

# District Disaster Management Plan

District: Rajshahi

# Plan Developed by

District Disaster Management Committee, Rajshahi

**Coordinated by** 



**July 2014** 

# **Supported by**

Comprehensive Disaster Management Programme (CDMP-II)
Ministry of Disaster Management & Relief













বাংলাদেশ একটি দুর্যোগ প্রবণ দেশ। ঠোগোলিক কর্মান, জলবাচু ও আবহাওয়ার ভারক্ষের কারলে স্থানক্রনে এলেশে প্রতি বছর বনা। (নপীবহিব)পৃথিপত জনিত), উপেতা (মুপিবড়), গর/ক্ষাপৃথি, ভূমিকশ্ল, অন কুয়াগার মত বিভিন্ন বরণের অপন প্রায়ত হানে। অংলাদেশ একটি নদীমাত্রক দেশ হওয়াই প্রায় প্রতিবছর একারা ভিত্তিক নদী প্রাজ্ঞার মত লোক ভিটেমাটি হারা হার নিয়ত্ব হয়ে পড়ে এবং নদী-খাল কর্মট জনিত কারণে এলাকা ভিত্তিক অধিবাদীদের সংস্থিতী নাম বহুপের আল্যানর সন্মুখীন হতে হয়। ও হান্তাও মানব পৃষ্ট ও শিল্প কার্যান্তা করিছে বিলিম বরণের আলব প্রতিনিয়ত মানুহকে আভংকপুত্র করে রাখে। এ সহত্ব আলদের প্রতারে সহায় সম্পানসং জান-মান, পশু সম্পান ও অসকের বালক কতি সাধিত হয়। এই ফালে পুশু আল্যান্ত জনগোলী, ই ক্ষতিশ্রান্ত হা নাম, জাতীয় সম্পান এবং এবংনীতিতেও আপকভাবে এর প্রভাব পরিক্ষিকত হয়। পুর্যোগ প্রবণ দেশ হলেও পূর্বে পূর্যোগ ব্যবস্থানা পরিকল্পনা মাধ্যমে মানুহের সহায় সম্পানহ জান-মাল, পশু সম্পান ও অসকের কছক্ষাতি হাস করার সুদূর প্রসায়ী কোন পরিকল্পনা গ্রহণ করা হার্যান্ত সমায় সম্পানহ সহায় সম্পানহ জান-মাল, পশু সম্পান ও অসকের কছক্ষাতি হাস করার সুদূর প্রসায়ী কোন পরিকল্পনা গ্রহণ করা হার্যান্ত সাম্বান্ত স্থান্ত হাল প্রতিলিক পূর্বান্ত বাহা বাহান্ত স্থান্ত বাহান্ত স্থান্ত বাহান্ত স্থান্ত বাহান্ত বাহান্ত সমায়ে। এই কর্মপুত্রি আওআয় প্রায়ক্ষিক করে সমায়ের বিভিন্ন করের জনসারারণ, ইউনিয়ন, উপজেলা ও জেলা দুর্যাণ বাহান্ত্রপান করিছিল করে সাম্বান্ত বাহান্ত প্রতার প্রতিলি নিরসনের জনা রাজপাই জেলায় কর্মতীর একটি পূর্যোগ বাবস্থাপনা পরিকল্পনা স্থান্ত পরিকল্পনা স্থান্ত পরিকল্পন পরিকল্পনা স্থান্ত পরিকল্পনা স্থান্ত পরিকল্পনা প্রতিল্যান্ত স্থান্ত বাহান্ত পরিক্ষে পূর্বান্ত বাহান্ত স্থান্ত বাহান্ত প্রতার দুর্যাণ আরম্ভালয় ক্রিয়ার করের মান্তান দুর্যাণ প্রতিল করে প্রকান প্রতান ক্রিয়ার পর্যায়ে দুর্যোণ ক্রিক মান্তাবেলাহ সুসুর প্রসায়ী অবলন রাম্বান্ত পরিকলন প্রসায়ী নাম করে।

কর্মপানিকল্পনাটি প্রনাপে এলাকার নারী-পুরুষ, কৃষক-ভূমিইন, প্ররীণ ও তথ্য প্রবানে সক্ষম জন্যানা স্থানীয় জনপেরীর প্রতিনিধি, ইউনিধন, উপজেলা এবং জেলা বুর্যোগ ব্যবস্থাপনা কর্মিটির (DDMC) সদস্যকৃষ্ণ সরাসরি সম্পুক্ত ছিলেন। বিশেষ করে কত্র এপানায় কর্মান্ত পুরীলনা এর কর্মজ্ঞতী ও গবেষক্ষের নিষ্ঠা ও অঞ্চান্ত পরিপ্রমা স্থানীয় পর্যায়ে পরিক্রমনা প্রণায়ের যথান্তর মন্তব্যন্তন প্রবাদ ব্যবস্থাপনা কর্মিটি একটি বাভবসন্থাক পূর্যোগ ব্যবস্থাপনা কর্মপরিকল্পনা প্রবাদ নেরাক্রমনায় প্রয়োগ ব্যবস্থাপনা কর্মপরিকল্পনা প্রথমনা কর্মপরিকল্পনা প্রতিক্রমনা প্রয়োগ আরু উপজেলায় প্রতিক্রমনা পর্যায়ে ব্যবস্থাপনা পালিকল্পনায় পূর্যোগ নেরাক্রমনায় পূর্যোগ বালিকল্পনা প্রথম কর্মপরিকল্পনা প্রথম করে করে সক্ষম হয়েছে। আরু উপজেলায় প্রতিবাদ ও সমাজ পর্যায়ে দুর্যোগ পুরিক সম্পর্কে পনসচেক্রমনা সূত্রীয় কর্মপনা ব্যবহারের মাধ্যমে দুর্যোগ পূর্ব প্রপূতি প্রহন এবং প্রয়োগ কালীন সময়ে অপসায়ের, উদ্ধার, চাহিলা নিরুপণ, প্রণা ও ওাংজনিক পুনর্বাদন ব্যবহারের অন্যায় প্রথমি পূর্ব প্রথমি কর্মিটির ক্রমনার কর্মপ্রয়ার কর্মপ্রয়ার ক্রমনার কর্মিটির ক্রমনার কর্মনার ক্রমনার ক্রমনার ক্রমনার ক্রমনার কর্মনার ক্রমনার কর্মনার ক্রমনার ক্রম

২০১৪ সালে সিভিএমপিতি সহায়তার প্রনিত বুর্যোগ ব্যবহাপনা পরিকল্পনাটি প্রণছনে যে সকল সরকাটি এবং বেসরকাটী সংখ্য ও ব্যাজিবর্গ সন্তিয়া তাবে কংশগ্রন ও পরামর্গ প্রধান করেছেন কাদেরকে আমি আছবিক বন্ধবাদ জানাই। আমি আশাবাদী, পুনীয় জনগন, স্থানীয় প্রশাসন ও বিভিন্ন সরকাটী বেসরকাটী প্রতিষ্ঠানের সমন্বয়ে রাজপাহী জেলায় প্রদীত বুর্যোগ ব্যবহুপনা পরিকল্পনাট বুর্যোগ ব্যাবহাপনা কমিটি ও সংশ্লিষ্ট দেউরের (সরকারী, আছলাতিক ও জাতীয় এনজিও, বাতা সংখ্যা ইকাদি) জন্য একটি সার্বিক পরিকল্পনা হিসেবে কাজ করেছে।

সভাপতি

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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 well 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.

Rajshahi district 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 District level for mitigate disaster. This 'Disaster Management Plan' has delivered to Rajshahi district 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 Rajshahi district have narrated in the document in chapter 1 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 District, like District 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.

## 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 Rajshahi District

Rajshahi district is a River prone area, the rich and fascinating variety of trees to beautify the natural beauty. River, canal, a variety of fruit, forestry, medicinal plants and a variety of seasonal crops Arrange sobhaya. The country's largest city of northern Rajshahi metropolitans. Rajshahi Division from 1947 from the administrative proceedings are started. As a result, the city became the metropolis of the department. The business center of the silk and the blue is the origin of Rajshahi. So the city is known as the traditional silk and Education City.



Figure 1.1: An important place in the district of Rajshahi .

# 1.3.1. Geographical position of the District.

- This District is under Rajshahi District.
- Election Center-57, Rajshahi-6
- Name of other District which have surrounded Rajshahi District. It is narrated bellow: In the North side-Naugaon District, in the east- Chapai-Nababganj District, in the South India and West –Nator District situated.
- Short narration of river, road, embankment and so on of the District:- Panoramas of the district 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 Rajshahi District in 2011 its dimensions are 2425.37 sq.km. Table 1.1: Upazilla Union & Ward wise Name of Mouza.

Name of Upazila	Name of Union	Name of the location/village/area in every Union			
Rajshahi	Bagha (10)	Arani, bajubagha, bausa, garagari, MoneyGram, pakuriya.			
(81)		Total: 06			
	Paba	Baragachi, damakura, Darshanpara, parila, haragrama,			
	(72)	Horiyan, Haripur, hujuripara. Total = 08			
	Godagari	Godagari, Mohanpur, Pakari, Risikul, Gogram, Matikata,			
	(34)	Deopara, Basudebapura, Char Ashariyadaha. Total Union=09			
	Charghat	Yusufpur, Saluya, Sardah, Nnimapara, Charghat,			
	(25)	Bhayalakshmipur. Total Union=06			
	Durgapur (31)	Deluyabari, Dharmapur, jhaluka, Jaynagar, kisamataganakaira,			
		Maria, Nowpara. Total = 07			
	Mohanpur	Bakasimala, dhuraila, gachigrama, jahanabada, maugachi,			
	(53)	rayaghati. Total=06			
	Bagmara (12)	Auchapara, barabihanali, basupara, dbipapura, galakandi,			
		gabindapara, Hamin kustana, ghikara, jagipara, kayalipara			
		court, Maria, naradasa, sonadanga, sripura, subhadanga,			

	ganipura.
Puthiya (82)	Banesara, belpukuriya, balukgachi, jeopara, puthiya,
	silamariya. Total Union= 06
Tanor (94)	Badhair, canduriya, Kalam, kamargao, panchadar, saranjai,
	talanda.
Shah Makhdum	Ward no 17 and part of ward of 18
Thana (90)	
Matihar Thana (40)	Ward no 28, 29 and ward no 30
Boaliya Thana (22)	Ward no 9,11-16, 20-26 and part of ward no 10, 14, 18 & 27
Rajpara Thana (85)	Ward no 1-8 and part of ward no 10 & 14

Source: Upazila Parishad, 2014

# 1.3.3. Population

All kinds of religions (Muslim, Hindu and Christian) 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 2595197 and among them 139890 are male and 1285307 are female. There 1070 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
Bagha (10)	92010	92173	30.2	8.4	1.9	184183	46711
Paba (72)	159452	154774	31.2	6.7	1.5	314196	76622
Godagari (34)	166260	164664	35.1	6.8	1.7	330924	72186
Charghat (25)	104138	102550	29.3	7.3	1.6	206788	51783
Durgapur (31)	93551	92294	27.8	8.1	1.5	185845	46771
Mohanpur (53)	85236	84784	29.2	7.2	1.6	170021	43984
Bagmara (12)	177157	177507	28.5	8.5	1.7	354664	94050
Puthiya (82)	105071	102419	31.0	7.8	1.6	207490	19263
Tanor (94)	94041	97289	27.3	6.9	1.7	191330	47425
Shah Makhdum Thana (90)	14783	14320	24.5	5.9	1.0	29103	6832
Matihar Thana (40)	33446	28726	23.0	4.9	1.2	62172	12374
Boaliya Thana (22)	177157	177507	26.6	6.1	1.2	221163	49866
Rajpara Thana (85)	70346	66972	27.3	6.1	1.0	137318	30413
	1309890	1285307		7.2	1.6	2595197	633758

Source: BBS, 2011

### 1.4 Structure and Non-Structure

Rajshahi district is originally an agricultural area. 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**

Rajshahi District 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 has been protecting Mnigram, Pakuria and Gorgari Unions. Charghat Upazila is situated beside the river. Erosion of river is the main problem. So, to protect the



Figure 12: Embankment

location, 16 km roads, height 15 ft and broad 25 ft have built up. It have been protecting Mnigram, Pakuria and Gorgari Unions. There are 6 km. long embankment have constructed in Darshan Para Union of Poba Upazila nearby Johakhali river. It has reached to Nohata Municipalitjy. There is an embankment in Hojripara union. It is stated from Shirsha Para and has reached Mollar Daing via beside Kalitolar Bil and from Kumra pukur to Purakhali embankment via Vagail and Shor Mongla. Also has other roads and embankment. It is narrated bellow: 19 km embankment in Horipur Union. Embankment from Horogram Union to Baliagram. 17 km. embankment stated from Boragashi Union and reached Kalupara. As the river Padma is running besides Godagari Upazila, there is 59 km dam presence to protect Upazila. Down to 14-15 feet in height and 5 feet in width and 15 feet above. Position of the Union following barriers present at Godagari

- From alokachatra Kachu to Vhanapur vaya risikula mandai about 30 km.
- Up to 14 km from Deopara Sultangani
- At Bidirapure of Matikata 2km
- 8 km from primary school of kakanahata
- 4 km from the kakanahata municipality sarampura to prematali
- Up to 5 km from the dam has basudebapura kajipara.

#### 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. 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.



Figure 13. Sluice Gate

It is helping to evacuate water at the time inundation. There 30 sluice gate are situated in Poba Upazila. Among them10 in Nowhata municipality, 2 in Katajhali Municipality, 3 in Darshan Para Union,2 in Hojripara union, 3 in Damkura Union, 4 in Horipur Union, 2in Parila Union, 1 Borgashi Union, 1 in Horgram Union and 3 in Horian union. Those have been using for deflating water from every union of the Upazila. Downpour, inundation and cyclone are always becoming ban in every year for the inhabitants. But changing 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 deplete water at the time inundation. There are in total 42 sluice gate present at Godagari Upazilla. The Gograma Union 3, Excavated union 3, Basudebapura Union 3, Mohanpur Union 1, Risikula union 8, Pakari union two, Deopara union two, Char Asariyadaha Union 6, sharing Union 6, Kakanahata Municipalities 5 and sharing municipal sluice gate 3.

#### **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 cannel 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 cannel, pond or



Figure 1.4: Deep tubewell under

selected place. BMDA is assisting in various aspect to the famers to run their activities with full of go. At present there are 14473 tube wells along with 945 deep tubes well in Rajshahi District.

#### Hat & Bazaar:

Though Rajshahi District 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 Rajshahi District 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

Figure 1.5: A market in upzilla

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.

There are 24 Hat and 11 Bazaars in Poba Upazila and those are supplying all sorts of daily usable essential goods and commodities for the people three times in a week.

There are 48 Bazaars in Charghat 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 BajuCharghat 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.

### 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 9 Upazilla and 4 Thana under Rajshahi District 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.

After analysis all information's collected from the respective sources, it is seen that 12.8% of houses are brick-built, 27.8% are semi concrete, 55.2% are made of mud and 4.2% families lives in hovels in all Unions and Municipalities of Rajshahi. Many peoples of char areas 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.



Figure 1.6: Kachagor made by mud and



Figure 1.7: Jhupri house at Char

#### Water

Main sources of potable water of Rajshahi District are nothing but tube-well. 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.

After analysis all information's collected from the respective sources, it is seen that sources of water of 88.50% family are Tube-well, 8.10% family are Tape and 3.4% family are depending on ponds, cannels and rivers. Alternative sources of water for the people of Bagha, Charghat, Mohanpur, Tanor, Bagmara and Godagari upazilla 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 Rajshahi District. 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 Rajshahi District are narrated bellow:

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 24.3 % family of Rajshahi District, Thana and Municipalities use Water Sealed Sanitary Latrine, 28.6% use non-water sealed latrine, 37.9 % use unhygienic larine and rest of others have no latrine. The above grapes have indicated the present position of the locality.

#### Library/ Educational Institute.

Rajshahi District 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.

It is cited that many school use to utilization as a shelter, but favorability and facility were not enough. Many institutions have damaged for



Figure 1.8: school cum shelter

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 Rajshahi District and those are: 48 in Gargari Union,40 in Pakuria Union,52 in Arani Union,25 in Baju Bagha 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



Figure 1.9: Bagha shashi mosque.

among those 6 in Monigram Union,6 in Pakuria Union, 10 in Arani Union 2 in Baju Bagha Union4 in Bowsha Union 2 in Gargari Union, 4 in Rajshahi District 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 1144 Eid-Gha Field located in the Rajshahi District 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



Figure 1.10: Largest eid prayer take place in Bagha shashi mosque

by the initiative of Union Parishad, that would be conducive in disaster period for shelter of cattle.

#### **Graveyard/Crematorium**

There are 33 Graveyards in Rajshahi District. 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 Rajshahi District 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 Rajshahi District, it is narrated below: In Rajshahi District- 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.

There are six thousand people live in sandy land of river. Death ratio of child and lactation



Figure 1.11: Health Complex in Bagha

mother are high than other place, because of communication, scarcity of medicines and proper doctors as they defend 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 are heart rending plight. They have to face death or other crisis.

#### Bank

There have 11 Insurances Company like delta Life insurance, Fareast Life Insurance, Progressive Life Insurance and Meghna Life insurance at Rajshahi.

#### **Post Office**

At present modern post office are available there. There are 55 Post Offices in the district. Those Post Offices are delivering service in good manner. They also are serving monitory linkage services.

#### Club/Cultural Activities/ Enjoyable centre

There are 251 Clubs in Rajshahi District. Among them 11 are in at Charghat, 48 in at Bagha, 46 in at Godagari, 23 in at Puthiya, 19 in at Durgapur, 31 in Baghmara, 34 in Mohanpur and 27 in Tanor Upazilla.

#### N.G.O /Voluntary Organization

There are 52 NGO existing in the district. Rajshahi District is a 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

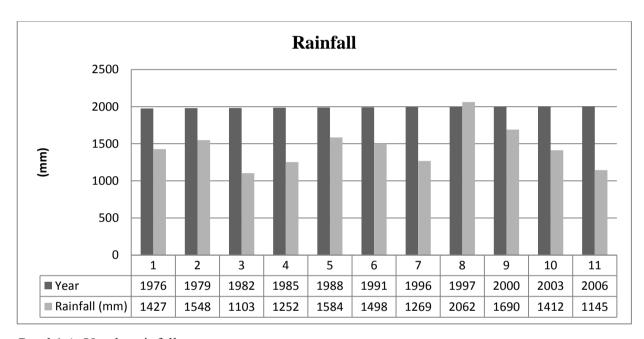
on the road in every Union of the Upazila are going on. There are 50 KM. roads are covered with trees. Also people of the location have taken initiative to plant tree in their location.

#### 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.



Graph1.1: Yearly rainfall amount

#### **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  $31.1\,^\circ$  and in 1983, the lowest was -20°.

	Table 1.4: 31 Years	Average A	Amount of M	1aximum &	:Minimum '	Temperature.
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Year	Highest	Lowest	Year	Highest	Lowest
	Temperature	Temperature		Temperature	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°
1983	30.9°	20°	1999	31.6°	20.1°
1984	30.9°	20.2°	2000	30.7°	20.6°
1985	31.3°	20.3°	2001	31.2°	20.5°

Year	Highest	Lowest	Year	Highest	Lowest
	Temperature	Temperature		Temperature	Temperature
1986	31°	20.1°	2002	31°	20.6°
1987	31.5°	20.5°	2003	30.8°	20.7°
1988	31.4°	20.4°	2004	31.1°	20.7°
1989	31.4°	19.4°	2005	31.3°	20.9°
1990	30.9°	19.6°	2006	31.7°	21°
1991	31.3°	19.8°	2007	32°	21.1°
1992	31.6°	19.7°	2008	32.2°	21.2°
1993	31.1°	20.1°	2009	32.5°	21.3°
1994	31.1°	20.°4			

#### 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



Figure 1.12: Waiting for water

locality and etc. in the dry season people have to face scarcity of water horrifically.

#### 1.4.4 Other resources

#### Land and its utilization

Total lands of the district are narrated bellow; Cultivation Lands are 4935.11 Accor. Govt. acquired lands are 6917.10 Accor Non cultivation lands are 22804.4631 Accor Cultivation lands under irrigation are 303766 Accor

## **Cultivation and victuals**

The main victuals of the people in Bagha Upzila Figure 1.13: Agricultural land in are price .mango, sugarcane and other various foods. They cultivate in a year paddy 44311.11 mt. Boro paddy -50173.86 mt. Ause paddy-32554.25 mt. Amon paddy-61583 mt and so on.



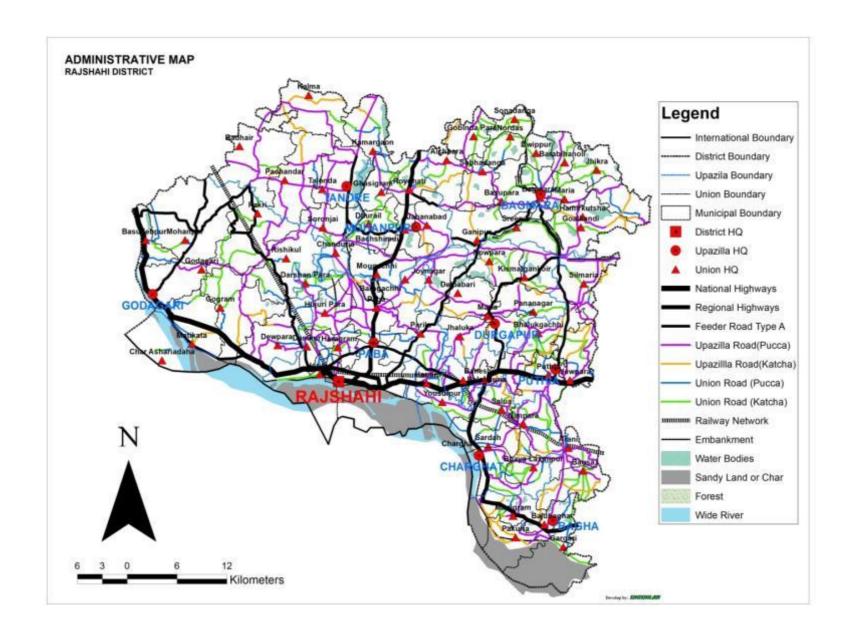
Two rivers in Rajshahi District are running. Padma is Main River in the locality. Boral is another and that is running over the Upazila. Total river and in the locality are 33710 Hector.

### **Salinity**

There are no salinity found at Rajshahi District.

#### **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.



# 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 Rajshahi District have to face any one disaster. By analyzing, it is seen that erenow in the year 1988, 1998, 2003 and 2004 Rajshahi district faced mournful horrific disaster.

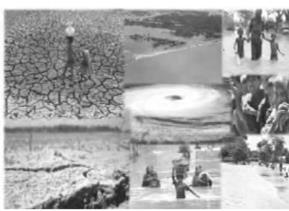


Figure 2.1: Disaster equipment Figure.

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 families 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	Scenario of damage	Name of damaged goods
Sunray	1976,1979,1989,1992,19	Very Much	Agricultural resources. Health services
	96,1999,2004,2005,2007, 2010,2011,2012	Middle	Fishes. cattle
Inundation	1988,1998,2013	Very much	Fishes, Health
			sector, Structure Communication
		Middle	Agricultural resources/animals
Kal-	1988, 1992, 1995, 1997,	Very much	Cultivation ,Human resources, structure
Baishaki	2004, 2006, 2009, 2011,	Middle	Fishes, cattle, communication
storm	2014		
Erosion	1988, 1998, 1999, 2000,	Very Much	Agriculture, Structure, Roads, and so
	2005, 2006, 2013		on
		Middle	Fishes, Cattle, Human resources.

Source: Field trip, 2014

# 2.2 Scenario of catastrophes of the District

Various catastrophes direct or indirect damage various places or institutions in all locations of the District. 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 loca	Main Hazards		
Natural Hazards	Natural Hazards		
1.Drought	10.Earthquack		
2. Heat Wave	11.Sunray weather		
3.Water Layer	12. Inundation	1 Decument	
4.Heavy downpour	13.Tornedo	1. Drought 2. Flood	
5.Fridigity	Fridigity 14.Hail-storm		
6. Sunray	15.Thunderbolt	3. Storm 4. River Erosion	
7. River Erosion	16.Insect attack	5. Water Layer	
8.Thick fogy	17. Flood	6. Heat Wave	
9.Arsenic 18. Drizzle		7. Drizzle	
Human Creation Hazards		8. Arsenic	
18.Conflagration	19.Nonconducive	o. Targeme	
	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 cannel, 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.



Figure 2.2: Drought forecast by local news paper figure

#### River erosion

In the year 2013 Rajshahi District faced devastated river erosion. Godagari, Paba, Bagha and Charghat Districts were damaged by its horrific effect. In every year erosion of river occurs and it is increasing alarmingly.

#### Kal Baishakhi Jhar (Seasonal 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.

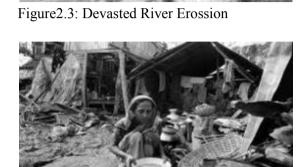


Figure 2.4: Damaged river site owing to havey Seasonal strom.

#### **Temperature**

As per Scientific information in the last 15

years (from 1979 to 1994), average temperature in Rajshahi was recorded and that was – in 1979 was 31.1 ° and in 1983, the lowest was -20°. Rajshahi District 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 Rajshahi District. It is more than 60'-90'

#### **Arsenic Pollution**

It is ostensible that Pestilence of Arsenic is pervaded in everywhere in the District. 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.



Figure 2.5: 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/Drought	Alarming sunray devastate cultivated	There are				
	crops.	Irrigation facility presentsin				
	Newborn child, cripple, pregnant	Rajshahi District.				
	women and aged person have to face	Sluiceget presence for water				
	problem.	drainage.				
	Fish resources face risk.	Fruit research center, Agriculture				
	Scarcity of drinking water comes	Research Center, Television				
	ahead.	center is present at Rajshahi.				
	Hindrance comes into	181 Hat/Bazars present				
	Communication system					
Inundation	Due to inundation Crops and other	There are				
	resources become damage.	-1 Radio center and 1 TV center				
	Distraction creates into	-5 Fire Service & Sivil Defence				
	communication.	-300KM Solid road, 3295KM				
	Graveyard become submersed.	semi solid, 73KM Railroad &				
	Newborn child, cripple, pregnant	1KM Air road at Rajshahi.				
	women and aged person have to face	-9 District, 73 Union Health				
	problem.	Center & 39 Family Planing				
	Structure becomes Destroy.	Center				
	Fish resources become risky.	-10 Animal Treatment Center &				
	Scarcity of potable water and	17 Animal Welfare Center				
	victuals come ahead	present at Rajshahi.				
Kal-Baishakhi	Crops fall into damage.	At Rajshahi				
Storm	Communication system becomes	-There are 559 Govt. Primary				
	risky.	School, 421 Reg. Govt. Primary				
	Hindrances come into human	School, 221 Madrasa, 74 Collage				
	resources.	present.				
	Structure becomes damaged.	-9 District, 73 Union Health				
	Damages occurred to Fisheries and	Center & 39 Family Planing				
	animals	Center present.				
	Newborn child, cripple, pregnant	-10 Animal Treatment Center &				
	women and aged person have to face	17 Animal Welfare Center				
	problem.	present at Rajshahi.				
Erosion of river	Crops fall into damage.	At Rajshahi				
	Communication system becomes	-T Barrage present				

Catastrophes	Affliction	Capability
	risky.	
	Hindrances come into human	
	resources.	
	Structure becomes damaged.	
	Damages occurred to Fisheries and	
	animals	
Layer of Water.	Hindrances occur into cultivation of	There are
	crops.	- Irrigation facility presents
	Hindrances come into human	through Deep Tube Wells in
	resources	Rajshahi District.
	Damages occur to Fisheries and	-
	animals	
Temperature	Due to inundation Crops and other	-Forestation has created in
	resources become damage.	Rajshahi District.
	Diseases of Petulance spreads	-9 District, 73 Union Health
	Newborn child, cripple, pregnant	Center & 39 Family Planing
	women and aged person have to face	Center present.
	problem.	
	Fish resources become risky.	
	Scarcity of potable water and	
	victuals come ahead	
Arsenic	Human resources become damage.	Arsenic occupied tube-wells
	Create various diseases and potable	have indicated by red sign.
	water becomes ban.	Treatment of Patient, caused by
		Arsenic, has assured.

# 2.5 The most affliction place

For geographical position Rajshahi District 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	Qnty. Of wretched people.
Sunray	Tanor, Godagari, Bagha, Charghat, Paba, Puthiya, Baghmara	*Scarcity of potable water.  *May be have to face various diseases.  *Obstruction of Cultivation crops appear.  * Lack of water production of crops becomes decrease.	450000- 549000 People

Affliction	Most Affliction place	Causes of affliction	Qnty. Of wretched people.
Inundation	Godagari, Rajshahi, Charghat, Baghmara	* Lack of embankment in the risky place. * Building up houses on a low land. * Unsustainable structure. * Lack of sanitary latrine.	256500-260000 People
Kal- Baishakhi storm	Tanor, mohanpur, Durgapur, Godagari, Bagha, Charghat, Paba, Puthiya	* Unsustainable structure and unplanned houses. * Want of disaster unsustainable formation. * Devastation of forest.	
Erosion of river	Godagari, Bagha, Charghat, Paba	*Houses build up nearer to river and low land.  * Unsustainable houses building up  * Breaking of embankment.  * Deflate of cannel.  * Treeless embankment beside the rivers or roads	240750-290250 People
Layer of Water in the earth	Tanor, Baghmara, Mohanpur, Godagari, Puthiya, Bagha, Charghat, Paba, Godagari	*Unplanned deep tube-well set up. *Devastation tree-plant. *Want of reservation plan of water.	18000-20250 Families.
Temperature	Tanor, Godagari, Bagha, Charghat, Paba, Baghmara	*Tree-Plant devastation .  * Scarcity of potable water  * Imminent to face diseases.	10950-13050 Families
Arsenic	Godagari, Bagha, Charghat, Paba	*Layer of ground water low down *Pervade skin diseases	56300-67500 Families

# 2.6 Main Sector of Developmental Plan

Rajshahi district is dependent on crops of cultivation as well as its economic structure. So importance should give to agriculture as well as fisheries, resources of animal's livelihoods and health to relinquish adversity.

Table 2.5: Development sectors and coordination with disaster reducing.

Sectors	Narration largely	Coordination with disaster reducing
Agriculture	*If Rajshahi district face inundation like which happened in 1988 than other unions and Municipality probably should have to face devastation.	*Sustainable crops for marshland would have to

Sectors	Narration largely	Coordination with disaster reducing
	* If the Kal-Baishakhi storm hit the territory then almost 25759 Accor of paddy land will be devastated.  * Almost people should have to face heart rending plight of disaster.  * Effect of lower layer of water will be alarming hindrance in agriculture sector.  * 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.	rain water to grow seedling of crops.  * Embankments will have to build up to protect flood water.  * Will have to take action to deflect water from the location.
Fish resource	* Fish cultivation in almost ponds will be stopped which is the sources of earning of the local people.	
Animal resource	Animal which is an important resource in the location will be devastated.	Mud made Kellah may be a helpful place for protect the animal resource.
Health sector	Water becomes polluted in the time of inundation. So, that water will create heartrending plight for the location and people will have to face various diseases and almost child will pass away.	*Should have to create awareness among the people for taking health care.  * Should have to increase the quantity of the health care centre in the location.  * Needed to rehabelate 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 District. At the time of disaster those may be fall into risk	In that position it is needed to throw look to the structure

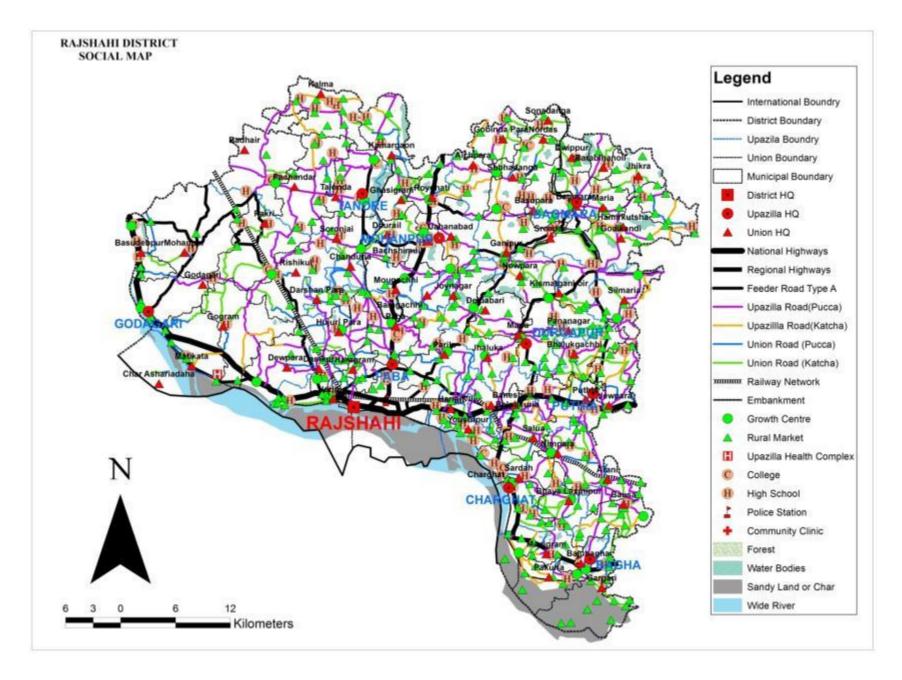
Sectors	Narration largely	Coordination with disaster reducing
	which might be causes for destroy. Needed	
	to be carefulness in that aspect	
	Almost latrines are mud made and situated	To face climatic effect it is
	in the low land beside the houses. In the	needed to build up sustainable
Sanitation	time of disaster or inundation all latrines	latrine which will not destroy
Samation	drown under water. Then people have to	in disaster.
	excrete in the unsaved places and those in	
	time become the causes of various diseases.	

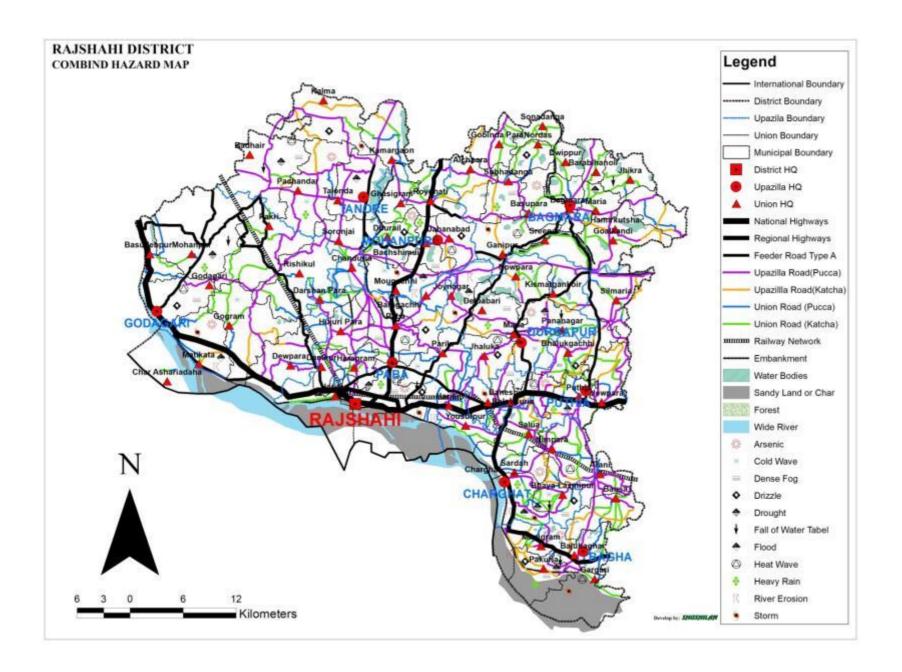
# 2.7 Social Map

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 Bazzar, 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.





## 2.9 Seasonal catastrophe Calendar

People of the Paba 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.

	Season														
catastrophe	Apr	May	June	Jul	Aug		Sep	Oct	Nov	Dec	Jan		Feb	Mar	
	Boi	Joi	Ash	1 ;	Srab	Vad	Ash	Kar	Augr	P	ous	Mag	g Fal	Cho	oi
Sunray															
Erosion															
Arsanic															
Draught															
Kal-															
Baishakhi															
Tempe															
ruture															
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	Ma	ır	
	Boi	Joi	Ash	Srab	Vad	Ash	Kar	Augr	Pou	s Ma	g Fa	1	Choi	
Cultivator														
Labor of														
cultivation														
Uncultivat														
e labor														
Fisher														

Source of	Season													
livelihood	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
iiveiiiiood	Boi	Joi	Ash	Srab	Vad	Ash	Kar	Augr	Pou	s Mag	Fal	Choi		
cultivator														
Fisherman														
Mango														
fermar														
Boatman														
Business	They	They were remain very busy during the religious festivals.												
man	They	WCIC IC	illalli VC	ry busy	during t	inc reng	ious ics	uvais.						
Service	Rouna	d tha ve	ar they y	were rer	nain ver	v busv								
holder	Roun	a ma ye	ar they	WCIC ICI	mann ver	y ousy								
Driver of														
Nosimon/														
Karimon											_			
Handicrupt														
ures														
Wood														
carpentar														
Mason														

# 2.11 Calendar of Livelihood and Lives

Those has been indicated below

Table 2.8: Calendar of livelihood and lives

		Disaster										
livelihood	Sunray	Inundation	Layer of Water	Erosion of river	Coldness	Fogginess	Drought	Kal Baishakhi Storm				
Cultivation	>	V	>	<b>\</b>	<b>\</b>	<b>\</b>	<b>\</b>	✓				
Fish	>	$\bigvee$	\	$\searrow$	<b>\</b>	<b>\</b>	V					
Labourer	Ŋ	$\bigvee$		V	<b>V</b>	<b>✓</b>	$\checkmark$					
Businessman	>	$\bigvee$			<b>\</b>	<b>\</b>		✓				

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

tuble 2.9. Sector wise Effe and Ervennood Related value about											
Disaster	Crops	Trees	Cattle	Fish reasour ces	Houses	Roads	Bridge	Educati onal Institut	Health	Shelter centre	
Inundation	>	>	>	<b>\</b>	>	>	<b>\</b>	<b>\</b>	>	<b>\</b>	
Erosion of											
river	$\checkmark$	$\checkmark$		✓	$\checkmark$	$\checkmark$		✓		<b>▼</b> I	
Sunray	>	>	>	<b>\</b>					>		
Kal											
Baishakhi	$\mathbf{S}$	$\searrow$	<b>S</b>		<b>y</b>			$\searrow$	<b>S</b>		
Fifa			<b>\</b>						<		

Disaster	sdo	ees	attle	ı	ıses	spı	lge	rcati 1 itut	ealth	lter tre
	Cro	Tre	Cati	Fish reaso ces	Houses	Roads	Bridge	Educal onal Institu	Health	Shelter centre
Layer of	>	V		<b>S</b>					<b>\</b>	
Water	3	3	<b>S</b>	¥					Z	
Temperature	>	>	>	<b>\</b>		>			<b>&gt;</b>	
Arsenic	>	>	>	<b>\</b>						

# 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		
	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		
Sunray		the hindrance to do.		
Sulliay	Cattle	Sunray destroys 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.		
	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		
	C : .:	damage.		
Inundation	Communication	Communication with other place not possible.		
	Fish	Fish go out for over flow of water and it becomes the ban		
	C 41	of cultivators.		
	Cattle	Cattle cannot move as well as have to face scarcity of		
	Tuesa	food and other things  Over flow of water or inundation devastate trees or		
	Trees	forest.		
	Numaany			
	Nursery Health	Plant of nursery cannot grow.  At the time of inundation people have to face various		
	Пеанн	water born diseases. They cannot move to Doctor for		
		taking care of health.		
	Agriculture	Temperature becomes the hindrance of agriculture sector.		
Temperature	Public Health	People of aged or child have to various problems.		
Temperature	i done ricalui	Sometimes they attacked by various diseases.		
Kal-Baishakhi	Agricultyre	Crops of field be damage		
Storm	House	All kinds of mud made houses stay in risk.		
Storm	110050	7 III Kinds of finde fiede flouses stay in fisk.		

Catastrophe	Disaster Sector	Narration of risk			
	Structure	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			
	Agriculture	Agriculture sector have to face various problems.			
Erosion of	Structure	Structure may be damaged			
	Communication	Communication with other place not possible			
river.	House	Houses fall in risk			
	Cattle	Cattle may be died			
	Public Health	Public have to face various diseases by the effect of			
Arsenic		Arsenic			
	Trees	As per scientific analysis it is cited that effect of			
		Arsenic sometimes fall on the trees.			
	Agriculture.	Causes of layer of water agricultural activities cannot be			
		performed smoothly. This is a great problem in the			
Layer of		location			
Water	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

Table3.1: Identification of Risk Factors in Rajshahi Zilla

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

Narration of risk	Causes			
Narration of fisk	Immediate	Moderate	Ultimate	
Cold wave is also a threat that may create	1. Monsoon wind from	1. Climate change	1. Deforestation	
loss for 43996 families ruining crops of 16454 hectors of cultivable lands.	the north-west corner	2. Cold drizzling	2. Environment pollution	
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	<ol> <li>Lack of depth of river and proper management</li> <li>Lack of river dam monitoring and implementation committee</li> </ol>	
Severe drought may ruin the fish cultivation	1. Lack of irrigation	1. Shallowness of ponds	1. Lack of govt. steps in	
in 3827 ponds that may lead to financial loss	system		necessary repairing of ponds	
and spoil 4300 metric tons of fish production				
in BaghaUpazila.				
38% of earthen houses can be devastated by	1. Extra upstream	1. Housing in low lands	1. Lack of govt. policies in	
the flood that leads to suffering and economic	water pressure	2. Unplanned housing	building infrastructure	
loss for 28497 families.				
In five unions, approximately 30 kilometers	1. Soft river banks	1. Shallowness of river	1. Not strengthening the river	
road and 17 academic structures may be	because of heavy rainfall		banks	
devoured by the river, which may result in				
unexpected disruption in education of 3400				
students.				
.Cold wave seriously affects livestock8600	1. Weather change	1. Cutting down big trees/	1. Deficiency in management	
cattle may die of cold wave that maycause	2. Cold drizzling	deforestation	of forest department	
severe financial damage for 54001 families.				
Low rainfall may destroy agricultural	1. Lack of sufficient	1. Unplanned cultivation	1. Lack of repairing of old	
products of 6978 hectors that may create a	drinking water		tube wells	
scarcity of food and financial loss for 54001			2. Lack of steps to set up deep	
families in BaghaUpazila.			tube wells	
Drought may cause different kinds of skin	1. Lack of mass-	1. lack of hospitals/ health	1. Lack of govt. measures in	

Narration of risk	Causes		
Ivarration of fisk	Immediate	Moderate	Ultimate
diseases and other problems among 50% of	awareness	centers	health sector
the population and financial loss for 54001			2. Lack of rules and planning
families of BaghaUpazila.			
A sudden storm like 2003's may smash down	1. Interruption in weather	1. Lack of awareness measures	1. Lack of rules in plantation
54 of academic stuctures, which may result in	reports	2. Deforestation	
unexpected disruption in education.			
8600 of cattle my be affected and die of	1. Lack of awareness	1. lack of veterinary treatment	1. Lack of veterinary hospitals
different diseases because of cold wave that			
may cause severe financial damage for 54001			
families.			

# 3.2. Identification of Ways of Risk Reduction

Table 3.2 Identification of Ways of Risk Reduction in Rajshahi Zilla

Narration of risk	Possible ways of risk reduction	n				
Narration of fisk	Short-term Medium		Long-term			
Drought, as occured in 2001, may ruin the agricultural products of approximately 16454 hectors and cause severe financial damage for 201342 people of 43996 families.	1. Proper irrigation system	<ol> <li>Sufficient deep tubewells</li> <li>Avoiding deforestation and promoting plantation</li> </ol>	<ol> <li>Canal repairing</li> <li>Dredging river</li> </ol>			
A sudden attack of seasonal storm may destroy the agricultural products of 5978 hectors 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	1. Dam management	1. Dredging the rivers	1. Blocking the river edges imposing			

Narration of risk	Possible ways of risk reduction	n	
National of fisk	Short-term	Medium	Long-term
agricultural products of 1230 hectors of		2. Strengthening the river	government policy
cultivable lands causing great loss for		banks with closely set	
43996 families.		stones	
River erosion may cause financial loss for	1. Measures to prevent	1. Raising navigability of	1. River dredging and forming and
33683 families destroying 1230 hectors of	water pressure with tin,	rivers	managing of implementation
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	1. Maintaining continuity in	1. Timely use of	
production of 400 mango trees (dropping	early weather reports	pesticides	2. awareness measures from national
out buds) and agricultural products of	2. Creating mass awareness	2. Arranging training on	level
16454 hectors of cultivable lands.		agriculture	
Cold wave is also a threat that may create	1. Measures for protecting	1. Creating mass	1. Sufficient plantation by forest
loss for 43996 families ruining crops of	crops from cold wave	awareness	department
16454 hectors of cultivable lands.			
In five unions, approximately 1395 houses	_	1. Raising navigability of	
may be devoured by the river causing	water pressure with tin,	rivers	managing of implementation
severe financial loss.	bamboo and sand piles	2. Setting dams	committee
			2. Constructing dams on rivers
			3. Allotting budgets
Severe drought may ruin the fish cultivation	1. Proper irrigation system	1. Allowing lone to fish	1. Govt. steps in necessary repairing of
in 3827 ponds that may lead to financial		cultivators for increasing	ponds
loss and spoil 4300 metric tons of fish		depth of pond	
production in BaghaUpazila.			
38% of earthen houses can be devastated by		1. Building houses on	
the flood that leads to suffering and	with sand piles	high lands	infrastructure
economic loss for 28497 families.			
In five unions, approximately 30 kilometers	1. Protecting river banks	1. Raising navigability of	1. Setting govt. rules and planning and

Narration of risk	Possible ways of risk reduction	n	
Narration of fisk	Short-term	Medium	Long-term
road and 17 academic structures may be	with sand piles	rivers through dredging	ensuring proper implementation
devoured by the river, which may result in			
unexpected disruption in education of 3400			
students.			
Cold wave seriously affects livestock. 8600	1. Talking care of cattle	1. Raising awareness	1. Constructing govt. policies in
cattle may die of cold wave that may cause		among livestock	building veterinary hospitals
severe financial damage for 54001 families.		cultivators	
Low rainfall may destroy agricultural	1. Proper management of	1. Planned cultivation	1. Repairing old tube wells and
products of 6978 hectors that may create a	running deep tubewells	with the help of local	setting up new deep tube wells
scarcity of food and financial loss for 54001		agriculture department	
families in BaghaUpazila.			
Drought may cause different kinds of skin	1. Creating mass awareness	1. Arranging clinics/	1. Taking govt. measures in health
diseases and other problems among 50% of		heath centers	sector
the population and financial loss for 54001			And fixing rules and planning
families of BaghaUpazila.		4.50.11	
A sudden storm like 2003's may smash	1. Maintaining continual	1. Taking awareness steps	1. Making policies for the
down 54 of academic stuctures, which may	supply of weather reports	1. Creating mass	accommodation of cattle and allowing
result in unexpected disruption in education	through radio, television	awareness	budget
of 16185 students.			
8600 of cattle my be affected and die of	1. Creating mass awareness	1. Managing treatment	1. Establishing veterinary hospitals by
different diseases because of cold wave that		for cattle	govt. rules
may cause severe financial damage for			
54001 families.			

Source: Field Trip, 2014

# 3.3. NGOs' Development Plan

Table3.3: NGOs' Development Plan

Sl	NGO	Disaster Related Activity	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	PalliShishu Foundation of Bangladesh (PSF)	Works on maternal and child health care and birth control through "ShurjerHashi Clinic"	1000	-	01-05 Years
3	MousumiRin	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 Intregration charity (RIC)	Micro-finance activities	1550	2500-15000 tk	01-05 Years
6	ThyangamaraMohilaSobuj Sangha (TMSS)	Employment training and micro-finance activities	500	3000-5000 tk	01-05 Years
7	DabiMoulickUnnoyanSongtha	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

Sl	NGO	Disaster Related Activity	Beneficiaries (persons)	Amount / Number	Project nDuratio
11	JatioKollanSongtha (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 Batch	01-05 Years
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	AngikarManobKalyanKendro	Microfinance activities	366	-	01-05 Years
21	Community Development Program (CDP)	Microfinance activities	540	-	01-05 Years
22	AsrayAmaderPrakalpa	Shelter	350	2500-7000tk	01-05 Years

Sl	NGO	Disaster Related Activity	Beneficiaries (persons)	Amount / Number	Project nDuratio
23	ASODFLS		1300	Trained 4	01-05 Years
				Batch	
24	ManobKolyanParishad	Activities on increasing public awareness about community policing	290	-	01-05 Years
25	Center For Action Research		600	Trained 4	01-05 Years
	(CAR)			Batch	

Source: Field trip, 2014

# 3.4. Disaster Management Action Plan

# 3.4.1. Pre-disaster Preparation

Table 3.4:Pre-disaster Management Action Plan

						Who & How done (%)				
SL	Activities	Goal	Possible Budget (taka)	Location	Possible Time of Impleme ntation	Zilla Administration	Community	Upazila Administration	NGO	Cooperation with Developmental Planning
1	Signal transfer	7 Teams	50,000	Union parisad	feb- March	35	5	30	30	Such activities will help to the

2	ward level team	85 Teams	140,000	Union parisad	feb- march	35	5	30	30	local people to reduce loss of disaster due to pre
3	Identification of information transfer place in local level	70 places	7,000	union, ward village & municipality	feb- march	35	5	30	30	awareness and for take initiative
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 tmporary 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 arangement	1 in each month	120,000	Union, municipality	feb- march	35	5	30	30	
8	Training opf 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,UD MC 7 various donor organizations		union parisad & upazila	feb-april	35	5	30	30	

# 3.4.2. During Disaster Preparation

Table 3.5 During Disaster Preparation Management Action Plan.

				Probable	Who &How will do (%)				- Cooperation
Program	Target level	Probable budget	Where to do	date of impleman tation	Zila Administration	Community	Upazila Administration	OSN	with Developmental Planning
EOC	1	ng	Affected areas	Emergenc y period	35	5	30	30	Such activities will help to the local people to
Signal dissemination	Regular (everyday/every hour)	o the planni	Affected areas	Do	35	5	30	30	reduce loss of disaster due to pre awareness
Emergency meeting call during possible upcoming hazards	As required	ccoring t	Affected areas	Do	35	5	30	30	and for take initiative
keeping useable shelter houses	8 groups	xed a	Affected areas	Do	35	5	30	30	
Rescue the victims	According to the population of the damaged area	Budget will be fixed accoring to the planning	Affected areas	Do	35	5	30	30	
Ensuring health service	Do	Budį	Affected areas	Do	35	5	30	30	

Program	Target level	Probable	Where to do	Probable	Who &How will do (%)			<b>6</b> )	Cooperation
		budget		date of				with	
Preliminary relief distribution	Do		Affected areas	Do	35	5	30	30	
Bring the people remaining in	Do		Affected areas	Do	35	5	30	30	
the risk zone to the secured place									
Ensure emergency food supply	Do		Affected areas	Do	35	5	30	30	
Ensure emergency water supply	Do		Affected areas	Do	35	5	30	30	

# **3.4.3 Post Disaster Preparation** Table 3.6: Post Disaster Preparation

			Proba		Probable	Wh	о&Н	ow Far		Adjustment
SL	Program	Target level	ble budge t	Where to do	date of implemantat ion	zila administration	Community	Upazıla administration	NGO	with Development Plan
1	Quickly Rescue	According to the population of affected area & Amount of damage	According to the Amount of damage	Affected areas	Immediately after Disaster	40	0	30	30	Reduce the damage of livelihood by quick rehabilitation
2	First Aid of the wounded	Do	J	Affected areas	Do	40	0	30	30	
3	Dead body Burried& Carcass Management	Do		Affected areas	Do	40	0	30	30	
4	Compensation Within 72 Hours	Do		Affected areas	Do	40	0	30	30	
5	Rehabilitation of the economic hampered	Do		Affected areas	Do	40	0	30	30	42

6	Debris Cleaning	Do	Affected areas	Do	40	0	30	30	
7	Reestablishment of Administration	Do	Affected areas	Do	40	0	30	30	
8	Emergency livelihood	Do	Affected areas	Do	40	0	30	30	
9	Public welfare	Do	Affected areas	Do	40	0	30	30	
10	Road construction & repairing	Do	Affected areas	Do	40	0	30	30	
11	Stop Installment	Do	Affected areas	Do	40	0	30	30	

# 3.4.4. Regular Period Preparation

Table 3.7: Regular Period Preparation Management Action Plan

					Probable date	Who & How will do (%)				Adjustment with
SI No	Program	Target level	Probable budget	Where to do	of implementation	zila administration	Community	UPz	NGO	Development Plan
	Pond repairing and ridge lifting and digging pond for water conservation	5	Budget will be fixed according	Important areas, according to the plan adopted at the	September- May	20	10	20	50	Such activities will help to the local people to

Sl No	Program	Target level	Probable budget	Where to do	Probable date of implementatio	Who & %)	Who & How will do (%)			Adjustment with	
	management		to detail	district level						reduce loss of	
			-		Do	September- May	20	10	20	50	disaster due to pre awareness and for take
				Do	September- May	20	10	20	50	initiative	
				Do	September- May	20	10	20	50		
		4		Do	September- May	20	10	20	50		
		3		Do	September- May	20	10	20	50		
		5km	Budget will	Do	September- May	30	10	20	40		
2	2 Cannel dredging	2km	be fixed according to detail	Do	September- May	30	10	20	40		
		3km	planning	Do	September- May	30	10	20	40		

Sl No	Program	Target level	Probable budget	Where to do	Probable date of implementatio	Who & %)	z How	will c	do (	Adjustment with
		9km		Do	September- May	30	10	20	40	
		4km		Do	September- May	30	10	20	40	
		3km		Do	September- May	30	10	20	40	
		5km		Do	September- May	30	10	20	40	
3	Field raising		3-7 lac taka for every field fill up	Do	September- May			20	40	
4	Construction of shelter house	1	According to Gov.wage	Do	September- May	30	10	20	40	
5	Construction / Repairing of sluicegate	1	rate	Do	September- May	30	10	20	40	

Sl No	Program	Target level	Probable budget	Where to do	Probable date of implementatio	Who & How will do (%)		lo (	Adjustment with							
		1		Do	September- May	50			50							
6	Construction of damage resistant house	Accordi ng to the populati on of the risk zone	Budget will	Do	September- May	60		15	25							
7	Raising up of house	Do	be fixed according		September- May	60		15	25							
8	Sufficient plantation aroung the house	Do	to detail planning								September- May	20			80	
9	Early cultivation and sowing of short durated crops	Do		Do	September- May	35	5	30	30							
10	Tree plantation	Do		Do	September- May	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 intregration. 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 of Emergency Operation Center

SL.NO	NAME	DESIGNATION	MOBILE
1	Deputy Commissioner, Rajshahi	President	01713200569
2	Superintendent of Police, Rajshahi	Member	0721772250
3	District Health and Family Planning Officer	Member	01711173845
4	District Agriculture Officer	Member	01717 125431
5	District Livestock Officer	Member	01716407883
6	District Fisheries Officer	Member	01712803012
7	Executive Engineer	Member	0721761521
8	Executive Engineer	Member	01712133143
9	District Education Officer	Member	01716193399
10	District social welfare officer	Member	01718620310
11	District Rural Development Officer	Member	01714049335
12	District Food Control Officer	Member	01711433503
13	District Women Affairs Officer	Member	01715272587
14	District Cooperative Officer	Member	01920 528737
15	District Statistical Officer	Member	01813745122
16	Executive Engineer	Member	0721774987
17	District Ansar and VDP officer	Member	01912 371497
18	District Youth Development Officer	Member	01715040004

19	Protection district accounts officer	Member	01917063298
20	District Election Officer	Member	01733259345
21	District Education Officer	Member	01911600345
22	District Family Planning Officer	Member	01718783498
23	District Relief and Rehabilitation Officer	Member Secretary	01558326516

Source: Rajshahi District Disaster Management Committee, 2014

#### **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/ Upazila are to be in charge of control room. Three groups ing three volunteers are teach contain24 hours.
- Constant communication with divisional/zilla sadar is to maintained.
- There must be a register in the control room. Persons acting in any sedule, data and ic time are to be written information received by and sent to any persons in any specif specifically in that register.
- Positions of zilla/ Upazilas, doads, canals, dams are to be marked on a map hung on the wall of control room so that it may help in identifying the most damaged ares at postdisaster period.
- 4 the control room alternatively or o guide.

# 2.4Planning 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	•	Union Pairsad Chairman	Union Disaster Management Committee	Through Emergency Control Room	DDMC
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	DDMC
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	DDMC
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	DDMC
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	DDMC
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	DDMC
7	Treatment/ Vaccine for Cattle	Collecting necessary medicines	From February to March	Local Govt.	Volunteer groups, Upazila	Through Emergency Control Room	DDMC

Sl. no	Activity	Target level	When	Who	Who to Help	How	Contact
					veterinary hospital and Health centre		
8	Shelter Management	To keep the shelter house usable maintaining necessary repairing before the disaster prone season	•	Local Govt.	Volunteer groups	Through Emergency Control Room	DDMC
9	Relief Activity	UP chairman has to supervise the relief activity of different relief and rehabilitation assisting groups.	•	UP Chairman	Volunteer groups	Through Emergency Control Room	DDMC
10	Arranging Rehearsals	Arranging continual rehearsals in cyclone/ flood prone areas	From September to May	UP	Village people and Volunteer groups	UP	DDMC
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.	0	Local Govt.	Volunteer groups	UP	DDMC

Source: Rajshahi District Disaster Management Committee, 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 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

- Zill 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

SHALTER CENTER	NAME	NAME OF UNION	CAPACITY	REMARK
Upazila Administrative Building	Administrative Building of all Upazila.	-	1500-2000 persons	-
School cum Shelter	All School cam Center present at respective Upazila & Unions mentioned at Upazila Disaster Management Plan	Upazila/ Unions	50-600 peoples	-
Elevated Road	All elevated road at respective Upazila & Unions mentioned at Upazila Disaster Management Plan	Upazila/ Unions	1000-5000 peoples	-
Embankment	All embankment at respective Upazila & Unions mentioned at Upazila Disaster Management Plan	Upazila/ Unions	500-3000 peoples	-

Source: Field Visit, 2014

#### **Alipur Government Primary School**

- ☐ Year of Establishment: 1968
- ☐ Last Repairing: 2013
- ☐ Building Floor no: 1 stored building
- Present using: At present this building use in School.

	No of Tube well: 1 usable
	How many latrine and present condition: 3 latrines usable. It used by un-high gin way
Ш	
	by water. Another one is required.
Horin	biska High school
1101111	olska High school
	Year of Establishment: 1994
	Last Repairing: 1998-99
	Building Floor no: 1 stored building
	Present using: At present this building use in School.
	No of Tube well: 2 piece. 1 usable
	How many latrine and present condition: 4 latrines usable.
Foradi	pur govt. primary school
1 0144	
	Year of Establishment: 1992
	Last Repairing: 2013
	Building Floor no: 1 stored building
	Present using: At present this building use in School.
	No of Tube well: 1piece
	How many latrine and present condition: 2 latrines usable.
LI+ Ch	ash Ali Kulihag Dakhil Madraga
	Nam of Establishment 1975
	Year of Establishment: 1975
	Last Repairing: 2012-13
	Building Floor no: 1 stored building
	Present using: At present this building use in School.
	No of Tube well: 1piece
	How many latrine and present condition: 3 latrines usable.
Dier N	Manik Chak Lower Secondary school
	Year of Establishment: 2003
	Last Repairing: 2014 (continuing)
	Building Floor no: 2 stored building
	Present using: At present this building use in School.
	No of Tube well: 1 piece
	How many latrine and present condition: 5 latrines usable.
ות וגם	narmanur Cavarnment Primary School
	harmapur Government Primary School  Made: Old building of 3 rooms with roof of tin in 1972. Other New Building was made
П	by 4 rooms with concrete roof in 2008-09.
	Last Repairing: No repairing work in both building at first to last.  Ruilding Floor no: This building is 1st floor with 4 rooms and in fronts a sports field.
	Building Floor no: This building is 1 <sup>st</sup> floor with 4 rooms and in fronts a sports field.  Present using: At present this building use in School
1 1	FIENER DNOV ALDIESEN DIS DINIMINO DSE DI NODON

	No of Tube well: 1 unusable
	How many latrine and present condition: 1 latrine. Unused. It used by un-high gin way
_	by water.
	dpara Government Primary School
	Made: 1990 AD
	Building Floor no: This building is 1 <sup>st</sup> floor with 6 rooms and in fronts a sports field.
	Present using: At present this building use in School.
	No of Tube well: 1 unusable and 1 usable. But need repairing.
	How many latrine and present condition: 4 latrines. 1 latrine is use in Teacher and
	others in Students. It used by un-high gin way by water.
<u>Jo</u>	otaraghaba Government Primary School
	Made: 1972 AD with a tin roof was in the old building, 3 rooms. 200809 made in other
	rooms with 4 new buildings meet the cast of the roof.
	Last been repaired: the reform is the creation of two bhabanai.
	Building Floor no: 4 rooms with dbitala building and playground in front. 3 rooms on
	the ground floor of the building.
	Current use is currently used as a school.
	How many wells: 1 lost
	How many latrines, their current status: 1. Unusable. To manage the water supply
	system to be used in any environment is unhealthy.
Pa	alasiphatepura Government Primary School
	Ever made: Since its inception in 1990, the school made Bagha upazila of Rajshahi
	district is located in the village palasi phatepura amartmagata No. garagari Union.
	Building Floor no: 6 T room dbitala building and playground in front.
	Current use is currently used as a school.
	How many wells: 1 lost and 1 is being used, but needs renovation.
	How many latrines, their current status: 4. Aparaguli for the teachers for students.
	However, the water supply is insufficient latrines being used.
G	overnment primary schools
	ever made: Since its inception in 1950, the school was established. Before it was made
	tin and chanera. Since its inception in 1973, the government financing is more of a
	raced building.
	last repairs were minor, but some reform is large.
	Building Floor no: 1 storey building with 7 rooms. 4 rooms and two rooms with a
taı	nned Teen Said.
	How many wells: None
	How many latrines, their current status: There are 4 latrines. Existing unsanitary. There
is	enough water shortages. Security needs reform.

## <u>Iusuphapura government primary schools</u>

	Ш.	Made: Since its inception in 1922, the school was established. Distance of 8 km from the
	sch	nool district headquarters.
		was repaired last time: not later in 200102.
		Building Floor no: 1 storey building. Building number 3, two seasoned, 1 semi, building
	tot	al number of categories of -6.
		The current use of sheltered as School.
		How many wells: 1, but lost.
		How many latrines, their current status: two, unhealthy environment alobatas hina exist.
	Th	ere is enough water shortages.
Bi	l Dh	armapur 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 1 <sup>st</sup> floor with 4 rooms and in fronts a sports field.
		Present using: At present this building use in School.
		No of Tube well: 1 unusable
		How many latrine and present condition: 1 latrine. Unused. It used by un-high gin way
		by water.
Pr	osac	lpara Government Primary School
		Made: 1990 AD
		Building Floor no: This building is 1 <sup>st</sup> floor with 6 rooms and in fronts a sports field.
		Present using: At present this building use in School.
		No of Tube well: 1 unusable and 1 usable. But need repairing.
		How many latrine and present condition: 4 latrines. 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	Name of	Shelter	Responsible	Mobile	Comm
Center	Center		person		ent
School cum	BilDharmapur		Al-Haj Md. Abul		-
Shelter	Government	Primary	Kalam Azad	5885	
	School				]
	Polasi	Fotapur	Md. Rofikul	0171491	
	Government	Primary	Islam	0033	
	School				
	Alipur govt.	primary	Shirajul Islam	01727227225	-
	school				
	Horinbiska High sc	hool	Md. Anowarul Islam	01915185406	-
	Foradpur govt.	primary	Md. Aminul Islam	01725878385	-
	school				
	Ht. Shah Ali	Kulibeg	Md. Abul Kashem	01713399065	-
	Dakhil Madrasa				
	Dier Manik Chal	k Lower	Md. Saidur Rahman	01740912361	-
	Secondary school				
	Joteraghove		Jahanara Khatun	0173766	-
	Government	Primary		5885	
	School				
	Polasi	Fotapur	Md. Golam	0171491	-
	Government	Primary	Mostofa	0033	
	School				

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	<b>Brief Description</b>
Storage	13	District Food Control Officer	-
Shelter House	23	District Education officer	-
Boat	48	-	-
Car	Rikshaw 945, Van 1290, Easy Bike 60, Noshimon 965.	-	-

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 lakes 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
    - o Moorage (ghat) leasing
    - Public pond leasing
    - o Khoarr (cattle detention place) leasing
  - Tax on vehicles except motor cars
  - Income from properties
  - General deposit of UP

#### (b) Govt. donation

- Development sector
  - o Agriculture
  - o Health and sanitation
  - Road construction and repairing
  - Development assisting deposit (LGSP)
- Adjustment
  - Honorary bills for chairman and members
  - o Salaries and bills for secretary and other staffs
- Others
  - o 1% of and registration tax
- (c) Local govt. sources
  - o Money allowed by Upazila Parishad
  - o Money allowed by Zilla Parishad
- (d) Non-govt. development organization
  - o NGOs
  - o 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 follw-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

Table 4.6: Plan Follow-up Committee contain five member

S. L.	Name	Designation	Mobile number
1	Deputy Director, Local Government,	Chairman	01718686166
	Rajshahi		
2	District Relief and Rehabilitation	Member Secretary	01558326516
	Officer		
3	Will be select by Chairman	NGO Representative	
4	Executive Engineer (PBU) Rajshahi	General Member	0721761521
5	Executive Engineer(LGED) Rajshahi	General Member	01712133143

Source: Rajshahi District 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

Table 4.7: 7-Member Plan Implementation and Management Committee

S. L.	Name	Designation	Mobile number
1	Additional Deputy Commissioner (General), Rajshahi	Chairman	01712 192344
2	District Relief and Rehabilitation Officer, Rajshahi	Secretary	01558326516
3	District Women Affairs Officer, Rajshahi	Female Member	0721761736
4	Police commissioner's representative, Rajshahi	Govt. Representative	-
5	Be nominated by the Chairman	NGO Representative	-
6	Divisional Forest Officer, Rajshahi	Member	07210761005

7	Adhidaptara Deputy Director of Agricultural	Member	01712077104
	Extension, Rajshahi		

Source: Rajshahi District 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

	r wise Damage Assessment in Opaziia
Sectors	Description
Agriculture	Owing to climate change, a flood like 1988's may ruin the agricultural products of 10030 acres of cultivable land. River erosion may cause financial loss for 5000 families destroying sugarcane and paddy lands of 5 Upazilla Drought, as occured in 2001, may ruin the agricultural products of approximately 29404 hectors and cause severe financial damage for 40500 families. As a result of climate change, a sudden attack of seasonal storm may destroy the agricultural products of 2930 hectors that consequently may create financial loss for 2940 people of 44100 households.
Fisheries	Severe drought may ruin the fish cultivation in 1690 ponds that leads to financial loss and lack of protein supply in Paba Upazila. 1356 cultivable ponds may get washed away by a flood as occured 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 Paba 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 Paba Upazila. It may even cause death because of vulnerable communication. Besides, different epidemic may bring out. Drought like 2001's may cause different kinds of skin diseses and other problems among 320 of the population of Paba Upazila.
Livelihood	Flood, drought, river erosion, heavy mist, low rainfall etc. seriously affect agriculture, fisheries, livestock and most importantly human resource. 25% people of Paba Upazila may become workless because of these hazards. As a result, it throws a terrible challenge towards the economic condition of Paba Upazila.
Water	Heavy drought and low level of water may cause a horrible scarcity of water in 5 unions of Paba Upazila. As a result damage of 12344 hectors 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 stuctures 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 18272 families to be homeless and economically fallen.

Source: Field Visit, 2014

#### 5.2 Rapid/ Early Recovery

#### **5.2.1 Administration Restoration**

Table 5.2: Administrative Restoration committee at District level

S	Name	Designation	Contact No
L			
1	Additional Deputy Commissioner	Chairman	01712192
	(General)		344
2	Additional Superintendent of Police	Member Secretary	01713-
			373793
3	Deputy Assistant Director of the Fire	Member	01751206
	Service and Civil Defense		419
4	Deputy Commandant of the Ansar VDP	Member	01730038
			086
5	Representative of the Red Crescent Society	Member	
	of the District		

Data Source: Rajshahi District Disaster Management Committee, 2014

#### **5.2.2** Wreckage cleaning

Table 5.3: Wreckage cleaning committee in District level

S	Name	Designation	<b>Contact No</b>
$\mathbf{L}$			
1	Additional Deputy Commissioner	Chairman	01712192
	(General)		344
2	Senior Assistant Engineer (LGED)	Member Secretary	01715086
			363
3	Additional Superintendent of Police	Member	01713373
			793
4	Deputy Commandant of the Ansar VDP	Member	01730038
			086
5	Representative of the Red Crescent Society	Member	
	of the District		

Data Source: Rajshahi District Disaster Management Committee, 2014

#### **5.2.3 Public Service Resume**

Table 5.4 Public Service Resume committee in District level

S	Name	Designation	<b>Contact No</b>
$\mathbf{L}$			
1	Additional Deputy Commissioner	Chairman	0171219234
	(General)		4
2	Additional Superintendent of Police	Member Secretary	01713-
			373793
3	Civil Surgeon	Member	01712-
			284871
4	Superintending Engineer (Public Health	Member	0171502302
	Engineering Department)		2
5	Deputy Director (District Family Planning	Member	
	Office)		

Data Source: Rajshahi District Disaster Management Committee, 2014

## **5.2.4** Emergency Livelihood Assistance

Table 5.5 Emergency Livelihood Support committee in District level

S	Name	Designation	<b>Contact No</b>
${f L}$			
1	Additional Deputy Commissioner	Chairman	0171219234
	(General)		4
2	Additional Superintendent of Police	Member Secretary	01713-
	-	-	373793
3	District Food Controller	Member	0171198076
			2
4	Executive Engineer (BRTA)	Member	0171642755
			59
5	Representative of the Red Crescent	Member	
	Society of the District		

Data Source: Rajshahi District 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	No
	announcement have been ordered to declare the coming hazard	
2.	If the responsible persons/ groups are prepared to resque the people of	No
	vulnerable areas	
3.	If the declaration to keep dry food and dringking water buried under ground	No
	for 2/1 days is announced	
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	No
	constantly	
6.	If the necessary safety measures for union food storage/ relief storage are	No
	ensured	
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 15<sup>th</sup> 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	-
1	If the alternative care taker is present in each shelter	-
0		

If there are separate facilities for women in each shelter	<b>√</b>
If there are selected midwives for the taking care of pregnant women	in 🗸
2 each shelter	
If mound shelters are selected for the cattle	-
If the member of volunteers group are aware of their assigned	ed -
4 responsibilities.	
1 If there is sanitation facilities each shelter	✓
If the microphones are activated to spread weather announcement ar	nd -
6 danger signals	
If the people are made aware to preserved dry food and drinking water f	or -
7 at least 2/1 days	
1 Others	-
8	

# Annex: 2

# **District Disaster Management committee**

Sl	Name	Designatio n	Member
1	MP Rajshahi 1 electoral area	Advisor	
2	MP Rajshahi 2 electoral area	Advisor	
3	MP Rajshahi 3 electoral area	Advisor	
4	MP Rajshahi 4 electoral area	Advisor	
5	MP Rajshahi 5 electoral area	Advisor	
6	MP Rajshahi 6 electoral area	Advisor	
7	Deputy Commissioner, Rajshahi	President	0721772050
8	Chief Executive Officer (Zilla Parishad)	Member	0721776348
9	Chief Executive Officer (City Corporation)	Member	0721772697
10	Superintendent of Police	Member	0721772250
11	Civil Surgeon	Member	0721772030
12	Deputy Director, DAE	Member	0721771503
13	District Fisheries Officer	Member	0721770245
14	District Livestock Officer	Member	0721770102
15	District Primary Education Officer	Member	0721772187
16	District Education Officer	Member	0721776253
17	District Women Affairs Officer	Member	0721771736
18	District Food Controller	Member	0721774821
19	Executive Engineer (Public Health Engineering Dept)	Member	0721774987
20	Executive Engineer, Local Government	Member	0721775553
21	Deputy Director, Social Affairs	Member	0721772278
22	Deputy Director, Youth Development	Member	0721772604
23	District Cooperative Officer	Member	0721770813
24	Deputy Commandant of Ansar and VDP	Member	0721776346
25	Deputy Director, Statistics office	Member	0721760089
26	Executive Engineer WDB	Member	0721761521
27	Executive Engineer	Member	0721812271
28	Executive Engineer BRTA	Member	0721812215
29	Deputy Director, Fire Service & Civil Defense	Member	0721772157
30	General Manager, BISIK	Member	0721760514
31	Manager, Sonali Bank	Member	0721773459
32	Chairman Upazila Parishad, Godagari Rajshahi	Member	01714425229
33	Chairman Upazila Parishad, Tanore Rajshahi	Member	01711-001404
34	Chairman Upazila Parishad, Paba Rajshah	Member	01713 991355
35	Chairman Upazila Parishad, Mohanpur in Rajshahi	Member	01761503252
36	Chairman Upazila, Rajshahi Bagmara	Member	01730190577
27	Chairman Upazila, Rajshahi Puthia	Member	0722856218
38	Chairman Upazila Parishad, Durgapur, Rajshahi	Member	01711825724
39	Chairman Upazila, Rajshahi Charghat	Member	01713769270
40	Chairman Upazila Parishad, Bagha, Rajshahi	Member	01716893141

Sl	Name	Designatio	Member
41	Chief Executive Officer Godagari Rajshahi	n Member	0722556007
42	Chief Executive Officer tanore Rajshahi	Member	0722956002
43	Chief Executive Officer Poba Rajshahi	Member	0721761799
44	Chief Executive Officer, Mohanpur in Rajshahi	Member	0722656002
45	Chief Executive Officer, bagmara Rajshahi	Member	0722256001
46	Chief Executive Officer, puthia Rajshahi	Member	0722856121
47	Chief Executive Officer, Durgapur, Rajshahi	Member	0722456001
48	Chief Executive Officer, Charghat Rajshahi	Member	0722356001
49	Chief Executive Officer, Bagha, Rajshahi	Member	0722356002
50	Chairman, National Women's Organization, Rajshahi	Member	01716334464
51	Meteorological Department Local Representative	Member	0721750454
52	Executive Chairman, Red Crescent Society, Rajshahi District, Rajshahi	Member	-
53	Chief executive of the Centre for Capacity Building, Rajshahi	Member	0721771452
54	Deputy-Director, tiemaesaesa, Rajshahi	Member	01713377258
55	Regional Director, CARITAS, Rajshahi	Member	0721774610
56	Executive Director, esidi, Rajshahi	Member	01711819513
57	District representatives Brac, Brac, Rajshahi	Member	01729070020
58	President, Rajshahi Press Club, Dhaka	Member	01721772064
59	President, District Law association, Rajshahi	Member	01721773146
60	President, Chamber of Commerce, Rajshahi	Member	0721812122
61	President, primary and secondary teachers' association, Rajshahi	Member	-
62	Principal, Rajshahi Court College, Rajshahi	Member	01711000220
63	Dr. Haque Senior Reporter BSS, Rajshahi	Member	01712011012
64	Representatives of community radio or the radio, Rajshahi	Member	-
65	President, Labour Transport Association, Rajshahi	Member	-
67	District Relief and Rehabilitation Officer	Member Secretary	01558326516

Source: District Disaster Management Committee, Rajshahi, 2014

### **List of District Volunteers**

Note: Rajshahi district hasn't formed a volunteer team. So this is the purpose of serving as the district's volunteer training is provided. According to the District Disaster Management Committee a list can be provided for Councilors and volunteer training can be arranged.

### List of Shelter management committee

Name of shelter	Responcible person	Contact	Remarks
Tangon Gvt. Primary School	-	number	_
Yusufpur Gvt. Primary School	_	_	_
Mariya Gvt. Primary School	Mst. Nilufar Iyasmin		_
Tatarpur Gvt. Primary School	Md. Abdul Hamid	01811782513	_
Chak jhikra Non Gvt. Primary School	Mst. Sultana Begom	01736235309	-
Jhikra Gvt. Primary School	Mst. Jesmin Aktar	01715366943	-
Nimpara Gvt. Primary School	Md. Iktear	01721206385	-
Kaminigongarampur Gvt. Primary School	Mst Aktar Banu	01714659353	-
Poranpur Gvt. Primary School	Sreemoti Mala Rani Sen	01715835567	-
Rautha Reg. Primary School	Sree Amol Bosh	01721713140	-
Dakra Gvt. Primary School	Md. Jillur Rahman	01726809620	-
Bakra Gvt. Primary School	Md. Fojol Ali	01745333130	-
Pirojpur-2 Gvt. Primary School	Md. Abdur Rahim	01745171191	-
Moktarpur Gvt. Primary School	Md. Nur uddin	01740979720	-
Jot Ragav Govt. Primary School	Most. Jahanara Khatun	01737665885	-
Palasy Fatepura Govt. Primary School	Md Golam mostafa	01714910033	-
Alipur govt. primary school	Shirajul Islam	01727227225	-
Horinbiska High school	Md. Anowarul Islam	01915185406	-
Foradpur govt. primary school	Md. Aminul Islam	01725878385	-
Ht. Shah Ali Kulibeg Dakhil Madrasa	Md. Abul Kashem	01713399065	-
Dier Manik Chak Lower Secondary school	Md. Saidur Rahman	01740912361	-
Jot Ragav Govt. Primary School	Mst. Jahanara Khatun	01737665885	-
Plassey phatepura Govt. Primary School	Md Golam mostafa	01714910033	-

## **Public / private institutions**

Name of Shelter	Responsible Person	Mobile	Remarks
Charghat UP Complex	Md. Nurul Islam	01711456595	-
Yusufpur UP Complex	Md. Robiul Islam	01719822018	-
Sardah UP Complex	Md. Hasanujjaman (Madhu)	0171402992	-
Nimpara UP Complex	Md.Abdul kuddus Polash	01717330970	-
Salua UP Complex	Alhaz Fojlul Rahman	01725872775	-
Vayalaxmipur UP Complex	Md. Abdul Majid	01712684462	-
Charghat pourosova Complex	Mst. Nargis Khatun	01725018924	1
Bajubagha Union Council	Hossain Md Tofazzal	01714257892	1
Bausa Union Council	Md Ashraf Ali	01711 241509	-
Gargari Union Council	Md Nazrul Islam	01711 578553	-
Manigram Union Council	Md. Akbar Ali	01711349295	-
Pakuriya Union Council	Md. Fokrul Hasan	01715577776	-
Arani Union Council	Md. Nasir Uddin	01716684533	-
Bagha Municipality	Akkas Ali	01731505281	1
Arani Municipality	Shohidul Islam	0723356002	1
Godagari union complex	Md. Hazrat Ali	01740904255	-
Mohanpur union complex	Md. Khairul Islam	01712771521	-
Pakri union complex	Md. Anowerul Islam	01712106241	-

Name of Shelter	Responsible Person	Mobile	Remarks
Rishikul union complex	Md. Jahangir Ahmed	01713706658	-
Gogram union complex	Md. Hazrat Ali	01740904255	-
Matikata union complex	Md. Nurul Islam	01716303046	-
Deopara union complex	Md. Akhtarujjaman	01721665021	-
Bashudebpur union complex	Md Soibur Rahman	01713785823	-
Char Ashariyadoho union	Md. Moshiul Goni	01718097471	-
complex			
Godagari Pourashava Complex	Md. Aminul Islam	01712255299	-
Kakonhat Pouroshova	Md Abdul Mojid	01834102619	-
Complex			
Dorshonpara union complex	Md. Romjav Ali	01714257892	-
Hogripara union complex	Md Golam Mostafa	01711 241509	-
Damkura union complex	Md. Sajahan Ali	01711 578553	-
Horipur union complex	Md. Nozrul Islam	01711349295	-
Haragram union complex	Md. Abul Kalam Azad	01715577776	-
Horian union complex	Md. Saiful Bari Vulu	01716684533	_
Damkura union complex	Akkas Ali	01731505281	-
Parila union complex	Shohidul Islam	0723356002	-

### **Elevated road or dam**

Name of Shelter	Responsible Person	Mobile	Remarks
From Chandan sahar to Routha road	Md. Robiul Islam	01719822018	-
From Sahapur to Routha embankment road	Md. Nurul Islam	01711456595	-
Embankment road up Mirganj to Garagari	Md Fakhrul Hasan	01715577776	-
Bagha upazila roads and adjacent Arani	Mr. Shahidul Islam	01716934348	-
Padma River adjacent to the dam road	Aseka Ali	01711379181	-
Elevated Road from Bashudebpur to Matikata	Md. Soibur	0718281406	
district road	Rahman		-
	Md . Nurul Islam	01716303046	-
Embankment road from Alokchottro Kochua to	Md. Jahangir	01713706658	
Vanpur vaya Rishikul Mandai	Ahmed		_
Embankment road from Char Ashariyadoho hat to	Md. Golam	01730180954	_
Matikata	Mostofa		-
Embankment road from Bidirpur Dam	Md . Nurul Islam	01716303046	-
Embankment road from Godagari primary school to	Md. Abdul Majid	01834102619	
Kakonhat Pouroshove			-
Embankment road up Ammtola to Horiyan	Md Fakhrul Hasan	01715577776	-
Paba upazila roads and adjacent Nouhata	Mr. Shahidul Islam	01716934348	_
Padma River adjacent to the dam road	Aseka Ali	01711379181	-

# Rajshahi district at a glance

# Rajshahi district at a glance

# List of some important Broadcast Programs by Bangladesh Betar

Genaral	
Size (sq km)	2407.01
The number of subdivisions	9
Number of municipalities	14
Number of village	1718
Number of villages	1914
PS	13
Population	
Number of families	5324
Total Population	2595197
Population density (per sq km)	1070
Number of men	50.66%
Number of women	48.34%
Infrastructure	
Mosque	10405 T
Temple	1021 T
Giraja	114
Paving	330 km
Semi-pucca	3295 km
Mud road	4570 km
Railways	73 km
Waterways	97 km
Air path	1 km
Literacy	47.04%
Agricultural College	1
Medical College	1
Government Primary Schools	980 T
Number of lower secondary schools	43
Number of Secondary Schools	409 T
Number of College	16
Madrasa (submitted, talkative,	221 T
ebatedayi) number Vocational High Schools	3
Number of colleges	74
Trainiber of coneges	/ T

	ı
The total amount of land	599504 acres
Amount of arable land	392410 acres
Secayogya land	303766 acres
The amount of unsettled	171156 acres
land	
<b>Social Resources</b>	
he number of mosques	470
Temple Number	18
Number of churches	9
Number Eidgah	213
Bank	7
Bank Branch	25
Post Office	15
Ciub	28
Library	1
Cinema hol	5
Women's organization	64
Playground	70
Hat Market	20
Cemetery	151
Cremation ghat	12
<b>Public Health</b>	
Upozila Health	1
Complex	
Union Health and	8
Family Welfare	
Centre	22
Number of	33
community clinics Healthier Closet	13422
	13422
Others	2
River	3 35
Callel	33
D'11	
Bill	47
Haor	47 non
Haor	non
Haor Ponds	non 6538

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	11.30-1200 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

# Feedback through Sharing/Consultation with Upazila Disaster Management Committee (Validation Workshop/Meeting) Rajshahi District

#### **Introduction:**

Disaster Management Plan is a beautiful local document which presents disaster coordination during rapid action. Various catastrophes at field level and its management for mitigation have cited in detail and the final draft refers to Disaster Management Preparedness Meeting, in the Office of Deputy Commissioner at Rajshahi District, on last September 14, 2014. The Upazila Chairman, Upazila Chief Executive Officer, Project Implementation Officer, Officer of Shushilan and District Disaster Management Committee members took part in the meeting. The meeting was presided over by the Honorable Deputy Commissioner of Rajshahi District Mr. Mohammad Mesbah Uddin Chawdhury.

#### Main activities

At 2.30 P.M. the presentation was began by the Additional Deputy Commissioner (Revenue) of Rajshahi taking permission from Mr. Mohammad Mesbah Uddin Chawdhury, the chairperson of the meeting. One of the officers of Shushilan and with other members of the District Disaster Management Committee cited this collection of all data which were achieved by hard toiling and endeavor. Some of the discussion on sharing District Disaster Management plan has suggested, those are mentioned here.

#### **Feedback**

Those Information and Data which came to the meeting is given below:

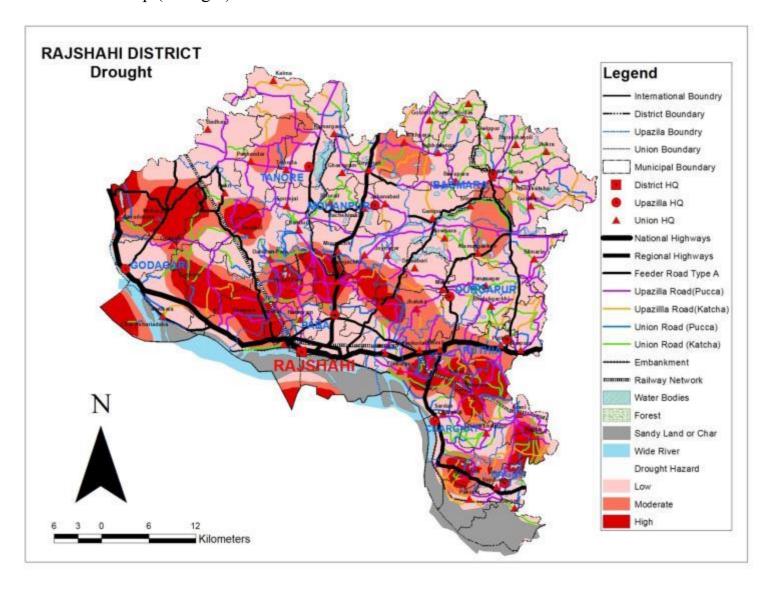
- Though the first section 'local area contact' despite background title 'Rajshahi district disaster management program' would be preferable to discuss the background of the plan.
- In the first chapter of this Report the background, objectives, and how the plan has been arranged should be discussed.
- The District Disaster Management Committee thinks if a Framework develop, and discuss some of the theoretical discussions about the disaster management plan, in future it will be more relevant to understand.
- In the full planning appropriate 'reference' will be used.
- In the third chapter of the Disaster Management Plan highly priority given to protect human life, therefore a description should be given in the second chapter of the plan.
- If Basic framework can be use the chapters will reveal consistency.
- In The final report, it is strongly recommended to include table of contents, preface and annexure.

 The District Disaster Management Committee thinks the Disaster management plan will be coordinated in a more real-agree even if in some cases simple language/ sentence used.

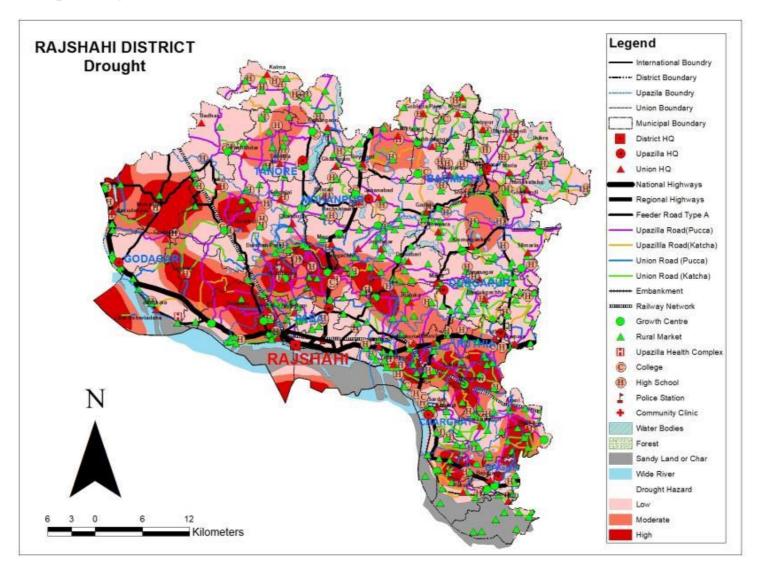
### **Open Discussion & Closing Remarks:**

In the open discussion session the Honorable Deputy Commissioner of Rajshahi District Mr. Mohammad Mesbah Uddin Chawdhury has given thanks to the Government of The People's Republic of Bangladesh, Comprehensive Disaster Management Plan (CDMP) and Ministry of Relief & Rehabilitation for taking the initiative to prepare the Disaster Management Plan. He also gives 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 express his heartiest thanks to CDMP-II and Shushilan for the maps and conclude the coordination meeting.

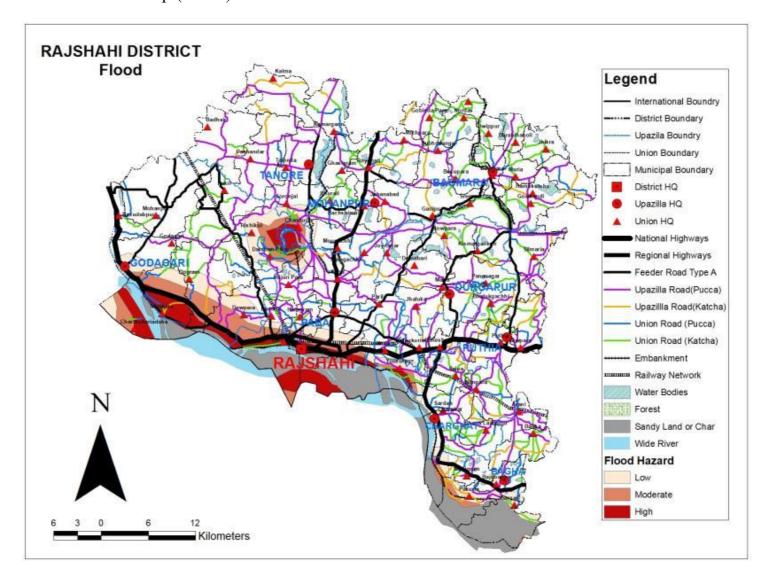
Annex8: Hazard & Risk Map (Drought)



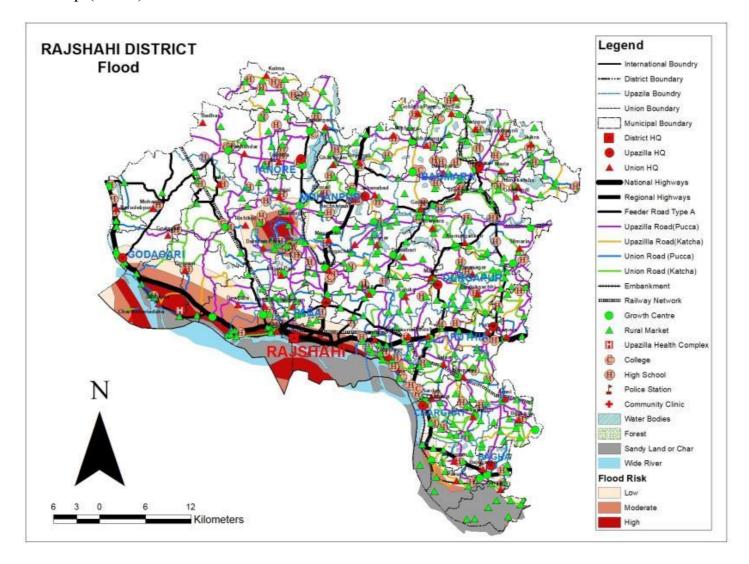
Annex 9: Risk Map (Drought)



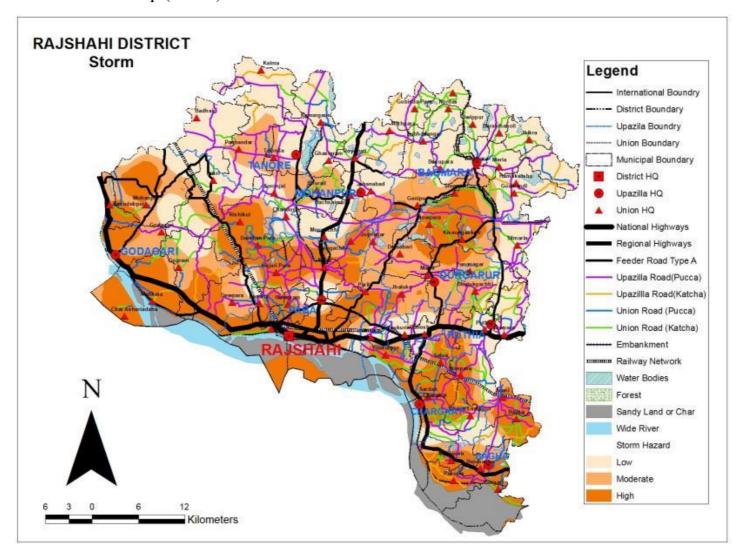
Annex 10: Hazard & Risk Map (Flood)



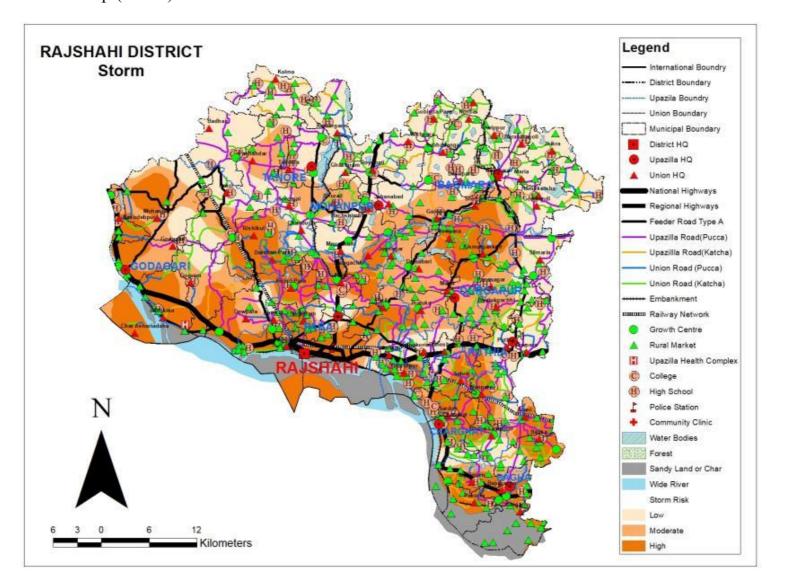
Annex11: Risk Map (Flood)



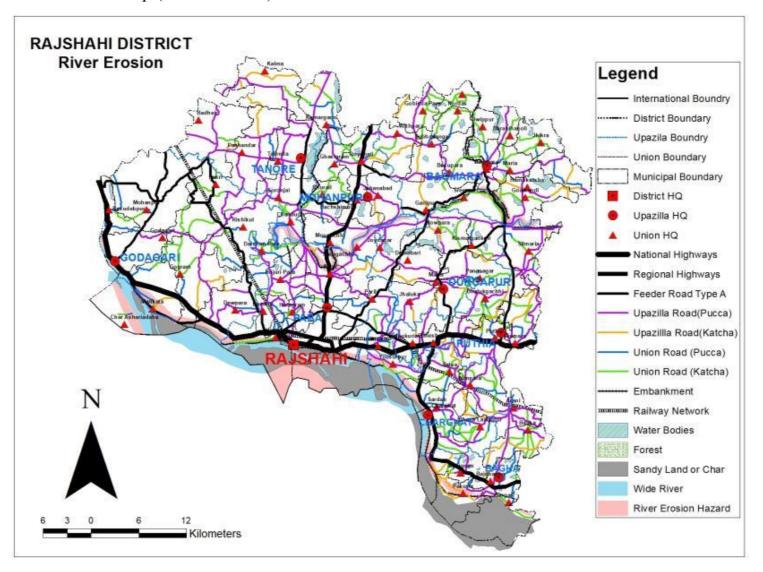
Annex 12: Hazard & Risk Map (Storm)



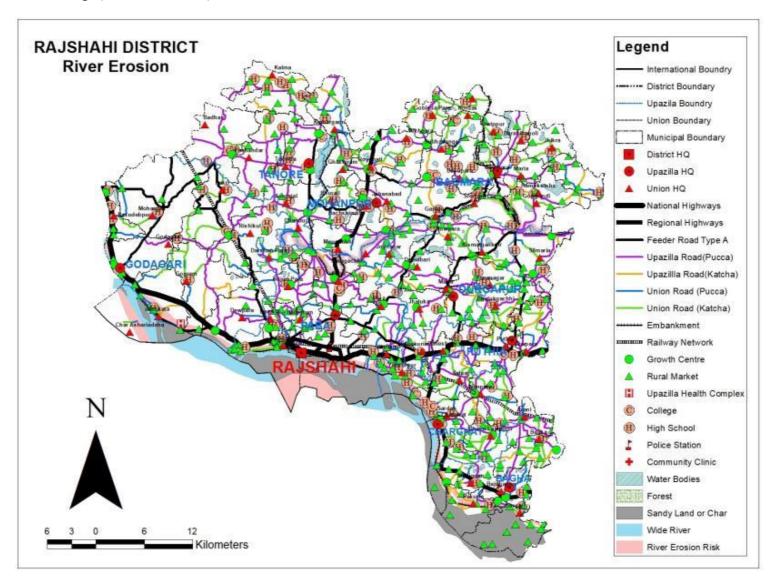
Annex13: Risk Map (Storm)



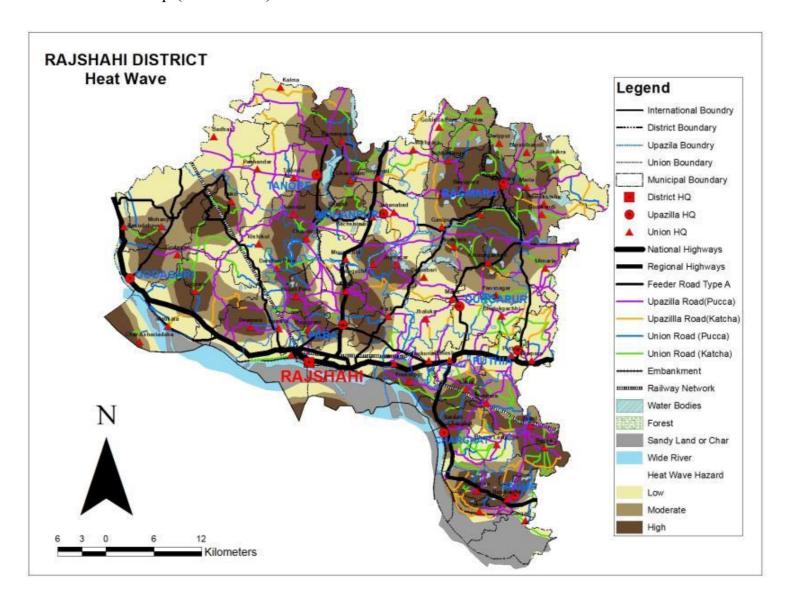
Annex14: Hazard & Risk Map (River Erosion)



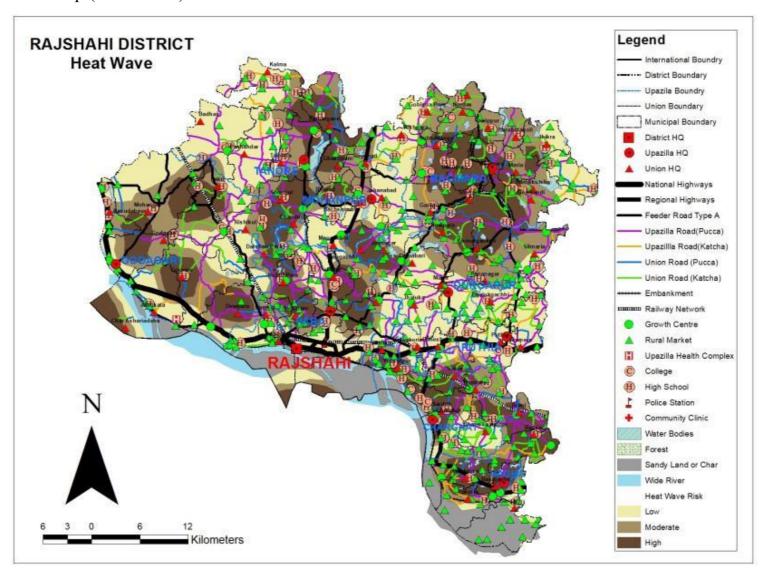
Annex15: Risk Map (River Erosion)



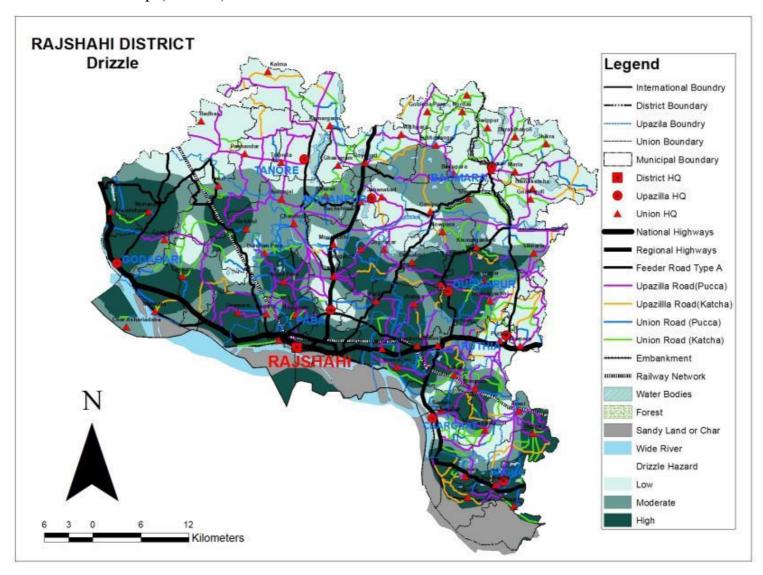
Annex16: Hazard & Risk Map (Heat Wave)



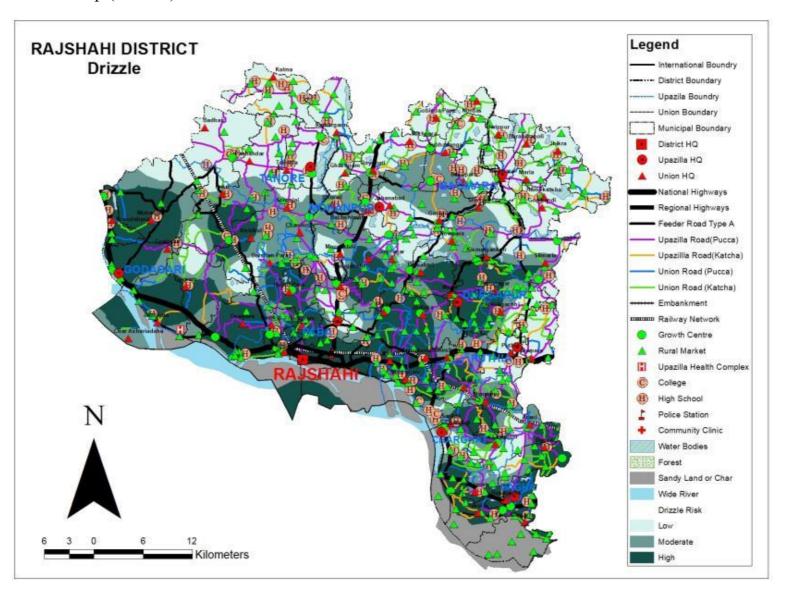
Annex17: Risk Map (Heat Wave)



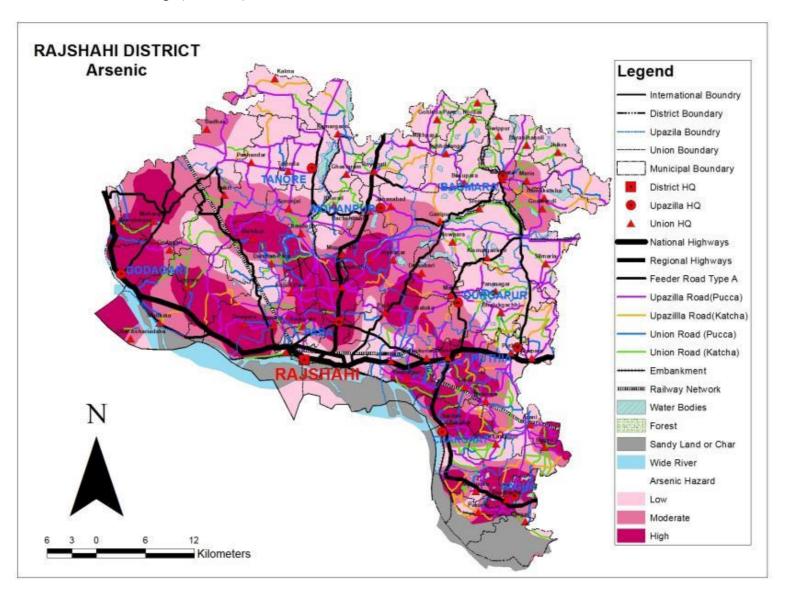
Annex18: Hazard & Risk Map (Drizzle)



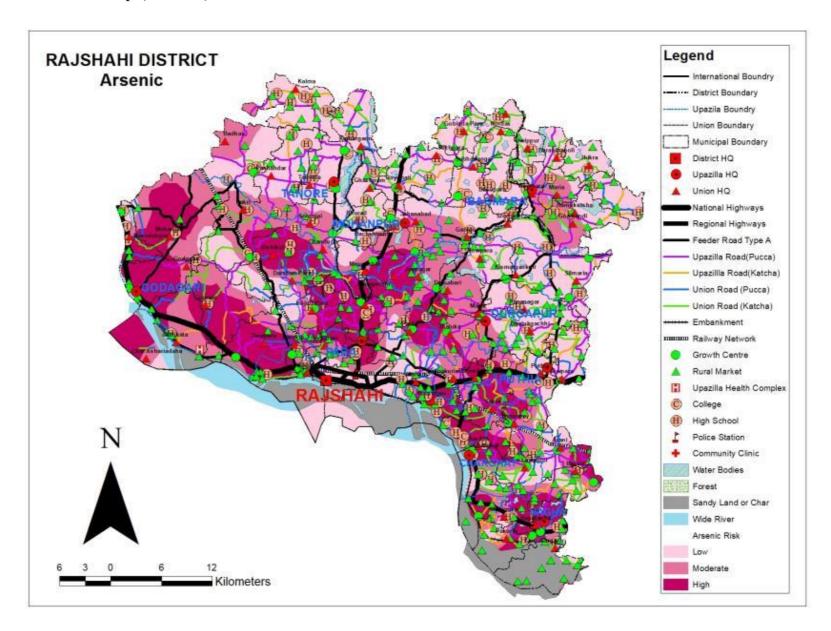
Annex 19: Risk Map (Drizzle)



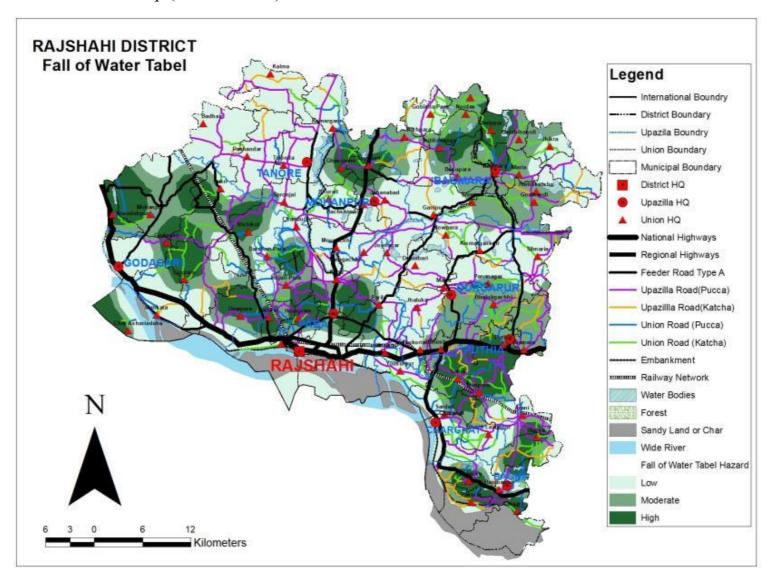
Annex 20: Hazard & Risk Map (Arsenic)



Annex 21: Risk Map (Arsenic)



Annex 22: Hazard & Risk Map (Fall of Water)



Annex 23: Risk Map (Fall of Water)

