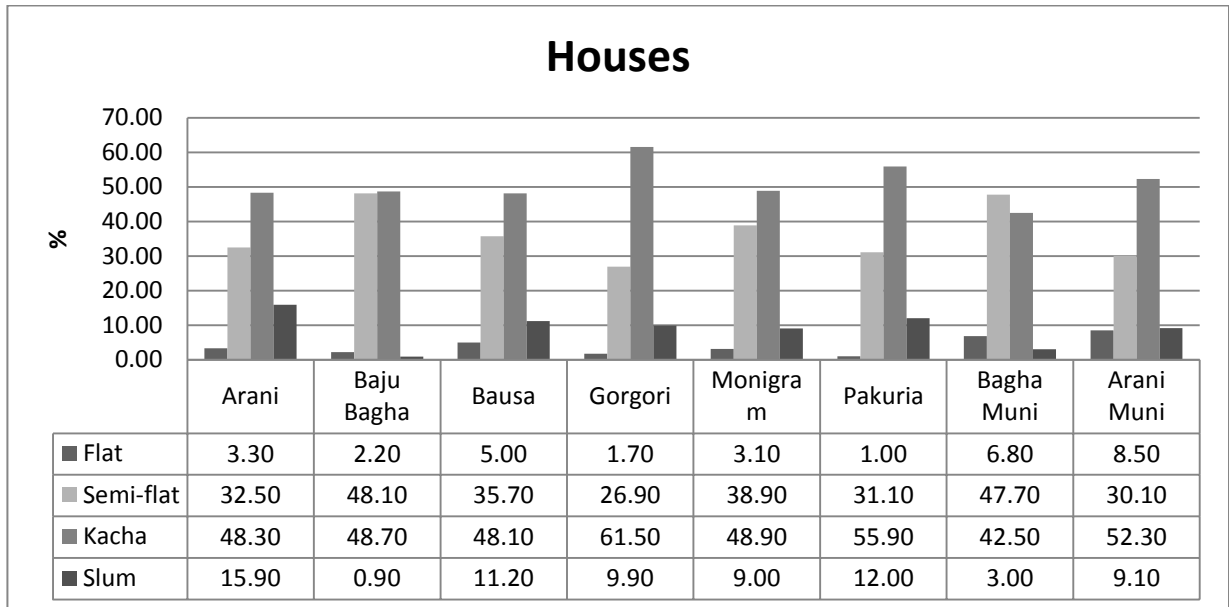


Figure: 1.1. As per various forms, the present position of houses in Unions and Municipalities (According to census -2011)

After analysis of Grape feature, it is seen that 3.9% of houses are brick-built, 36.5% are semi concrete, 51.0% are made of mud and 8.7% are hovels in all Unions and Municipalities. Monigram, Pakuria, and Gargari unions are situated beside the river 'Padma'. Many peoples of those unions are living on the rising sandy lands of river. As, almost houses of those unions are made of mud and hovels, so, by the effect of cyclone, inundation, storm, cold winds, sunray, erosion and other climatic disaster all the houses be destroyed and all the persons have to face various problem being distressed.



Figure1.6: Kachagor made by mud and tin



Figure 1.7: Jhupri house at Char

Water

Main sources of potable water of Bagha Upazila are nothing but tube-well. There 45 deep tube-wells and 14428 normal tube-wells have established in the Upazila. But due to Geographical circumstances, climatic change and catastrophic activities, the natural environments are changing horrifically and the dangerous aftermaths of the plight are forewarning presently. Arsenic is now being seen in tube-well water. As a result scarcity of potable water is showing a bane for the inhabitants of the locality. In the dry season the layer of earth water go down. Then scarcity of water comes across. In that mournful plight the inhabitants use water for mitigation their need of necessary acts from ponds, cultivating lands, cannels and river. But want of awareness the people are doing pollution water by using chemical elements in all sources of water like ponds, in lands, cannels. Even they do not excavate ponds. So, day by day potable water crisis are now coming in front of locality a catastrophic bane of lives.

Here is cited the source of potable water through tube-well, tape and others by Grape Feature. Sources of Potable Water.

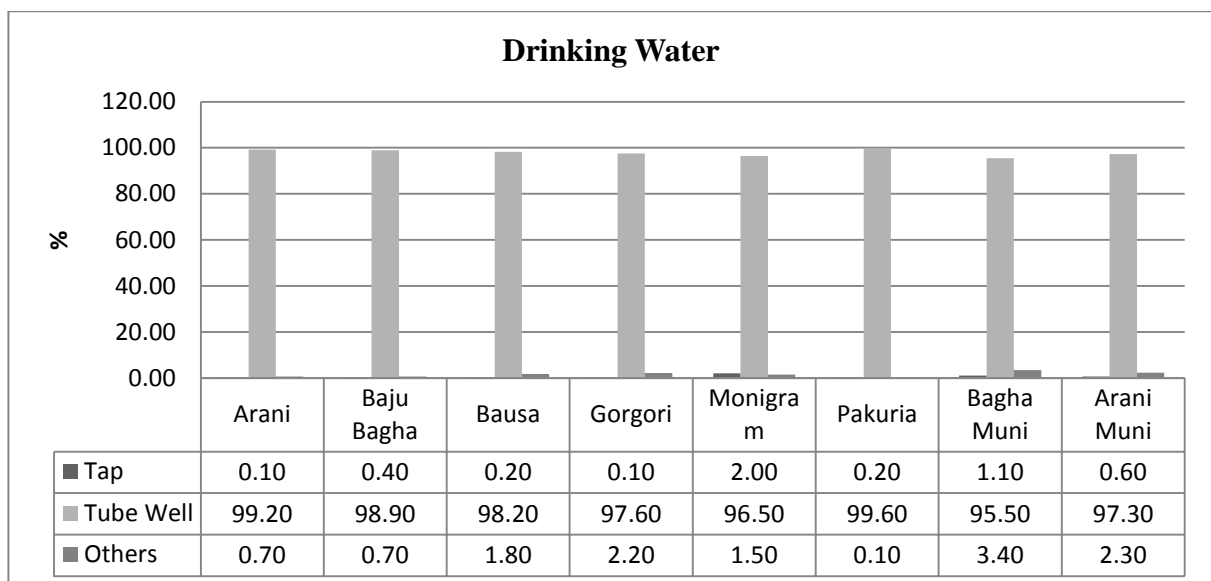


Figure 1.2 As per various forms, the present position of Drinking Water in Unions and Municipalities (According to census -2011)

After analysis Grape Feature, it is seen that sources of water of 97.70% family are Tube-well, 0.70% family are Tape and 1.7% family are depending on ponds, cannels and rivers. Alternative sources of water for the people of Arani, Bowsha, and Gorgari unions are inadequate. As a result in dry season people mainly child, old man, cripple, pregnant women and cattle have to face mournful scarcity of water as well as should have to face water born diseases. From this period, it is presumed that if the alternative sources of water do not be maintained, in future should have to face scarcity of potable water as a terrible heart rending plight.

Water drainage system

Water drainage system has not been expanded as per expectation in Bagha Upazila. Though water drainage system in other area is appearing a certain position but in the place of sandy

land of river is very bad. Engineering department of Upazila, personnel endeavoring, initiative of NGO and other Donor's organization has taken initiative but that are not enough for necessity. The present systems of Water drainage in Bagha Upazila are narrated bellow:

Water drainage system

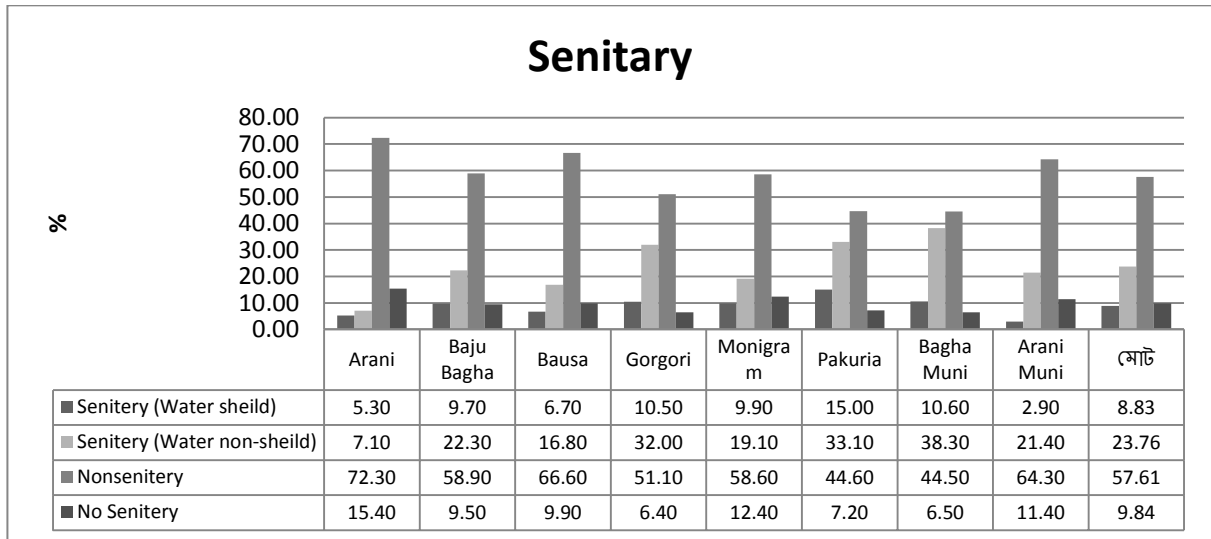


Figure 1.3 As per various forms, the present position of sanitary system in Unions and Municipalities (According to census -2011)

Pan of water sealed sanitary latrine be connected with drainage pipe by 'U' shape pipe which protects all kinds of diseases and it is called safety latrine. But Non water sealed latrine is not entitled of the technology. So water born diseases pervade in everywhere. There 9.6 % family of Bagha Upazila and two Municipalities use Water Sealed Sanitary Latrine, 25.5 % use non-water sealed latrine, 55.5 % use unhygienic latrine and rest of others have no latrine. The above grapes have indicated the present position of the locality.

A large numbers of families of Arani, Bousha, Monigram and Bajubagha union use non water sealed latrine.

Library/ Educational Institute.

Bagha Upazila is very attractive for its education level and historical events. There many reputed educational institutes of govt. and non Govt are available and also have Madrasa here. Not only that, but also have library in Bajubagha and Arani. The present position of educational institute is narrated.



Figure1.8: School cum shelter

It is cited that many school use to utilization as a shelter, but favorability and facility were not enough. Many institutions have damaged for erosion of river and others are not conducive for lack necessary goods and other facilities. Yet in that perplexing plight two Schools are using as safe shelter and its powers of retention are very low. Almost schools are one storied. So, men and cattle can live separately. Erenow those institutions were not used as safe shelter. Those schools are situated on the high land nearer to the household. As a result almost people of the location move around the schools. In that

position those may be use as shelter for the local people in time of calamity. If those buildings be renovated by relinquishing all type of structural hindrances, building up separate latrines for male and female, securing of potable water, different high place for cattle then those should be indicated as a safe shelter for the well being of wretched people and goods, livestock and livelihood damage would be reduce.

Religious institutions;

There 247 Mosques have situated in six Unions and two Municipalities of Bagha Upazila and those are : 48 in Gargari Union,40 in Pakuria Union,52 in Arani Union,25 in Bajubagha Union,45 in Bousha union,50 in Monigram Union, 14 in Bagha Municipality and 17 in Arani Municipality and also have 1 orphanages, 3 Majar Sharif and 2 monastery. Not only but also have situated 36 Mondirs in the locality and



Figure1.9: Bagha shashi mosque

among those 6 in Monigram Union,6 in Pakuria Union, 10 in Arani Union 2 in Bajubagha Union4 in Bowsha Union 2 in Gargari Union, 4 in Bagha Upazila Municipality and 2 in Arani municipality. But erenow those were not used as shelter in disaster period. It is cited that all kinds of religious institute built up on the high land of the locality nearer to the location and people move around. As a result those do not be damaged or inundated in disaster period. All kinds People of the location ponder that those religious institutes’ may be use in disaster period as those are situated in the high place of the location and would prevented damages of goods.

Eidgah

There are 144 Eid-Gha Field located in the Bagha Upazila and those are 40 in Gargari,10 in Pakuria Union, 11 in Arani Union,10 in Bajubagha Union,12 in Bousha Union, 38 in Monigram union,13 in Bagha Municipality and 10 in Arani Municipality. As per version of the local people those were not used in the previous period of disaster. Those fields use to utilize in two times of the year. As a result, those fields use to cover by coppice. If those fields be renovated by the initiative of Union Parishad, that would be conducive in disaster period for shelter of cattle.



Figure1.10: Largest eid prayer take place in Baghashashi moscae

Graveyard/ Crematorium

There are 33 Graveyards in Bagha Upazila. Among them, 4 in Gargari Union,7 in Pakuria union,4 in Arani Union,3 in Bajubagha Union, 8 in Bousha Union, 5 in Monigram Union, 1 in Bagha Upazila Municipality and I in Arani Municipality. Also have one Crematorium in Gargari union. Those are situated on the remote and high place in the locality and those are covered by coppices. Those do not become submersed by inundation.

Health Services Centre.

There are few quantities of Health Service Centers available in the Bagha upazila, it is narrated below : In Bagha upazila- Health Complex centre is one and Sub-Centers are seven, Health and Family Planning Centre in 4 Unions are four, Community Clinic are 20 and Diagnostic Centers are 3 nos. Those do not indicate good health service delivery system in the remote places of the locality for the hapless people. Almost people of sandy lands of river get treatment from rural Doctors and Kabiraz. There 25 Doctors are appointed in the Upazila. But 12 Doctors, among them one Woman are serving there. Also there have 11 nurses and one Ambulance.



Figure1.11: Health Complex in Bagha Upazila

There are six thousand people live in sandy land of river. Death ratio of child and lactation mother are high than other place, because of communication, scarcity of medicines and proper doctors as they depend on rural doctors and Kabiraz. In time of moral crisis all sort of people run to Rajshahi Medical College Hospital and that takes more time which causes a heart-rending plight. They have to face death or other crisis.

Bank

There are 6 Banks in Bagha Upazila. It gives services to the denizen of the Upazila. There are 4 have Insurances Company like delta Life insurance, Fareast Life Insurance, Progressive Life Insurance and Meghna Life insurance.

Post Office

At present modern post office are available there. There are 16 Post Offices in the Upazila. Those Post Offices are delivering service in good manner. They also are serving monetary linkage services.

Club/Cultural Activities/ Enjoyable centre

There are 33 Clubs in Bagha Upazila. Among them 6 are in Gargari Union, 2 in Pakuria union, 13 in Arani Union, 4 in Bajubagha Union, 2 in Bousha union, 7 in Monigram Union and 10 in Upazila Municipality.

Play Ground / Place

There are 42 Play Ground in the Upazila and those are situated in Gargari Union-4, in Arani Union-9, in Bajubagha Union-6, in Bousha Union -4, in Monigram union-7 and in Bagha Municipality -5 nos. Almost Play Grounds are plain and smooth. Some grounds are on low land and become submerged in rainy season. If those were high land people would use in disaster period.

N.G.O /Voluntary Organization

There are 25 NGO existing in the Upazila. Bagha Upazila is disaster prone location. Those NGO are performing various activities in calamity to fetch off and fetch up from the devastated plight. In consecutive of the activities ASHA, SUCHANA, NODI and JIBON, SAWCHATAN, TANDA MARI MOHILA SABUJ SANGA, BRACK and others.

Forestation:

Social Forest Department of Rajshahi District has taken an initiative to build up forest in the raising sandy land of the river through the project 'Biodiversity conservation and poverty Reduction' and that is going on with full of go. In consecutive of the activities tree plantation

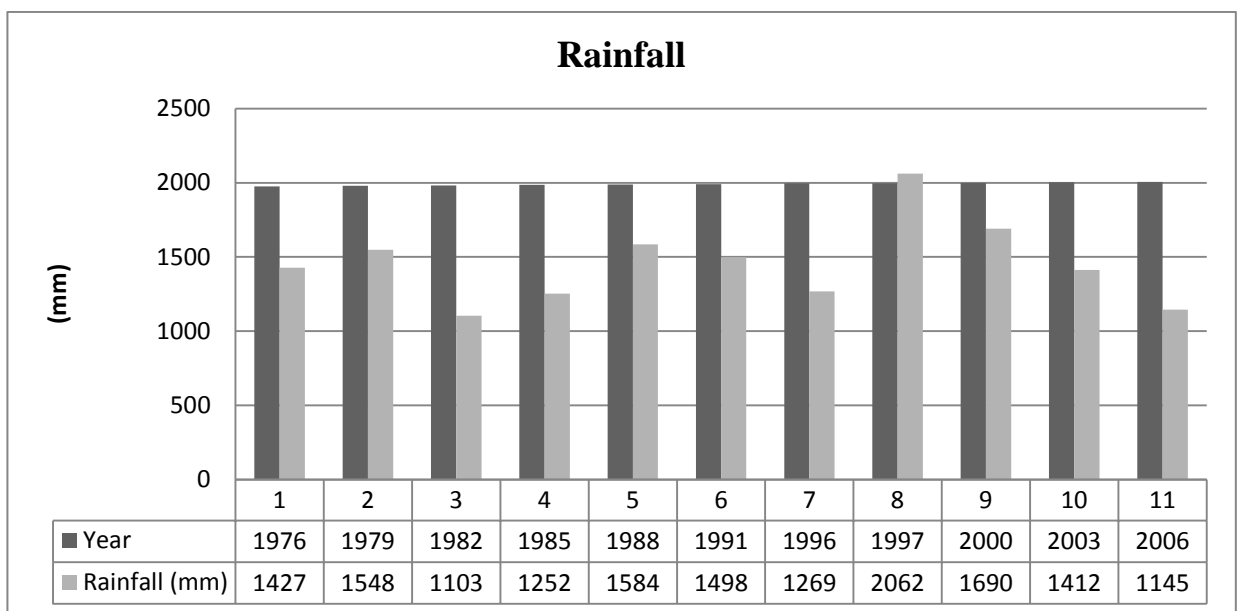
on the road in every Union of the Upazila are going on. There are 50 KM. roads are covered with trees. Also people of the location have taken initiative to plant tree in their location.

1.4.3 Weather and Climate

Average rate of downpour of the Upazila is 45". Sometimes that comes up or down. Effect of diversity of seasons, heavy downpour or dryness is sustainable in the location. In dry season rate of temperature becomes high.

Stream of rain

As per Scientific information in the last 31 years, average rain fall in Rajshahi was 2241 mm. In the previous ten years that was 1639 mm. In the year 1993 that was 1623 mm. The lowest rate of rain fall was 843 mm. in 1992. From the year 1996 to 2005 the rain fall was very high. In 1997 that was 2062 mm.



Graph1.4: Yearly rainfall amount

Temperature

As per Scientific information in the last 15 years (from 1979 to 2004), average temperature in Rajshahi was recorded and that was – in 1979 was 31.1 ° and in 1983, the lowest was -20°.

Table1.4: 31 Years Average Amount of Maximum & Minimum Temperature.

Year	Highest Temperature	Lowest Temperature	Year	Highest Temperature	Lowest Temperature
1979	31.8°	21.1°	1995	31.2°	20.6°
1980	31.2°	20.9°	1996	31.5°	20.5°
1981	30.5°	20.5°	1997	30.5°	20.2°
1982	31.7°	20.3°	1998	30.9°	20.1°

r	Yea	Highest Temperature	Lowest Temperature	r	Yea	Highest Temperature	Lowest Temperature
3	198	30.9°	20°	9	199	31.6°	20.1°
4	198	30.9°	20.2°	0	200	30.7°	20.6°
5	198	31.3°	20.3°	1	200	31.2°	20.5°
6	198	31°	20.1°	2	200	31°	20.6°
7	198	31.5°	20.5°	3	200	30.8°	20.7°
8	198	31.4°	20.4°	4	200	31.1°	20.7°
9	198	31.4°	19.4°	5	200	31.3°	20.9°
0	199	30.9°	19.6°	6	200	31.7°	21°
1	199	31.3°	19.8°	7	200	32°	21.1°
2	199	31.6°	19.7°	8	200	32.2°	21.2°
3	199	31.1°	20.1°	9	200	32.5°	21.3°
4	199	31.1°	20.°4				

Source: Field Trip, 2014

Water layer in the bowels of the earth

The water layer of the earth is continuously going down due to miss use of water and that is increasing day by day. As a result the effects of that are very alarming for the environment. The climate of the zone is not conducive. It is decreasing and going on to the horrific effect which would devastate the zone and it is ostensible. The balance of power of the environment is not sustainable. The rain fall in rainy season are very low, in dry season the temperature is raising high and in midnight have to face cold. This is the signal of tremendous horrific effect of the locality.

For the various causes water layer in the bowels of the earth is going down. The main causes of the plight are system less agricultural activities, water collection from earth for cultivation, dryness in the locality and etc. in the dry season people have to face scarcity of water horrifically.



Figure1.12: Waiting for water collection

1.4.4 Other resources

Land and its utilization

Total lands of Upazila in 6 Unions are narrated bellow;

Cultivation Lands are 45756 Accor.

Govt. acquired lands are 4048 Accor

Non cultivation lands are 35630 Accor

Cultivation lands under irrigation are 144 Accor

One term crops land are 2340 Accor

Two terms crops land are 3060 Accor

Three terms crops land are 290 Accor

Cultivation and victuals

The main victuals of the people in Bagha Upzila are price .mango, sugarcane and other various foods. They cultivate in a year paddy 9311.11 mt. Boro paddy -5173.86 mt. Ause paddy-2554.25 mt. Amon paddy-1583 mt and so on.

River

Two rivers in Bagha Upazila are running. Padma is Main River in the locality. Boral is another and that is running over the Upazila. Total river and in the locality are 410 Hector.

Pond/ Dighi

There are 1950 pounds in the Upazila. Among them in Gargari Union are 60, in Pakuria Union are 153, in Arani Union are 354, in Bajubagha Union are 220, in Bousha Union are 530, in Monigram are 488 and in Municipality are 250.

Haour/ Marshland

Total marshland in Bagha Upazila is 5 Hector.

Arsenic Pollution

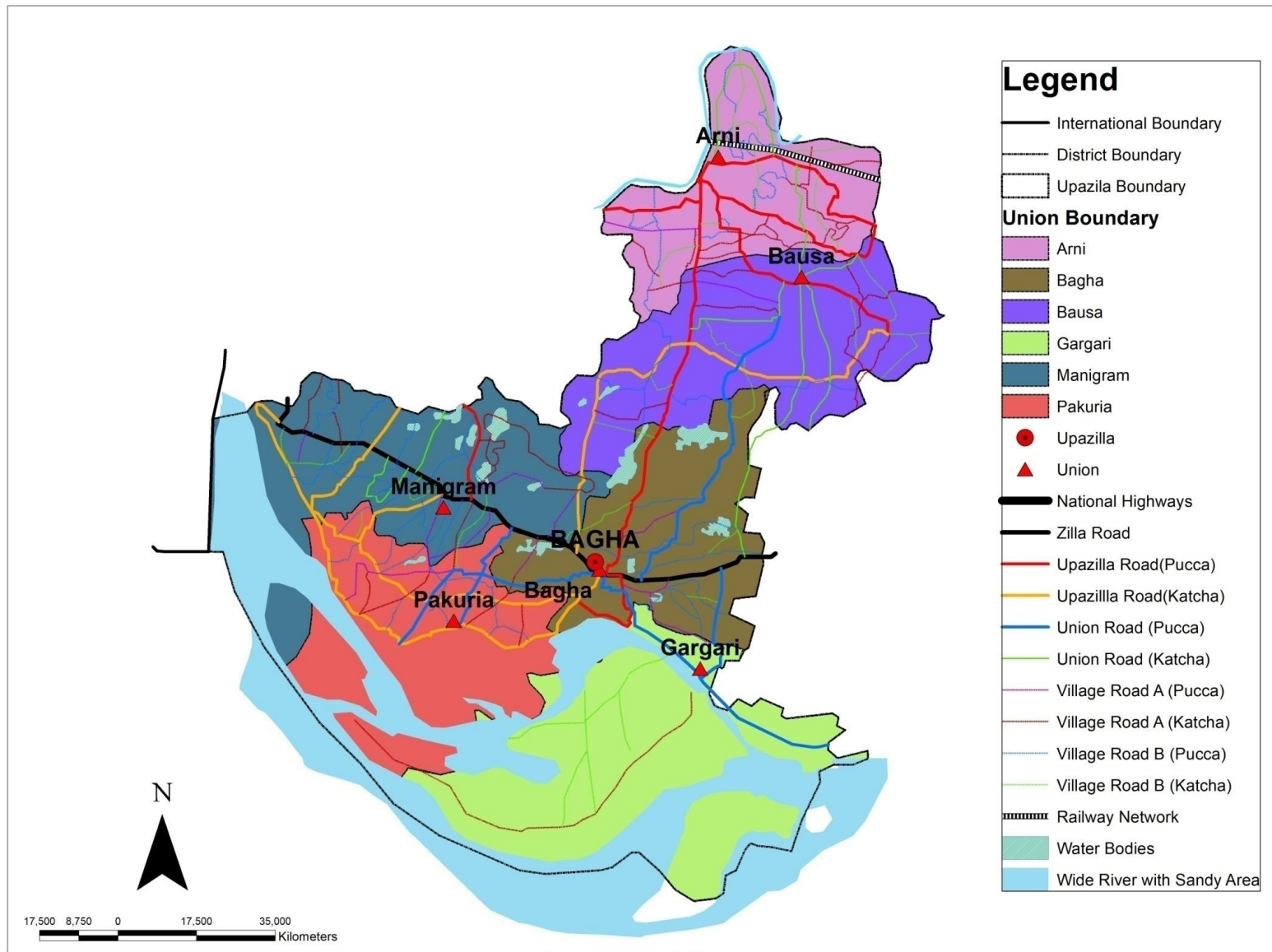
It is ostensible that Pestilence of Arsenic is pervaded in everywhere in the Upazila. The water of the shallow tubes well is almost Arsenic polluted and not drinkable. In dry season water layer of the earth go down. Then people have to face scarcity of water. At present it is proved that 14864 pond of 16206 are free from Arsenic. There are many people suffering from Arsenic.



Figure1.13: Agricultural land in upzila



Figure1.14: Boral river during drought



Chapter Two

Disaster, Adversity and Affliction

2.1 Overall Scenario of Disaster

Bangladesh is a disaster prone country in the World Map. It is the most vulnerable devastated country among others, caused by the effect of climate change.” Climate well be changed in future” this was the prediction. But it is not true. At present it is happening periodically in the country.



In every year, inhabitants of Basgha Upazila have to face any one disaster. By analyzing, it is seen that erenow in the year 1988, 1998, 2003 and 2004 Bagha Upazila faced mournful horrific disaster. After the

year 2000, disaster is appearing as a white squall and devastating agricultural land, education and health service institutions, livestock, livelihood, household and biodiversity of the locality and effects of that people are becoming destitute, wretched and pauper. Due to inundation, there 500 to 600 family who were living on the rising land of river bed have devastated. In 2003 due to heavy rain fall more than 200 mud made houses and 500 Accor of paddy land were damaged. Not only that but also TORNEDO in 2003 devastated the location.

In the year 2005 sunray/drought devastated 700 Accor paddy land and fishes of 712 ponds. In the from 2004 to 2006 by the horrific storm destroyed mango garden, houses and other livestock.

Diagram of disaster- narrated bellow

Table 2.1: Name of disaster, Year, damage, damage of goods

Name of disaster	Year	Scenari o of damage	Name of damaged goods
Sunray	1976,1979,1989,1992,1996,1999,2004,2005,2007,2010,2011,2012	Very Much	Agricultural resources. Health services
		Middle	Fishes. cattle
Inundation	1988,1998,2013	Very much	Fishes, Health sector, Structure Communication
		Middle	Agricultural resources/animals
Kal-Baishaki storm	1988, 1992, 1995, 1997, 2004, 2006, 2009, 2011, 2014	Very much	Cultivation ,Human resources, structure
		Middle	Fishes, cattle, communication
Erosion	1988, 1998, 1999, 2000, 2005, 2006, 2013	Very Much	Agriculture, Structure, Roads, and so on
		Middle	Fishes, Cattle, Human resources.

2.2 Scenario of catastrophes of the Upazila

Various catastrophes direct or indirect damage various places or institutions in all locations of the Upazila Bagha. It is climatic and man's creation. These 8 kinds of adversities have been identified as per discussion with local people and it is gradually appearing horrifically.

Table 2.2 : Hazard & Hazard's Identification & priority

Natural Calamity in all location of the Upazila - Bagha		Main Hazards
Natural Hazards		1. Drought 2. Flood 3. Storm 4. River Erosion 5. Water Layer 6. Heat Wave 7. Drizzle 8. Arsenic
1. Drought	10. Earthquake	
2. Heat Wave	11. Sunray weather	
3. Water Layer	12. Inundation	
4. Heavy downpour	13. Tornado	
5. Fridity	14. Hail-storm	
6. Sunray	15. Thunderbolt	
7. River Erosion	16. Insect attack	
8. Thick fog	17. Flood	
9. Arsenic	18. Drizzle	
Human Creation Hazards		
18. Conflagration	19. Nonconductive activities of men	

Source: Field trip, 2014

2.3 Various Catastrophes and Its Present and Future Effects

Sunray creates in this location by the causes of climate change and want of rain fall in dry season. Invasion of sunray is the general scenario in the location. The people face sunray in two times in a year, It is Chaitra to Jhaistta and Vadra to Kartic mash. Then have to face various problems and its effect fall on cultivation of land, fisheries, trees, animals and birds. All sort of canal, somewhere small river become dry. Layer of ground water go more down. If this perplexing plight runs continuously, this location would fall in dangerous position.

Drought

This location does not face tremendous inundation generally. Sometimes have to face by the causes of heavy rain fall and all territory become submersed for the over follow of water of Padma and Boral river and that brings devastation. Inundation for heavy rainfall in the year 1988 and 2003 are ostensible. In that people faced various problems and lost their household, livestock and livelihood.

River erosion



Figure 2.2: Drought forecast by local news paper Figure

In the year 2013 Bagha Upazila faced river erosion. Gorgori, Pakuria and Monihgram Unions were damaged by its horrific effect. In every year erosion of river occurs and it is increasing alarmingly.

Kal Baishakhi Storm

Kal-Baishaki storm attacks from North –East in the locality in the month April and May along with thunderbolt and hail-storm. Once, this location was attacked by the Kal-Baishakhi after two or three years. But from the year 2004 it is happening now and then and damaging everything.



Figure2.3: Damaged river site owing to havev strom

Temperature

As per Scientific information in the last 15 years (from 1979 to 2094), average temperature in Rajshahi was recorded and that was – in 1979 was 31.1 ° and in 1983, the lowest was -20°. Bagha Upazila also a part of the District. So, have to Temperature in the month of Chaitra, Baishakh, and Jhasta. It is increasing every year and devastating various resources as well as livelihood.

Water layer in the bowels of the earth

The water layer of the earth is continuously going down due to miss use of water and that is increasing day by day. As a result the effects of that are very alarming for the environment. The layer of water is very low in Bagha Upazila. It is more than 60' -90'

Arsenic Pollution

It is ostensible that Pestilence of Arsenic is pervaded in everywhere in the Upazila. The water of the sallow tubes-well is almost Arsenic polluted and not drinkable. In dry season water layer of the earth go down. Then people have to face scarcity of water. At present it is proved that 14864 pond of 16206 are free from Arsenic. There are many people suffering from Arsenic.



Figure2.4: Arsenic affected women.

2.4 Affliction and capability

‘Affliction’ indicates the risky atmosphere of social, economic and nature which is coming up to devastate all and sufferers are not able to prevent.

‘Capability’ indicates the power of prevention of any kind of catastrophic disaster as well as reduces suffering of the heart rending plight.

Table 2.3: Afflictions and Capability

Catastrophes	Affliction	Capability
Sunray/Drough	Alarming sunray devastate cultivated crops. Newborn child, cripple, pregnant women and aged person have to face problem. Fish resources face risk. Scarcity of drinking water comes	There are 45 Tube-Wells in Bagha Upazila. One Health Complex and seven Sub-centers of Health are situated in the Upazila.

Catastrophes	Affliction	Capability
	<p>ahead.</p> <p>Hindrance comes into Communication system</p>	
Inundation	<p>Due to inundation Crops and other resources become damage.</p> <p>Distraction creates into communication.</p> <p>Graveyard become submersed.</p> <p>Newborn child, cripple, pregnant women and aged person have to face problem.</p> <p>Structure becomes Destroy.</p> <p>Fish resources become risky.</p> <p>Scarcity of potable water and victuals come ahead</p>	<p>There are two School and Shelter in Bagha Upazila.</p> <p>16' High embankment</p> <p>There 3 sluice Gate and 173 Culvert are available in Bagha.</p> <p>There are 45% of high Tube-well in the location</p> <p>One Health Complex and seven Sub- centers of Health are situated in the Upazila.</p> <p>Govt, Departments and NGO come ahead to fetch off.</p>
Kal-Baishakhi Storm	<p>Crops fall into damage.</p> <p>Communication system becomes risky.</p> <p>Hindrances come into human resources.</p> <p>Structure becomes damaged.</p> <p>Damages occurred to Fisheries and animals</p> <p>Newborn child, cripple, pregnant women and aged person have to face problem.</p>	<p>178 km. places have forested.</p> <p>One Health Complex and seven Sub- centers of Health are situated in the Upazila</p>
Erosion of river	<p>Crops fall into damage.</p> <p>Communication system becomes risky.</p> <p>Hindrances come into human resources.</p> <p>Structure becomes damaged.</p> <p>Damages occurred to Fisheries and animals</p>	<p>There are 16 km. embankments in Bagha.</p>
Layer of Water.	<p>Hindrances occur into cultivation of crops.</p> <p>Hindrances come into human resources</p> <p>Damages occur to Fisheries and animals</p>	<p>There are 2096 ponds in Bagha Upazila.</p>
Temperature	<p>Due to inundation Crops and other resources become damage.</p> <p>Diseases of Petulance spreads</p> <p>Newborn child, cripple, pregnant women and aged person have to face problem.</p> <p>Fish resources become risky.</p> <p>Scarcity of potable water and victuals come ahead</p>	<p>Forestation has ceated in 178 km land.</p> <p>There are 45 Tube-wells in the Upazila</p> <p>One Health Complex and seven Sub- centers of Health are situated in the Upazila</p>

Catastrophes	Affliction	Capability
Arsenic	Human resources become damage. Create various diseases and potable water becomes ban.	Arsenic occupied tube-wells have indicated by red sign. Treatment of Patient, caused by Arsenic, has assured.

Source: Field Trip, 2014

2.5 The most affliction place

For geographical position Bagha Upazila is the most affliction place. In dry season all sort land become unusable. Almost tree, animal fish farm and crops land become damage. Some time have to face horrific white squall which destroy all sort of livestock.. Erosion of river in rainy season becomes horrific threat.

Table 2.4: Affliction place, Causes, distressed people.

Affliction	Most Affliction place	Causes of affliction	Qty. Of wretched people.
Sunray	Monigram,Arani,Bowsha, Baju Bagha and Gorgari	*Scarcity of potable water. *May be have to face various diseases. *Obstruction of Cultivation crops appear. * Lack of water production of crops becomes decrease.	10000-12200 families.
Inundation	Monigram, Pakuria and Gorgari	* Lack of embankment in the risky place. * Building up houses on a low land. * Unsustainable structure. * Lack of sanitary latrine.	5700- 6000 Families.
Kal-Baishakhi storm	Gorgari.Baju Bagha,Monigram and pakuiria	* Unsustainable structure and unplanned houses. * Want of disaster unsustainable formation. * Devastation of forest.	
Erosion of river	Monigram, Pakuria and Gargori	*Houses build up nearer to river and low land. * Unsustainable houses building up * Breaking of embankment. * Deflate of cannel. * Treeless embankment	4000-5000 Families.

		beside the rivers or roads..	
Layer of Water in the earth	Arani, Bowsha, Bajubagha, Gargari and Monigram	*Unplanned deep tube-well set up. *Devastation tree-plant . *Want of reservation plan of water.	14000-15000 Families.
Temperature	In over all place of Upazila	*Tree-Plant devastation . * Scarcity of potable water * Imminent to face diseases.	10000-12000 Families
Arsenic	Monigram, Pakuria and Bowsha	*Layer of ground water low down *Pervade skin diseases	800-1000 Families

Source: Field Trip, 2014

2.6 Main Sector of Developmental Plan

Bagha Upazila is dependent on crops of cultivation as well as its economic structure. So importance should give to agriculture as well as fisheries, resources of animals livelihoods and health to relinquish adversity.

Table 2.5: Development sectors and coordination with disaster reducing.

Sectors	Narration largely	Coordination with disaster reducing
Agriculture	<p>*If Bagha Upazila face inundation like which happened in 1988 then Monigram, Pakuria, Baju Bagha Gargari and Bagha Municipality probably should have to face devastation.</p> <p>* If the Kal-Baishakhi storm hit the territory then almost 25759 Accor of paddy land will be devastated.</p> <p>* Almost people should have to face heart rending plight of disaster.</p> <p>* Effect of lower layer of water will be alarming hindrance in agriculture sector.</p> <p>* Arsenic is one kind of ban in the locality. So, should have to take action to protect. Otherwise agriculture as well as health of human being will face mournful situation.</p>	<p>*Sustainable crops for marshland would have to supply as well as should have to take initiative for reserving rain water to grow seedling of crops.</p> <p>* Embankments will have to build up to protect flood water.</p> <p>* Will have to take action to deflect water from the location.</p>
Fish resource	<p>* Fish cultivation in 1950 ponds will be stopped which is the sources of earning of the local people.</p>	
Animal resource	<p>Animal which is an important resource in the location will be devastated.</p>	<p>Mud made Kellah may be a helpful place for protect the animal resource.</p>
Health sector	<p>Water becomes polluted in the time of inundation. So, that water will create</p>	<p>*Should have to create awareness among the people</p>

Sectors	Narration largely	Coordination with disaster reducing
	heartrending plight for the location and people will have to face various diseases and almost child will pass away.	for taking health care. * Should have to increase the quantity of the health care centre in the location. * Needed to rehabilitate the distress people.
Livelihood	The people of the locality alive depending on various livelihood cattle rearing, cultivation of crops fisheries and so on. They will lose their all kinds of livelihood at the time of climatic adversity.	*Should have to take initiative to create a way for earning livelihood at the of calamity. * Needed to build up capacity to earn sustainable livelihood.
Tree	At the time of disaster all kinds of trees will be devastated by its horrific effects and that will bring natural problem which create climatic action.	Sustainable tree which is the main protector of climatic disaster is needed to do plantation in the locality.
Living houses.	Almost houses in the locality are mud made. So in the time of inundation or disaster have to face devastation of damage.	*It is needed to build up house on the high land or place. * Should have take initiative to build up sustainable house.
Structure	There are many Mosque, Schools, Mondir Madrasa, Shelter, Health Centre, Govt, Office and Hospital in the Upazila. At the time of disaster those may be fall into risk which might be causes for destroy. Needed to be carefulness in that aspect	In that position it is needed to throw look to the structure
Sanitation	Almost latrines are mud made and situated in the low land beside the houses. In the time of disaster or inundation all latrines drown under water. Then people have to excrete in the unsaved places and those in time become the causes of various diseases.	To face climatic effect it is needed to build up sustainable latrine which will not destroy in disaster.

Source: Field Trip, 2014

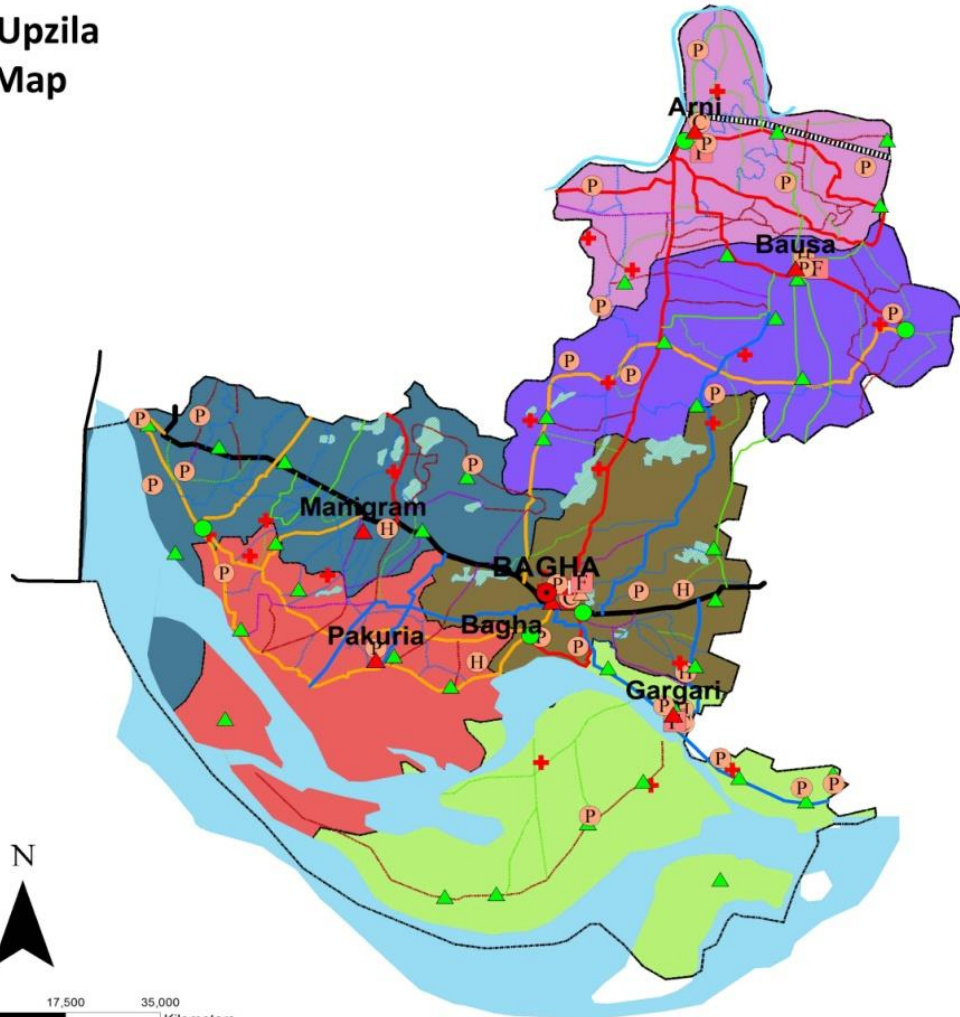
2.7 Social Map

Social Map was prepared as per conversation with the local people and organization and that has indicated all important places, atmosphere of the of the location, Roads and communication, culvert, bridges, houses, Govt. and Non Govt. Organization, Hat Bazaar, Play Ground, praying places and so on.

2.8 Map of Disaster and Risk.

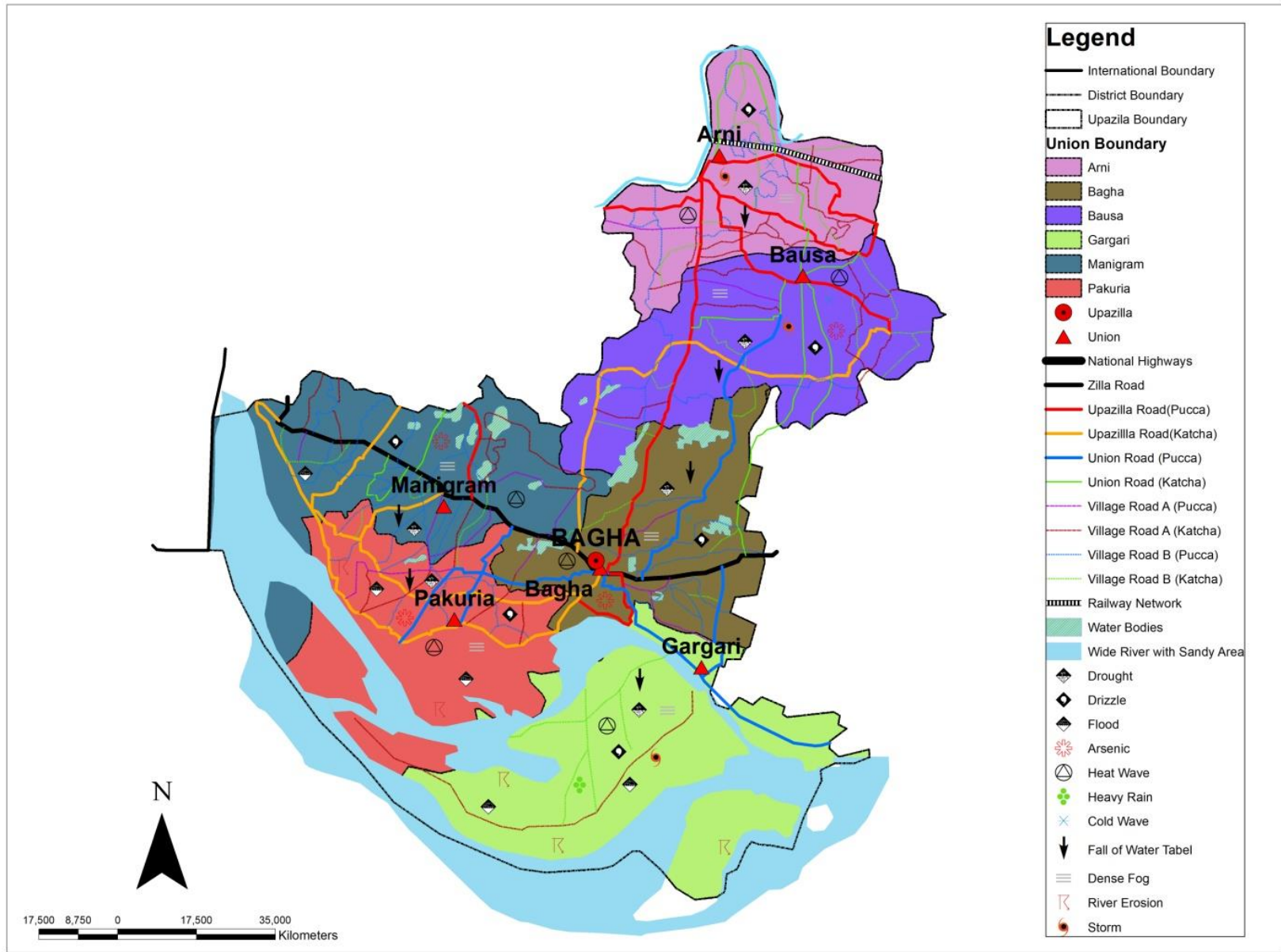
That Map has prepared by following the narration about disaster of the local people. What kind of disaster has to face have indicated in the map.

Bagha Upzila Social Map



Legend

- International Boundary
- - - District Boundary
- Upazila Boundary
- Union Boundary**
- Arni
- Bagha
- Bausa
- Gargari
- Manigram
- Pakuria
- Upazilla
- ▲ Union
- National Highways
- Zilla Road
- Upazilla Road(Pucca)
- Upazilla Road(Katcha)
- Union Road (Pucca)
- Union Road (Katcha)
- Village Road A (Pucca)
- Village Road A (Katcha)
- Village Road B (Pucca)
- Village Road B (Katcha)
- ▨ Railway Network
- Growth Centre
- Post Office
- Police Station
- F Family Welfare Centre
- ▲ Moque
- ▲ Rural Market
- + Community Clinic
- H Upazilla Health Complex
- P Primary School
- M Madrasa
- C College
- H High School
- Water Bodies
- Wide River with Sandy Area



2.9 Seasonal catastrophe Calendar

People of the Bagha Upazila have to face various hindrances of lives in the year. It is storm, inundation, sunray, effect of drought, scarcity of water in dry season and etc. As per narration of the local people that has prepared.

Table 2.6: Monthly calendar of catastrophe.

catastrophe	Season													
	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
	Boi	Joi	Ash	Srab	Vad	Ash	Kar	Augr	Pous	Mag	Fal	Choi		
Sunray														
Erosion														
Arsanic														
Draught														
Kal-Baishakhi														
Temperature														
Water Layer														

Source: Field Trip, 2014

How many days or months catastrophe be available in the location with its horrific effects has marked.

Draught: It prevails from the month of March to June in every year and the aftermath of its has indicated.

Inundation: Due to inundation what mournful plight be create has indicated in that journal

Erosion of River: Effect of erosion has indicated in the journal.

Layer of Water: Layer of Water has been indicated by the local people as the most problem. It effects on lives and cultivation as well as atmosphere.

Temperature: Temperature is a great problem. Aftermath of temperature bring various problem which have narrated in the grape.

2.10 Calendar of livelihood of the year.

Though almost denizen of the location is dependent on paddy cultivation and other agriculture, yet a large numbers of people are dependent on other sources like fish, laborer, carpenter and so on.

Table 2.7: Calendar of livelihood.

Source of livelihood	Season													
	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
	Boi	Joi	Ash	Srab	Vad	Ash	Kar	Augr	Pous	Mag	Fal	Choi		
Cultivator														
Labor of cultivation														
Uncultivate labor														
Fisher cultivator														
Fisherman														

Source of livelihood	Season											
	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Boi	Joi	Ash	Srab	Vad	Ash	Kar	Augr	Pous	Mag	Fal	Choi
Mango farmer												
Boatman												
Business man	They were remain very busy during the religious festivals.											
Service holder	Round tha year they were remain very busy											
Driver of Nosimon/ Karimon												
Handicrupt ures												
Wood carpentar												
Mason												

Source: Field Trip, 2014

2.11 Calendar of Livelihood and Lives

Those has been indicated below

Table 2.8: Calendar of livelihood and lives

livelihood	Disaster							
	Sunray	Inundation	Layer of Water	Erosion of river	Coldness	Fogginess	Drought	Kal Baishakhi Storm
Cultivation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fish	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Labourer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Businessman	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

Source: Field Trip, 2014

2.12: Sector Wise Disadvantage and Risk

As per discussion with the local person's disadvantages and risk has been indicated in the table.

Table 2.9: Sectorwise Life and Livelihood Related Vulnerability

Disaster	Sector									
	Crops	Trees	Cattle	Fish reasources	Houses	Roads	Bridge	Educati onal Institut	Health sector	Shelter centre
Inundation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Erosion of river	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Sunray	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	
Kal Baishakhi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fifa			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	
Layer of Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	

Disaster										
	Crops	Trees	Cattle	Fish resources	Houses	Roads	Bridge	Educational Institute	Health sector	Shelter centre
Temperature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
Arsenic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

Source: Field Trip, 2014

2.13: Climate Change and Its Probable Effect

The Subject has been indicated in the table.

Table 2.10: Sector wise probable effect of disaster

Catastrophe	Disaster Sector	Narration of risk
Sunray	Cultivation	Due to sunray cultivation of various crops cannot be done. As a result scarcity of needs comes ahead as a great problem
	Fish	Fish farm have to face water scarcity and that becomes the hindrance to do.
	Cattle	Sunray destroy grass, the main foods of cattle.
	Water supply	Water for cattle and household activities cannot be supplied due to water scarcity.
	Health	Scarcity of water and other natural effect may be ascribed on human being that brings hale health hazards.
Inundation	Agriculture	Agricultural activities cannot be done due to over flow of water which happened in the year 1998 and 2004
	Houses	Houses go under water or damage. People have to take shelter on the high place losing their livestock.
	Structure	Almost educational institutes go under water. Children or student cannot attend in the school. Not only that various institutes and shelter, health clinic, and so on become damage.
	Communication	Communication with other place not possible.
	Fish	Fish go out for over flow of water and it becomes the ban of cultivators.
	Cattle	Cattle cannot move as well as have to face scarcity of food and other things
	Trees	Over flow of water or inundation devastate trees or forest.
	Nursery	Plant of nursery cannot grow.
Temperature	Health	At the time of inundation people have to face various water born diseases. They cannot move to Doctor for taking care of health.
	Agriculture	Temperature becomes the hindrance of agriculture sector.
	Public Health	People of aged or child have to various problems.

Catastrophe	Disaster Sector	Narration of risk
		Sometimes they attacked by various diseases.
Kal-Baishakhi Storm	Agriculture	Crops of field be damage
	House Structure	All kinds of mud made houses stay in risk. Structure may be damaged
	Cattle	Cattle may be died.
	Public Health	People of aged or child have to various problems. Sometimes they attacked by various diseases
Erosion of river.	Agriculture	Agriculture sector have to face various problems.
	Structure	Structure may be damaged
	Communication	Communication with other place not possible
	House	Houses fall in risk
	Cattle	Cattle may be died
Arsenic	Public Health	Public have to face various diseases by the effect of Arsenic
	Trees	As per scientific analysis it is cited that effect of Arsenic sometimes fall on the trees .
Layer of Water	Agriculture.	Causes of layer of water agricultural activities cannot be performed smoothly. This is a great problem in the location
	Trees	Scarcity of ground water devastates the tree
	Public Health	Local people have to face scarcity of potable water which is the living sources on the earth.

Chapter Three

Disaster Risk Reduction

3.1. Identification of Risk Factors

Table 3.1: Identification of Risk Factors in Bagha upazila

Narration of risk	Causes		
	Immediate	Moderate	Ultimate
Drought, as occurred in 2001, may ruin the agricultural products of approximately 16454 hectares and cause severe financial damage for 201342 people of 43996 families.	1. Lack of irrigation system	1. Lack of deep tubewell 2. Deforestation and short of plantation 3. Low ground-water level	1. Lack of necessary repair of canals 2. Shallowness of river Padma
A sudden attack of seasonal storm may destroy the agricultural products of 5978 hectares that consequently may create financial loss for 43996 families.	1. Lack of mass awareness	1. Interruption in weather reports	1. Deforestation and lack of policies in plantation
A sudden flood like 1988's may ruin the agricultural products of 1230 hectares of cultivable lands causing great loss for 43996 families.	1. Extreme water pressure destroying the dams 2. Heavy ascending wave	1. Decreased navigability because of river erosion 2. Lack of sufficient dams in required places	1. Lack of government policies of dredging system
River erosion may cause financial loss for 33683 families destroying 1230 hectares of sugarcane and paddy lands of 5 unions.	1. Extreme water pressure 2. Heavy rainfall in the month of <i>Sraban</i>	1. Shallowness of rivers	1. Lack of depth of river and proper management 2. Lack of river dam monitoring and implementation committee
Heavy mist is also a threat that may ruin the production of 400 mango trees (dropping out buds) and agricultural products of 16454 hectares of cultivable lands.	1. Interruption in weather reports 2. Lack of mass awareness	1. Lack of agricultural training 2. Lack of awareness in using pesticides	1. Inadequate govt. supply of pesticides 2. Lack of awareness measures from national level
Cold wave is also a threat that may create loss for 43996 families ruining crops of	1. Monsoon wind from the north-west corner	1. Climate change 2. Cold drizzling	1. Deforestation 2. Environment pollution

Narration of risk	Causes		
	Immediate	Moderate	Ultimate
16454 hectors of cultivable lands.			
In five unions, approximately 1395 houses may be devoured by the river causing severe financial loss.	1. Extreme water pressure 1. Heavy rainfall in the month of <i>Sraban</i>	1. Shallowness of river	1. Lack of depth of river and proper management 2. Lack of river dam monitoring and implementation committee
Severe drought may ruin the fish cultivation in 3827 ponds that may lead to financial loss and spoil 4300 metric tons of fish production in Bagha Upazila.	1. Lack of irrigation system	1. Shallowness of ponds	1. Lack of govt. steps in necessary repairing of ponds
38% of earthen houses can be devastated by the flood that leads to suffering and economic loss for 28497 families.	1. Extra upstream water pressure	1. Housing in low lands 2. Unplanned housing	1. Lack of govt. policies in building infrastructure
In five unions, approximately 30 kilometers road and 17 academic structures may be devoured by the river, which may result in unexpected disruption in education of 3400 students.	1. Soft river banks because of heavy rainfall	1. Shallowness of river	1. Not strengthening the river banks
.Cold wave seriously affects livestock 8600 cattle may die of cold wave that may cause severe financial damage for 54001 families.	1. Weather change 2. Cold drizzling	1. Cutting down big trees/ deforestation	1. Deficiency in management of forest department
Low rainfall may destroy agricultural products of 6978 hectors that may create a scarcity of food and financial loss for 54001 families in Bagha Upazila.	1. Lack of sufficient drinking water	1. Unplanned cultivation	1. Lack of repairing of old tube wells 2. Lack of steps to set up deep tube wells
Drought may cause different kinds of skin diseases and other problems among 50% of the population and financial loss for 54001 families of Bagha Upazila.	1. Lack of mass-awareness	1. lack of hospitals/ health centers	1. Lack of govt. measures in health sector 2. Lack of rules and planning

Narration of risk	Causes		
	Immediate	Moderate	Ultimate
A sudden storm like 2003's may smash down 54 of academic structures, which may result in unexpected disruption in education.	1. Interruption in weather reports	1. Lack of awareness measures 2. Deforestation	1. Lack of rules in plantation
8600 of cattle may be affected and die of different diseases because of cold wave that may cause severe financial damage for 54001 families.	1. Lack of awareness	1. lack of veterinary treatment	1. Lack of veterinary hospitals

3.2. Identification of Ways of Risk Reduction

Table 3.2 Identification of Ways of Risk Reduction in Bagha upazila

Narration of risk	Possible ways of risk reduction		
	Short-term	Medium	Long-term
Drought, as occurred in 2001, may ruin the agricultural products of approximately 16454 hectares and cause severe financial damage for 201342 people of 43996 families.	1. Proper irrigation system	1. Sufficient deep tubewells 2. Avoiding deforestation and promoting plantation	1. Canal repairing 2. Dredging river
A sudden attack of seasonal storm may destroy the agricultural products of 5978 hectares that consequently may create financial loss for 43996 families.	1. Arising mass awareness	1. Continuity in weather reports and proper explanation	1. Avoiding deforestation and promoting plantation by govt. policies
A sudden flood like 1988's may ruin the agricultural products of 1230 hectares of cultivable lands causing great loss for 43996 families.	1. Dam management	1. Dredging the rivers 2. Strengthening the river banks with closely set stones	1. Blocking the river edges imposing government policy
River erosion may cause financial loss for 33683 families destroying 1230 hectares of	1. Measures to prevent water pressure with tin,	1. Raising navigability of rivers	1. River dredging and forming and managing of implementation

Narration of risk	Possible ways of risk reduction		
	Short-term	Medium	Long-term
sugarcane and paddy lands of 5 unions.	bamboo and sand piles	2. Setting dams	committee 2. Constructing dams on rivers 3. Allotting budgets
Heavy mist is also a threat that may ruin the production of 400 mango trees (dropping out buds) and agricultural products of 16454 hectares of cultivable lands.	1. Maintaining continuity in early weather reports 2. Creating mass awareness	1. Timely use of pesticides 2. Arranging training on agriculture	1. adequate govt. supply of pesticides 2. awareness measures from national level
Cold wave is also a threat that may create loss for 43996 families ruining crops of 16454 hectares of cultivable lands.	1. Measures for protecting crops from cold wave	1. Creating mass awareness	1. Sufficient plantation by forest department
In five unions, approximately 1395 houses may be devoured by the river causing severe financial loss.	1. Measures to prevent water pressure with tin, bamboo and sand piles	1. Raising navigability of rivers 2. Setting dams	1. River dredging and forming and managing of implementation committee 2. Constructing dams on rivers 3. Allotting budgets
Severe drought may ruin the fish cultivation in 3827 ponds that may lead to financial loss and spoil 4300 metric tons of fish production in Bagha Upazila.	1. Proper irrigation system	1. Allowing lone to fish cultivators for increasing depth of pond	1. Govt. steps in necessary repairing of ponds
38% of earthen houses can be devastated by the flood that leads to suffering and economic loss for 28497 families.	1. Prevent water pressure with sand piles	1. Building houses on high lands	1. Forming govt. policies in building infrastructure
In five unions, approximately 30 kilometers road and 17 academic structures may be devoured by the river, which may result in unexpected disruption in education of 3400 students.	1. Protecting river banks with sand piles	1. Raising navigability of rivers through dredging	1. Setting govt. rules and planning and ensuring proper implementation
Cold wave seriously affects livestock. 8600 cattle may die of cold wave that may cause	1. Talking care of cattle	1. Raising awareness among livestock	1. Constructing govt. policies in building veterinary hospitals

Narration of risk	Possible ways of risk reduction		
	Short-term	Medium	Long-term
severe financial damage for 54001 families.		cultivators	
Low rainfall may destroy agricultural products of 6978 hectors that may create a scarcity of food and financial loss for 54001 families in Bagha Upazila.	1. Proper management of running deep tubewells	1. Planned cultivation with the help of local agriculture department	1. Repairing old tube wells and setting up new deep tube wells
Drought may cause different kinds of skin diseases and other problems among 50% of the population and financial loss for 54001 families of Bagha Upazila.	1. Creating mass awareness	1. Arranging clinics/ health centers	1. Taking govt. measures in health sector And fixing rules and planning
A sudden storm like 2003's may smash down 54 of academic structures, which may result in unexpected disruption in education of 16185 students.	1. Maintaining continual supply of weather reports through radio, television	1. Taking awareness steps 1. Creating mass awareness	1. Making policies for the accommodation of cattle and allowing budget
8600 of cattle may be affected and die of different diseases because of cold wave that may cause severe financial damage for 54001 families.	1. Creating mass awareness	1. Managing treatment for cattle	1. Establishing veterinary hospitals by govt. rules

Source: Field Trip, 2014

3.3. NGOs' Development Plan

Table3.3: NGOs' Development Plan

Sl	NGO	Related Activity Disaster	Beneficiaries (persons)	Amount Number /	Project nDuratio
1	Bangladesh Lutheran Mission-Finnish (BLMF)	Serves training on different awareness raising and developmental activities like academic scholarship, health service, plantation and arsenic test	2800	-	01-05 Years
2	Palli Shishu Foundation of Bangladesh (PSF)	Works on maternal and child health care and birth control through "Shurjer Hashi Clinic"	1000	-	01-05 Years

Sl	NGO	Related Activity Disaster	Beneficiaries (persons)	Amount Number /	Project nDuratio
3	Mousumi Rin	Helps underprivileged farmers and fishermen allowing lone	5200	4500 tk	01-05 Years
4	ASA	Works on micro-finance, plantation, health service, academic lone, raising public awareness of sanitary latrine	3800	2500-10000 tk	01-05 Years
5	Resource Intregation charity (RIC)	Micro-finance activities	1550	2500-15000 tk	01-05 Years
6	Thyangamara Mohila Sobuj Sangha (TMSS)	Employment training and micro-finance activities	500	3000-5000 tk	01-05 Years
7	Dabi Moulick Unnoyan Songtha	Micro-finance activities	2400	5000-50000 tk	01-05 Years
8	Association for Social Organization in Paharpur (ASOP)	Micro-finance, sanitation, goat rearing, sewing training and motivation activities	1700	-	01-05 Years
9	Ashroy	Sanitation, preventing early marriage and stopping dowry	630	Latrin	01-05 Years
10	BRAC	Microfinance activities, social, developmental activities, non-formal education activities	1380	2500-7000 tk	01-05 Years
11	Jatio Kollan Songtha (JaKS)	Microfinance activities	700	2500-10000 tk	01-05 Years
12	Association for Social Organization (ASOD)		932	-	01-05 Years
13	Bureau Bangladesh	Microfinance activities	600	Trained 5 Batch	01-05 Years
14	Caritas	Raising public awareness	890	2500-10000	01-05 Years
15	Jaypurhat Rural Development Movement (JRDM)		540	Trained 3 Batch	01-05 Years
16	Damien Foundation	Medical Services for tuberculosis and leprosy	670	Trained 5	01-05 Years

Sl	NGO	Related Activity Disaster	Beneficiaries (persons)	Amount Number /	Project nDuratio
				Batch	
17	Polli Shree	Increasing social enterprises for women's leadership and empowerment	600	-	01-05 Years
18	Bagha Foundation	Nursery, plantation, sanitation, fisheries, treatment for the disabled and National Day celebration	479	-	01-05 Years
19	WAVE Foundation	Strengthening democratic local governance project	1267	-	01-05 Years
20	Angikar Manob Kalyan Kendro	Microfinance activities	366	-	01-05 Years
21	Community Development Program (CDP)	Microfinance activities	540	-	01-05 Years
22	Asray Amader Prakaalpa	Shelter	350	2500-7000tk	01-05 Years
23	ASODFLS		1300	Trained 4 Batch	01-05 Years
24	Manob Kolyan Parishad	Activities on increasing public awareness about community policing	290	-	01-05 Years
25	Center For Action Research (CAR)		600	Trained 4 Batch	01-05 Years

Source: Field trip, 2014

3.4. Disaster Management Action Plan

3.4.1. Pre-disaster Preparation

Table 3.4: Pre-disaster Management Action Plan

SL	Activities	Goal	Possible Budget (taka)	Location	Possible Time of Implementation	Who & How done (%)				Cooperation with Developmental Planning
						Upazila Administration	Community	UP	NGO	
1	Signal transfer	7 Teams	50,000	Union parisad	feb-March	35	5	30	30	Such activities will help to the local people to reduce loss of disaster due to pre awareness and for take initiative
2	ward level team	85 Teams	140,000	Union parisad	feb-march	35	5	30	30	
3	Identification of information transfer place in local level	70 places	7,000	union, ward village & municipality	feb-march	35	5	30	30	
4	Flag management development for advance alarm of disaster	7 places	70,000	union, ward village & municipality	feb-march	35	5	30	30	
5	Transfer of temporary property	85 Teams	100,000	union, ward village & municipality	feb-march	35	5	30	30	
6	Management of mobile health clinic	7 Teams	80000	Union,municipality	oct-may	35	5	30	30	
7	Drill arrangement	1 in each month	120,000	Union,municipality	feb-march	35	5	30	30	
8	Training of primary treatment	7 teams	24,000	Union,municipality	feb-march	35	5	30	30	

9	Dry food, medicine supply	dry-3 tons Rice/pulse-5 tons	350,000	union, ward village & municipality	feb- april	35	5	30	30	
10	Training of students about disaster	85 school	85,000	Education institution	feb-april	35	5	30	30	
11	collect the phone no of related organizations & persons	UZDMC, UDMC 7 various donor organizations		union parisad & upazila	feb-april	35	5	30	30	

3.4.2. During Disaster Preparation

Table3.5 During Disaster Preparation Management Action Plan.

Program	Target level	Probable budget	Where to do	Probable date of implementation	Who & How will do (%)				Cooperation with Developmental Planning
					Upazila administration	Community	UP	NGO	
EOC	1	Budget will be fixed according to the planning	Upazila Parisad	Emergency period	35	5	30	30	Such activities will help to the local people to reduce loss of disaster due to pre awareness and for take initiative
Signal dissemination	Regular (everyday/every hour)		Throught the Union	Do	35	5	30	30	
Emergency meeting call during possible upcoming hazards	As required		In every word of all union	Do	35	5	30	30	
keeping useable shelter houses	8 groups		Do	Do	35	5	30	30	
Rescue the victims	According to the population of the		Do	Do	35	5	30	30	

Program	Target level	Probable	Where to do	Probable	Who & How will do (%)				Cooperation
	damaged area								
Ensuring health service	Do		Do	Do	35	5	30	30	
Preliminary relief distribution	Do		Do	Do	35	5	30	30	
Bring the people remaining in the risk zone to the secured place	Do		Do	Do	35	5	30	30	
Ensure emergency food supply	Do		Do	Do	35	5	30	30	
Ensure emergency water supply	Do		Do	Do	35	5	30	30	

3.4.3 Post Disaster Preparation

Table 3.6: Post Disaster Preparation

SL	Program	Target level	Probable budget	Where to do	Probable date of implementation	Who & How Far				Adjustment with Development Plan
						Upazila%	Community%	UP%	% NGO	
1	Quickly Rescue	According to the population of affected area & Amount of damage	According to the Amount of damage	UP, Municipality	Immediately after Disaster	40	0	30	30	Reduce the damage of livelihood by quick rehabilitation
2	First Aid of the wounded	Do		UP, Municipality	Do	40	0	30	30	
3	Dead body Buried & Carcass Management	Do		UP, Municipality	Do	40	0	30	30	
4	Compensation Within 72 Hours	Do		UP, Municipality	Do	40	0	30	30	
5	Rehabilitation of the economic hampered	Do		UP, Municipality	Do	40	0	30	30	
6	Debris Cleaning	Do		UP, Municipality	Do	40	0	30	30	
7	Reestablishment of Administration	Do		UP, Municipality	Do	40	0	30	30	
8	Emergency livelihood	Do		UP, Municipality	Do	40	0	30	30	
9	Public welfare	Do		UP, Municipality	Do	40	0	30	30	
10	Road construction & repairing	Do		UP, Municipality	Do	40	0	30	30	
11	Stop Installment	Do		UP, Municipality	Do	40	0	30	30	

3.4.4. Regular Period Preparation

Table3.7: Regular Period Preparation Management Action Plan

Sl No	Program	Target level	Probable budget	Where to do	Probable date of implementation	Who & How will do (%)				Adjustment with Development Plan
						Upazila administration	Community	UP	NGO	
1	Pond repairing and ridge lifting and digging pond for water conservation management	5	Budget will be fixed according to detail planning and volume	Bajubagha Union	December-April	20	10	20	50	Such activities will help to the local people to reduce loss of disaster due to pre awareness and for take initiative
		--		Gorgori Union	Do	20	10	20	50	
		--		Pakuria Union	Do	20	10	20	50	
		--		Arani Union	Do	20	10	20	50	
		4		Monigram Union (Abaspur, Bolohar, Monigram, Horirampur)	Do	20	10	20	50	
		3		Bausa Union (Digahbazar and West Donhoh)	Do	20	10	20	50	
2	Cannel dredging	5km	Budget will be fixed according to detail planning	From Moshidpur to Forajipara under Bajubagah Upazila	December-April	30	10	20	40	
		2km		From Moshidpur to Chondrogati under Bajubagah Upazila	Do	30	10	20	40	
		3km		From Word No 8 to Word No 9 through the end of Bosonto bill under Bajubagah Upazila	Do	30	10	20	40	
		9km		From Parsauta Arajai to Soudpur under Monigram Upazila	Do	30	10	20	40	
		4km		From Binodpur to Bolihar under Monigram Upazila	Do	30	10	20	40	
		3km		From Varalipara to Digha Dhorbila under Bausa Upazila	Do	30	10	20	40	
		5km		From Aampara field to Loutica kalvert under Bausa Upazila	Do	30	10	20	40	

Sl No	Program	Target	Probable	Where to do	Probable	Who & How will do (%)				Adjustment
3	Field raising		3-7 lac taka for every field fill up	Atleast 1 for Eidgah, Graveyard, Play ground in all union and Municipal	December-April			20	40	
4	Construction of shelter house	1	According to Gov.wage rate	Beside the Pakuria Union parisad building	September-May	30	10	20	40	
5	Construction / Repairing of sluicgate	1		Construction of sluice gate in Moshidpur under Bajubagha Upazila	Do	30	10	20	40	
		1		Construction of sluice gate in Alaipur under Pakuria Upazila	Do	50	--	--	50	
6	Construction of damage resistant house	According to the population of the risk zone	Budget will be fixed according to detail planning	Monigram, Gorgori, Pakuria	Do	60	--	15	25	
7	Raising up of house	Do			Do	60	--	15	25	
8	Sufficient plantation around the house	Do		Monigram, Gorgori, Pakuria, Arani, Bajubagha, Bausa Union	Do	20	--	--	80	
9	Early cultivation and sowing of short durated crops	Do			Do	35	5	30	30	
10	Tree plantation	Do		On the riverside and mars of Bagha Upazila	Do	35	5	30	30	

Chapter Four Emergency Response

4.1. Emergency Operation Center(EOC)

In any kind of hazard, Emergency Operation Centre serves any type of active integration. During the disaster period it works 24 hours and data collection, observation, monitoring and asset management. There are an operation room, control room and a communication room in emergency operation centre.

Table4.1:Responsible person ofEmergency Operation Center

S L. No.	Name	Designation	Mobile
1	Upzila Nirbahi Officer (UNO)	Chaiman	01710068615
2	Upazila Project Implementation Officer	Member Sectary	01712279017
3	Upazila Agricultural Officer	Member	01716406225
4	Upazila and Family Planning Officer	Member	01712534890
5	Upazila Answer and VDP Officer	Member	01710059829
6	Sub-Assistant Population Health Engineer	Member	01712213200
7	Social Service Officer	Member	01715507756
8	Upazila Woman Affairs Officer	Member	01191274317
9	Assistant Counselor (Land)	Member	01712063089
0	Upazila Engineer	Member	01711314769
1	Upazila veterinary Officer	Member	01712494794
2	Upazila Food Control Officer	Member	01712247776
3	Upazila Secondary Education Officer	Member	01711111847
4	Upazila Co-operative Officer	Member	01713149029
5	Upazila Youth Development Officer	Member	01760172929
6	Upazila Education Officer	Member	01712233636
7	Upazila Fisheries Officer	Member	01714602346
8	Upazila Rural Development Officer	Member	01746054210

4.1.1. Emergency Control Room Management

- Emergency control room has to be established by Upazila/ Union Parishad Office immediately after disaster. It has to be ensured that there are at least 3/ 4 volunteers and village policemen always in emergency control room.
- Responsible persons of zilla/ charge of control room Upazila are to be in. Three groups each containing three volunteers are to guide the control room alternatively or 24 hours.
- Constant communication with divisional/ zilla sadar is to be maintained.
- 1 room There must be a register in the control room. Persons acting in any schedule, data and information received by and sent to any persons in any specific time are to be written specifically in that register.

- Positions of zilla/ Upazilas, doads, canals, wall of control room so that it may help in dams are to be marked on a map hung on the identifying the most damaged ares at post-disaster period.

4.2. Planning for Hazard Period

Table4.2:Planning for Hazard Period

Sl. no	Activity	Target level	When	Who	Who to Help	How	Contact
1	Preparing volunteers	Volunteer groups should be formed under the guidance of UP members at union level	From February to March	Union Pairsad Chairman	Union Disaster Management Committee	Through Emergency Control Room	UzDMC & UDMC
2	Warning Announcement	Every UP member is to personally ensure the matter of warning announcement in his/ her ward.	From February to March	volunteers	Volunteer groups and Rural Police	Through Emergency Control Room	UzDMC & UDMC
3	Preparing Boats/ cars/ vans	Sufficient numbers of boats, motor vessels, vans are to be preserved to be used in emergency.	From February to March	Local Govt.	Volunteer groups	Through Emergency Control Room	UzDMC & UDMC
4	Rescue Activity	preparing sufficient equipments and human resource for rescue activity assessing accurate loss of disaster	From February to March	Local Govt.	Volunteer groups	Through Emergency Control Room	UzDMC & UDMC
5	First Aid/ health/ dead management	Organizing necessary treatment/ medicines/ health services assessing accurate loss of disaster	From February to March	Local Govt.	Volunteer groups	Through Emergency Control Room	UzDMC & UDMC
6	Collecting and Preparing Dry Food and Life-saving Medicine	Dry food like flatten rice, puffed rice etc. is to be collected from local markets for instant distribution.	From February to March	Local Govt.	Volunteer groups, Health assistant, Family welfare assistant	Through Emergency Control Room	UzDMC & UDMC
7	Treatment/	Collecting necessary medicines	From February	Local Govt.	Volunteer	Through	UzDMC &

Sl. no	Activity	Target level	When	Who	Who to Help	How	Contact
	Vaccine for Cattle		to March		groups, Upazila veterinary hospital and Health centre	Emergency Control Room	UDMC
8	Shelter Management	To keep the shelter house usable maintaining necessary repairing before the disaster prone season	From February to March	Local Govt.	Volunteer groups	Through Emergency Control Room	UzDMC & UDMC
9	Relief Activity	UP chairman has to supervise the relief activity of different relief and rehabilitation assisting groups.	From February to March	UP Chairman	Volunteer groups	Through Emergency Control Room	UzDMC & UDMC
10	Arranging Rehearsals	Arranging continual rehearsals in cyclone/ flood prone areas	From September to May	UP	Village people and Volunteer groups	UP	UzDMC & UDMC
11	Emergency Control Room Management	Emergency control room has to be established by Upazila/ Union Parishad Office immediately after disaster. It has to be ensured that there are at least 3/ 4 volunteers and village policemen always in emergency control room.	during disaster period	Local Govt.	Volunteer groups	UP	UzDMC & UDMC

Source:Field trip, 2014

4.2.1. Preparing volunteers

- Forming volunteer groups under the guidance of UP members at ward level
- Spreading announcement and information to every villages through volunteers
- Distributing duties signals, data collection, rescue, evacuation, shelter management and arranging training on disaster risk reduction among all volunteers

4.2.2. Warning Announcement

- Every UP member is to personally ensure the matter of warning announcement in his/her ward.
- Once in every hour, mike announcements have to be arranged up to 5 no. signals transmitted by radio, television. As soon as the great danger signal (8-9 no. signals) is announced by radio and television, mike announcement and school bell ringing have to be done constantly as danger alarm.

4.2.3. Evacuation Activity

- Every UP member is to start evacuating people to safer places with the help of volunteer groups of that ward as soon as it is announced to evacuate the people of risky areas by radio, television.
- As soon as 8 no. great danger signal is declared, mike announcements and volunteer activities have to be ensured toward every home to direct the vulnerable people to safe places. The vulnerable people must be well-informed of the shelter they belong to.

4.2.4. Rescue and First Aid

- The people of extreme risk zone are to be under the supervision of members of Zilla/ Upazila disaster management committee.
- A fixed deposit has to be run by Zilla/ Upazila disaster management committee for rescue management.
- Temporary health camps have to be set up and directed.
- The sick, the old, children and pregnant women are to be sent toward hospitals immediately.
- Every UP member together with volunteers is in charge of dead body management as well as burial of cattle.

4.2.5. Shelter Management

- To keep the shelter house usable maintaining necessary repairing before the disaster prone season
- To fix the specific shelters to be chosen by specific people in emergency
- To ensure complete safety of women, children and disable persons (in taking shelter)
- To ensure safe water supply and other services
- To help people carry their necessary assets (cattle, poultry, food etc.) to safe places

4.2.6. Preparing Boats

- Zilla/ Upazila disaster management committee is to keep the account of motor-boats and settle on which ones are to be used in emergency.
- The owners of boats are to help them in this task.
- The names and mobile numbers of owners of boats are to be preserved.

4.2.7. Measuring the Damage and Need of Disaster and Sending Report

- Immediately after the disaster, 'SOS Form' is to be sent within 24 hours and 'D Form' is to be sent within 7 days to the UP chairman.
- With the help of UP secretary, UP chairman is to collect the reports of every ward and send those to the chairman of Upazila disaster management committee within the next 12 hours.

4.2.8. Relief Activity

- UP chairman has to supervise the relief activity of different relief and rehabilitation assisting groups.
- If any other relief distributor groups come from outside, it is ordered to keep a record of the amount and category of relief and rehabilitation materials and to inform control room of the groups and their assigned areas.
- Union disaster management committee is to fix and distribute the amount/ number of relief materials among people based on vulnerability and damage at ward level.

4.2.9. Collecting and Preparing Dry Food and Life-saving Medicine

- Dry food like flatten rice, puffed rice etc. is to be collected from local markets for instant distribution.
- Food materials like rice, peas, flour, oil etc. and house-building materials like tin, nylon string etc. are to be collected from local markets.
- With the help of health assistant and family planning assistant, all necessary medicines are to be listed and collected at union level.
- Union chairman is to be in charge of assimilation of necessary transportations like rickshaws, taxies and other vehicles to transport relief materials as well as relief workers.

4.2.10. Treatment/ Vaccine for Livestock

- Collecting necessary medicines from Upazila veterinary hospital and preserving those in UP building or health center according to situations
- Arranging necessary trainings on veterinary treatment for the members of union disaster management committee
- Relating experienced persons to veterinary treatment if it is necessary in disaster period

4.2.11. Arranging Rehearsals

- Arranging rehearsals on signal/ warning announcement, evacuation, rescue and primary relief management
- Arranging continual rehearsals in cyclone/ flood prone areas
- Assessing disaster preparation through rehearsals involving the population in April and September each year
- Mentioning in the rehearsals to take the sick, the disable, pregnant women and children to shelter center
- Executing rehearsals, for teaching people of risky areas, in risky villages instead of UP office

4.2.12. Emergency Control Room Management

- Emergency control room has to be established by Upazila/ Union Parishad Office immediately after disaster. It has to be ensured that there are at least 3/ 4 volunteers and village policemen always in emergency control room.

- Union Parishad secretary and responsible persons are to be in charge of emergency control room.

4.2.13. Shelter Centres/ Safe Places

- Places that do not get washed away in flood and lie away from river erosion can be used as shelter centers.
- Selected shelter centers, local schools, colleges, govt. and non-govt., organizations, high roads and dams can be used as shelter centers.

4.3 List of Upazila's safe Place

Table 4.3:List and Description of Safe Places of Upazila

Shelter	Name	Name of Union	Capacity	Comment
Union Parishad Building	Bajubagha Union Parishad Building	Bajubagha	500-700 persons per Union Parisad Building	
	Baosha Union Parishad Building	Baosha		
	Arani Union Parishad Building	Bagha		
	Pakuria Union Parishad Building	Arani		
	Monigram Union Parishad Building	Monigram		
	Gorgori Union Parishad Building	Gorgori		
	Arani Poursova Building	Arani		
	Pourasova Building	Bajubagha		
Elevated Road	Embankment road of Bagha and Arani	Bajubagha, Arani	4 to 5 thousands persons	
Embankment	River embankment road of Padma	Monigram, Pakuria and Gorgori	3 to 4 thousands persons	
School cum Shelter	Joteraghove Government Primary School	Bajubagha	150 persons	
	Polasi Fotapur Government Primary School	Gorgori	60 persons	
Government/ Non-Government Organization	Bagha Upazila Building	Bajubagha	1 to 2 thousands persons	

Source: Field Visit, 2014

Joteraghove Government Primary School

Made: Old building of 3 rooms with roof of tin in 1972. Other New Building was made by 4 rooms with concrete roof in 2008-09 .

Last Repairing: No repairing work in both building at first to last.

Building Floor no: This building is 1st floor with 4 rooms and in fronts a sports field.

Present using: At present this building use in School.

Tube well: 1 unusable

How many latrine and present condition: 1 latrine. Unused. It used by un-high gin way by water.

Polasi Fotapur Government Primary School

Made: This school was made at 2 no Gorgori union's Fatapur polasi village at Bhagha Upazila in Rajshahi District in 1990.

Building Floor no: This building is 1st floor with 6 rooms and in fronts a sports field.

Present using: At present this building use in School.

Tube well: 1 un usable and 1 usable. But need repairing.

How many latrine and present condition: 4 latrine. 1 latrine is use in Teacher and others in Students. It used by un-high gin way by water.

4.4. Formation of Shelter Management Committee

Shelter management is a very significant part of disaster management. Because of lack of proper and suitable management, many shelter centers get useless. Shelter management:

- Saves life and assets during disasters
- Saves livestock during disasters
- Ensures proper use and management of shelter centers

Shelter Management Committee

- There are 7-9 members in shelter management committee.
- The 7-9 member committee consists of UP chairman/ members, responsible persons, social workers, teachers, NGO staffs, land provider, volunteers etc.
- This committee can act as this management committee according to approval of the denizens.
- Half of the committee members have to be females.
- This committee fixes the responsibilities of shelter management.
- It performs the complete supervision and management of shelter center with the help of the denizens.
- It arranges meetings, keeps records of decisions and fixes responsibilities and deadlines for implementation of those decisions.
- The list of shelter management committee is to be attached to Disaster Management Plan.

The places to be used as shelter centers:

- Selected shelter centers
- Local schools, colleges
- Govt. and non-govt. organization
- High roads and dams

Things to be noticed in shelter center are:

- Preserving tent/ polyether/ ORS/ filter/ necessary medicines (Paracetamol, Flagil etc.)/ water purifying tablets/ bleaching powder etc. in shelter centers
- Measures for drinking water and cooking
- Sanitation system (male-female specified)
- Bathing place (male-female specified)
- Keeping clean and waste free

- Safety
- Light
- Hygiene
- Registration of protected people, enlisting and storing of their reserved assets and returning those properly while discharging
- Distributing duties among particular staffs and volunteers for shelter management
- Managing food and treatment for the protected
- Special care for pregnant women, the old and the disable

Use of Shelter Center:

- Shelter centers are mainly used for safe shelter for vulnerable people during disasters.
- Shelter centers can be used in community development activities except disaster period.
- It can also be used as primary ailment center.
- It can be used as school and education center for elderly people.
- It can be used as wireless station.

Shelter Center Management

- Every shelter center should be properly supervised.
- Local steps should be taken to protect the shelter centers from being ruined.
- Plantation should be maintained surrounding shelter centers in a planned way.
- Shelter center should be locked except disaster period.
- Shelter Management committee should be formed according to guideline.
- The list of Shelter Management committee is to be attached to Disaster Management Committee.

Table 4.4: List and description of Upazila Shelter Place

Shelter Center	Name of Shelter Center	Responsible person	Mobile	Comment
School cum Shelter	Joteraghove Government Primary School	Jahanara Khatun	01737665885	
	Polasi Fotapur Government Primary School	Md. Golam Mostofa	01714910033	
Government/ Non-Government Organization	Bagha Upazila Building	Md. Nurul Islam	01712279017	
Elevated Road	Embankment road of Bagha and Arani	Forad Reja	0721-761061	
Embankment	River embankment road of Padma	Ashak Ali	01711379181	

Source: Field trip, 2014

4.5. List of Resources of Upazila (usable during disaster)

Table 4.5: List of Resources at the Upazila (usable during disaster)

Stucture/ Assets	Number	Responsibe Persons	Brief Description
Storage	1	Md. Fajllol Hoaq	Total Capacity 500 Metric ton
Boat	3	Md. Piar Ali	Use for delivering

Structure/ Assets	Number	Responsible Persons	Brief Description
	14	Md. Aliur Rahoman	Use for delivering and fishing
Car	2	Md. Nurul Islam	Member in owner Somity

Source: Field Trip, 2014

4.6. Finance

The income of Union Parishad arises from collecting local tax, approving lease for hat/ bazaars and canals/ swamps and approving trade licenses for business and trade. But, this authority has been taken away from Union Parishad. As a result, its income sources have been reduced. Nonetheless, Govt. is presently allowing Union Parishad 1% of land registration fee that UP used to have the whole of it before. Moreover, after the salaries of gram polices and UP secretary are paid with this money, the rest is seldom sent to UP. Very recently, govt. has taken measures to allow 4/5 laka taka per year directly to UP.

Income of Parishad

There must be a deposit for every Union Prishad.

(a) Local Sources (union tax, rate & fees)

- Tax on yearly fiscal value of household
- Tax on business, trade and profession (trade license)
- Licenses and Permit fees issued by UP
- Lease money
 - Hat/ bazaar leasing
 - Moorage (ghat) leasing
 - Public pond leasing
 - Khoarr (cattle detention place) leasing
- Tax on vehicles except motor cars
- Income from properties
- General deposit of UP

(b) Govt. donation

- Development sector
 - Agriculture
 - Health and sanitation
 - Road construction and repairing
 - Development assisting deposit (LGSP)
- Adjustment
 - Honorary bills for chairman and members
 - Salaries and bills for secretary and other staffs
- Others
 - 1% of and registration tax

(c) Local govt. sources

- Money allowed by Upazila Parishad
- Money allowed by Zilla Parishad

(d) Non-govt. development organization

- NGOs
- CDMP

Various donor organizations and non- govt. development organizations are financing directly to UP to strengthen local govt. A better achievement depends on efficiency, sincerity and, most importantly, good-governance of Union Parishad. UP is supposed to manage the finance considering all the hazards and promoting those that are the major obstacles for the development of the union. UP should prepare, finance and implement every development project relating disaster risk reduction to it.

4.7. Updating and Analyzing Work Plan

2 follow-up committees are to be structured to devise plan.

1. Plan Follow-up Committee
2. Plan Implementation and Management Committee

Actionplan Follow-up Committee

5 members plan preparation and presentation committee

Table4.6: Plan Follow-up Committee contain five member

S. L.	Name	Designation	Mobile number
1	Upazila Chairman	Chairman	01716893141
2	Upazila Project Implementation Officer	Secretary	01710068615
3	Will be select by Chairman	NGO Representative	--
4	Upazila Vice Chairman	General Member	01714604328
5	Upazila Women Vice Chairman	General Member	01716870885

Source: Bagha Upazila Disaster Management Committee, 2014

Responsibilities of the committee:

- Assessing rough plan and devising final plan
- Sector-wise planning activity e.g. consulting Deputy Assistant Agriculture Officer for planning on agriculture, livestock and fishery
- Making the plan pragmatic signifying specific tasks and finance

Plan Implementation and Management Committee

Table4.7: 7-Member Plan Implementation and Management Committee

S. L.	Name	Designation	Mobile number
1	UNO	Chairman	01710068615
2	Upazila Project Implementation Officer	Secretary	01712279017
3	Upazila Women Affairs Officer	Female Member	01191274317
4	Officer In-charge, Bhagha Thana	Govt. Representative	01713373808
5	Selected by Chairman	NGO Representative	01727912417
6	Head Master, Bagha High School	Member	01728174045
7	Secretary, Bagha Bazar Somity	Member	01716279017

Source: Bagha Upazila Disaster Management Committee, 2014

Responsibilities of the committee:

- Every year in April/ May, present work plan must be updated through complete assessment, essential modification and addition. Committee member secretary is personally liable for taking the steps. All necessary amendments must be implemented assessing the flaws of current plan immediately after any disaster.
- Every year in April/ May, disaster management rehearsal must be celebrated by the direction of Management Bureau on national disaster day.

- Disaster management plan has to be approved by District Disaster Management Committee.
- Plan implementation should be supervised.
- Communication with different organization should be maintained.

Chapter Five

Rescue and Rehabilitation Plan

5.1 Damage Assessment

Table 5.1: Sector wise Damage Assessment in Upazila

Sectors	Description
Agriculture	Owing to climate change, a flood like 1988's may ruin the agricultural products of 14746 acres of cultivable land. River erosion may cause financial loss for 33683 families destroying sugarcane and paddy lands of 5 unions. Drought, as occurred in 2001, may ruin the agricultural products of approximately 16454 hectares and cause severe financial damage for 43996 families. As a result of climate change, a sudden attack of seasonal storm may destroy the agricultural products of 39063 hectares that consequently may create financial loss for 175984 people of 43996 households.
Fisheries	Severe drought may ruin the fish cultivation in 3827 ponds that leads to financial loss and lack of protein supply in Bagha Upazila. 1543 cultivable ponds may get washed away by a flood as occurred in 1988. As a result, it is obvious to bring about a scarcity of food, nutrition and protein.
Plantation	As a result of climate change, a storm like 2003's may smash down many a tree in Bagha Upazila. It is a great hamper for environmental balance. River erosion also hampers environmental balance grasping many trees into the river.
Health	A flood like 1988's may create lack of safe place for 60% pregnant women during the flood in Bagha Upazila. It may even cause death because of vulnerable communication. Besides, different epidemics may bring out. Drought like 2001's may cause different kinds of skin diseases and other problems among 50% of the population of Bagha Upazila.
Livelihood	Flood, drought, river erosion, heavy mist, low rainfall etc. seriously affect agriculture, fisheries, livestock and most importantly human resource. 38% people of Bagha Upazila may become workless because of these hazards. As a result, it throws a terrible challenge towards the economic condition of Bagha Upazila.
Water	Heavy drought and low level of water may cause a horrible scarcity of water in 5 unions of Bagha Upazila. As a result damage of 12344 hectares of cultivable land may cause financial loss of almost 33683 families. Besides, different diseases like skin disease can spread all over and agriculture, fisheries and livestock can be severely spoiled.
Infrastructure	A sudden storm like 2003's may smash down 25% of structures including academic and religious institutions, which may result in unexpected disruption of education. 60% of earthen houses can be devastated by the storm that leads to suffering and economic loss for 120806 people. In five unions, approximately 30 kilometers road and some schools, colleges and other structures also may be devoured by the river. 16% of earthen houses may get submerged in water leading 33684 families to be homeless and economically fallen.

Source: Field Visit, 2014

5.2 Rapid/ Early Recovery

5.2.1 Administrative Restoration

S L	Name	Designation	Contact No
1	UNO	Chairman	01710068615
2	PIO	Member Secretary	01712279017
3	OC, Bagha Thana	Govt.Representative	01713373808
4	UWVC	Women Representative	01716870885
5	Related Union/Pourashava/Mayor	Member
6	Related Tag Officer	Member

Source: Bagha Upazila Disaster Management Committee, 2014

5.2.2 Wreckage cleaning

Table5.3: Wreckage cleaning committee in Upazila level

S L	Name	Designation	Contact No
1	UNO	Chairman	01710068615
2	PIO	Member Secretary	01712279017
3	UPAZILA ENGINEER	Govt.Representative	01711314769
4	UPAZILA WOMEN AFFAIRS	Women Representative	01191274317
5	Related Union/Pourashava/Mayor	Member
6	RelatedTag Officer	Member

Source: Bagha Upazila Disaster Management Committee, 2014

5.2.3 Public Service Resume

Table5.4 Public Service Resume committee in Upazila level

S L	Name	Designation	Contact No
1	UNO	Chairman	0171006861 5
2	PIO	Member Secretary	0171227901 7
3	Upazila health and family planning officer	Govt.Representative	0171117384 5
4	UPAZIIA	Member	0171961324 1
5	Related Union/Pourashava/Mayor	Member
6	RelatedTag Officer	Member

Source: Bagha Upazila Disaster Management Committee, 2014

5.2.4 Emergency Livelihood Assistance

Table 5.5 Emergency Livelihood Support committee in upzilla level

S L	Name	Designation	Contact No
1	UNO	Chairman	0171006861 5
2	PIO	Member Secretary	0171227901 7
3	Upazila health and family planning officer	Govt.Representative	0171117384 5
4	UPAZIIA	Member	0171961324 1
5	Related Union/Pourashava/Mayor	Member
6	Related Tag Officer	Member

Source: Bagha Upazila Disaster Management Committee, 2014

Annex 1

Check List of Emergency Plan Implementation

Checklist

The following 'Table' (checklist) has to be checked out immediately after the broadcast of 5 number danger signal by radio/ television and necessary measures have to be taken.

SL	Subject	Yes/ No
1.	If the selected members of volunteer group assigned for warning announcement have been ordered to declare the coming hazard	No
2.	If the responsible persons/ groups are prepared to rescue the people of vulnerable areas	No
3.	If the declaration to keep dry food and drinking water buried under ground for 2/1 days is announced	No
4.	If life jackets for the safety of volunteer groups are provided	No
5.	If the necessary manpower is prepared to keep Union Control Room open constantly	No
6.	If the necessary safety measures for union food storage/ relief storage are ensured	No
7.	Others	Yes

N. B.

- Assessing the checklist, immediate measures should be taken for the flawed sectors.
- It is very necessary to manage life jackets for volunteer groups with union parishad deposit or any other source/ organization.

Checklist

- The following 'Table' (checklist) must be filled and sent to Upazila Nirbahi Officer and District Commissioner discussing in the meeting of Disaster Management Committee within 15th of April/May each year.

S	Subject	Mark (✓)
1	If sufficient food is reserved in Union food storage	✓
2	If the children of risk zones have been served with vaccines	✓
3	If the children (1-6) and their mothers are served with vitamins	✓
4	If sufficient amount of oral saline is reserved in UP Clinic/ Hospital	✓
5	If the members of volunteers group are served with annual training	-
6	If there are necessary drugs and first aid equipments for each shelter	-
7	If there is selected village doctor for each shelter	✓
8	If there is tubewell for each shelter	✓
9	If the doors and windows of each shelter are in proper condition	-
10	If the alternative care taker is present in each shelter	-
11	If there are separate facilities for women in each shelter	✓
12	If there are selected midwives for the taking care of pregnant women in each shelter	✓
13	If mound shelters are selected for the cattle	-

3		
4	1 If the member of volunteers group are aware of their assigned responsibilities.	-
5	1 If there is sanitation facilities each shelter	✓
6	1 If the microphones are activated to spread weather announcement and danger signals	-
7	1 If the people are made aware to preserved dry food and drinking water for at least 2/1 days	-
8	1 Others	-

Annex: 2

Upazila Disaster Management committee

Sl	Name	Designation	Member	Contact
1	Mr.Md. Zinnat Ali	Upazila -Chairman	Chairperson	01716893141
2	Mr.Mirja Shakila Dilhasin	UNO	Co-chairperson	01710068615
3	Frnt.Md.Shafiur Rahman	Upazila vice-Chairman	Memver	01714604328
4	Mrs. Farhana Dil Afroj	Upazila Mohila Vice-Chairman	Memver	01716870885
5	Mr.Md.Nurul Islam	Upazila Health and Family Planning Officer	Memver	01712534890
6	Md.Habibul Islam Khan	Upazila Agriculture Officer	Member	0716406225
7	Ahmed Mahabubub Rahman	Upazila Engineers	Member	017131154769
8	Dr.Md.Mustafizur Rahman	Upazila Livestock Officer	Member	017125494794
9	Akm Fazlul Bari	Food Control Officer	Member	01712247776
10	Md.Abul Khayer	Officer-in-Charge, badalagachi	Member	017133723808
11	Kazi Abdul Mukim	Upazila Education Officer	Member	01711111847
12	Milon Kumar das	Upazila Ansar and VDP officer	Member	017196132
13	AKM Rabiul Islam	Upazila Cooperative Officer	Member	0171314902
14	Md.Shakhnot Hossain	Upazila Youth Development Officer	Member	01760172929
15	Md.Abtatur Rashid	Sub-assistant engineer of public health	Member	017122123200
16	Mrs.Mahbuba Sultana	Upazila Women Affairs Officer	Member	01191274317
17	Md.Yakub Ali	Upazila Project Implementation Officer	Member	01712233636
18	Md omor Ali	Upazila Education Officer Upazila Fisheries Officer	Member	01714602346
19	Md.Enamul Haque	Upazila Education Officer	Member	01746054210
20	Md.Rafiquel Islam	Upazila Rural Development Officer	Member	01715507756
21	Md.Tofayal Hossain	AC Land	Member	01712063089
22	Md.ABDUL KHALEK	UFC	Member	018712076310
23	Md.Abdul Latif	Chairman, Bagha, Press club	Member	017225551004
24	Md.Akkas Ali	Mayor, Bagha Pourashava	Member	01731505291
25	MdNazrul Islam	Mayor, Arani Pourashava	Member	01716143064
26	Md.Toffazel Hossain	Chairman, Bajhubagha UP	Member	01714257892
27	MdNazrul Islam	Chairman, GorghoriUP	Member	01711578553
28	Md.Fakrul Hasan	Chairman, PakuriaUP	Member	01715577776
29	Md.Akber Ali	Chairman, Monikgram UP	Member	01711349295
30	Md.Asraf Ali	Chairman, Bausa	Member	01711241509
31	Md.Nasiruddin	Mayor, Arani Pourashava	Member	01716684533
32	Md.A.Kader	Manager, River & Life, Bagha	Member	01945177911
33	Md.Abukkar Siddique	MP	Member	01827558283
34	Md.Ashrafur Islam	MP	Member	01716987131
35	Md.Ali Dewan	HM<Bagha hs	Member	01728174045
36	Md.Shahidul Islam	Chairman, B.Bazar committee	Member	01716279017
37	Md.Nurul IslAM	UPO	Member	01712279017

Source: Bagha Upazila Disaster Management Committee, 2014

Annex 3

List of Upazilla Volunteers

Sl	Name	Designation	Member	Training	Contact
1	Md Abdur Rahman	Md Kubed Ali	Monigram	No	01716249785
2	Md Abdul Hakim	Late. Jesar Ali	Monigram	No	01739031262
3	Md. Nazrul Islam	Late. Hazrat Ali	Monigram	No	01716960698
4	Md. Ramjan Ali	Md. Atahar Ali	Monigram	No	01715649997
5	Lal Mohammad	Siraz Uddin	Monigram	No	0155652213
6	Md Nazmul Haq	Md. Samsul Haq	Monigram	No	01716162641
7	Mst. Rehana Begum	Md. Mamun Al Haq	Monigram 4,5,6	No	01718911442
8	Sahara Banu	Md. Mohosin Ali	Monigram 1,2,3	No	01722920428
9	Johora Khatun	Md. Moktar Hosen	Monigram 7,8,9	No	01726190182
10	Abdul Karim	Md Iad Ali	Gorgori	No	01737521567
11	Md Jasim Uddin	Late. Anar Uddin	Gorgori	No	01710602813
12	Md. Abdul Malek	Md. Rahmatullah	Gorgori	No	01723735472
13	Md. Tijammel Haq	Late. Oaz Uddin	Gorgori	No	01714972432
14	Rezaul Karim	Late. Akkel Bapery	Gorgori	No	01717968157
15	Md. Sahidul Islam	Md. Robbad Pramanik	Gorgori	No	01722095111
16	Arman Ali	Late. Momin Uddin	Gorgori	No	01713767642
17	Md. Rofikul Islam	Md. Jamal Uddin	Gorgori	No	01725736831
18	Md. Jahangir Alam	Md. Yakub Ali	Gorgori	No	01713723288
19	Md. Kamal Hossain	Late. Momtaj Ali	Gorgori	No	01742561503
20	Md. Aksed Ali	Late. Akram Ali	Gorgori	No	01729452653
21	Md. Ziaul Haq	Md. Moyej Uddin	Gorgori	No	01749155460
22	Md. Abdur Rahman	Late. Obaidur Rahman	Gorgori	No	01761323288
23	Mst. Jemi Khatun	Md. Jalal Uddin	Gorgori 1,2,3	No	01754557663
24	Mst. Rupjan Begum	Md. Sahab Ali	Gorgori 4,5,6	No	01736539693
25	Md. Abdur Samad Sarkar	Late. Abdul Jalil Sarkar	Pakuriya	No	01721877186
26	Md. Saniul Haq Malitha	Late. Abdul Haq Malitha	Pakuriya	No	01718140961
27	Md Abdus Samad Sarkar	Late. Noub Ali	Pakuriya	No	01716550393
28	Md. Abdur Rauf	Late. Khoka	Pakuriya	No	01736498518
29	Md. Abdul Aziz	Nur Mohammad	Pakuriya	No	01726964190
30	Md. MOjjamel Haque	Md. Alim Uddin	Pakuriya	No	01716665110
31	Md. Sier Uddin	Md Asar Ali	Pakuriya	No	01726214794
32	Md. Abdur Rahman	Late. Sikim Ali	Pakuriya	No	01732443392
33	Mst Rokeya Begum	Hus. Md. Harunur Rasid	Arani 1,2,3	No	01714762480
34	Mst. Ambia Begum	Md. Alauddin	Arani 4,5,6	No	01761240780

Source: Bagha Upazila Disaster Management Committee, 2014

NB: Volunteer groups have not been formed in Bagha Upazila. So there are not any training provided for the purpose of this subdistrict served as a volunteer. According to the Upazila Disaster Management Committee all Union members should be listed and volunteer training can be arranged.

Annex 4

List of Shelter management committee

Name of Shelter	Responsible Person	Mobile	Remarks
Jot Ragav Govt. Primary School	Most. Jahanara Khatun	01737665885	
Plassey phatepura Govt. Primary School	Md Golam mostafa	01714910033	

Public / private institutions

Name of Shelter	Responsible Person	Mobile	Remarks
Bajubagha Union Council	Hossain Md Tofazzal	01714257892	Chairman
Bausa Union Council	Md Ashraf Ali	01711 241509	Chairman
Gargari Union Council	Md Nazrul Islam	01711 578553	Chairman
Manigram Union Council	Md. Akbar Ali	01711349295	Chairman
Pakuriya Union Council	Md. Fokrul Hasan	01715577776	Chairman
Arani Union Council	Md. Nasir Uddin	01716684533	Chairman
Bagha Municipality	Akkas Ali	01731505281	Meor
Arani Municipality	Shohidul Islam	0723356002	Meor

Elevated road or dam

Name of Shelter	Responsible Person	Mobile	Remarks
Embankment road up Mirganj to Garagari	Md Fakhrul Hasan	01715577776	Chairman
Bagha upazila roads and adjacent Arani	Mr. Shahidul Islam	01716934348	Meor
Padma River adjacent to the dam road	Aseka Ali	01711379181	PWD

Annex 5

Outline Bagha Upazila

Electoral Area	57, Rajshahi -6	Mosque	247
Area	185.16 sq km	Temple	34
Union	06	Churches	no
Pouroshova	02	Eidgah	133
Mouja	99	Bank	6
Village	126	Insurance institutions	5
Family	46711	Post Office	16
Male	92377	Club	33 (reg)
Female	91806	Hats-market	34
Total Population	184138	Crematorium	1
Voter	102864	Cemetery	13
Educational Institute	176	DTW	45
Bridges and culverts	588	Shallow tube wells	14473
Fire Station	No	Tube-wells with arsenic	1350
Dam	16 km	Forests	178km
Sluice gate	3	Nursery	5
School kama Shelter	2	Poultry Farm	122
Community Clinic	20	Dairy Farm	76
Upazila Health Complex	01	River (Hector)	410
Union FPO	04	Khal (Hector)	35
Total agricultural land	45756 A	Pond (Hector)	1950
One-crop land	3625 H	Pond (Hector)	410
Two-crop land	6500 H	Mud road	25.14mk
Three crop land	5780 H	Adha paka road	175.48km
More than three-crop land	143 H	Paka Road	249km
Amount of land under irrigation	11218 H	NGO	25

Annex 6

List of some important Broadcast Programs by Bangladesh Betar

Radio Centre	Program	Time	Day
Dhaka-Ka	Krishi Shamachar	6.55-7.00 am	Everyday
	Shukher Thikana	7.25-7.30 am	Everyday
	Shasthoi Shukher Mul	11.30-12.00 am	Everyday except Friday
	Shonali Foshol	6.05-6.35 pm	Everyday
	Weather News	6.50-7.00 pm	Everyday
Chittagong	Krishi Kotha	6.55-7.00 pm	Everyday
	Krishi Khamar	6.10-6.50 pm	Everyday except Monday
	Shukhi Saongshar	8.10-8.30 pm	Everyday except Friday
Rajshahi	Khet Khamar Shamachar	6.55-7.00 am	Everyday
	Shabuj Bangla	6.05-6.50 pm	Everyday
Khulna	Shastho Tatthyo	6.55-7.00 am	Everyday
	Krishi Shamachar	4.20-4.30 pm	Everyday
	Chashabad	6.10-6.50 pm	Everyday
Rangpur	Shukher Thikana	7.25-7.30 am	Everyday
	Khet Khamare	6.05-6.35 pm	Everyday
Shylet	Ajker Chashabad	6.55-7.00 am	Everyday
	Shukher Thikana	7.25-7.30 am	Everyday
	Shymol Shylet	6.05-6.50 pm	Everyday except Friday
Thakurgaon	Kishan Mati Desh	6.05-6.25 pm	Suterday, Monday & Wednesday
Cox's Bazar	Ajker Krishi	3.07-3.45 pm	Everyday
	Sonali Prantor	3.40-3.45 pm	Tuesday & Thursday
Barishal	Krishi Kotha	3.15-3.30 pm	Everyday except Sunday, Wednesday & Friday
	Chhoto Paribar	3.35-3.50 pm	Everyday except Monday, Wednesday & Friday
Rangamati	Jiboner Jonno	1.50-1.55 pm	Everyday
	Khamar Bari	3.05-3.15 pm	Everyday

Annex 7

List of Educational Institutions

SL	Name of Educational Institutions	Students	Teachers	Location	Use as Shelter House
1	Bajubagha Govt. Primary School	343	7	Bajubagha	NO
2	Belgachi Govt. Primary School	374	5	Bajubagha	NO
3	Chandipur Govt. Primary School	236	5	Bajubagha	NO
4	Bagha Govt. Primary School	338	5	Bagha	NO
5	Jot Ragav Govt. Primary School	247	7	Bajubagha	Yes
6	Bagsayesta Govt. Primary School	416	6	Bajubagha	NO
7	Narayanpur Govt. Primary School	206	5	Gorgori	NO
8	Chatabi Govt. Primary School	218	6	Gorgori	NO
9	Chak Rajapur Govt. Primary School	403	6	Gorgori	NO
10	Dadpur Govt. Primary School	259	8	Gorgori	NO
11	Polashi Fotepur Govt. Primary School	307	12	Gorgori	Yes
12	Chadpur Govt. Primary School	490	10	Gorgori	NO
13	Khanpur Govt. Primary School	258	6	Gorgori	NO
14	Kalidaskhali Govt. Primary School	306	6	Pakuriya	NO
15	Pakuriya Govt. Primary School	351	7	Pakuriya	NO
16	Jotonshi Govt. Primary School	388	9	Pakuriya	NO
17	Kadirpur Govt. Primary School	315	6	Pakuriya	NO
18	Choumadiya Govt. Primary School	289	7	Pakuriya	NO
19	Keshobpur Govt. Primary School	325	9	Pakuriya	NO
20	MORkuti Govt. Primary School	418	12	Pakuriya	NO
21	Mirganj Govt. Primary School	389	9	Monigram	NO
22	Harirampur Govt. Primary School	277	5	Monigram	NO
23	Binodpur Govt. Primary School	155	5	Monigram	NO
24	Habaspur Govt. Primary School	132	6	Monigram	NO
25	Attghoriya Govt. Primary School	136	5	Monigram	NO
26	Monigram Govt. Primary School	310	7	Monigram	NO
27	Bolihar Govt. Primary School	393	11	Monigram	NO
28	Dhondo Omorpur Govt. Primary School	198	5	Bausa	NO
29	Digha Govt. Primary School	202	4	Bausa	NO
30	Khogorbariya Govt. Primary	377	10	Bausa	NO

SL	Name of Educational Institutions	Students	Teachers	Location	Use as Shelter House
	School				
31	Bausha Govt. Primary School	249	6	Bausa	NO
32	Bausha MajhPara Govt. Primary School	199	5	Bausa	NO
33	Arpara Govt. Primary School	458	9	Bausa	NO
34	Horina Govt. Primary School	381	9	Bausa	NO
35	Tetuliya Govt. Primary School	313	7	Bausa	NO
36	Pirgacha Govt. Primary School	417	8	Bausa	NO
37	Khordobausa Govt. Primary School	119	5	Bausa	NO
38	Arani Govt. Primary School	353	7	Arani	NO
39	Pachpara Govt. Primary School	261	6	Arani	NO
40	Rustompur Govt. Primary School	306	6	Arani	NO
41	Kushbariya Govt. Primary School	376	8	Arani	NO
42	Jhina Govt. Primary School	336	8	Bausa	NO
43	Barkhadiya Govt. Primary School	312	4	Bajubagha	NO
44	Noutika Govt. Primary School	271	4	Bajubagha	NO
45	Chalk Ahammadpur Govt. Primary School	219	4	Bajubagha	NO
46	Hjt. Hsah Abbas Govt. Primary School	283	4	Bajubagha	NO
47	Murshidpur Govt. Primary School	226	4	Bajubagha	NO
48	Khoerhat Govt. Primary School	192	4	Gorgori	NO
49	Chalk Kalidaskhali Govt. Primary School	177	4	Gorgori	NO
50	Lokkhinagar Govt. Primary School	154	4	Gorgori	NO
51	East Chalk Kalidaskhali Govt. Primary School	336	4	Gorgori	NO
52	Fotepur Govt. Primary School	283	4	Gorgori	NO
53	Sultanpur Govt. Primary School	154	4	Gorgori	NO
54	Gorangopur Govt. Primary School	246	4	Gorgori	NO
55	Alaipur Govt. Primary School	157	3	Pakuriya	NO
56	Helalpur Govt. Primary School	186	4	Pakuriya	NO
57	Mohodipur Govt. Primary School	173	4	Pakuriya	NO
58	Atarpara Govt. Primary School	167	4	Pakuriya	NO
59	Tulshi Govt. Primary School	235	4	Gorgori	NO
60	Gangarampur Govt. Primary School	156	4	Gorgori	NO
61	Fotepur Bausa Govt. Primary School	165	4	Bausa	NO
62	Sonadoh Govt. Primary School	181	4	Bausa	NO
63	Bererbari Govt. Primary School	152	4	Bausa	NO
64	Jotjoyram Govt. Primary School	157	4	Bajubagha	NO

SL	Name of Educational Institutions	Students	Teachers	Location	Use as Shelter House
65	Chak Chatari Govt. Primary School	231	4	Bajubagha	NO
66	Purbo chak Rajapur Govt. Primary School	214	4	Bajubagha	NO
67	Chak Enayetpur Govt. Primary School	195	4	Gorgori	NO
68	Gochor Govt. Primary School	213	4	Gorgori	NO
69	Tepukuriya Govt. Primary School	197	4	Gorgori	NO
70	Chakipara Govt. Primary School	174	4	Bausa	NO
71	Chakbausa Govt. Primary School	274	4	Bausa	NO
72	Ashrafpur Govt. Primary School	189	4	Bausa	NO
73	Joygunnesa Govt. Primary School	176	4	Bausa	NO
74	Jhina Govt. Primary School	217	4	Bausa	NO
Total		19486	422		

Annex 8

Feedback through Sharing/Consultation with Upazila Disaster Management Committee (Validation Workshop/Meeting) Bagha Upazila

Introduction:

The disaster management plan has been shared with the Bagha Upazila Disaster Management Committee (UzDMC) through a validation workshop in 28 Mayl 2014 at the Upazila Auditorium at Bagha, Rajshahi. In this workshop the Upazila Chairman, UNO, PIO as well as other members of UzDMC with Shushilan staffs were present in this sharing workshop. The workshop chaired by Upazila Chairman named Md. Jinnat Ali.

Major Activities:

The validation workshop started from 10.20 am through permission from the Chairperson Md. Jinnat Ali by the staff of Shushilan. Here mainly presented the report and discussed. In the workshop disaster management plan and shown different data/information through multimedia projector. Here shown different findings i.e. hazards, vulnerability, risk map, different committees, planning for disaster management. And at the same time in the meeting has been shared findings sharing, reviewed and feedback taken to add in the report.

Recommendations/List of Feedback:

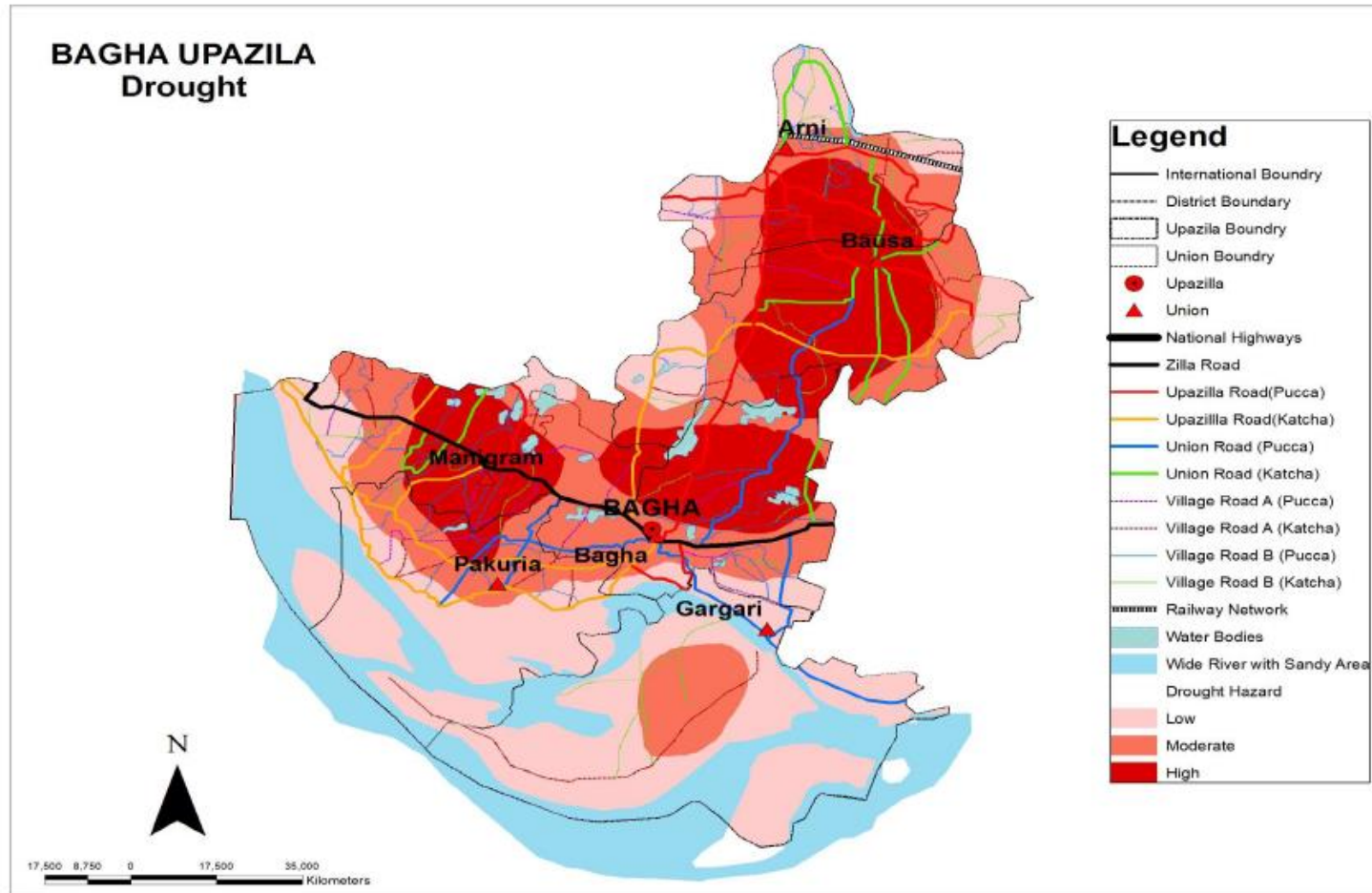
Through the sharing of the draft DM plan report the recommendations are listed below

- In the hazard list of the Upazila have to consider drought, hilly storm, river bank erosion, water scarcity, heat wave and arsenic.
- Explain the process of risk ranking in brief within the report
- In the Upazila level report hare need to include 2 number of school cum cyclone shelter, 03 sluice gates and 16 km embankment in 13 ft height as a part of flood management capacity.
- There were 45 number of DTWs, 14473 numbers of STWs, 1950 numbers of ponds and 20.90 ha water bodies which consists as a part of drought risk management.
- In the seasonal calendar have to mention the monthly name as Bangla name.
- In the EOC, the Upazila level different officers will be the responsible.
- Emergency follow up committee will be the lead by the Upazila Chairman.
- Emergency operation committee will be the lead by the UNO.
- Emergency committees will be comprise by 5 members, if needed we can include more members under each subcommittee.
- For the disaster management planning the activities may be concern 20-60% by the Upazila Parisad, 05-10% by the community, 20-30% by the Union Pasisad and different NGO 25-80%.
- In the Upazila have no any volunteer on disaster management activities and from the project we can start volunteer skill/capacity building activities through training.

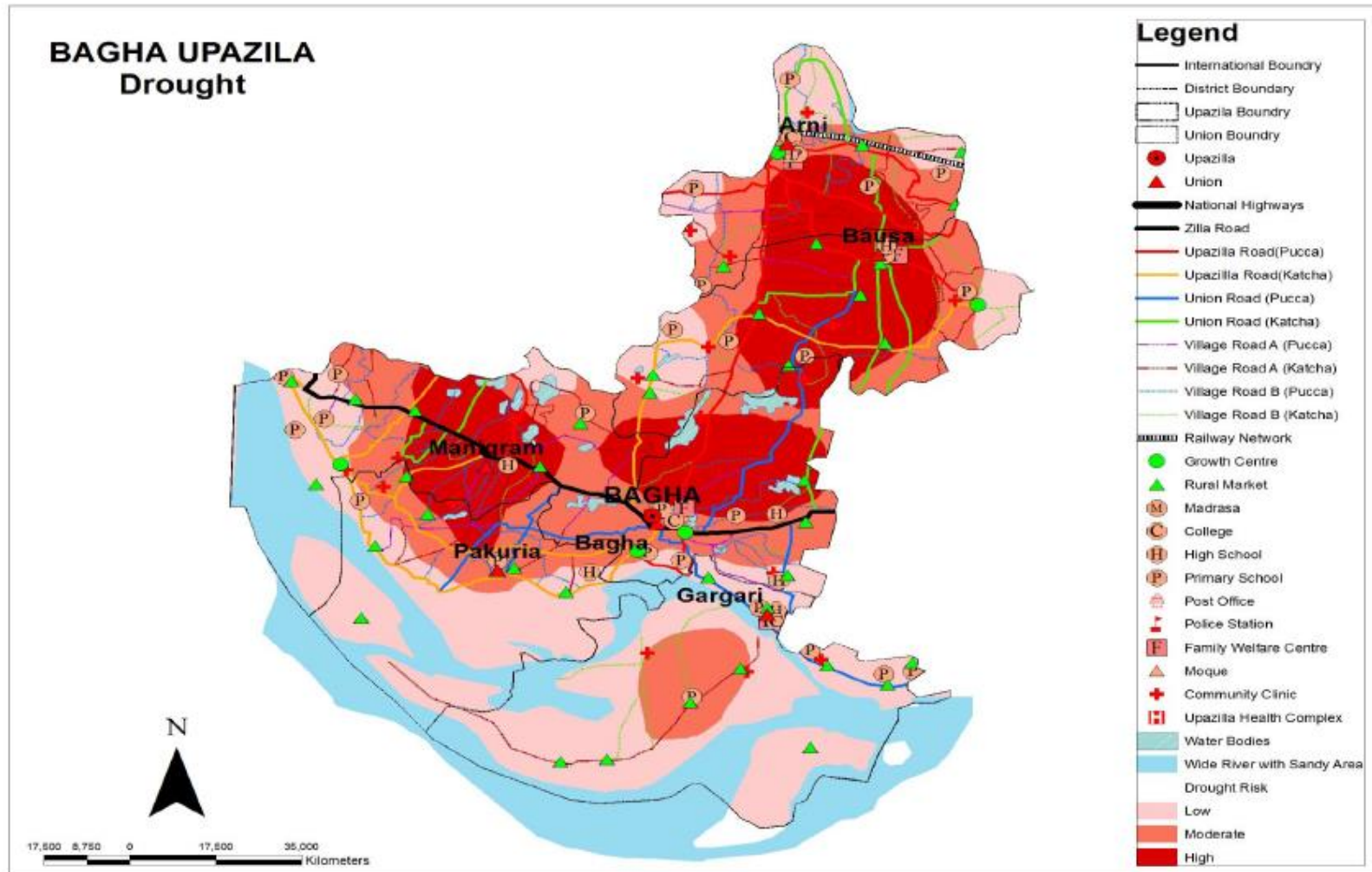
Open Discussion & Closing Remarks:

In the open discussion session Upazila Chairman Md. Jinnat Ali has given thanks to the participants and the presented report as disaster management plan. He has also mentioned its importance to prepare plan for disaster management. He told that all the information has nicely articulated & clearly presented and overall report were excellent. Also mentioned about reviewed as incorporate feedbacks from this workshop. UNO and other members were discussed about the presented report with its risk mapping areas and given his thanks for such reporting activities. Finally, the Chairperson thanks to CDMP-II for such initiatives and the all members of the meetings as well as Shushilan and conclude the validation workshop.

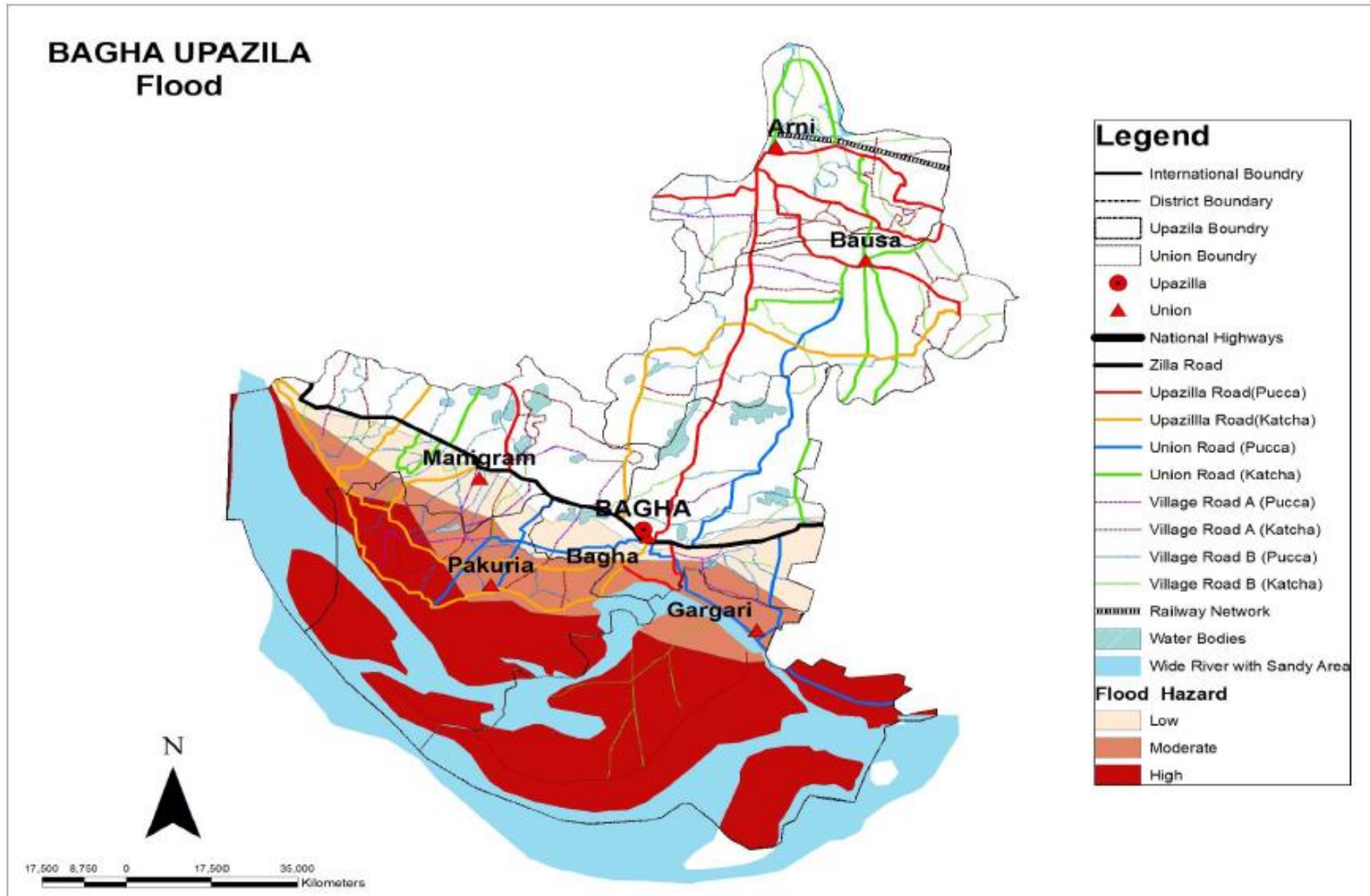
Annex 9: Hazard & Risk Map (Drought)



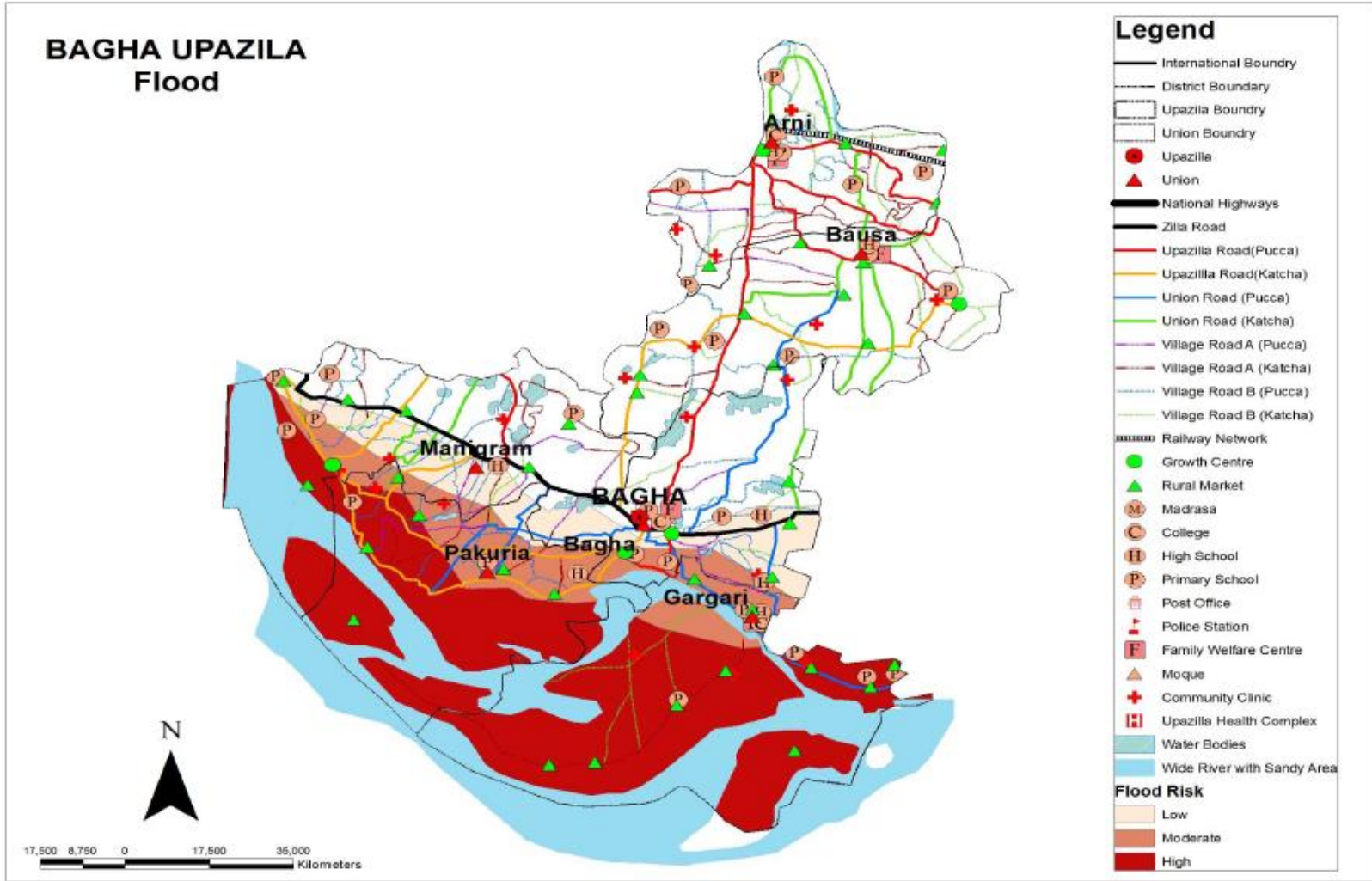
Risk Map (Drought)



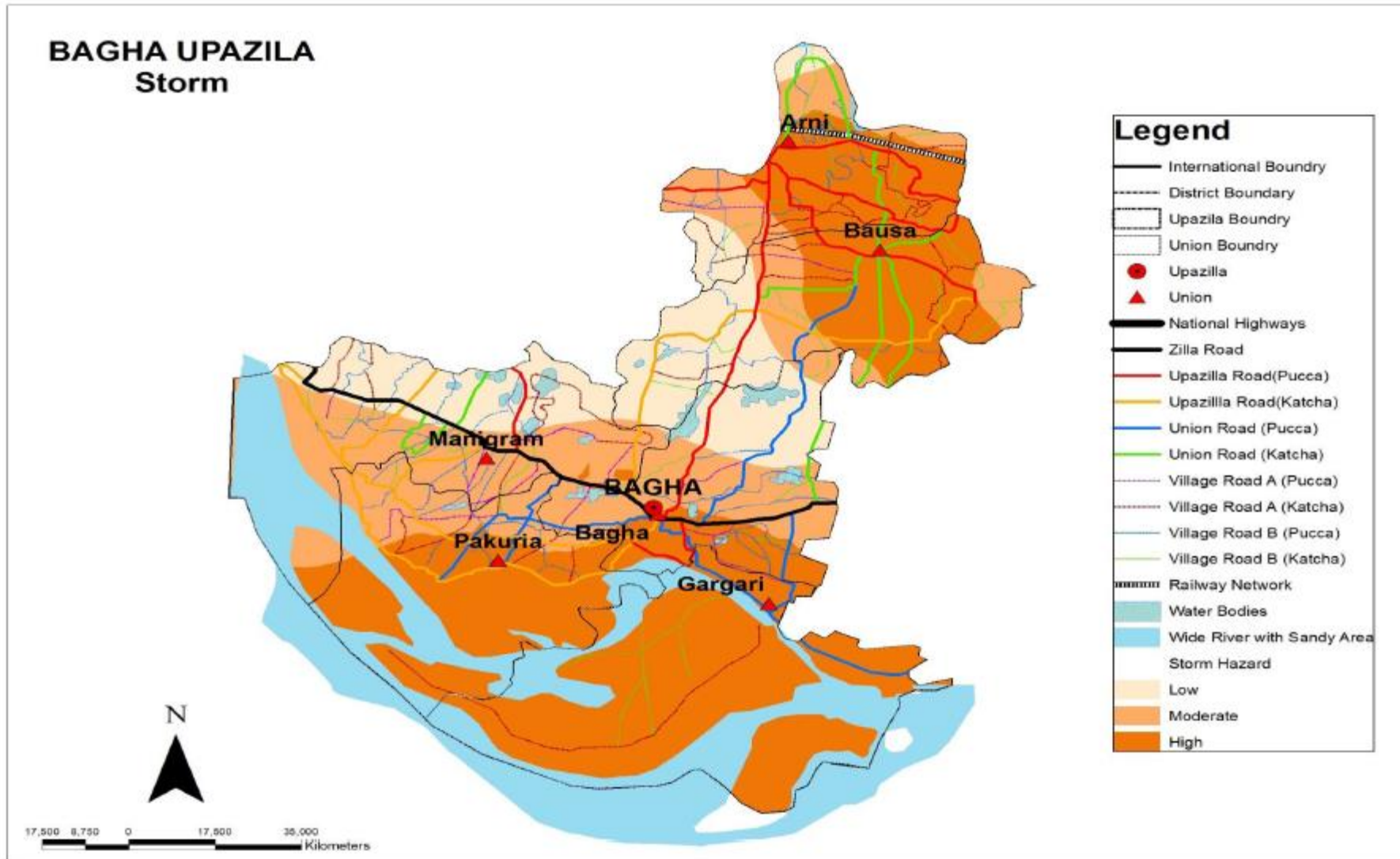
Annex -10 Hazard & Risk Map (Flood)



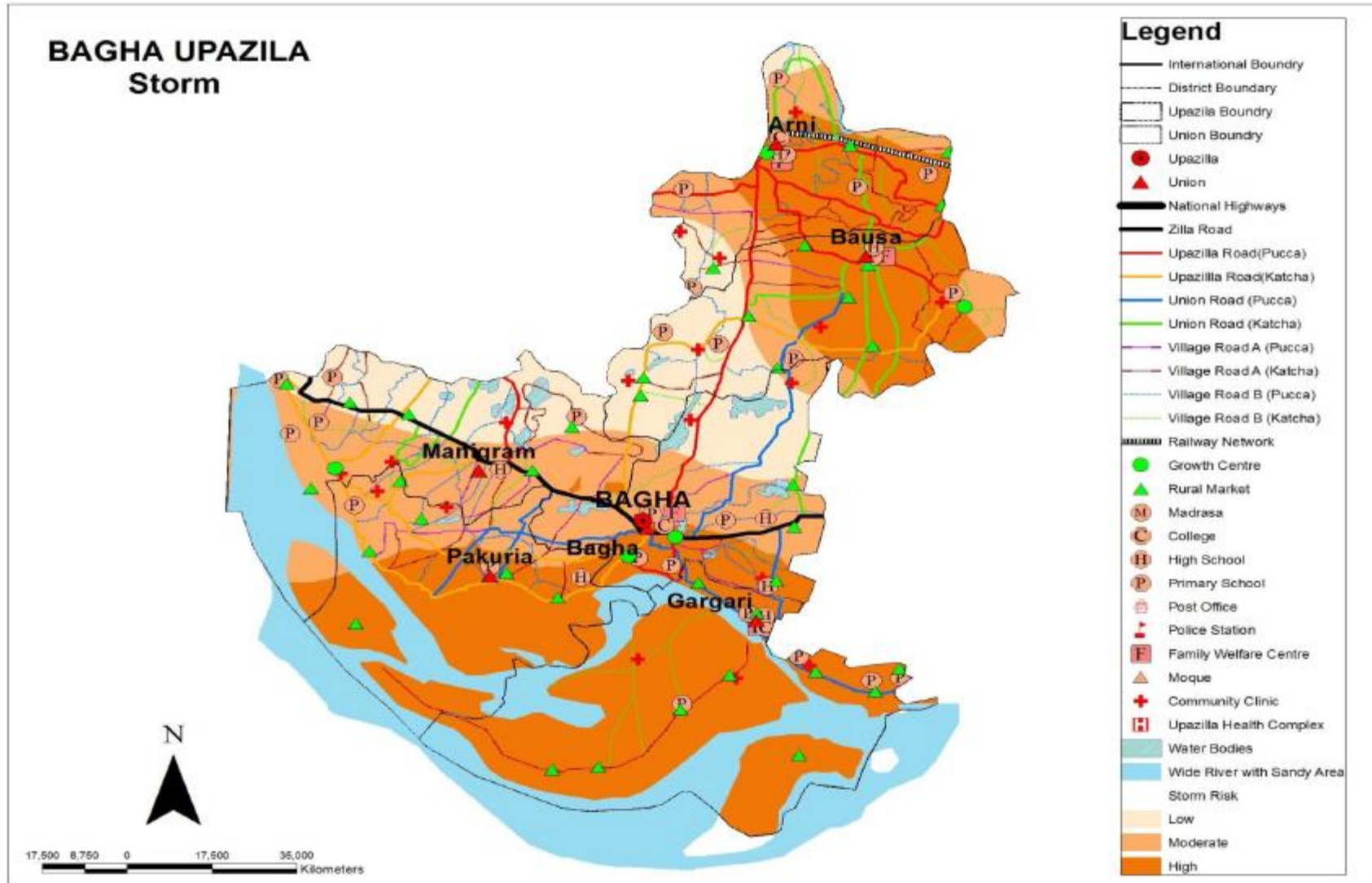
Risk Map (Flood)



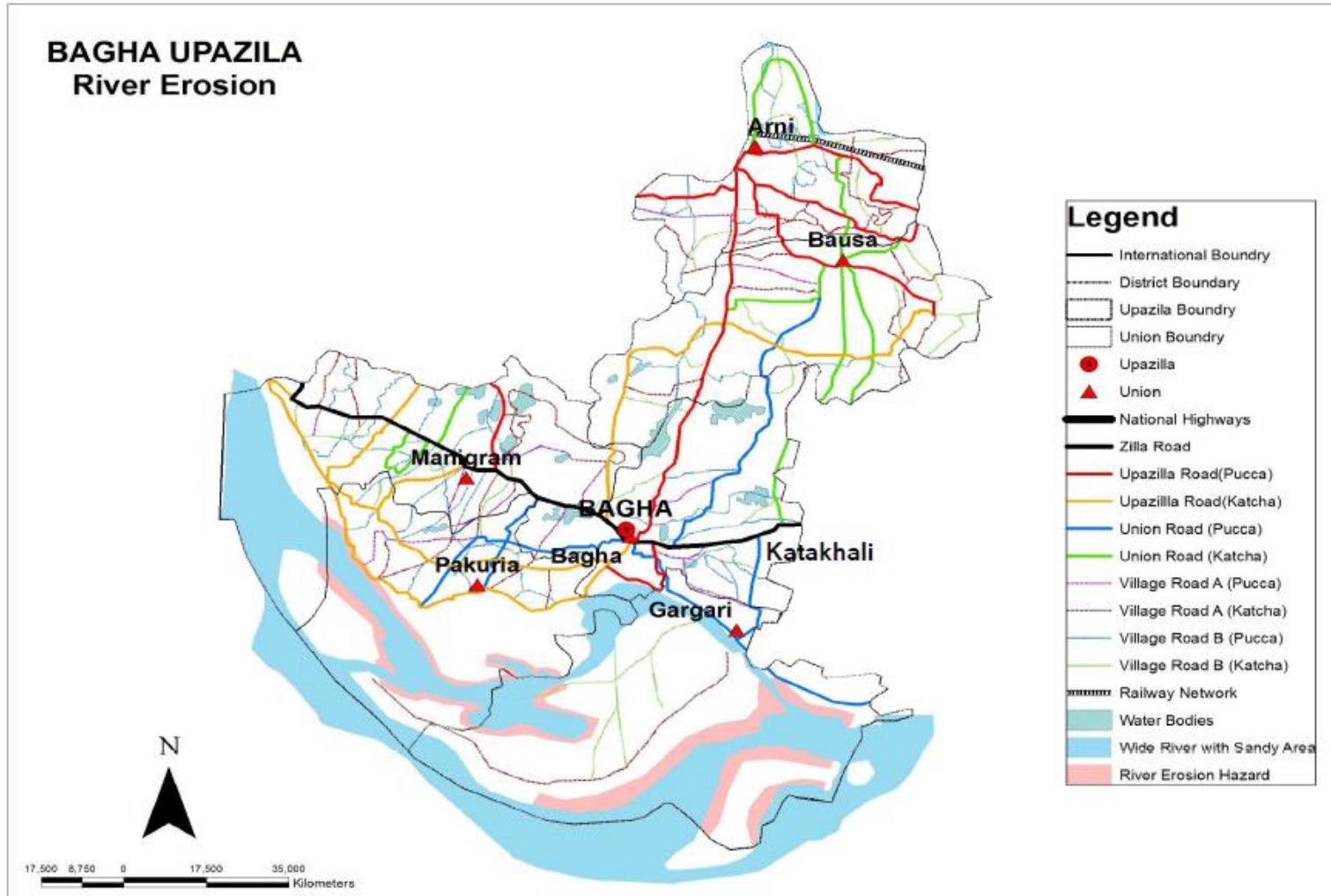
Annex -11: Hazard & Risk Map (Storm)



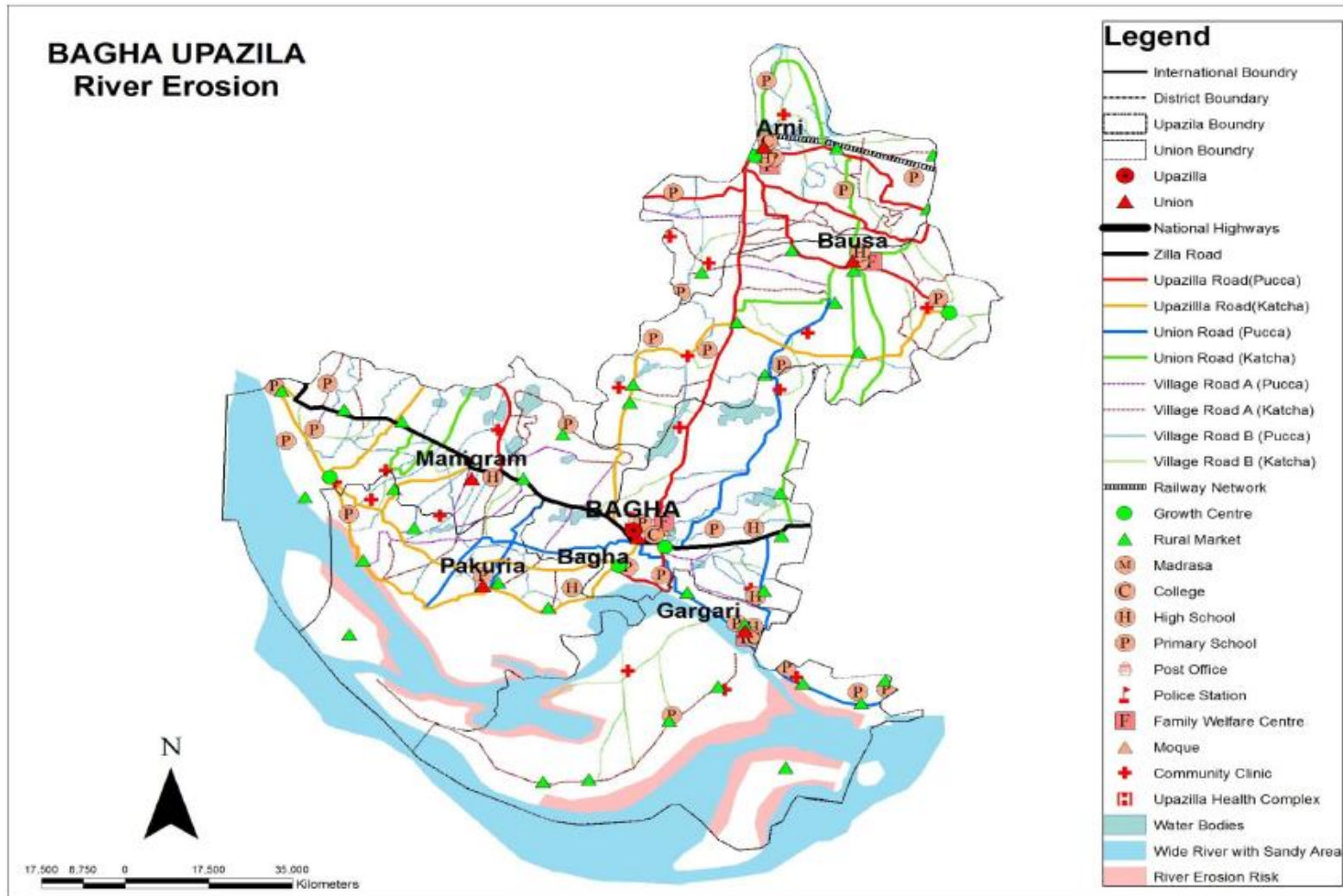
Risk Map (Storm)



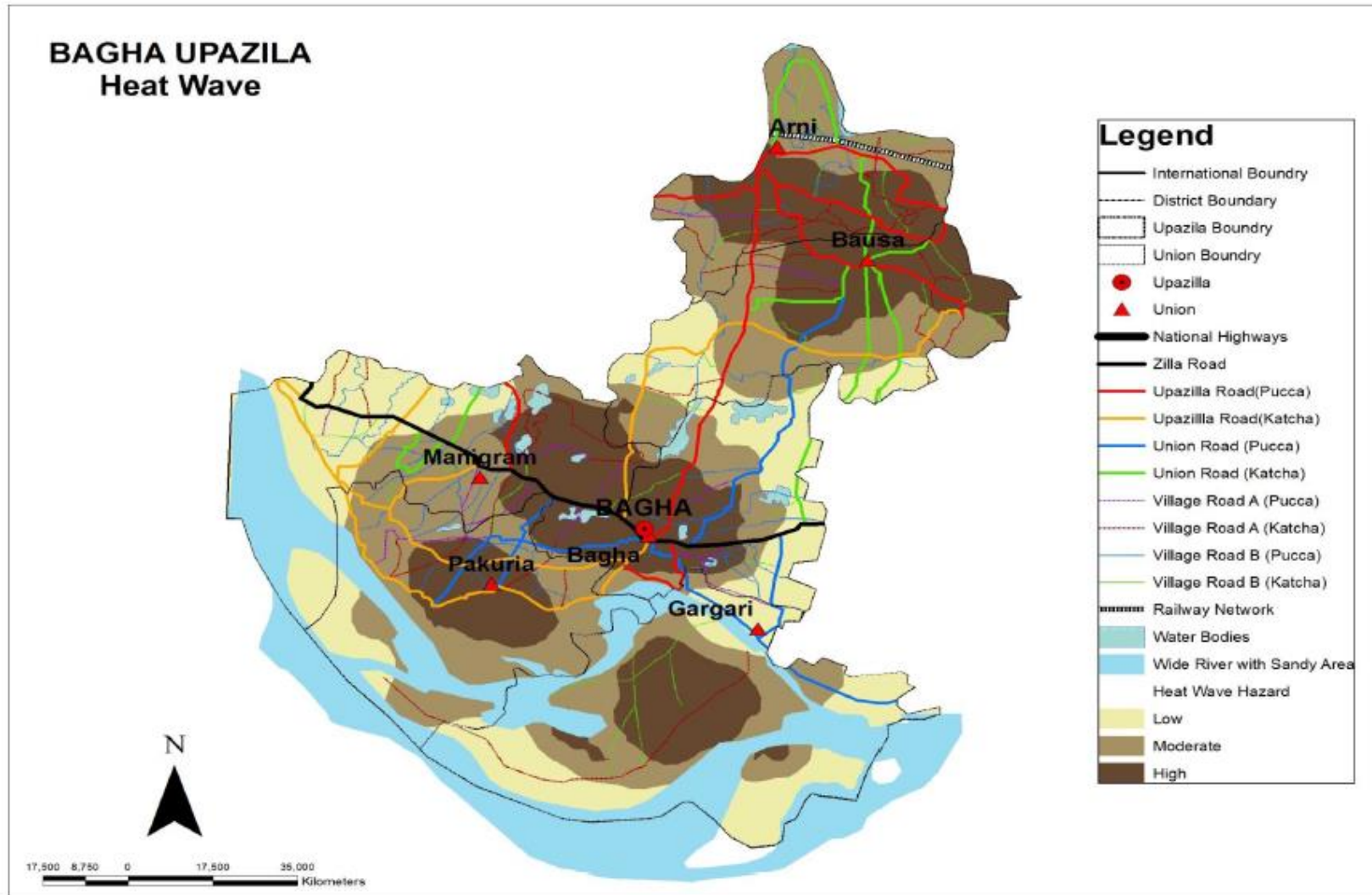
Annex -12: Hazard & Risk Map (River erosion)



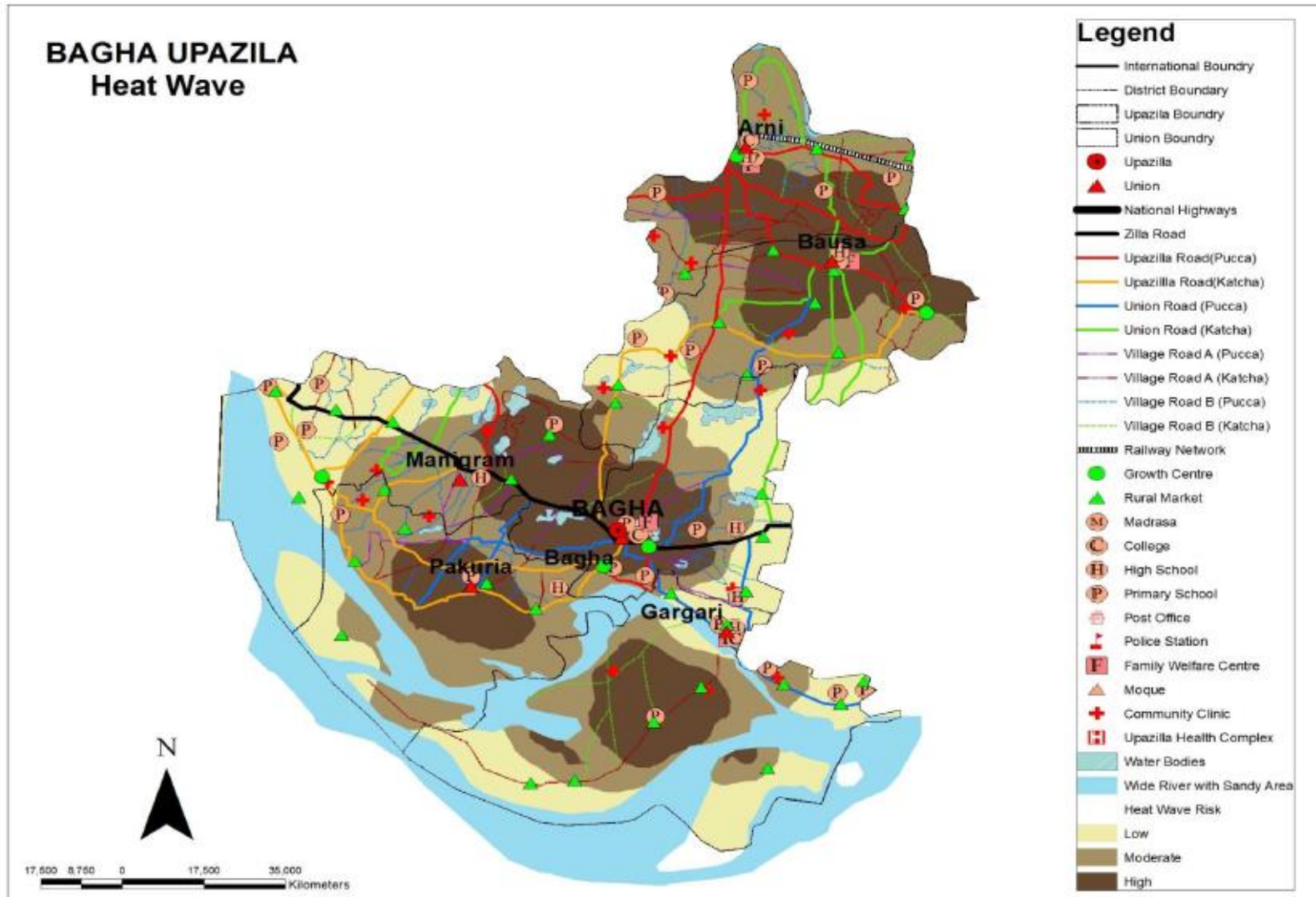
Risk Map (River erosion)



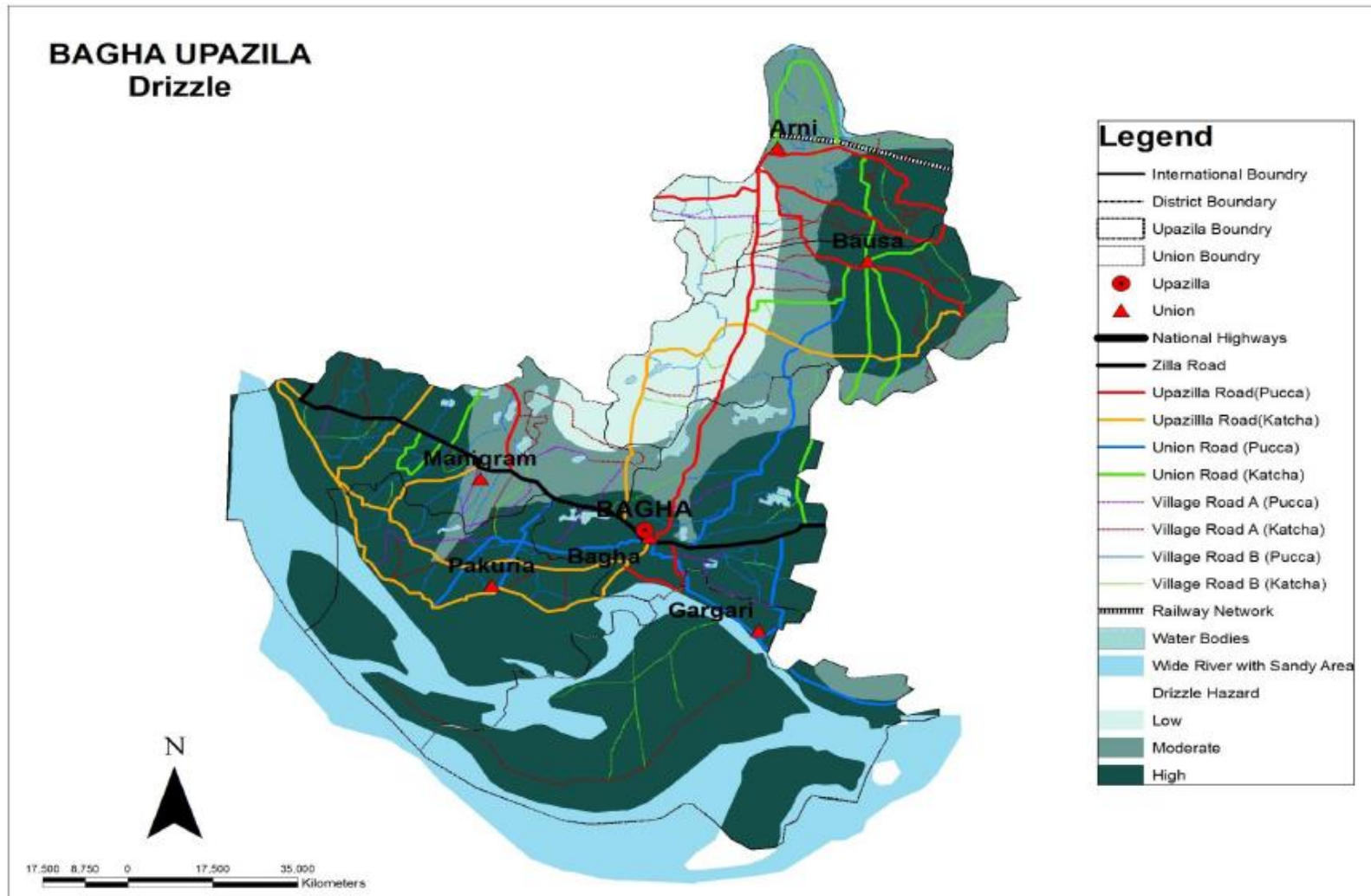
Annex -13 Hazard & Risk Map (Heat wave)



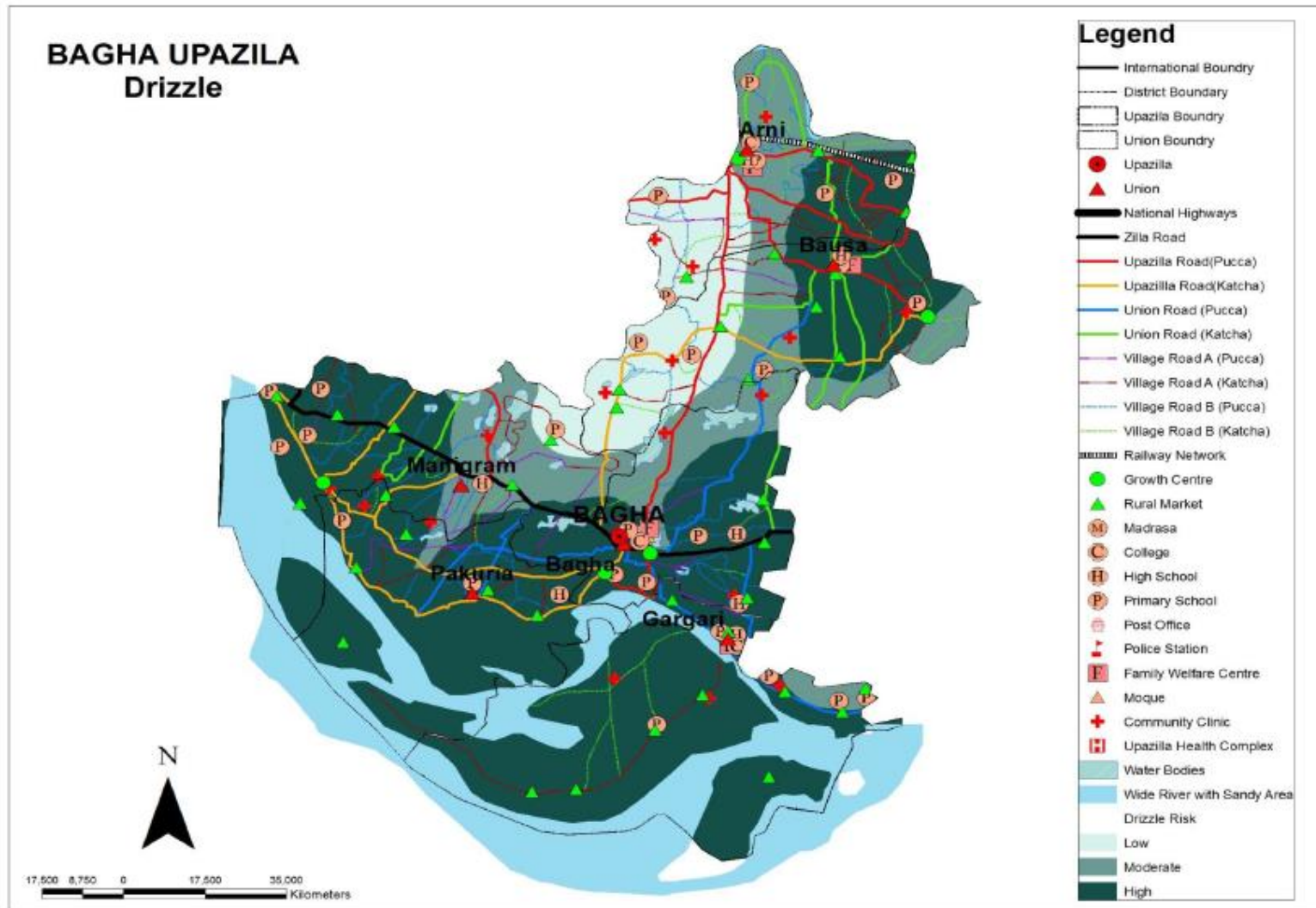
Risk Map (Heat wave)



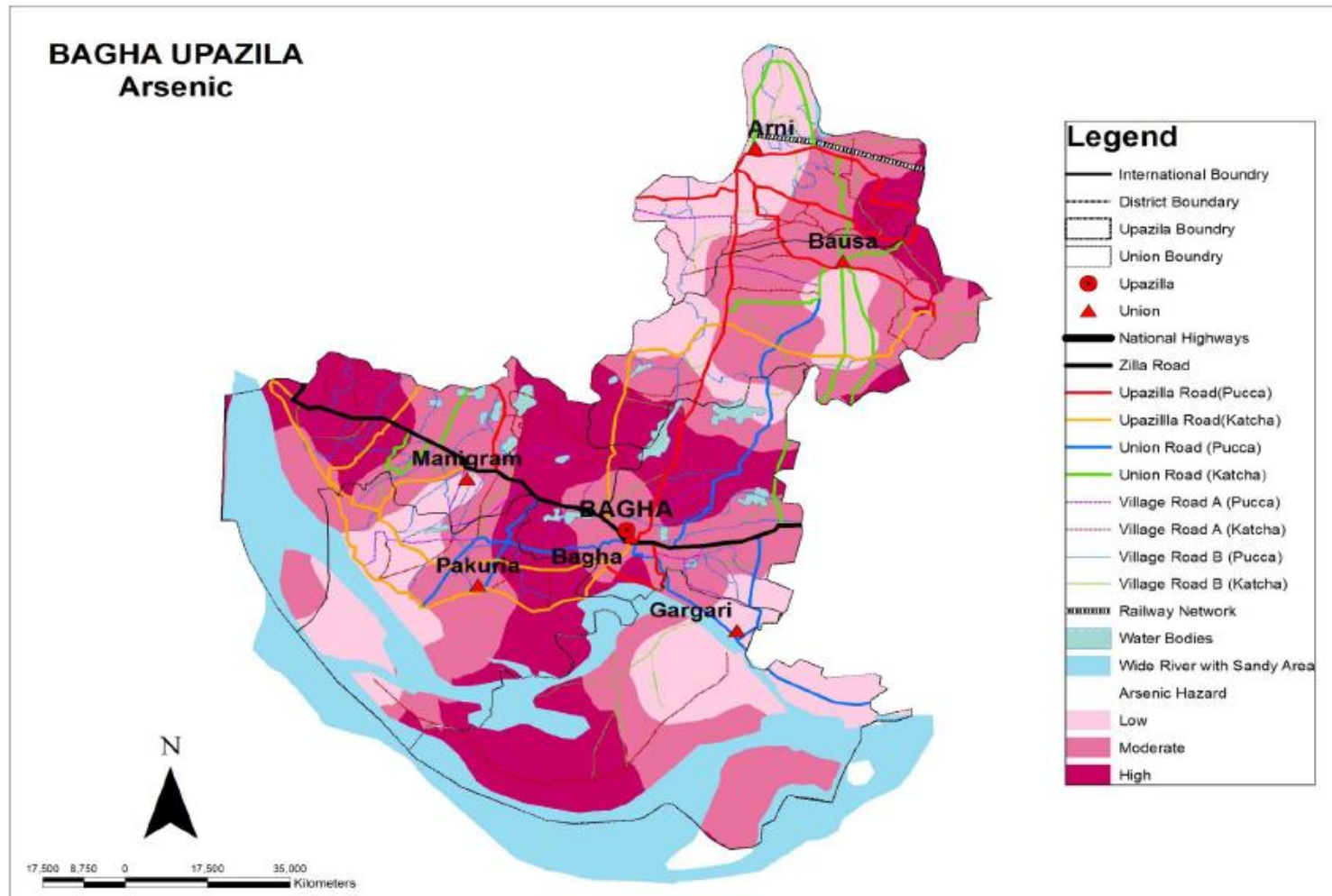
Annex -14: Hazard & Risk Map (Drizzle)



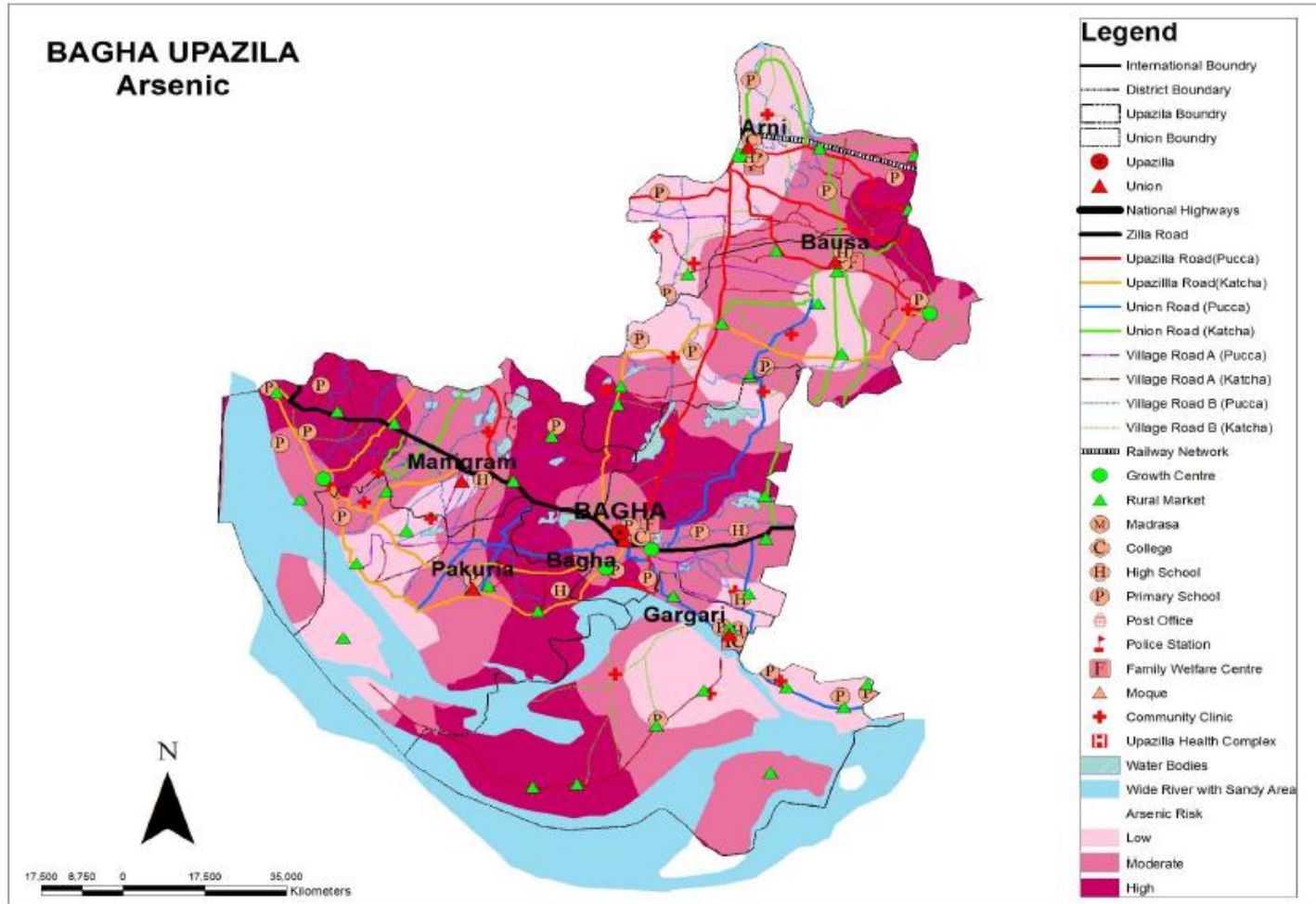
Risk Map (Drought)



Annex -15: Hazard & Risk Map (Arsenic)



Risk Map (Arsenic)



Annex- 16: Hazard & Risk Map (Fall of Water tabel)

