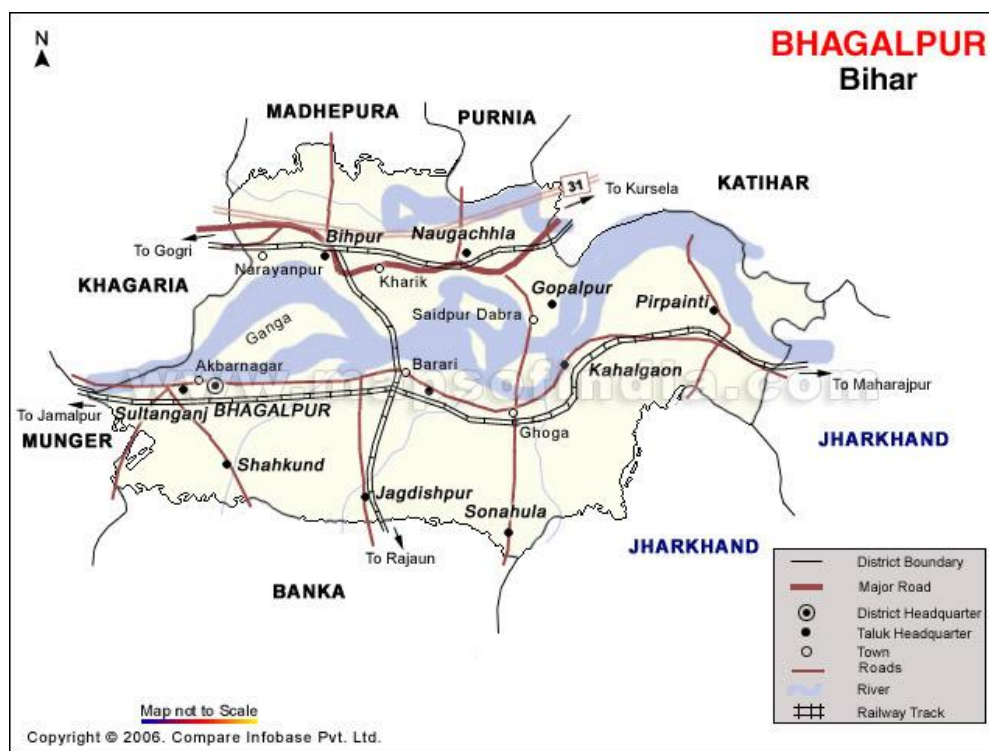


Chapter I – Introduction

District Profile:

The district of Bhagalpur is situated on the banks of river Ganga, in the south-eastern region on Bihar. The district is surrounded by Munger, Khagaria, Madha, Purnea, Kathiar & Banka districts of Bihar and Godda & Sahebganj districts of Jharkhand. It is situated 220 km east of Patna, the state capital of Bihar.



History:

Bhagalpur was the kingdom of Anga rulers. The city has been described as one of the biggest trade centers in eastern India in the 7th century by Chinese travellers Hiuen Tsang and Fa Hien. The city in ancient era was also called Champanagar.

Bhagalpur was also one of the prominent centres of Buddhist learning in Ancient India. The evidence of its historical prominence is the remnants of the Vikramshilla University, still a pilgrimage and tourist site in Bhagalpur. The Vikramshila University was considered only next to Nalanda University and was counted among the few prominent centers of learning in Asia. It was built during the rule of King Dharmapala (770-810 AD).

Ancient cave sculptures of Emperor Ashoka's regime (274 BC-232 BC) have been found here and at Sultanganj, 20 km west of Bhagalpur, a temple of the Gupta period (320-500) still exists. The tomb of Suja, brother of Moghul emperor Aurangzeb, in the heart of the town is reminiscent of the city's association with the Mughal period. During the Tughlaq period it was a mint town and was greatly patronised by the Mughals.

Geography:

Bhagalpur has an area of 2570 sq. k.m. Rivers Ganga and Kosi traverse throughout the district. It has 16 blocks of which 13 Blocks are majorly affected by floods.

Bhagalpur lies on the broad gauge Loop line of the Eastern railway running from kiul to Burdwan. Important stations in this District on this line are Sultanganj, Bhagalpur, Sabour, Kahalgaon. A branch line runs from Bhagalpur to Mandar Hill (21 Kms.). North Bhagalpur is served by the Barauni-Katihar section of the North Eastern Frontier Railway. Narainpur, Bihpur, Naugauchia and Katihar Railway Stations lie on this line.

Society:

Bhagalpur is one of densely populated districts of Bihar. It has a population of approximately 29 lakhs and population density of 946 persons per sq. k.m. 82% of its population live in rural areas and 18% is urban population. Literacy rate is merely 45%. It is inhabited by people of various religions like Hindus, Muslims, Christians, Sikhs and Jains. The district lies on the borders of Jharkhand and many tribal groups also live in blocks adjoining Jharkhand. An accurate estimation of their population is still required. The district has a substantial population of Scheduled castes who are mostly landless.

Economy:

The economy of Bhagalpur is dependent mainly on agriculture, small businesses and petty entrepreneurship. Paddy, Maize and lentils are the main agricultural crops. Agricultural practices are quiet backward, and mostly vulnerable to routine devastation by floods.

Bhagalpur is acclaimed for its silk products and it is known in as the "Silk City". It has a thermal power plant at Kahalgaon that supplies electricity to the district. Small household manufacturing of bidis, incense sticks are also practiced here.

Other infrastructure and services:

Bhagalpur has 48 Police Stations, 1304 Schools (including primary, secondary, high schools), 250 Post Offices and 125 Banks.

The National Highway 31 and 81 pass through the district. Bhagalpur has 287 Kms of PWD Roads, and 263 kms of REO Roads.

Table 1: Bhagalpur District at a Glance

Total Area	2570 sq km
Population in thousands	2897434
Rural Population	1992827
Urban Population	437459
Population density	946 per sq km
Number of sub-divisions	3
Number of blocks	16
Total no. of Panchayats	242
Number of villages	1536
Decadal growth rate	27.2
Sex Ratio	878
Percent of urban population	18.7
Percent of SC population	10.4
Percent of ST population	3.5
Female literacy	38.8
Male literacy	60.1
Total literacy	50.28
Total workers	855345
No. of Medical College	1
No. of Government of India Hospitals (military, railways, ESI, CGHS)	3
NGO Hospitals and centres undertaking RI with government vaccines	4
Total ICDS projects	16
Total Number of Anganwadi centres	2215
Percent of population with a low standard of living	74
Percent of population with a medium standard of living	15
Percent of population with a high standard of living	11

Subdivisions:

Bhagalpur Sadar, Kahalgaon and Navagachia

Block Population:

Navagachia ó	266382
Sultanganj –	266382
Pirpaithi –	259210
Shahkund –	181111
Nathnagar –	144174
Jagdishpur –	143234
Sabour + Gauradih –	262450
Kahalgaon –	344524
Gopalpur –	220540
Bihpur + Naryanpur –	211331
Sanahoula –	178194
Urban –	450020
Total -	2897434

Summary Of The Planning Process

Training of district team for preparation of DHAP – 7/09/2009 to 12/09/2009

District level workshop on situation analysis template and DHAP – 22/10/2009

Preliminary meeting with CMO and ACMO along with other concerned officials

Block level workshops with ANM, MOICs, BHMs, Data Operator, Accountant and Storekeeper

Data Collection for Situational Analysis - MOIC and BHM meeting chaired by DM and CMO/CS

District Consultations for preparation of 7/12/2009

Preliminary appraisal of Draft 29/12/2009

Final DHAP: Submission to DHS and State

Adoption by DHS and Zila Parishad

Chapter 3:

**Summary of the Budget envelope for 2009-10 and Tentative
Envelope for 2010-11**

Sl.No.	Progeramme	Tentative Envelope for 2010-11
1	Reproductive and Child Health (RCH)	320171990.00
2	NRHM Additionalities	157191216.00
3	Kala Azar	3426230
4	RNTCP	4783000.00
5	Leprosy	7755000.00
6	Blindness	7142000.00
7	Routine Immunisation	4304216
8	Malaria	300000
9	Filaria	200000

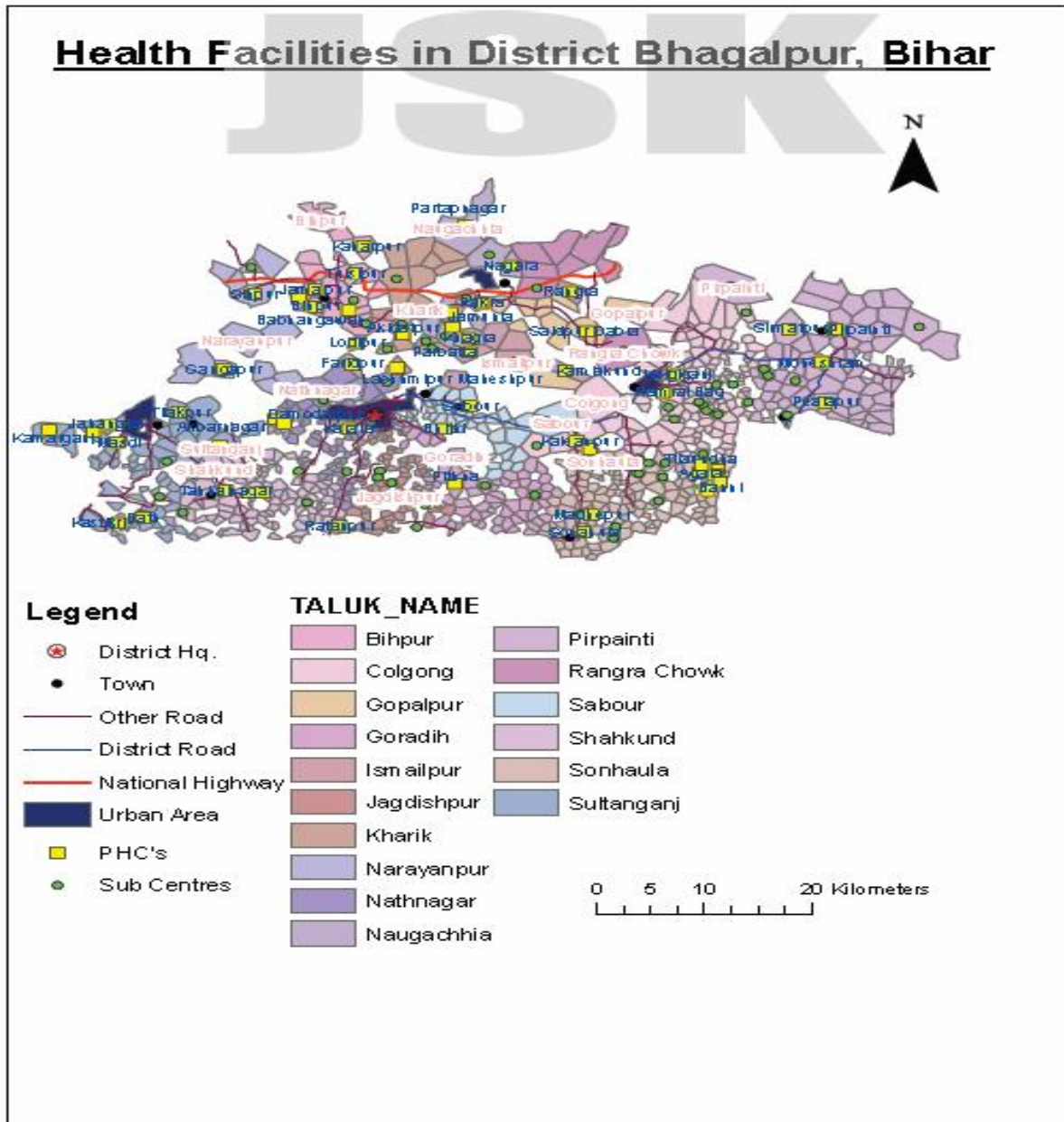
Health profile of Bhagalpur District

Table 2 : Bhagalpur Health Profile

Key population indicators	Infant Mortality rate	52		
	Maternal mortality rate	430		
	Crude birth rate	31.9		
	Death rate	5.0		
District Level Household & Facility Survey		DLHS 3 (07-08)	DLHS 2 (02-04)	Bihar DLHS 3
Key RCH Indicators (in percentages)	Girls marrying below 18 yrs.	27.8	44.2	46.2
	Birth order 3+	53.1	54.3	
	Current use of any FP method	40.3	38.0	32.4
	Total unmet need	36.4	34.4	37.2
	Pregnant women who registered in the first trimester	23.0		
	Pregnant women with 3 + ANC	20.4	26.4	26.4
	Pregnant women receive at least 1 TT injections	42	44.4	58.4
	Delivery assisted by a skilled attendant at home	14.7	15.2	5.9
	Institutional births	30.4	27.1	27.7
	Children with full immunization	49.6	43.4	41.4
	Children with Diarrhoea treated within last two weeks who received treatment	73.6	91.3	73.7
	Children with Acute Respiratory infections in the last two weeks who were given treatment	77.1		73.4
	Children who had check up within 24 hours after delivery	29.6		
	Children who had check up within 10 days of delivery	27.9		
Communicable diseases (in percentages)	Kala Azar prevalence		0.7	
	TB incidence		3.4	
	HIV prevalence among STD clinics		0.2	
	HIV prevalence among ANC clinics		0	

1. Health Facilities in Bhagalpur District

Map: 1 Health Facilities



Map Composed by NIC
Source RGI, SOI

Bhagalpur district has one Sadar Hospital (DH) located in the Bhagalpur city and a Sub-District Hospital (SDH) located at Naugachia. An additional Sub-District Hospital is under construction at Kahalgaon. The district has a total of 13 Primary Health Centres (PHCs), 39 Additional Primary Health Centres (APHCs) and 280 Health Subcentres (HSCs). The district has two Referral Hospitals located at Sultanganj and Pirpaiti. One more referral hospital is under construction at Nathnagar. Blood bank is operational only at the JLMNCH Medical College in Bhagalpur. The planning team for the DHAP undertook a comprehensive mapping and

situational analysis of these health facilities in terms of infrastructure, human resources and service delivery.

Chapter: 4 - B

2. Human Resources for Health in Bhagalpur

Bhagalpur currently has 145 regular doctors sanctioned out of which 81 are present. Similarly 75 contractual positions are sanctioned for doctors against which only 62 are posted. So the total number of doctors present in the district is 143 against the total sanction of 220.

Table 3: Details of Existing Human Resource

Specialisation	Regular	Contract
MD (physician)	3	2
Surgery	8	4
Gynaecologist	3	8
Paediatrician	4	1
Orthopaedics	3	2
Ophthalmologists	7	NA
Pathology		1
ENT	2	NA
Radiologist	1	NA
Bio-chemistry	1	NA
Physiology	1	NA
Anaesthetist		1
Total	33	19

There are a total of 52 specialist doctors in the district of which 6 are specialist lady doctors. The district also has 9 MBBS lady doctors.

Chapter 5 - Situation Analysis of Health Facilities

The three tiers of the Indian public health system, namely village level **Sub centre, Additional Primary Health Centre and Primary Health Centres** were closely studied for the district of Bhagalpur on the basis of three crucial parameters:

- 1) Infrastructure
- 2) Human resources and
- 3) Services offered at each health facility of the district.

The Indian Public Health System (IPHS) norms define that a Village **Health Sub centre** should be present at the level of 5000 population in the plain region and at 2500-3000 population at the hilly and tribal region. As most of the Bhagalpur is situated in the plain terrain, the norm of Sub centre per 5000 population is expected to be followed. A sub centre is supposed to have its own building with a small OPD area and a room for check up. Sub centres are served by an ANM, lady health volunteer and male multipurpose health worker and supported by the Medical Officer at the APHC. Sub centres primarily provide community based outreach services such as immunisation, antenatal care services (ANC), natal and post natal care, management of mal nutrition, common childhood diseases and family planning. It provides elementary drugs for minor ailments such as ARI, Diarrhoea, fever, worm infection etc. The Sub centre building is expected to have provisions for a labour room, a clinic room, an examination room, waiting area and toilet. It is expected to be furnished with essential equipments and drugs for conducting normal deliveries and providing immunisation and contraceptive services. In addition equipment for first aid and emergency care, water quality testing and blood smear collection is also expected to be available.

The **Primary Health Centre (PHC)** is required to be present at the level of 30,000 population in the plain terrain and at the level of 20,000 populations in the hilly region. A PHC is a six bedded hospital with an operation room, labour room and an area for outpatient services. The PHC provides a wide range of preventive, promotive and clinical services. The essential services provided by the PHC include attending to out-door patients, reproductive and child health services including ANC check-ups, laboratory testing during pregnancy, conducting normal deliveries, nutrition and health counselling, identification and management of high risk pregnancies and providing essential new born care such as neonatal resuscitation and management of neo natal hyperthermia and jaundice. It provides routine immunisation services and tends to other common childhood diseases. It also provides 24 hours emergency services, referral and in-patient services. PHC is headed by MOIC and served by two doctors. According to IPHS norms every 24 *7 PHC is supposed to have three full time nurses accompanied by 1 lady health worker and 1 male multipurpose worker. NRHM stipulates PHC to have a block health manager, accountant, storekeeper and a pharmacist/dresser to support the core staff.

According to IPHS norms, a **Community Health Centre (CHC)** is based at one lakh twenty thousand population in the plain areas and at eighty thousand population for hilly and tribal region. Community health Centre is a 30 bedded health facility providing specialised care in medicine, obstetrics & gynaecology, surgery, anaesthesia and paediatrics. IPHS envisage CHC as an institution providing expert and emergency medical care to the community.

In Bihar, CHCs are absent and PHCs serve at the population of one lakh while APHCs are formed to serve at the population level of 30,000. The absence of CHC and the specialised health care it offers has put a heavy toll on PHCs as well as district and sub district hospitals.

Moreover various emergency and expert services provided by CHC cannot be performed by PHC due to non availability of specialised services and human resources. This has led to negative outcomes for the overall health situation of the state.

5.1 Situation Analysis: Health Sub centre level Infrastructure

Table 4: Sub centre Data

Name of Block	Total Population	Total requirement as per District Database	PRESENT (functional)	ALREADY PROPOSED	Further requirement based on District Data Base
1. BIHPUR	211331	22	14	0	8
2. GAURADIH	124801	25	17	4	4
3. GOPALPUR RANGRA, ISMAILPUR	220540	42	26	3	13
3. JAGDISHPUR	143234	27	19	7	1
4. KAHALGAON	344524	68	35	27	6
6. NARAYANPUR	81947	17	10	4	3
7. NATHNAGAR	144174	28	17	5	6
8. NAVAGACHIYA and KHARIK	266382	46	29	8	9
9. PIRPAITHI	259210	51	36	8	7
10. SABOUR	262450	28	11	8	9
11. SANHAULA	178194	35	17	10	8
13. SHAHKUND	181111	35	23	8	4
14. SULTANGANJ	236264	40	26	10	4
Total	2654162	464	280	102	82

Table No. 4 presents the additional requirements of Sub centres as per population norms mandated by IPHS as well as according to the data base available with District Health Society Bhagalpur. As per IPHS norms, Bhagalpur district requires a total of 464 Sub centres of which 280 are present in the district. 82 more have currently become functional and 102 are proposed. Thus what is required is to make functional all the already proposed Sub centres.

5.2 Situation Analysis: Health Sub centre level Infrastructure and Human Resource (Detailed)

Table 5.1 Sub centre Details

	1. BIHPUR	2. GAURADIH	3. Jagdishpur	4. GOPALPUR	5. KAHALGAON	6. NATHNAGAR	7. NARAYANPUR
Total Number of Sub centres	14	17	20	26	35	17	10
ANM posted	14	29	18	33	37	25	9
ANMs present	14	17	9	33	37	25	0
ANMs regular	14	17	NA	23	37	17	8
ANMs contract	0	0	NA	10	0	8	1
ANM residing at HSC	0	0	9	0	0	8	9
Residential facility for ANM required	14	17	0	26	35	8	NA
HSC in Govt building	3	NA	-	3	4	7	1
HSC in Panchayat building	-	17	-	-	25	8	9
HSC in rented Building	-	NA	9	-	6	2	NA
SC building under construction	4	0	4	4	4	4	0
Building required	7	0	7	19	0	0	0
Running water supply available	0	0	0	0	4	5	0
Water supply required	14	17	9	26	31	8	10
Cont. power Supply	0	0	0	0	2		0
Power supply required	14	17	9	26	33	16	10
Untied Funds	0	-	-	-	-	-	-

Table 5.2 Sub centre Details.....continued

	9. NAVAGACHIYA	10. PIRPAITHI	11. SABOUR	12. SANHAULA	13. SHAHKUND	14. SULTANGANJ	Total
Total Number of Sub centres	27	36	11	18	23	26	280
ANM posted	-	35	13	14	24	26	277
ANMs present	-	35	25	15	27	26	263
ANMs regular	-	35	13	14	27	26	231
ANMs contract	-	0	12	3	0	0	34
ANM residing at HSC	-	0	0	0	16	1	43
Residential facility for ANM required	-	34	0	0	7	26	167
HSC in Govt building	-	9		3	16	8	54
HSC in Panchayat building	-	-	11	-	8	9	87
HSC in rented Building	-	-	-	14	-	4	35
SC building under construction	3	3	3	3	3	4	39
Building required	24	24	0	0	0	1	82
Running water supply available		0	0	0	0	8	61
Water supply required		36	11	17	24	18	221
Cont. power Supply		0	0	0	0	2	4
Power supply required		36	11	17	24	23	236
Untied Funds							

5.3 Situation Analysis: APHC level Infrastructure

The gaps in the availability of PHC are calculated as per the IPHS norms of one PHC at the level of 30,000 population. However in Bihar, the current state practice is of one PHC at one lakh population level. Since APHC function at the level of 30,000 population at present in Bihar, number of present and proposed APHCs is taken into account for the purpose of calculating the overall requirement of PHCs.

Table 6: APHC Infrastructure

Name of Block	APHC Total required	PRESENT	PROPOSED	Further REQUIRED after including PHC
1. BIHPUR	7	0	3	0
2. GAURADIH	4	2	2	0
3. GOPALPUR+ Rangra	7	2	0	4
4. JAGDISHPUR	5	3	3	0
5. KAHALGAON	11	8	2	0
6. NARAYANPUR	3	0	0	2
7. NATHNAGAR	5	2	2	0
8. NAVAGACHIYA	8	5	0	3
9. PIRPAITHI	8	3	5	0
10. SABOUR	8	1	3	3
11. SANHAULA	5	3	1	0
13. SHAHKUND	6	5	1	0
14. SULTANGANJ	7	5	4	0
Total	84	39	26	14

Situation Analysis: APHC level infrastructure and Human Resource (Detailed)

Table 7: APHC Infrastructure

		GAURADIH	GOPALPUR	KAHALGAON	Jagdishpur	KHARIK+ Navgachiya	NATHNAGAR	PIRPAITHI	SABOUR	SANAHAULA	SHAHKUND	SULTANGANJ	Total
Name of facility	Total No. of APHC	2	2	8	3	5	2	3	1	3	5	5	39
Building	APHC with Government Building	0	0	J	1		0	1	1	1	4	2	15
	APHC in rented building	1	0	3		3	0	1	0	1	1	1	11
	APHC in Panchayat Building	1	1	0		0	2	1	0	1	0	2	8
	APHC with No Building	0	1	0	2	0	0	0	0	0	0	0	3
	APHC Under construction			1				1					2
Water supply	APHC with assured water supply	0	0	1		0	0	0	0	0	0	5	6
Power supply	Continuous Power Supply	0	0	0		0	0	0	0	0	0	0	0
	Interminantly available power supply	0	0	0		0	0	0	0	0	0	0	0
	No power supply	2	2	8		5	2	3	1	3	5	5	39
Toilets	With Toilets	0	0	0		5	0	0	0	0	0	0	5
Labour room	With Labour room in good condition	0	0	2	1	2	0	0	0	0	0	0	5
	No Labour Room	2	2	6	2	3	2	3	1	3	5	5	34
Residential facilities	APHC with residential facilities	0	0	0		5	0	1	1	1	0	0	8
	APHC with no residential facilities	2	2	8	3	0	2	2	0	2	5	5	31
	MO residing at APHC	0	0	0		2	0	0	0	1	0	0	3
Furniture	Furniture Available	0	0	0		3	0	0	0	0	0	1	4
Ambulance	Ambulance	0	0	0		0	0	0	0	0	0	0	0

5.4

Table 8: APHC Human Resource

		GAURADIH	GOPALPUR	KAHALGAON	Jagdishpur	NATHNAGAR	Kharik+NAVAG ACHIYA	PIRPAITHI	SABOUR	SANAHULA	SHAHKUND	SULTANGANJ	Total
Total No. of APHC		2	2	8	3	2	5	3	1	3	5	5	39
Doctors	2 doctors Sanctioned	2	2	8	2	2	5	3	1	3	5	5	39
	1 doc Sanctioned	0	0	0	0	0	0	0	0		0	0	0
	2 doc in Position	1	0	0	2	0	0	1	1	0	0	0	5
	1 doc in postion	0	2	3	0	0	4	0	0	2	2	4	17
	0 doc in postion	1	0	5	1	2	1	2	0	1	3	1	17
ANM	2 ANMs Sanction	2	2	8	3	2	5	3	1	3	5	5	39
	2 ANM in position	1	0	8	3	2	3	2	1	2	5	5	32
	1 in position	1	1	0	0	0	2	0	0	1	0	0	5
	0 in position	0	1	0	0	0	0	1	0	0	0	0	2
Laboratory Technician	Sanctioned	2	2	8	2	2	5	3	1	2	0	5	32
	in Position	0	0	0	2	0	0	0	0	3	0	0	5
Pharmacist/ Dresser	Sanction	2	2	8	2	2	5	3	1	3	5	5	38
	in Position	0	0	0	0	0	2	0	0	0	0	0	2
Nurses	2 Sanctioned	2	2	8	3	2	0	0	0	0	0	5	22
	2 in Position	2	1	8	3	2	3	0	0	2	4	5	30
	1 in position	0	1	0		0	2	0	0	1	1	0	5
	0 in position	0	0	0		0	0	3	1	0	0	0	4

		GAURADIH	GOPALPUR	KAHALGAON	Jagdishpur	NATHNAGAR	Kharik+NAVAG ACHIYA	PIRPAITHI	SABOUR	SANAHULA	SHAHKUND	SULTANGANJ	Total
Total No. of APHC		2	2	8	3	2	5	3	1	3	5	5	39
Accountant	In position	0	2	8	0	0	4	0	1	1	5	4	25
	Peon	0	2	7	0	0	0	0	1		0		10
Sweeper	In position	0		0	0	1	0	0	1		0		2
Specialist		0	0	0	0	0	0	0	0	0	0	0	0

5.6

Situation Analysis: PHC Infrastructure

1. Table 9.1: PHC Infrastructure

	Bihpur	GAURADIH	GOPALPUR	KAHALGAON	Jagdishpur	NARAYANPUR	NATHNAGAR
Building	Govt	Govt	Govt	Govt	Govt	Govt	Govt
Building Condition	Good but insufficient	Major repairs	Major repairs	Blank	Blank	Blank	Blank
Running Water Supply	A	A	NA	A	A	NA	A
Power Supply	A	NA	NA	A	A	NA	A
Toilets	NA	NA	A	A	A	NA	A
Functional Labour Room	NA	NA	A	A	A	NA	A
Condition of Labour Room	Require new building	Require new building	Major repairs	Blank	Blank	NA	major repairs
Functional OT	A	NA	NA	A	A	NA	A
Condition of OT	Inadequate	NA	NA	Blank	Blank	NA	major repairs
Condition of ward	Inadequate	Require new building	Major repairs	Blank	Blank	NA	Blank

2. A - Available; NA- Not available

3. Table 9.2 PHC Infrastructure

	Navgachiya	SDH Navgachiya	PIRPAITHI	SABOUR	SANHAUL A	SHAHKUND	SULTANGA NJ
Building	Govt	Govt	Govt	Govt	Govt	Govt	Govt
Building Condition	Good	Major repairs	Blank	Blank	Blank	Good	
Running Water Supply	A	NA	A	A	A	A	A
Power Supply	A	A	A	A	A	A	A

Toilets	A	A	A	A	A	A	A
Functional Labour Room	NA	A	A	A	NA	A	A
Condition of Labour Room	NA	Major repairs	Blank	Major repairs	Blank	Good	
Functional OT	A	A	A	A	NA	A	A
Condition of OT		Major repairs	Blank	Good	NAP	Good	
Condition of ward	NA	Major repairs	Blank	Good	Blank	Good	

4.

5. A - Available; NA- Not available

5.7 Situation Analysis: PHC Human Resources

Table 20: Human Resources at PHC

		Number of PHCs
Doctors	Number of PHCs with 4 and more sanctioned doctors	6
	Number of PHCs with 4 and more doctors in position	8
	Number of PHCs with 3 doctors sanctioned	7
	Number of PHCs with 3 doctors in position	5
	Number of PHCs with 2 or less than 2 doctors sanctioned	0
	Number of PHCs with 2 or less than 2 doctors in position	0
	Total number of doctors	170
	Regular Doctors	105
		65
	PHC where sanctioned=in position	3
Specialists	PHCs with 2 specialist	0
ANMs	PHCs with 7 or more than 7 ANMs	9
	PHC with less than 7	4
	PHC with sanctioned position more than in position	6
	PHCs with in position ANMs more than sanctioned	1

Nurses	PHCs with Nurses	2
Lab tech	PHCs with lab tech sanctioned	12
	PHCs with lab tech in position	1
Pharmacist	PHCs with at least 1 pharmacist sanctioned	12
	PHCs with at least 1 pharmacist in position	6
Store keepers	PHCs with storekeepers	2

Availability of Human resources in each PHC can be studied in detail from the following matrix:

Table 11: Human Resource at PHC

Staff Positions		Bilpur	Gauradh	Gopalpur	Kahalgaoon	Jagdishpur	Narayanpur	Nathnagar	Navagachiya	Pirpaithi		Sabour	Sanahaula	Shahkund	Sutanganj
										Ref	PHC				
Doctors	Sanctioned	3	3	4	4	3	4	12	6	4	3	3	3	3	8
	In position	2	0	3	3	3	1	8	6	3	3	2	13	3	6
ANMs	Sanctioned	16	15	2	2	40	13	2	51	0	37	15	2	24	40
	in Position	14	15	1	2	21	9	1	51	0	34	15	2	24	43
Laboratory Technician	Sanction	0	1	1	1	1	1	1	0	1	1	1	1	1	3
	in Position	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pharmacist /Dresser	Sanctioned	2	1	1	1	1	1	1	0	1	1	1	0	2	4
	in Position	P-1	0	1	0	0	0	0	0	0	0	1	1	1	1
Nurses	sanctioned	0	0	0	0	0	0	0	0	4	0	0	0	0	4
	in position	0	0	0	0	0	0	0	0	4	0	0	0	0	4
Storekeeper	in position	0	0	0	1	0	0	1	1	0	0	1	1	1	1

Specialist	in position	0	0	1	0	0	0	2	0	0	0	0	0	0	0
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5.7 Situation Analysis: Support Services at PHCs:

Table 12: Support Services at PHC

PHC Services at a Glance	
Total number of PHCs	13
Availability of Ambulance	9
Generator	9
X – Ray	2
Laboratory Services (Pathology)	0
Laboratory Services (Malaria/Kalazaar)	4
Laboratory Services (T.B)	4
Canteen	3
Housekeeping	1
Rogi Kalyan Samiti set up	11
Untied funds received	5
Untied funds utilised	3

Efficiency of PHC apart from infrastructure facilities and human resources depends on various other factors such as availability of transport facilities, x ray services, generator etc. PHC as an in-patient facility also needs to acquire canteen and housekeeping services. PHC provides basic pathological lab services along with lab services for TB, Malaria and kala azar. A detailed analysis of the services available at each PHC of Bhagalpur is given alongside.

Table 13: Support Services for PHCs (Detail)

	Bihpur	GAURADIH	GOPALPUR	KAHALGAON	Jagdishpur	NARAYANPUR	NATHNAGAR	NAVAGACHIYA	SDH Navgachiya	PIRPAITHI	SABOUR	SANAHANLA	SHAHKUND	SULTANGANJ
Ambulance	O	NA	O	O	I	NA	O	NA	I	I	I	NA	O	O
Generator	O	NA	O	O	O	NA	O	O	I	O	O	O	O	O
X – Ray	NA	NA	NA	O	NA	NA	NA	NA	NA	NA	NA	O	NA	O
Laboratory Services (Pathology)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Laboratory Services (Malaria/Kalazar)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	I	NA	NA	NA
Laboratory Services (T.B)	I	NA	NA	I	NA	I	A	NA	I	NA	NA	I	NA	I
Canteen	NA	NA	NA	O	NA	NA	A	NA	NA	O	NA	NA	NA	O
Housekeeping	NA	NA	NA	NA	O	NA	NA	NA	O	NA	NA	O	NA	NA
RKS Funds amount available (in Rs. lakhs)	4.5	0.012	6.5	2.6	NIL	0.07	2.0		5.5	4.0	7.6	5.4	2.5	O
RKS Funds amount Utilised (in Rs. lakhs)	3.1	0.052	4.3	2.6	NIL	NIL	2.0		2.4	4.0	7.2	5.4	NIL	3.1
Untied funds received (in Rs. lakhs)	NIL	NIL	2.2	NIL	NIL	NIL	1.2		NIL	1.8	2.0	1.6	1.1	NIL
Untied funds used (in Rs. lakhs)	NIL	NIL	NIL	NIL	NIL	NIL	NIL		NIL	0.02		8.4	0.01	NIL

As per the analysis in Table 13, the Bhagalpur health system requires to focus its attention on support services for PHCs in the district. Transportation facilities are available in all the PHCs except Goradih and Naryanpur. At most of the places Ambulance services are outsourced. Generator is also outsourced in all the PHCs except Goradih and Naryanpur. Laboratory services for Pathology, Malaria and Kala Azar are not available in any PHC in the district except Sabour. Laboratory services for TB are available in 4 PHCs. The analysis highlights the need to

invest in laboratory services. Canteen and Housekeeping are also not available in most of the PHC. Canteen is available only at Kahalgaon, Nathnagar and Pirpainti.

5.8 Situation Analysis: Sub Divisional Hospital (SDH) and Referral Hospitals (RH)

Table 14 : Human Resource at SDH and RH

		SDH Navgachiya	PIRPAITHI REF
Doctors	Sanctioned	4	5
	In position	4	3
ANMs	Sanctioned	0	1
	in Position	0	1
Laboratory Technician	Sanction	1	1
	in Position	1	0
Pharmacist/Dresser	Sanctioned	2	2
	in Position	2	1
Nurses	Sanctioned	5	4
	in position	4	4
Storekeeper	in position	1	1
Specialist	in position	4	0

5.9 Situation Analysis: District Hospital Bhagalpur

The District Health System is the fundamental basis for implementing various health policies, ensuring delivery of healthcare and management of health services for a defined geographic area. The District hospital is an essential component of the district health system and functions as a secondary level of health care which provides curative, preventive and promotive healthcare services to the people in the district.

According to IPHS norms district such as Bhagalpur with a population of more than 24 lakhs need a 500 bedded district hospital to perform efficiently all the roles described above. Yet the district hospital in Bhagalpur has only 30 beds. Huge resource investment is required to

upgrade the facility to 500 bed levels. Sadar hospital Bhagalpur is situated in a spacious and clean building at Bhagalpur city which is the District head quarter. The building condition is good and hospital has all the basic facilities such as running water supply and power supply. Sadar hospital is served by 5 doctors and 5 nurses. One specialist is available at the facility. The hospital currently does not have any lab technician and has only one pharmacist/dresser and one store keeper. The facility has functional ambulance, generator and X ray machine and pathology lab.

Staff Nurses, Lady Health Visitors (LHVs) and Auxiliary Nurse Midwives (ANMs)

The total number of positions sanctioned under this category is 112. Currently 109 Grade A nurses are posted across APHCS in the district. In addition to this, 18 regular Grade A nurses are posted in the district, out of which 5 are posted at the District hospital, 4 are posted in SDH Navgachiya while 4 are posted in Referral Hospitals at Pirpanti and Sultanganj respectively. 1 post of Regular Grade A Nurse is vacant at SDH Navgachiya.

59 positions for LHVs are sanctioned out of which 25 are in position and 34 are vacant. For regular ANMs 394 positions are sanctioned and 367 are in position. 27 posts of ANMs are vacant in the district. 362 positions for contractual ANMs are sanctioned and 178 are currently posted. All the contractual ANMs are posted at the Sub centre level.

5.10 Situation Analysis: Service Delivery

The infrastructure, human resources and support services available for the PHCs need to be compared with the work burden of each PHCs. Primary data for outpatient services given in the table below indicate significant work pressure on all the PHCs in the district.

Table 15: Treatment of OPD Patients in PHCs

Name of PHCs	Jan	Feb	Mar	Apr	May	June	July
SH, Bhagalpur	10852	9600	8440	8508	11583	12528	11897
Bihpur	3677	3146	3514	3173	3680	3306	5799
Kahalgaon	5140	5593	5316	4418	5077	5433	7200
Gopalpur	2957	3080	2648	2826	2982	5385	5134
Jagdishpur	3846	4957	3946	3620	4506	4267	6916
Nathnagar	4420	3838	3998	4132	6431	7026	11058
Naugachhia	0	0	0	0	0	0	0
Pirpanthi	4836	4624	5172	3760	4477	4758	6582
Sabour	6630	6295	6635	6310	8275	9241	13910
Shahkund	5396	5046	5193	5151	5542	5837	7897
Sonhaura	2283	2067	2073	2271	2684	2664	4092
Sultanganj	6111	6028	5920	4788	6912	8346	10379
SDH, Naugachhia	4519	3778	4929	4711	5337	7014	8963

Goradih	1183	1376	1158	926	1594	1910	3121
Narayanpur	709	470	945	1234	1558	1575	2612
Average	4170.6	3993.2	3992.47	3721.87	4709.2	5286	7037.33
Total	62559	59898	59887	55828	70638	79290	105560

Table 36: Treatment of OPD patients in PHCs

Name of PHCs	Aug	Sept	Oct	Nov	Dec	Average for year 2008	Total for year 2008
SH,Bhagalpur	10691	11419	8809	8249	9752	10194	122328
Bihpur	4660	6276	4634	4465	4460	4232.5	50790
Kahalgaon	6180	8118	6628	5902	6505	5959.17	71510
Gopalpur	5896	5286	3843	4335	4616	4082.33	48988
Jagdishpur	7261	7994	6369	4507	8240	5535.75	66429
Nathnagar	9124	9751	8163	7298	11282	7210.08	86521
Naugachhia	0	0	0	0	1810	150.833	1810
Pirpanthi	7375	7397	5253	3997	4462	5224.42	62693
Sabour	11857	11857	12141	12318	10226	9641.25	115695
Shahkund	7810	6700	5301	3649	4898	5701.67	68420
Sonhaulala	4234	5377	3971	2678	2547	3078.42	36941
Sultanganj	8035	8788	6972	6195	9080	7296.17	87554
SDH, Naugachhia	5214	9525	6767	6687	6342	6148.83	73786
Goradih	2422	2351	2692	1968	3142	1986.9167	23843
Narayanpur	4255	4397	3278	2704	2563	2191.6667	26300
Average	6334.27	7015.73	5654.73	4996.8	5995	5242.2667	
Total	95014	105236	84821	74952	89925		943608

5.11 Situation Analysis: Reproductive and child health

6. Table 17: Reproductive and Child Health

Sl.No.	Name of PHC	TT Vaccination	Measles Vaccine	Institutional Delivery	Family Planning
1	Bhagalpur Urban				
2	Bihpur				
3	Gopalpur				
4	Jagdishpur				
5	Kahalgaon				
6	Nathnagar				

7	Naugachhia				
8	Pirpainti				
9	Sabour				
10	Sadar Hospital				
11	Sanhoulla				
12	SDH, Naugachhia				
13	Shahkund				
14	Sultanganj				
Total					

5.12 Situation Analysis: Malaria Control Programme

6 Table 22: Malaria Data

PROGRESSIVE TOTAL														
Name of the district		B.S. Coll.	B.S. Exam	Positive			Pf. Cases			R.T Given	Deaths			
				Male	Female	Total	Male	Female	Total		Confirm		Suspect	
											M	F	M	F
Nathnagar	2007	6	6	0	0	0	0	0	0	0	0	0	0	0
	2008	281	281	0	0	0	0	0	0	0	0	0	0	0
Sabour	2007	464	464	0	0	0	0	0	0	0	0	0	0	0
	2008	927	927	0	0	0	0	0	0	0	0	0	0	0
Pirpainti	2007	132	132	0	0	0	0	0	0	0	0	0	0	0
	2008	401	401	0	0	0	0	0	0	0	0	0	0	0
Kahalgaon	2007	32	32	0	0	0	0	0	0	0	0	0	0	0
	2008	131	131	0	0	0	0	0	0	0	0	0	0	0
Sanhoula	2007	31	31	0	0	0	0	0	0	0	0	0	0	0
	2008	126	126	0	0	0	0	0	0	0	0	0	0	0
Jagdishpur	2007	534	534	0	0	0	0	0	0	0	0	0	0	0
	2008	699	699	0	0	0	0	0	0	0	0	0	0	0
Sultanganj	2007	2139	2139	0	0	0	0	0	0	0	0	0	0	0
	2008	2318	2318	0	0	0	0	0	0	0	0	0	0	0
Shahkund	2007	501	501	0	0	0	0	0	0	0	0	0	0	0
	2008	199	199	0	0	0	0	0	0	0	0	0	0	0

Bihpur	2007	79	79	0	0	0	0	0	0	0	0	0	0	0
	2008	168	168	0	0	0	0	0	0	0	0	0	0	0
Naugachhia	2007	434	434	0	0	0	0	0	0	0	0	0	0	0
	2008	399	399	0	0	0	0	0	0	0	0	0	0	0
Gopalpur	2007	1603	1603	0	0	0	0	0	0	0	0	0	0	0
	2008	288	288	0	0	0	0	0	0	0	0	0	0	0
Malaria Clinic	2007	659	659	9	4	13	1	0	1	14	0	0	0	0
	2008	727	727	14	5	19	2	0	2	21	0	0	0	0

5.13 Situation Analysis: National Blindness Control Programme

This programme is carried out from the faculties available at Jawaharlal Nehru Medical college at Bhagalpur and also through various school health camps. Salient information of National blindness control programme is given in the matrix below:

Table 23: National Blindness Control P Data

CATARACT PERFORMANCE	QUARTER – I			QUARTER – II			QUARTER - III			QUARTER - IV			TOTAL
	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	
FACILITY													0
MEDICAL COLLEGE	17	13	9	10	10	7	11	22	12				111
DIST HOSPITAL													0
C.H.C/SUB-DIST.HOSP.													0
NGOS								193	296				489
PVT. SECTOR	214	123	112	106	170	197	196	181	265				1564
OTHERS (NTPC,Kahalgaon)	0	0	0	0	0	17	156	13	11				197
TOTAL	231	136	121	116	180	221	363	409	584	0	0	0	2361
PROG. TOTAL													
SCHOOL EYE SCREENING													
No. of teachers trained in screening for Refractive errors													0

No. of school going children screened	209	247	195	179	236	330	224	340	183				2143
No. of school going children detected with Refractive errors	12	14	15	9	12	23	12	33	14				144
No. of school going children provided free glasses													0
EYE DONATION													
No. of Eyes Collected													0
No. of Eyes Utilized													0

5.16 Situation Analysis: Utilisation of RKS Funds

Under the aegis of NRHM several innovative initiatives for better performance of facilities for the level of PHCs and above have been launched. Untied funds for the PHC and Rogi Kalyan Samiti are two key initiatives to provide better financial flow and management support to the facility. Rogi Kalayn Samiti play crucial role in managing the affairs of the hospital. It consists of members from local Panchayati Raj Institutions (PRIs), NGOs, local elected representatives and officials from Government sector who are responsible for proper functioning and management of the facility. RKS prescribes, generates and uses the funds with it as per its best judgement for smooth functioning and maintaining the quality of services. In Bhagalpur RKS have been set up in all the PHCs. Most of the PHCs have been using the RKS amount towards various outsources services such as ambulance, X ray machines and generators. Only Jagdishpur, Naryanpur, and Shahakund have not made any use of the RKS funds available.

Table 24: Utilisation of RKS Funds

Name of Block	RKS Funds -amount available	RKS Funds -amount Utilised	Untied funds received	Untied funds used
BIHPUR	450748	309833	NIL	NIL
GAURADIH	12332	5232	NIL	NIL
GOPALPUR	647395	432555	225477	NIL
KAHALGAON	264109	264109	NIL	NIL
Jagdishpur	NIL	NIL	NIL	NIL
NARAYANPUR	70000	NIL	NIL	NIL
NATHNAGAR	208025	208025	119900	NIL
PIRPAITHI	398500	398500	182468	23116

SABOUR	763262	727939		
SANAHAULA	541250	541250	162000	84900
SHAHKUND	25284	NIL	114506	18000
SULTANGANJ	NIL	3,12,212	NIL	NIL

6 Situation Analysis: ASHA Training

Accredited Social Activist (ASHA) is a key strategy of NRHM to link community with the health systems. ASHA works with the community to raise awareness about various health programmes, provides basic health knowledge, and health practices thus generating demand for the health services. She also helps and supports the community to access the health services. Proper selection and training of ASHA is a crucial step for the success of NRHM. In Bhagalpur ASHAs have been selected in all the blocks. In most of the blocks ASHAs have completed two rounds of training. While in some blocks they have completed one round of training. Salient information related to ASHAs in the district can be found in the matrix below:

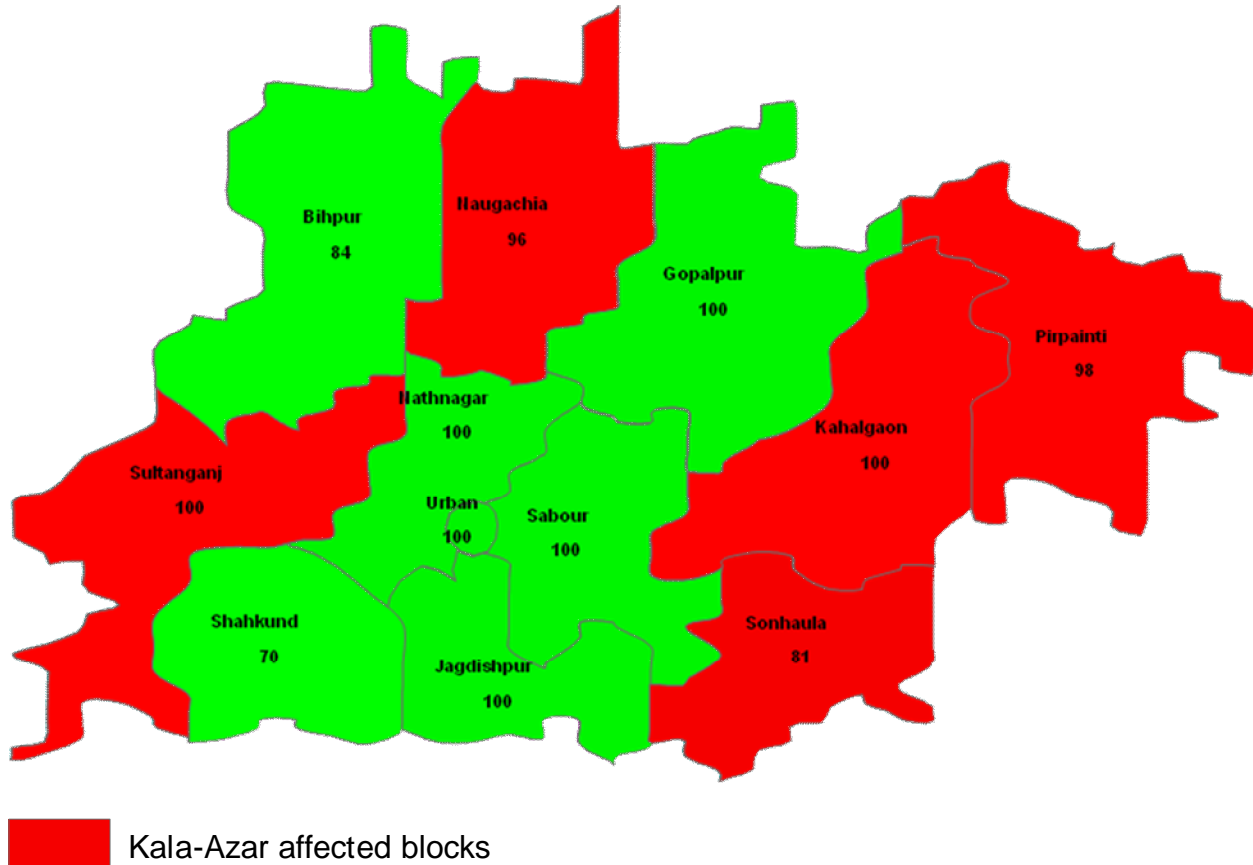
Table 25: Selection and Training of ASHA

Target (Total no. of ASHA to be selected)= 1971						
Total No. of ASHA selected(till date)= 1968						
Sl.No.	Name of PHC	Total Target	Total No. of ASHA selected	Total No. of ASHA not selected	Total No. of ASHA Trained	Total No. of ASHA Untrained (among selected)
1	Kahalgaon	269	269	0	262	7
2	Bihpur	179	177	2	155	22
3	Sanhoula	150	147	3	143	4
4	Pirpainthi	219	223	-4	223	0
5	Sultanganj	159	159	0	159	0
6	Sabour	222	222	0	222	0
7	Jagdishpur	127	127	0	119	8
8	Nathnagar	122	122	0	122	0
9	Shahkund	153	153	0	146	7
10	Gopalpur	184	184	0	174	10
11	Naugachhia	187	185	2	185	0
Total		1971	1968	3	1910	58

Programme-specific Plan

Chapter: 6 Problem Identification and Prioritisation

KALA -AZAR



Kala Azar is a chronic and fatal disease which is caused due to infection called leishmania donovani. The disease of the viscera particularly affects the liver, spleen bone marrow and lymph nodes. The vector thrives in cracks and crevices of mud plastered houses, poor housing conditions, heaps of cow dung, in rat burrows, in bushes and vegetations around the houses. This disease particularly affects the poor people since they live in conditions which are conducive for spread of the disease.

There are around 500,000 cases of kala-azar annually, and 200,000 related deaths. India has the largest burden for this disease in the world, and Bihar state has the highest disease burden in the country (around 20,000 new cases every year).

The eradication of Kala Azar is possible with simple but timely and continuous efforts. This needs awareness in the community on the disease and its cause along with prompt services from the system in control of vector and treatment of affected.

The district Bhagalpur is considered to be an endemic zone w.r.t Kala Azar in Bihar. The poor living conditions of people make them most vulnerable to the disease. Kala Azar is a poor person's disease and is one of the most apparent examples of the vicious cycles of disease and poverty, of how poverty causes disease, which in turn pushes poor people, further into poverty. For one, is the burden of disease, two is the wage loss due to disease. The blocks of **Pirpanti, Kahalgaon, Sonhaura, Sultanganj and Naugachia** are the endemic blocks and there are also sporadic cases in the other blocks such as Nathnagar, Bihpur, Gopalpur.

The following are the districts in which Kala-Azar cases have been reported in the year 2009. However in other adjacent district the incidence of the disease has been sporadic.

Sl.no.	Name of the phcs	Population of affected PHCs	No of affected villages	Till November 09			In the month of December 09			Cumulative 2009-10			Cases under treatment	Untreated cases	Resistant cases	Pkdl cases
				Cases	Death	Treated	Cases	Death	Treated	Cases	Death	Treated				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	Sultanganj	25198	13	4	Nil	4	2	Nil	Nil	6	Nil	4	2	Nil	Nil	Nil
3	Kahalgaon	84090	35	8	Nil	8	Nil	Nil	Nil	8	Nil	8	Nil	Nil	Nil	Nil
4	Pirpanthi	109372	70	20	1	14	2	Nil	1	24	1	15	3	2	Nil	1
5	Sanhaura	26505	13	2	Nil	2	Nil	Nil	Nil	2	Nil	2	Nil	Nil	Nil	Nil
6	Naugachia	70890	14	2	Nil	2	Nil	Nil	Nil	2	Nil	2	Nil	Nil	Nil	Nil
Total			148	36	1	30	4	0	1	42	1	31	5	2	0	1

The challenge for the district to control the spread of Kala-Azar has been poor follow up. Control measures for Kala-Azar like spraying of DDT (50%) in the affected area has been minimal due to inadequate manpower and inadequate supply of the insecticide. The other constraint has been that the PHCs do not initiate the spraying activities simultaneously which makes the vector to resurface.

The third constrain is that budgetary provision is made for focal sprays, where as there is a need of spraying in the peripheries to control the vector.

In order to control the spread of the disease the following strategies will be adopted at the district level

- Effective disease surveillance

- ASHA and AWW will be trained on the signs and symptoms of the disease. The training will be of one day. They will also be informed about the service provision available at different levels of institutions in the district. 174 ASHAs and 174 AWWs will be trained.
- The PRI members of the area will also be trained on the signs and symptoms of the Kala-Azar. One day training will be organized in the district and 174 PRI members will be trained from the affected villages.
- The traditional healers will be mapped and shall be trained on the disease. They will be motivated to refer the patients to the nearest PHC for treatment. One day training for 60 traditional healers will be organized in the district.

- Vector control through IRS with DDT up to 6 feet height from the ground twice annually

- Spray in the affected areas and in the periphery areas as well. The spray activity will be taken up twice a year; one round is Feb-March and the other round in May-June. In the endemic areas additional spraying will be carried after the monsoon. (plan attached in the budget)
- Mop up spray in the hotspots.

- Use of impregnated bed nets

- Bed nets 2 in number will be distributed in the affected villages to all the households.
- Impregnation of bed nets will also be done in the area in a campaign mode.

- Early Diagnosis and Complete treatment

- ANMs and ASHAs will be provided with the diagnostic kit.
- ASHAs, AWW and other volunteers whosoever brings Kala Azar patients will be incentivised..
- The Kala Azar patients will be paid wage loss for a month along with free treatment in the government hospital.
- Private hospitals will be brought under the programme for referral to the government facilities. One district level workshop and one block level workshop will be organized for the same.
- Patient cards will also be developed for tracking of the Kala-Azar patients. 1000 cards will be printed for the year 2010-11

- Information Education Communication

- Kalajathas in each village will be organized on Kala- Azar theme. 200 such shows will be organized in the district for 2010-11
- Wall paintings in prominent places on the programme services will be done. In the district 500 wall paintings will be carried out

All the IEC/BCC activities to be executed through the VHSC.

- Capacity Building of staffs at all levels

- Training of MOs will be organized for management of Kala Azar patients. MOs at the PHC, CHC, SDH and DH will be trained. The training will be of one day duration.
- All the ANMs of the district will be trained.
- All the staffs engaged in the programme will be trained.

Budget:

Sl No.	Activity	Unit cost	Total Cost	Remark
1	Wages for 120 days for Spray Workers	SFW@113 per day FW@92 per day	366120.00 1494000.00	For 2 rounds of spray
2	Office expenses (Stencil, Geru, Cloth and register	150/Spraying Squad	8110.00	Do
3	Contingency for Machine Instruments (nozzles, tips, etc)		20000.00	Do
4	Transportation of DDT from district to PHC	1500/ per PHC	48000.00	Do
5	Transportation of DDT to Villages from PHC	750 per PHC per day for 120 days	720000.00	
6	Training for ASHA/AWW/MO/ANM and Squads	5000 per PHC	80000.00	
7	IEC- Kalajatha	1000/per village	174000.00	
8	Wall painting	2000/per village	348000.00	
9	Supervision for DDT spray for MI, BHI and BHW	Rs 175X8X120	168000.00	
Total for District			3426230	

Revised National Tuberculosis Control Programme (RNTCP)

Bhagalpur district has a population of 28.97 lakhs out of which 24.5 lakhs live in the rural areas. 4.5 lakhs of its population live in urban area and out of it most of it lives in the slums. The population density of the district is 946 persons per square kilometer (2001 census) which has gone up in recent times to 1103. This implies that number of people living in a particular area has increased significantly and there is obvious congestion which has led to unhygienic conditions. Besides, more than 50% of the populations of the district live below the poverty line. The district has a significant population engaged in vocations like weaving, bidi making and engaged in slaughtering activities. With this kind of socio-economic profile, the population has greater vulnerability of contracting tuberculosis. Since it is a contagious disease it has the potential affecting a large population living in closed environment.

Situational Analysis

Number of TB Patients put under treatment

TB Unit	Total number of patients put on treatment	Annualized total case detection rate (per lakh population)	No of new smear positive cases put under treatment	Annualized new smear positive case detection rate (per lakh population)	Cure rate for cases detected in the last 4 corresponding quarters
DTC Bhagalpur	1180	172	380	55	85
Kahalgaon	751	127	280	47	86
Naugachia	885	129	381	55	94
Sabour	592	137	266	61	93
Sultanganj	395	96	184	45	96
Total	3803	136	1491	53	90

- Annualized Case Detection Rate for New Smear Positive Cases:**
 The number of new smear-positive tuberculosis cases registered for treatment per 100,000 populations in Bhagalpur on an average is 53. The national guideline says that

the estimated incidence of cases is 75 new smear-positive cases per 100,000 populations per year. The national target is to detect at least 70% of the total estimated cases - i.e. 53 cases per 100,000 per year. However there is a need of detection of 100 % cases to achieve 100 cure rates. An analysis of the PHC wise case detection shows that in the two PHC areas i.e. **Kahalgaon** and **Sultanganj** the case detection rate is 47 and 45 respectively. Hence there is a need of increasing the surveillance in these two PHCs.

- Treatment Success Rate:**
 The success rate/cure rate percentage of new smear positive patients who are documented to be cured, or to be successfully completed treatment is 90% for the district Bhagalpur. We strongly feel that there is a need of documenting the other 10% who have either abandoned the treatment halfway or those who have not been cured after the medication for the prescribed period. There might be chances of MDR cases out of these 10% patients who have not been cured or have not successfully completed treatment.

Organization of Services in the District

The district has five tuberculosis units (TU) including the one at the District Tuberculosis Clinic. The other TUs are in Khalgaon, Naugachia, Sabour and Sultanganj.

Sl. No.	Name of the Tuberculosis Unit	Functions out of		Number of Microscopy Centers		
		Govt. facility	NGO facility/Private facility	Govt. facility	NGO	Private facility
1	District TB Clinic, Bhagalpur	01	00	04	00	02
2	Kahalgaon	01	00	02	00	00
3	Naugachia	01	00	05	00	00
4	Sabour	01	00	04	01	00
5	Sultanganj	01	00	02	00	00
District Total		05	00	17	01	02

Tuberculosis Unit:

For a population of 5 lakhs there is a need of one Tuberculosis unit. At present Bhagalpur has 5 TB Units including the District Hospital. There is a need of another TB Unit which needs to be located in Bhipur which is on the other side of River Ganges. By establishing a new TB Unit in

Bihipur, the surveillance of patients can be increased and also more number of patients can be put under treatment.

Microscopy Centre

With increase in population and at a total population close to 30lakhs, there is a need of establishment of more number of microcopy centers in the district. As per norm for establishment of Microscopy centre at 1 lakh population, the district needs at least 30 centres. The district presently has 20 MCs including 3 at the private sector. Hence it is proposed to have additional 10 MCs in the district.

TB-HIV ward in the District Hospital

There is an absence of TB-HIV ward in the District Tuberculosis Clinic. The HIV infected persons are susceptible to the TB infections because they are low in immunity. There is a need of establishment of such a ward in the District TB clinic for treatment of the TB-HIV patients.

Human Resources (Contractual)

Human Resource	Number present	Required	Planned to be additionally hired	Justification
STS	05	06	01	One STS at each TU
STLS	05	06	01	One STLS at each TU
TBHV	04	06	02	One TBHV at each TU
DEO	01	01	0	-
LT	14	30	16	One LT at the DMC
Accountant (part-time)	1	1	0	0

To Stop TB spreading in Bhagalpur District and get success in treatment of infected patients the following strategies shall be adopted with the following suitable activities.

- 1. By expanding the Coverage of the programme to underserved areas:** By establishing additional Microscopy Centers and TB units in the district to cater to the underserved population. Establishment of the DMC and TU will increase the accessibility for uptake of the TB care.
- 2. Pursue quality DOTS expansion and enhancement:** By improving the case finding are cure through an effective patient-centered approach to reach all patients, especially the poor.

3. **Address TB-HIV, MDR-TB and other challenges:** By scaling up TB-HIV joint activities, DOTS Plus, and other relevant approaches. Setting up a TB-HIV ward at the District TB Clinic
4. **Contribute to health system strengthening:** By collaborating with other health programmes such as RCH, HIV and general services like the department of water and sanitation, housing, employment.
5. **Involve all health care providers, public, nongovernmental and private:** By scaling up approaches based on a public-private mix (PPM) and by setting up DMCs in private hospitals, involving the private practitioners in sputum collection, DOTs provision for patients diagnosed by the private practitioners.
6. **Engage people with TB, and affected communities:** To demand, and contribute to effective care. This will involve scaling-up of community TB care; creating demand through context-specific advocacy, communication and social mobilization. The effort can be further intensified with the involvement of the ASHA in identification of new cases, expanding the DOTs
7. **Rigorous follow-up of all patients through the ASHAs:** To closely follow up the TB cases in treatment with DOTs, to check the drop outs and also to follow up the uncured patients for further investigations.

Budget:

Sl No	Activity	Unit Cost	Number of Units	Total Cost
1	Up gradation of the DTC with a waiting Hall for patients, Toilets for patients, Toilets for the Staffs, meeting cum training hall in the DTC	500000.00	1	500000.00
2	Setting up of 20 bedded TV-HIV ward at DTC	500000.00	1	500000.00
3	Setting up of new TU in Bhipur	35000.00	1	35000.00
4	Setting up of DMCs	30000.00	10	300000.00
5	Purchase of Lab materials	1.5 lacs/10 lacs population	-	424000.00
6	Honorarium for DOTs provider	250/per case	3200	800000.00
7	Advocacy ,Communication			212250.00

	and Social Mobilisation			
8	Equipment and maintenance			59000.00
9	Training			155650.00
10	Vehicle Hiring			512400.00
11	Vehicle maintenance			250000.00
12	NGO support			275000.00
13	Printing			424500.00
14	Support to Medical college			301200.00
15	Procurement of equipment			34000.00
16	Human resources			
Total				4783000.00

National Programme for Control of Blindness

The National programme for control of Blindness is implemented in the district with a focus on giving sight to people from preventable blindness because of cataract. It also conducts school health screenings to find out problems of vision amongst the students and take corrective measures.

Since many children remain out of school in the district, the programme does not cover them. In 2010-11 the focus would be to cover the out of school children.

The strategies and Activities

1. Prompt case detection

- Screening of all children in the schools
- Including Optometric in Mobile medical unit visits to camps in villages.
- Fortnightly visit by optometrician to health sub-centres and weekly visit to APHCs
- Contracting-in of ophthalmologist services
- Distribution of spectacles from the health facilities
- Conducting in-hospital minor surgeries for cataract.
- Conducting surgeries in the NGO run hospitals and follow-up
- Distribution of spectacles for BPL population undergoing surgery in private sector

2. Ensuring proper treatment

- Contracting-in of ophthalmologist services
- Distribution of spectacles from the health facilities
- Conducting in-hospital minor surgeries for cataract.
- Conducting surgeries in the NGO run hospitals and follow-up
- Distribution of spectacles for BPL population undergoing surgery in private sector from the PHCs, SDHs and the DH.

Sl No	Activity	Unit cost	Number of Units	Total Cost
1	Cataract operation camp	@6000	750	4500000.00
2	School screening	@1000	500	500000.00
3	Spectacles, maintenance			1000000.00
4	Operation Unit	1000000.00	1	1000000.00
5	Hon to Secretary	2000 p.m.	12 months	24000.00
6	Hon to Assistant	1500 p.m.	12 months	18000.00
7	Office expen			100000.00
Total				7142000.00

National Leprosy Elimination programme

Objective

- To reduce the leprosy disease prevalence rate to <1

Situation analysis

Currently disease prevalence rate per 10,000 population in the district is 1.10 (2008-09)

The disease prevalence rate till the month of November 2009 is 1.26

Disease detection rate per 10,000 population is 2.01

Detection rate till November 2009 is 1.43

Number of cases under treatment is 368 (Nov 2009)

New patients registered ó 426 (Nov 2009)

% of children in new cases ó 15.02 (Nov 2009)

% of deformity ó 2.34 (Nov 2009)

% of SCs in new cases ó 17.13 (Nov 2009)

% of ST in new cases ó 2.17 (Nov 2009)

Total treated patients treated in the year 2008-09 ó 532

Infrastructure:

The district does not have its own office. The office is running on rent. Similarly the unit in Nawgachia is running on rent and the Kahalgaon unit needs major repair. The 20 bedded leprosy hospital in Bhagalpur needs major repair.

Human Resources:

Post	Approved position	In position	Vacant	Required
Medical Officer	5	2	3	3
Physiotherapist	3	3	0	0
Medical Social Worker	13	1	12	12
Health Educator	1	1	0	0
Non Medical Assistant	56	22	34	34
Clerk	10	6	4	4
Grade A nurse	4	1	3	3
Lab Technician	5	1	4	4
Driver	5	1	4	4
Attendant Male	4	3	1	1
Cook	1	0	1	1
Peon	7	1	6	6
Cook mate	1	0	1	1
Sweeper	1	0	1	1
Security	1	0	1	1

Strategies and Activities

1. To Enhance the Case detection Rate

- House to house visits for tracing cases of Leprosy, by BHWs, ANM and ASHA
- Detected cases are to be taken to hospital for proper counselling, by professional counsellors
- The cases detected are to be monitored and followed up by health workers, mainly by BHWs/ASHA to detect deformity.

2. Strengthening facilities at all levels for management of cases

- Construction of office for the DLO
- Major repair of the Kahalgaon Unit and that of the 20 bedded hospital of the district
- Provision of rent for the Nawagachia Unit
- Filling up all the posts on a contract basis till the posts are filled up on a regular basis

3. Awareness in the community on the disease

- Awareness creation among community by having Kalajathas
- Sensitization of AWW, ASHA

4. Re constructive surgery camps for the deformity cases

- Conduct one camp in each quarter for reconstructive surgery

Budget:

Sl No	Activity	Unit cost	Number of Unit	Total Cost
1	Construction of DLO office	1000000.00	1	1000000.00
2	Major repair of Kahalgaon Unit	200000.00	1	200000.00
3	Rent provision for Nawagachia Unit	1000 per month	12	12000.00
4	Kalajathas in PHC areas	10000 per PHC	16	160000.00
5	Senisitation meetings	@500 per meeting for each SC area	362	181000.00
6	Incentives for ASHA and other volunteers	@300 per cases	1000	300000.00
7	Re constructive Surgery camps and provision of artificial limbs	@ 100000 for 1 Camp	4	400000.00
8	Human resources			
	Medical Officer	@20000 pm	3	720000.00
	Medical Social Worker	@8000 p.m	12	1152000.00
	Non Medical Assistant	@5000 p.m.	34	2040000.00
	Clerk	@5000p.m	4	240000.00
	Grade A nurse	@12000 p.m.	3	432000.00
	Lab Technician	@5000 p.m.	4	240000.00
	Driver	@4500 p.m.	4	216000.00
	Attendant Male	@3500 p.m	1	42000.00
	Cook	@4500 p.m.	1	54000.00
	Peon	@3500 p.m.	6	252000.00
	Cook mate	@3000 p.m.	1	36000.00
	Sweeper	@3000p.m	1	36000.00
	Security	@3500p.m	1	42000.00
Total for the District				7755000.00

Routine Immunization:

The immunization situation of the district is bleak and only 50% of the total children are fully immunized. Although the situation has improved compared to the DLHS-2 (43.4) in full immunization coverage, the individual vaccine coverage in the period from DLHS-2 to DLHS-3 is not inspiring either. In order to reach the aim of 100% full immunization in the district, focus on the underserved and unserved areas, vulnerable communities, and migrant population is required. There is a need of strengthening the cold chain infrastructure, skilled vaccinators, and timely supply of vaccines from the state to the districts, districts to the PHCs and till the immunization sites.

Focus of the district in 2010-11 will be to hold regular immunization sessions in all its HSCs and AWCs. The process of development of micro plans will be strengthened and follow up the micro plans will be ensured for each HSCs. Besides the district will focus to map the underserved and unserved area in terms of distance and in terms of living of the vulnerable communities. So catch rounds will be planed to cover all the beneficiaries. The other important focus of the district will be to focus on building the skill of the ANMs in administration of the vaccines. Since many ANMs have become old and many new ANMs have joined in without much of on the job experience, hence they find it difficult in administering the vaccines which affects the immunization coverage.

Name of PHC	ILR	Deep Freezer	Cold Boxes	Delivery of Vaccines at site
Pirpaithi	✓	✓	✓	✓
Kahalgaon	✓	✓	✓	✓
Sanahoula	✓	✓	✓	✓
Gaouradih	✗	✗	✗	✓
Sabour	✓	✓	✓	✓
Jagdishpur	✓	✓	✓	✓
Nathnagar	✓	✓	✓	✓
Shahkund	✓	✓	✓	✓

Name of PHC	ILR	Deep Freezer	Cold Boxes	Delivery of Vaccines at site
Suntanganj	✓	✓	✓	✓
Navagachia	✓	✓	✓	✓
Kharaik	✗	✗	✗	✓
Bihpur	✓	✓	✓	✓
Narayanpur	✗	✗	✗	✓
Rangra	✗	✗	✗	✓
Gopalpur	✓	✓	✓	✓
Ismailpur	✗	✗	✗	✓

There is shortage of cold chain equipment such as ILR and deep freezer at PHC level. 3 newly functional PHCs in the district- Gauradih, Naryanpur and Kharik do not have ILR and deep freezer. Most of the PHCs are operating with either ILR or deep freezer. The District does not have a vaccine van which obstructs timely supply of vaccines to the district. DPT and needle supply is not timely. The maintenance and repair of cold chain equipment is not being done properly by the company currently appointed. The District also needs to adopt better waste management practices for the disposal of syringe and needles. Funds for Printing of RI formats are underutilized.

The strategies to be adopted to increase the coverage of individual vaccine coverage and full immunization will be

1. Improving availability of skilled vaccinators.
 - Organizing regular routine immunization training for ANM and AWW and IPC/IEC/BCC trainings for ASHA and AWWs.
2. Increasing utilization of immunization services through awareness generation by ASHAs and AWWs.
 - Organising immunization camps at every sub centre level on every Wednesday and at the AWCs on every Saturday.
3. Ensuring continued tracking of pregnant women and children for full immunization

- Regular house to house visits for registration of pregnant women for ANC and children for immunization
 - Developing tour plan schedule of ANM with the help of BHM and MOIC.
 - Regular house to house visits for registration of pregnant women for ANC and children for immunization
 - Developing tour plan schedule of ANM with the help of BHM and MOIC.
4. Improving availability and maintaining quality of cold chain equipments and improving timely supply of the vaccines, timely supply of DPT and syringes.
- Timely payment to MOICs to arrange transportation of vaccines from district hospital to PHCs.
 - Regular disbursement of funds from the DIO to MOs for providing incentives to ANMs
 - Regular disbursement of funds for ANMs to provide incentives to AWWs and ASHA workers
 - Providing per diem for health workers, mobilisers, supervisors and vaccinators and alternative vaccinators
 - Maintaining the disbursement records and for evaluating the performance of the health
5. Adopting safe disposal policies for needles and
- Procure stock of hub cutters for all the PHCs for safe disposal of needles and syringe.

Budget:

Sl	Activity	Unit	Number of Units	Total Cost	
	Mobility support for supervision	@Rs.50,000 per District for district level officers (this includes POL and maintenance) per year	1	50000.00	
	Cold chain maintenance	@ Rs 500 per PHC/CHC per year District Rs 10,000 per year		10000.00	
	Focus on slum & underserved areas in urban areas:	Hiring an ANM @Rs.300/session for four sessions/month/slum of 10000 population and Rs.200/- per month as contingency per slum of i.e. total expense of Rs. 1400/-	30	300000.00	

		per month per slum of 10000 population			
	Mobilization of children through ASHA/mobilizers	Rs.150/- per ASHA per session	4X16X3 62X12	278016.00	
	Vaccine Delivery	Rs.100/per session for HRTA and Rs.50/- for other ares	4X77X1 2X100	369600.00	
	Computer Assistant RI	Rs. 10000/- p.m	10000X1 2	120000.00	
	Printing of formats	Rs.5/- per children	200000 lakh children	1000000.00	
	Review meeting by DIO of CDPO , MOs and BHMs	1 meeting per dist. Per month@100 per ppts	48X100 X12	57600.00	
	Block coordination committee meetings	@Rs 50/-pp as honorarium for ASHAs (travel) and Rs 25 per person at the disposal of MO-I/C for meeting expenses(refreshments, stationery and misc. expenses)	75X2312	173400.00	
	District level orientation training for 2 days ANM, Multi Purpose Health Worker (Male), LHV, Health Assistant (Male / Female), Nurse Mid Wives, HEs			800000.00	
	One day Training of block level data handlers by DIO and District Cold chain Officer to train about the reporting formats of Immunization and NRHM	Rs 200 per ppts and Resource person fee of Rs.300/-	=100X20 0+300X4	21200.00	
	To develop sub-center and PHC	@ Rs 100/- per sub-centre (meeting at	=362*10 0+16X10	54200.00	

	microplans using bottom up planning with participation of ANM, ASHA, AWW	block level, logistic)/ For consolidation of microplan at PHC/CHC level @ Rs 1000/- block & at district level @ Rs 2000/- per district	00+2000		
	Health Workers Training on immunization	ANM, LHV, BHW	694	1070200.00	Honorarium + TA to Participants @Rs 400 per participants, Honorarium for trainers/faculty @600 per day (subject to at least 2 lecture per guest faculty per day) for 2 days, Working lunch & Refreshments Rs 200 per participants + faculty per day for 2 days, Incidental Exp for Photocopy , Job aids, flip charts, T.V./LCD hiring etc @ 250 per participants per days for 2 days

Malaria Control Programme

Situation Analysis: District faces lack of laboratory technicians and facilities at the APHC/PHC level. This has proved to be a hurdle in prompt diagnosis of the cases. All BHW, BHI, ANM are responsible for collecting the BS of the suspected cases. The exact burden of disease in Bhagalpur is not known as reports from private sector is not collected or not reported. The BCC activities in the district are also limited. There is also shortage of mosquito bed nets but anti-malarial drugs are in abundant.

Strategy	Activities	Budget
<ul style="list-style-type: none"> Ensuring registration of all private laboratories Filling-up of all vacant posts Enhancing BCC activities Ensuring adequate supply of mosquito bed nets 	<ul style="list-style-type: none"> Meeting with DM for issuing an order for all old and new laboratories to register with DHS. Following their registration, they would be expected to report all the disease specific cases to the DHS. All HWs would also be then requested to collect the reports. Training of all health workers in BCC. Supply of bed nets as per Kala-Azar 	Health workers- 50 additional health workers for spraying DDT on daily basis @Rs 200 * 30 days= Rs.300,000.00
		Total- Rs.300,000.00

Filaria Control Programme-

Situation Analysis- Similar to Malaria and Kala Azar, lack of laboratory technicians and facilities at the APHC/PHC level continues to pose a challenge for an effective filarial control programme in the district. In case of Filaria specifically the exact burden of disease is not known because reports from the private sector are not collected or not reported. BCC activities in the district are limited. There is a shortage of chemically treated bed nets. Mass Drug Administration has been carried out in the population where cases have been detected.

Strategy	Activities	Budget
<ol style="list-style-type: none"> Early diagnosis and prompt treatment Ensuring registration of all private laboratories Filling all vacant posts Enhancing BCC activities Ensuring adequate supply of mosquito bed nets Ensuring adequate supply of drugs 	<ol style="list-style-type: none"> House to house visits for tracing cases of Filariasis, by health workers (BHWs, ASHA, ANM) Collection of reports from local private practitioners and laboratories in the village Meeting with DM for issuing an order for all old and new laboratories to register with DHS. Following their registration, they would be expected to report all the disease specific cases to the DHS. All HWs would also be then requested to collect the reports. Training of all health workers in BCC. 	Health workers- 20 Additional workers on daily basis @ Rs 200 * 30 days= Rs.120,000.00 Publicity campaign- Rs.30,000.00 Handbills and hoardings for BCC and IEC campaign . Rs. 50,000.00

	7. Supply of bed nets as per Kala-Azar 8. District level procurement of drugs for MDA, with funds from respective department.	
		Total- Rs.200,000.00