

भारत सरकार
जल संसाधन मंत्रालय
केंद्रीय भूमि जल बोर्ड



GOVT. OF INDIA
MINISTRY OF WATER RESOURCES
CENTRAL GROUND WATER BOARD

वार्षिक भूजल पुस्तिका, बिहार

(2015-2016)

GROUND WATER YEAR BOOK, BIHAR

(2015 - 2016)



मध्य पूर्वी क्षेत्र, पटना

सितंबर 2016

MID-EASTERN REGION, PATNA

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- II Major chemical parameters of ground water samples of HNS collected during pre-monsoon 2015 in Bihar State.
- III District wise percentage of well showing Rise, fall or no significant trend during Pre-monsoon and Post-monsoon Season of 2015.

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ABSTRACT

Monitoring of ground water levels from 723 Hydrograph Network Stations (HNS) were carried out in the year 2015-2016 with an objective to assess ground water regime of phreatic aquifer. The water level monitoring was carried out in the months of May'15, August'15, November'15, and January'16. The ground water samples from the HNS were collected in the month of May'15 for chemical analysis. The water level in the HNS represented phreatic aquifer.

The observed water level data had been grouped into four categories viz. 0-2 m, 2-5 m, 5-10 m and >10 m. Thematic maps depicting ground water levels measured in different periods had been prepared. The water levels had been further analysed for study of its' change with respect to measurement of pre-monsoon period of the same year, previous year water level data of the same period, and decadal mean water level data of the same period. The fluctuation had been grouped under rise and fall categories. In each category there are three groups viz. 0-2 m, 2-4 m and >4 m. Thematic maps had been prepared for each category of fluctuation.

During pre-monsoon 2015 the ground water levels were found to vary between 1.00 and 15.80 m bgl. The depth to water level rests in range of 2 – 5 m bgl in 49% of HNS, which spatially covers northern part of North Bihar Plains (NBP) and small patches in the South Bihar Plains (SBP). During post-monsoon, water level rested in the range of 2 – 5 m bgl in 59% of the HNS. The fluctuation of water level between pre and post-monsoon 2015 indicates rise in water level in 93% of the HNS. Annual change of water level of May 2015 with respect to May 2014 has shown rise in water level in 41 % of the HNS, and during November 2015 with respect to November 2014 indicated fall in 83 % of the HNS. The change in water level of May 2015 with respect to the decadal mean of May (May 2005 to May 2014) has indicated rise in 53 % of the HNS and during November 2015 with respect to the decadal mean of November (November 2005 to November 2014) indicated fall in 80% of the HNS.

GROUND WATER YEAR BOOK, BIHAR (2015-2016)

1. INTRODUCTION

Bihar state lies between 83° 20' and 88° 00' E Longitudes and 24° 15' and 27° 23' N Latitudes. It shares international border with Nepal in the north and is bounded in the east, west and south by West Bengal, Uttar Pradesh and Jharkhand states respectively. The state covers geographical area of 94,163 Sq.km and has its capital at Patna (*Fig 1*).

Administratively the state is divided into 38 districts and 534 community development blocks. The population of the state is 10.41 crores (2011 census). Population density is 881 persons/Sq.km. The urban population is 11,758,016 and rural population is 92,341,436. There are 150 small and large towns in the state. The distribution of urban population is highly skewed as only three towns namely Gaya, Bhagalpur, and Muzaffarpur are having population of more than 3 lakhs, besides urban population of Patna urban agglomeration which is having 1,683,200.

2. HYDROGEOLOGY

The generalized stratigraphic succession of the state is presented in Table 1. The hydrogeological map of Bihar is depicted in *Fig 2*.

Table 1. Generalized geological succession of Bihar.

<i>Age</i>	<i>Formation</i>	<i>Broad Lithology</i>
Quaternary	Alluvial Deposits	Sand, clay, silt and occasional gravel
Tertiary	Siwaliks	Sandstone, conglomerate, clay stone, gravel
L-Cambrian	Vindhyan Super Group	Sandstone, limestone.
Proterozoic	Chotanagpur Granite Gneiss	Granite, granitic-gneiss, schist, phyllites, Dolomites, basic rocks, amphibolites.
Archean	Bihar Mica belt	Gneiss, Pegmatites etc.,

Vindhyan

Rocks of Vindhyan Super-group are confined in the west and north of the river Sone and forms eastern end of the Kaimur Plateau. It occurs in the parts of Rohtas, Kaimur and Aurangabad districts. The width of the Vindhyan rocks becomes less than 3 km near Sasaram in Rohtas district. Rocks found under this super-group are mainly sandstone, limestone, quartzite and schist. These rocks behave as consolidated formation and have remained unaffected by any large-scale tectonic disturbances, except faulting at a few places in the geological past. Vindhyan sandstones are compact and have low primary porosity. Ground water in this occurs within the weathered residuum and in the secondary porosity below them. Ground water occurs under unconfined condition in the weathered mantle. The thickness of the weathered residuum varies from 5 to 10 m.

Siwaliks

The Siwaliks of Upper Tertiary age occur as small patches in northwestern corner of the state in West Champaran district bordering Nepal. It consists of sandstone, conglomerate, red clay and spongy limestone and forms structural hills with a number of faults crisscrossing them. Ground water occurs under confined conditions in sandstones disposed at depth.

Quaternary alluvium

Quaternary sediments of Recent to Sub-Recent age cover about 89 percent of the geographical area of the state. They occupy entire north Bihar plain, and a vast stretch of land between south of the river Ganga and the Chhotanagpur Plateau. Deep exploratory drilling by Central Ground Water Board has confirmed thickness of sedimentary deposits in north Bihar plain as more than three hundred meter. In the south of the river Ganga, the alluvial thickness gradually decreases to as low as 50 m or even less, towards the area bordering the Jharkhand state. The sedimentary deposit consists of alternate sequences of sand and clay layers representing multi-cyclic nature of sedimentation. The Quaternary alluvial deposit spread over south and north of the river Ganga is a part of Mid-Ganga Plain. The Terai belt, which is demarcated by auto-flow wells, occurs as a narrow strip in the bordering areas in Madhubani, Darbhanga, and West

Champaran districts. It is an extension of Terai belt of Nepal which coalesces with alluvial plain. Ground water occurs under unconfined conditions in the phreatic aquifer, which is generally disposed within 70 m below ground. Aquifers situated at deeper levels have ground water levels under confined condition.

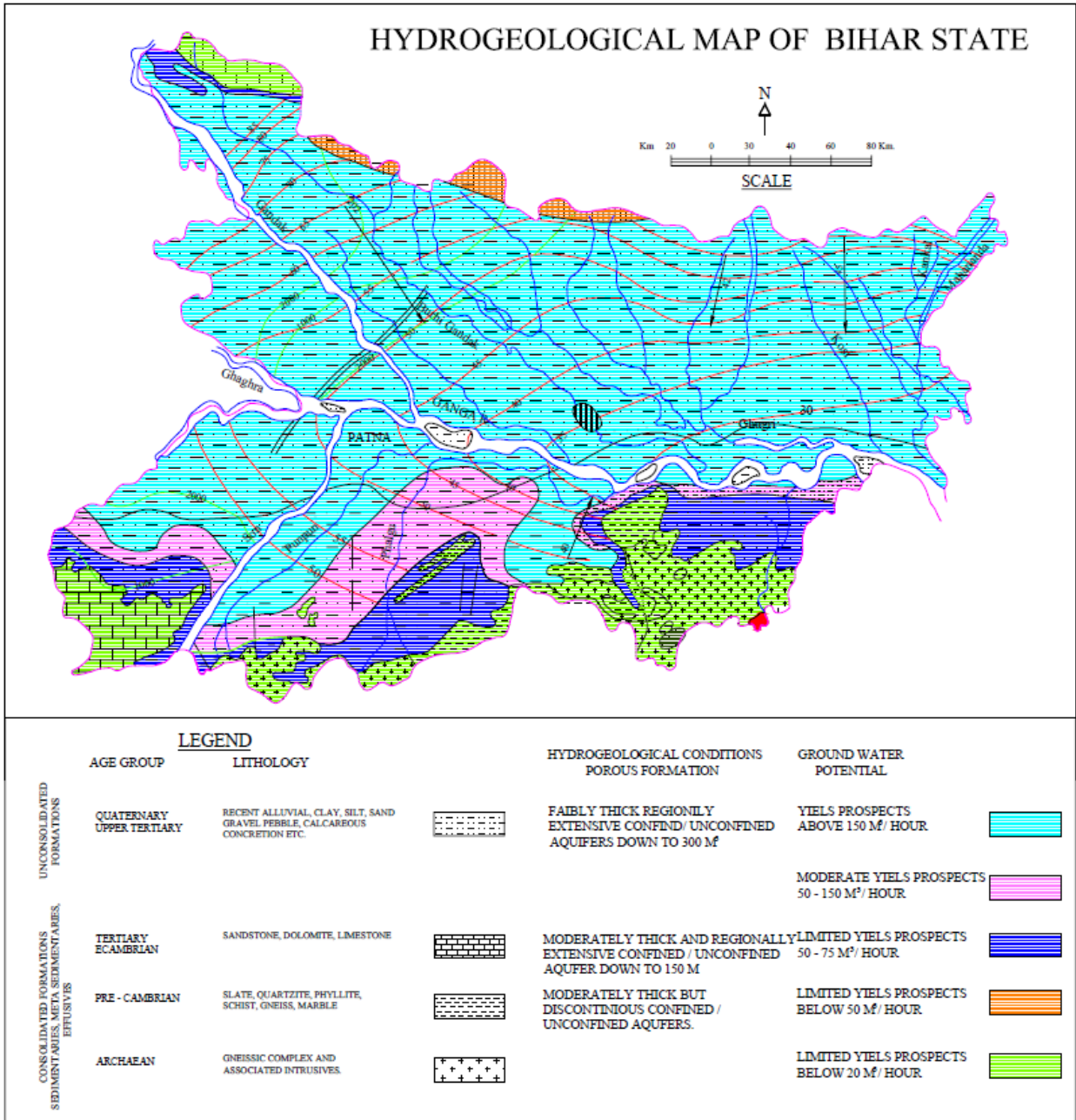


Fig. 2 Hydrogeological Map of Bihar State

3. GROUND WATER SCENARIO

A total of 631 Hydrograph Network Stations (HNS) which are dug wells tapping phreatic aquifer has been monitored as a part of ground water regime monitoring in the state of Bihar. Majority of the wells represent phreatic alluvial aquifer. The district wise location and distribution of the HNS are given in Fig 3 and Table 2 respectively.

Table 2 District wise distribution of the HNS as on 31.03.2015

SN	District	No. of Wells
1	Araia	7
2	Aurangabad	15
3	Banka	14
4	Begusarai	24
5	Bhagalpur	16
6	Bhojpur	39
7	Buxar	24
8	Darbhangha	11
9	Gaya	14
10	Gopalganj	16
11	Jamui	19
12	Jehanabad & Arwal	13
13	Kaimur/Bhabhua	10
14	Katihar	17
15	Khagaria	15
16	Kishanganj	7
17	Lakhisarai	4
18	Madhepura	16
19	Madhubani	26
20	Munger	10
21	Muzaffarpur	24
22	Nalanda	32
23	Nawada	10
24	W Champaran	13
25	Patna	24
26	E Chamaparan	29
27	Purnia	16
28	Rohtas	20
29	Saharsa	17
30	Samastipur	17
31	Saran	30
32	Sheikhpura	7
33	Sheohar	4
34	Sitamarhi	12
35	Siwan	19
36	Supaul	24
37	Vaishali	16
Total		631

Besides above, new wells are established during 2015-16

The numbers of HNS monitored in the state as per the following monitoring schedules:

Table 3 HNS monitoring schedule

Sl. N.	Month	Date	Period
1	May	20 – 30	Pre-monsoon
2	August	20 – 30	Mid-monsoon
3	November	1 – 10	Post-monsoon
4	January	1 – 10	Recession

The Number of HNS monitored during the various monitoring period is given in **Table-4**. The water level data of HNS are presented in the Annexure I. The data were analysed for each set of measurement and the thematic presentation of depth to water level and its fluctuations have been prepared in the range of 0 – 2 m, 2 – 5 m, 5 – 10 m and more than 10 m using GEMS software. Bihar state has been broadly divided into North Bihar Plain (NBP) consisting of areas falling to the north of the river Ganga and South Bihar Plain (SBP) consisting of areas falling to the south of the river Ganga and bordering Jharkhand state.

Table 4 Number of HNS monitored/analysed during different months

State	May'15	August'15	November'15	January'16
Bihar	619	615	636	625

3.1 DEPTH TO WATER LEVEL

3.1.1 May 2015

During the Pre- Monsoon period (May 2015), total 619 HNS were analysed. The Minimum depth to water level is 1.00 m bgl has been observed at, Madhubani district, and maximum depth to water level is 15.80 m bgl, occurred at, Jamui district. The depth to water level rests in range of 2 – 5 m bgl in 46% of the area of Bihar State, which spatially covers northern part of North Bihar Plains (NBP) and as small patches in the South Bihar Plains (SBP). The depth to water level rests in the range of 5 – 10 m bgl in about 51% of the area covering the area adjoining to the river Ganga, and major parts of SBP. In ~ 3% of area, water level > 10 m bgl has been recorded, which distributed as isolated patches mainly in Kaimur, Rohtas, Jamui, Bhagalpur Aurangabad and Banka district. In only 9 Hydrograph Network Station (HNS) which falls in Madhubani, Araria, Sheohar Nawada, Nalanda Saran, Supaul district, the depth to water level < 2 m bgl has been recorded (**Fig. 4; Table 5**).

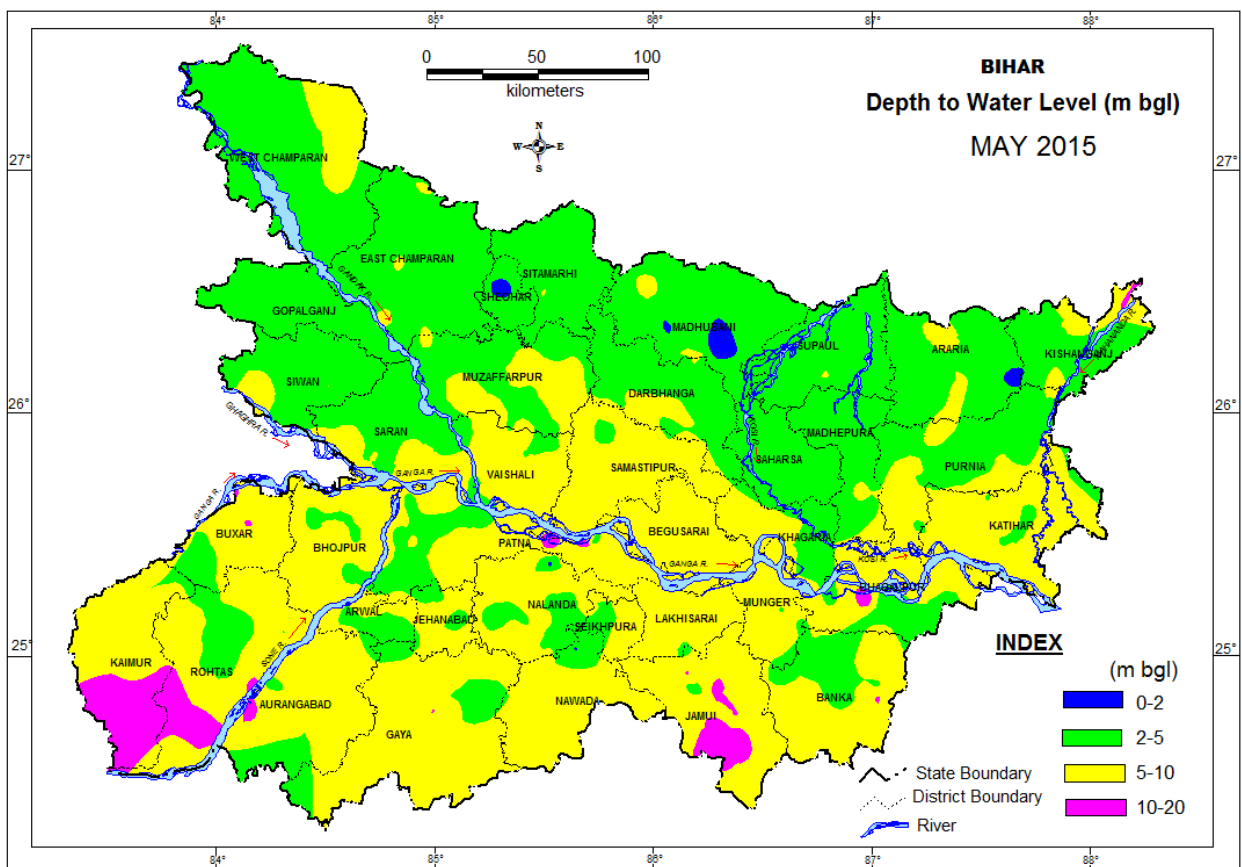


Fig. 4: Depth to water level in May 2015

Table 5 District wise well frequency for different ranges of depth to water level of HNS in May. 2015 in Bihar state

SN	District	No. of Wells analysed	Depth to water level (m bgl)		0-2 m		2-5 m		5-10 m		10-20 m	
			Min.	Max.	No.	%	No.	%	No.	%	No.	%
1	Araria	7	1.36	5.73	1	14	4	57	2	29	0	0
2	Aurangabad	15	3.30	11.10	0	0	5	33	9	60	1	7
3	Banka	15	3.08	12.16	0	0	8	53	6	40	1	7
4	Begusarai	24	5.57	7.84	0	0	0	0	24	100	0	0
5	Bhagalpur	16	3.12	12.67	0	0	6	38	9	56	1	6
6	Bhojpur	34	4.33	9.05	0	0	6	18	28	82	0	0
7	Buxar	23	3.52	11.07	0	0	3	13	17	74	3	13
8	Darbhangha	11	3.19	7.26	0	0	7	64	4	36	0	0
9	Gaya	7	3.20	10.15	0	0	1	14	5	71	1	14
10	Gopalganj	16	2.31	4.79	0	0	16	100	0	0	0	0
11	Jamui	20	3.80	15.80	0	0	2	10	10	50	8	40
12	Jehanabad	13	3.46	8.47	0	0	6	46	7	54	0	0
13	Kaimur	9	4.99	12.20	0	0	1	11	7	78	1	11
14	Katihar	17	4.37	8.37	0	0	7	41	10	59	0	0
15	Khagaria	15	3.40	8.29	0	0	5	33	10	67	0	0
16	Kishanganj	7	2.68	10.13	0	0	5	71	1	14	1	14
17	Lakhisarai	8	7.40	9.48	0	0	0	0	8	100	0	0
18	Madhepura	16	2.43	6.26	0	0	13	81	3	19	0	0
19	Madhubani	26	1.00	5.36	2	8	21	81	3	12	0	0
20	Munger	9	3.92	9.05	0	0	4	44	5	56	0	0
21	Muzaffarpur	24	2.42	6.77	0	0	14	58	10	42	0	0
22	Nalanda	32	1.27	8.82	1	3	11	34	20	63	0	0
23	Nawada	11	1.93	10.00	1	9	2	18	8	73	0	0
24	W Champaran	13	2.19	6.09	0	0	11	85	2	15	0	0
25	Patna	24	2.05	11.83	0	0	11	46	11	46	2	8
26	E Champaran	29	2.20	5.62	0	0	26	90	3	10	0	0
27	Purnia	16	3.93	6.30	0	0	7	44	9	56	0	0
28	Rohtas	18	3.23	11.62	0	0	6	33	9	50	3	17
29	Saharsa	17	2.23	4.02	0	0	17	100	0	0	0	0
30	Samastipur	17	3.72	8.00	0	0	1	6	16	94	0	0
31	Saran	29	1.64	8.83	1	3	15	52	13	45	0	0
32	Sheikhpura	7	3.65	8.58	0	0	4	57	3	43	0	0
33	Sheohar	4	1.06	3.70	1	25	3	75	0	0	0	0
34	Sitamarhi	12	2.04	5.21	0	0	11	92	1	8	0	0
35	Siwan	19	2.88	6.91	0	0	17	89	2	11	0	0
36	Supaul	24	1.61	5.30	2	8	21	88	1	4	0	0
37	Vaishali	15	4.63	7.54	0	0	4	27	11	73	0	0
	Total	619	1.00	15.80	9	1	301	49	287	46	22	4

3.1.2 August 2015

During mid-monsoon (August 2015), total 615 HNS were monitored and analysed. The depth to water level has been found to vary between 0.02 m bgl (Muzaffarpur district) and 11.80 m bgl (Jamui district). The depth to water level categorized in the range of 0 – 2 m bgl which covers in about 22% area due to monsoon rainfall. It specially covers the major part and bordering area of Gopalganj, Madhubani, Supaul, Madhepura, Kishanganj, Araria, Sheikhpura, Banka, Saharsa E & W Champaran and Purnia district and as patches in many other part of the State.

Major part (65%) of the State has shown the depth to water level in the range of 2-5 m bgl. This range of water level covers major part of the state except majore parts of E & W Champaran Saharsa Araria, Supaul, Madhepura, Kishanganj, and small patches in districts of south Bihar. Major part of Kaimur, Rohtas, Buxer, Samastipur districts and other some other parts as patches in South Bihar Plain, the depth to water level rests in the range of 5 to 10 m bgl which forms about 12% of the area of the State. Only four wells have shown water level more than 10 m bgl located in Gaya and Rohtas district. (**Fig. 5; Table 6**)

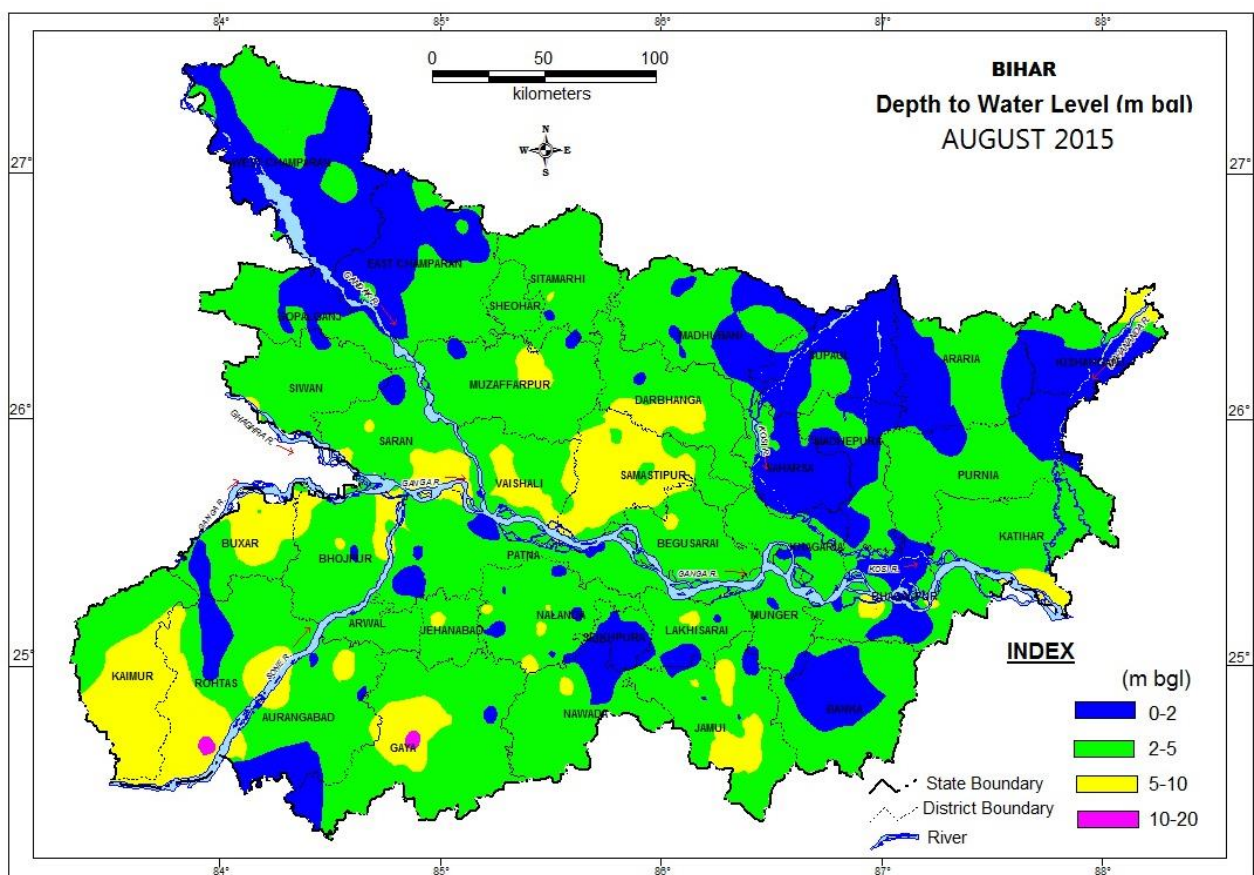


Fig. 5: Depth to water level in August 2015

Table 6 District wise well frequency for different ranges of depth to water level of HNS in Aug. 2015 in Bihar state

SN	District	No. of NHS analysed	Depth to water level (m bgl)		0-2 m		2-5 m		5-10 m		10-20 m	
			Min.	Max.	No.	%	No.	%	No.	%	No.	%
1	Araria	6	1.15	2.80	3	50	3	50	0	0	0	0
2	Aurangabad	14	0.42	7.50	4	29	7	50	3	21	0	0
3	Banka	13	0.86	4.28	7	54	6	46	0	0	0	0
4	Begusarai	23	2.40	5.44	0	0	21	91	2	9	0	0
5	Bhagalpur	16	0.85	10.14	9	56	5	31	1	6	1	6
6	Bhojpur	36	1.10	7.52	1	3	18	50	17	47	0	0
7	Buxar	24	1.40	8.85	2	8	6	25	16	67	0	0
8	Darbhanga	9	1.50	8.54	1	11	4	44	4	44	0	0
9	Gaya	14	1.70	11.50	1	7	9	64	3	21	1	7
10	Gopalganj	20	0.39	4.35	6	30	14	70	0	0	0	0
11	Jamui	19	0.45	11.80	5	26	6	32	7	37	1	5
12	Jehanabad & Arwal	12	2.05	6.87	0	0	11	92	1	8	0	0
13	Kaimur	9	2.35	7.90	0	0	5	56	4	44	0	0
14	Katihar	16	1.20	5.99	1	6	14	88	1	6	0	0
15	Khagaria	15	1.12	3.17	5	33	10	67	0	0	0	0
16	Kishanganj	5	0.44	7.20	4	80	0	0	1	20	0	0
17	Lakhisarai	7	1.76	8.10	1	14	3	43	3	43	0	0
18	Madhepura	16	1.02	3.45	8	50	8	50	0	0	0	0
19	Madhubani	23	0.22	4.85	6	26	17	74	0	0	0	0
20	Munger	10	1.70	4.95	5	50	5	50	0	0	0	0
21	Muzaffarpur	26	0.02	6.06	2	8	21	81	3	12	0	0
22	Nalanda	31	0.96	6.20	7	23	18	58	6	19	0	0
23	Nawada	11	0.83	7.97	4	36	6	55	1	9	0	0
24	W Champaran	16	0.50	5.05	13	81	2	13	1	6	0	0
25	Patna	23	0.97	5.03	9	39	13	57	1	4	0	0
26	E Champaran	28	1.00	3.83	17	61	11	39	0	0	0	0
27	Purnia	14	1.12	4.86	4	29	10	71	0	0	0	0
28	Rohtas	14	0.70	11.08	4	29	4	29	5	36	1	7
29	Saharsa	17	0.81	2.40	15	88	2	12	0	0	0	0
30	Samastipur	19	2.17	8.33	0	0	3	16	16	84	0	0
31	Saran	28	0.46	7.81	3	11	14	50	11	39	0	0
32	Seikhpura	7	0.80	4.84	4	57	3	43	0	0	0	0
33	Sheohar	4	3.00	3.86	0	0	4	100	0	0	0	0
34	Sitamarhi	12	1.10	5.40	1	8	10	83	1	8	0	0
35	Siwan	17	1.85	5.26	2	12	14	82	1	6	0	0
36	Supaul	23	0.07	4.02	18	78	5	22	0	0	0	0
37	Vaishali	18	1.98	5.52	1	6	9	50	8	44	0	0
	Total	615	0.02	11.80	173	28	321	52	117	19	4	1

3.1.3 November 2015

During post-monsoon period (November 2015) total 636 HNS were analysed. The minimum and the maximum depth to water levels have been recorded as 0.44 m bgl (Patna district) and 13.50 m bgl (Jamui district) respectively. In major area of the State (70%) recorded in 378 wells, water level rests in range of 2 – 5 m bgl which covers almost entire Northern part and major part of Southern part of Bihar State. The depth to water level in the range of 5-10 m bgl occurs in about 25 % of the area, which occurs in a major part of Vaishali Begusarai Jamui Gaya Nalanda Kaimur Rohtas Bauxer district and many other places as patches. The water level in the range of 0 – 2 m bgl has been observed in only 9% of HNS, spatially covers as small patches at many locations in NBP and a few locations in SBP. There are only 2% HNS stations are there where level has been observed more than 10 m bgl (Fig. 6; Table 7).

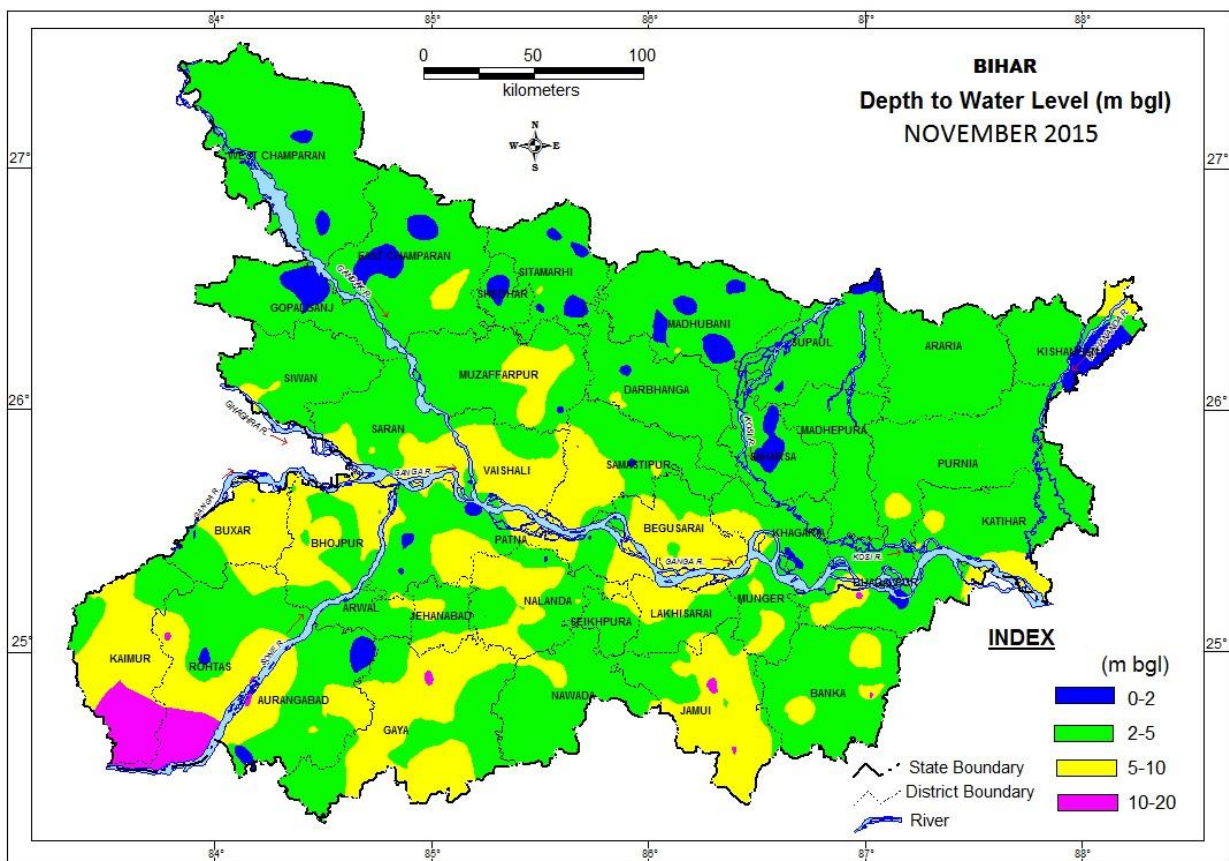


Fig. 6: Depth to water level in November 2015

Table 7 District wise well frequency for different ranges of depth to water level of HNS in Nov. 2015 in Bihar state

SN	District	No. of Wells analysed	Depth to water level (m bgl)		0-2 m		2-5 m		5-10 m		10-20 m	
			Min.	Max.	No.	%	No.	%	No.	%	No.	%
1	Araria	9	2.09	3.68	0	0	9	10	0	0	0	0
2	Aurangabad	16	0.90	10.30	2	13	8	50	5	31	1	6
3	Banka	14	2.12	12.16	0	0	11	79	2	14	1	7
4	Begusarai	24	3.24	7.47	0	0	8	33	16	67	0	0
5	Bhagalpur	12	1.74	11.02	2	17	7	58	2	17	1	8
6	Bhojpur	36	2.58	8.72	0	0	13	36	23	64	0	0
7	Buxar	24	1.70	10.00	1	4	3	13	19	79	1	4
8	Darbhanga	11	1.69	5.20	1	9	8	73	2	18	0	0
9	Gaya	14	2.61	8.00	0	0	6	43	7	50	1	7
10	Gopalganj	19	1.05	4.23	3	16	16	84	0	0	0	0
11	Jamui	19	2.54	13.50	0	0	8	42	7	37	4	21
12	Jehanabad	13	2.76	8.21	0	0	10	77	3	23	0	0
13	Kaimur	8	3.03	10.46	0	0	1	13	6	75	1	13
14	Katihar	17	1.85	6.43	1	6	13	76	3	18	0	0
15	Khagaria	15	1.57	6.40	2	13	8	53	5	33	0	0
16	Kishanganj	7	0.95	7.65	2	29	4	57	1	14	0	0
17	Lakhisarai	9	2.74	8.41	0	0	4	44	5	56	0	0
18	Madhepura	13	2.68	4.93	0	0	13	10	0	0	0	0
19	Madhubani	26	0.68	5.36	8	31	17	65	1	4	0	0
20	Munger	10	2.77	9.00	0	0	6	60	4	40	0	0
21	Muzaffarpur	26	1.68	7.15	1	4	16	62	9	35	0	0
22	Nalanda	31	1.30	8.50	2	6	16	52	13	42	0	0
23	Nawada	11	1.98	8.19	1	9	8	73	2	18	0	0
24	W Champaran	15	1.55	4.42	2	13	13	87	0	0	0	0
25	Patna	23	0.44	8.18	4	17	13	57	6	26	0	0
26	E Champaran	28	1.60	5.72	4	14	22	79	2	7	0	0
27	Purnia	17	2.27	5.82	0	0	15	88	2	12	0	0
28	Rohtas	18	1.11	11.90	1	6	9	50	5	28	3	17
29	Saharsa	17	1.15	3.44	8	47	9	53	0	0	0	0
30	Samastipur	20	1.40	10.16	1	5	9	45	9	45	1	5
31	Saran	31	0.58	8.79	1	3	17	55	13	42	0	0
32	Seikhpura	7	1.88	5.98	1	14	5	71	1	14	0	0
33	Sheohar	4	0.75	4.01	2	50	2	50	0	0	0	0
34	Sitamarhi	16	1.23	5.33	4	25	11	69	1	6	0	0
35	Siwan	17	2.18	5.41	0	0	15	88	2	12	0	0
36	Supaul	21	1.47	4.59	3	14	18	86	0	0	0	0
37	Vaishali	18	2.89	6.97	0	0	7	39	11	61	0	0
	Total	636	0.44	13.50	57	9	378	59	187	29	14	2

3.1.4 January 2016

During the recession period (Jan. 2014), 625 HNS were analysed. The minimum depth to water level of 0.77 m below ground level (bgl) has been observed in the Sheikhpura district, and maximum water level of 13.50 m bgl has been observed in the Jamui district. The depth to water level rests in range of 2 – 5 m bgl in 59% of the area of Bihar State. The depth to water level rests in the range of 5 – 10 m bgl in 39% of the area covering adjoining area and major part of Lakhisarai, Sheikhpura, Jamui, Samastipur, Begusarai, Gaya, Aurangabad, Rohtas, Kaimur, Bauxer and many locations as patches . In only 4% HNS which falls mostly as patches in NBP the depth to water level < 2 m bgl has been recorded In only 23 wells located in E & W Champaran, Madhubani, Sheohar, Aurangabad and as small patches in some other district.(Fig. 7; Table 8).

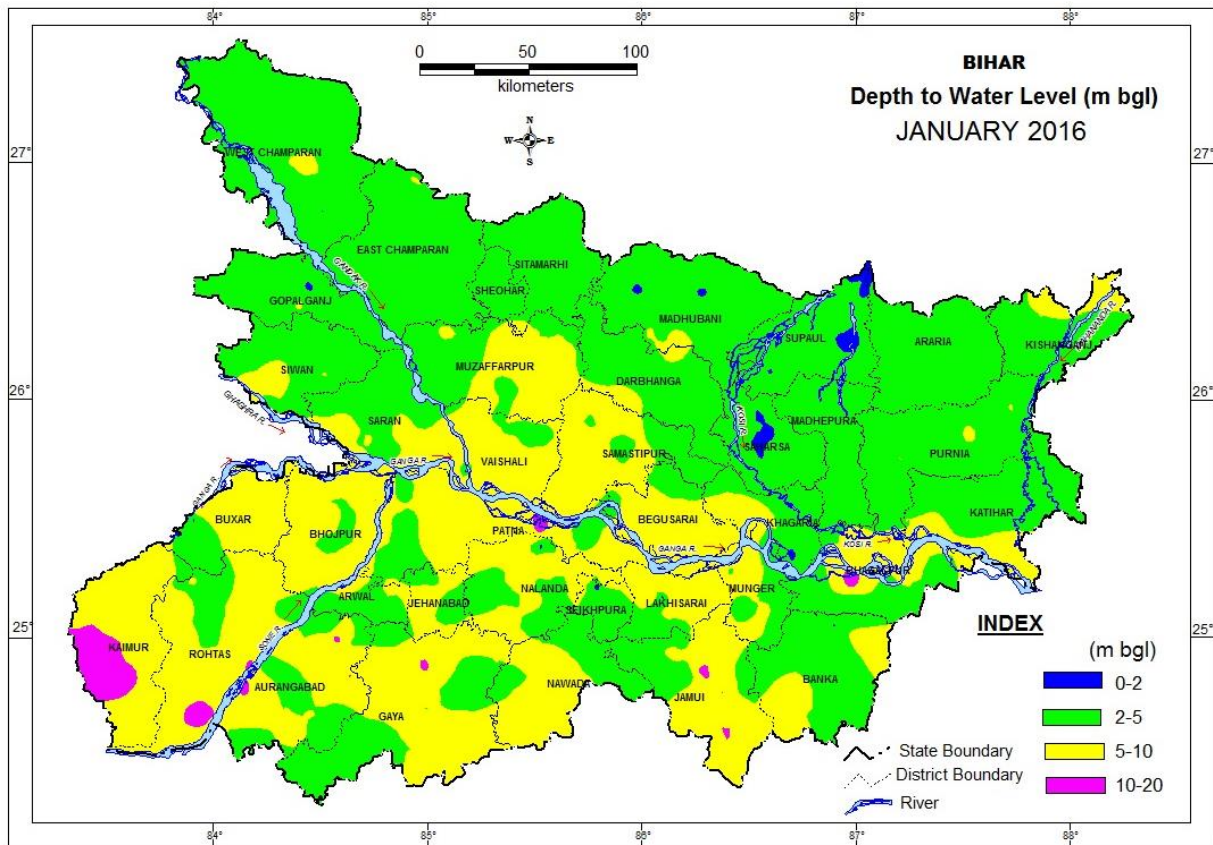


Fig. 7: Depth to water level in January 2016

SN	District	No. of Wells analysed	Depth to water level (m bgl)		0-2 m		2-5 m		5-10 m		10-20 m	
			Min.	Max.	No.	%	No.	%	No.	%	No.	%
1	Araria	9	2.52	4.00	0	0	9	100	0	0	0	0
2	Aurangabad	16	2.61	10.80	0	0	7	44	5	31	4	25
3	Banka	14	1.87	7.10	2	14	8	57	4	29	0	0
4	Begusarai	24	3.58	8.05	0	0	4	17	20	83	0	0
5	Bhagalpur	12	2.66	11.56	0	0	6	50	5	42	1	8
6	Bhojpur	36	2.95	9.51	0	0	7	19	29	81	0	0
7	Buxar	23	1.75	9.90	1	4	3	13	18	78	1	4
8	Darbhanga	6	2.70	6.63	0	0	4	67	2	33	0	0
9	Gaya	12	2.46	9.00	0	0	4	33	7	58	1	8
10	Gopalganj	20	1.88	6.32	2	10	17	85	1	5	0	0
11	Jamui	17	2.40	13.50	0	0	5	29	8	47	4	24
12	Jehanabad & Arwal	13	3.15	8.43	0	0	6	46	7	54	0	0
13	Kaimur	11	5.58	12.30	0	0	0	0	10	91	1	9
14	Katihar	16	3.48	7.07	0	0	11	69	5	31	0	0
15	Khagaria	15	1.76	6.95	1	7	5	33	9	60	0	0
16	Kishanganj	7	2.09	9.47	0	0	6	86	1	14	0	0
17	Lakhisarai	8	1.47	8.51	1	13	1	13	6	75	0	0
18	Madhepura	15	2.51	4.90	0	0	15	100	0	0	0	0
19	Madhubani	26	1.77	6.13	2	8	20	77	4	15	0	0
20	Munger	10	2.87	9.00	0	0	5	50	5	50	0	0
21	Muzaffarpur	26	2.34	7.14	0	0	11	42	15	58	0	0
22	Nalanda	27	1.28	9.56	1	4	14	52	12	44	0	0
23	Nawada	10	2.10	8.85	0	0	5	50	5	50	0	0
24	W Champaran	15	1.98	6.72	2	13	11	73	2	13	0	0
25	Patna	19	1.45	11.47	0	0	10	53	8	42	1	5
26	E Champaran	27	2.07	5.23	0	0	26	96	1	4	0	0
27	Purnia	18	3.13	5.48	0	0	15	83	3	17	0	0
28	Rohtas	18	3.10	10.70	0	0	7	39	9	50	2	11
29	Saharsa	17	1.40	3.67	5	29	12	71	0	0	0	0
30	Samastipur	20	2.73	8.06	0	0	4	20	16	80	0	0
31	Saran	30	1.27	8.64	1	3	15	50	14	47	0	0
32	Seikhpura	7	0.77	8.00	1	14	3	43	3	43	0	0
33	Sheohar	4	2.58	3.29	0	0	4	100	0	0	0	0
34	Sitamarhi	16	2.05	6.05	0	0	15	94	1	6	0	0
35	Siwan	18	2.01	5.90	0	0	15	83	3	17	0	0
36	Supaul	24	1.40	4.98	4	17	20	83	0	0	0	0
37	Vaishali	19	3.72	8.10	0	0	5	26	14	74	0	0
	Total	625	0.77	13.50	23	4	335	54	252	40	15	2

3.2 SEASONAL FLUCTUATION

3.2.1 May 2015 to August 2015

Water level fluctuation between May 2015 and August 2015 has been analysed for 573 HNS to study the seasonal fluctuation of depth to water level, and its categorization in different depth zones. The analyses indicates rise in the water level in 533 (93%) HNS whereas the fall is observed only in 40 (7%) HNS located in Aurangabad, Bhojpur, Buxar, Darbhanga, Madhubani, Muzaffarpur, Nalanda, Nawada, Patna, Rohtas, Samastipur, Saran Sheohar, Sitamarhi, Siwan, and Supaul districts all are within the range of 0- 2 m. The majority of HNS (48%) have shown the rise of water level in the range of 0 to 2 m whereas the segment of 2 - 4 m has been observed in 33% HNS only and about 12% of HNS have shown rise in water level of more than 4m. About 33% of the area of the State has shown rise in water level in the range of 0- 2 m which covers the major and bordering area of Madhibani Sitamarhi Sheohar Supaul Darbhanga Muzaffarpur and Siwan and few localised area. About 44% area of the state are categorised under the segment of 2-4 m rise, including Aurangabad, Gaya, Buxar, Bhojpur, Banka, Bhagalpur, Patna, Araria, Kishanganj, Purnia District. Fall has been observed at many locations as patches constitute only 3% area of the State which covers parts of Darbhanga, Samastipur, Saran, and Madhubani district. **(Fig.8; Table9).**

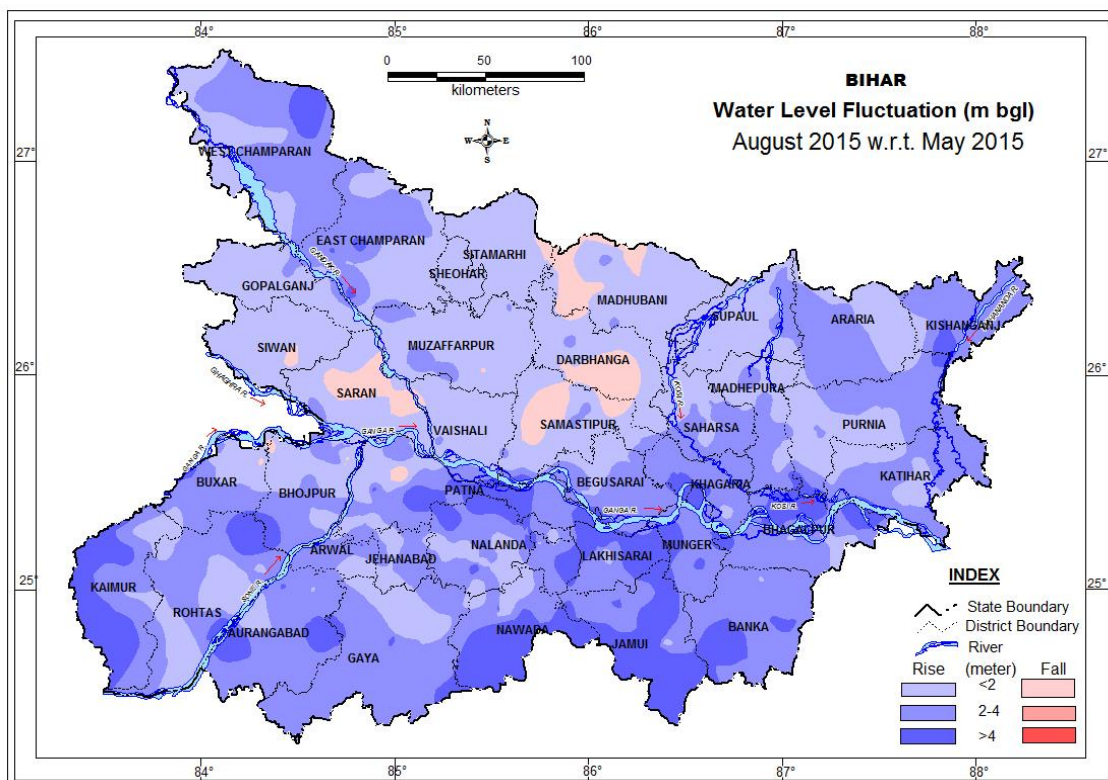


Fig. 8: Fluctuation in ground water level between May 2015 and August 2015

Table – 9 District wise categorization of fluctuation and their frequency of water levels of HNS of Aug. 2015 w.r.t. May 2015 for Bihar State

SN	District	No. of HNS Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise (m)		Fall (m)		Rise						Fall						Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	6	0.13	2.95	-	-	3	50	4	67	0	0	0	0	0	0	0	0	6	0
2	Aurangabad	14	1.94	7.83	-	-	1	7	8	57	4	29	1	7	0	0	0	0	13	1
3	Banka	13	1.85	9.56	-	-	1	8	10	77	2	15	0	0	0	0	0	0	13	0
4	Begusarai	23	0.38	3.84	-	-	6	26	17	74	0	0	0	0	0	0	0	0	23	0
5	Bhagalpur	16	0.39	7.40	-	-	3	19	8	50	5	31	0	0	0	0	0	0	16	0
6	Bhojpur	34	0.09	3.95	0.10	0.64	19	56	12	35	0	0	3	9	0	0	0	0	31	3
7	Buxar	22	0.48	6.47	0.55	0.55	12	55	7	32	2	9	1	5	0	0	0	0	21	1
8	Darbhanga	7	0.15	2.48	0.26	-	1	14	1	14	0	0	5	71	0	0	0	0	2	5
9	Gaya	7	0.15	4.14	-	-	3	43	3	43	1	14	0	0	0	0	0	0	7	0
10	Gopalganj	16	0.21	2.18	-	-	15	94	1	6	0	0	0	0	0	0	0	0	16	0
11	Jamui	18	1.16	9.38	-	-	2	11	6	33	10	56	0	0	0	0	0	0	18	0
12	Jehanabad	11	0.87	4.13	-	-	6	55	4	36	1	9	0	0	0	0	0	0	11	0
13	Kaimur	8	1.37	5.75	-	-	2	25	2	25	4	50	0	0	0	0	0	0	8	0
14	Katihar	16	1.27	3.77	-	-	8	50	8	50	0	0	0	0	0	0	0	0	16	0
15	Khagaria	14	1.32	5.32	-	-	1	7	9	64	4	29	0	0	0	0	0	0	14	0
16	Kishanganj	7	2.15	6.08	-	-	0	0	5	71	2	29	0	0	0	0	0	0	7	0
17	Lakhisarai	6	0.30	7.69	-	-	1	17	2	33	3	50	0	0	0	0	0	0	6	0
18	Madhepura	16	0.51	5.13	-	-	7	44	8	50	1	6	0	0	0	0	0	0	16	0
19	Madhubani	23	0.01	2.81	0.10	0.98	16	70	2	9	0	0	5	22	0	0	0	0	18	5
20	Munger	8	2.14	6.68	-	-	0	0	5	63	3	38	0	0	0	0	0	0	8	0
21	Muzaffarpur	24	0.17	3.23	0.11	0.46	15	63	6	25	0	0	3	13	0	0	0	0	21	3
22	Nalanda	30	0.11	5.49	0.20	0.36	12	40	11	37	5	17	2	7	0	0	0	0	28	2
23	Nawada	10	0.34	6.47	0.77	0.77	3	30	1	10	5	50	1	10	0	0	0	0	9	1
24	W Champaran	13	0.35	4.42	-	-	6	46	6	46	1	8	0	0	0	0	0	0	13	0
25	Patna	23	0.27	10.21	-	-	9	39	6	26	7	30	1	4	0	0	0	0	22	1
26	E Champaran	25	0.69	4.80	-	-	12	48	10	40	3	12	0	0	0	0	0	0	25	0
27	Purnia	14	0.65	3.83	-	-	7	50	7	50	0	0	0	0	0	0	0	0	14	0
28	Rohtas	14	0.38	6.66	0.17	0.17	7	50	5	36	1	7	1	7	0	0	0	0	13	1
29	Saharsa	16	0.95	2.54	-	-	12	75	4	25	0	0	0	0	0	0	0	0	16	0
30	Samastipur	16	0.11	3.23	0.37	-	10	63	3	19	0	0	3	19	0	0	0	0	13	3
31	Saran	28	0.18	3.65	0.03	-	22	79	2	7	0	0	4	14	0	0	0	0	24	4
32	Seikhpura	7	1.34	6.55	-	-	2	29	3	43	2	29	0	0	0	0	0	0	7	0
33	Sheohar	4	0.15	0.15	0.42	-	1	25	0	0	0	0	3	75	0	0	0	0	1	3
34	Sitamarhi	12	0.01	1.07	0.19	-	6	50	0	0	0	0	5	42	0	0	0	0	6	5
35	Siwan	16	0.10	1.94	0.73	0.73	15	94	0	0	0	0	1	6	0	0	0	0	15	1
36	Supaul	21	0.31	2.76	0.16	0.16	15	71	5	24	0	0	1	5	0	0	0	0	20	1
37	Vaishali	15	0.35	2.37	-	-	14	93	1	7	0	0	0	0	0	0	0	0	14	0
	Total	573	0.01	10.21	0.03	0.98	275	48	192	34	66	12	40	7	0	0	0	0	533	40

3.2.2 May 2015 to November 2015

Water level fluctuations between May 2015 and November 2015 has been analysed for 587 HNS. The rise of water level observed in 480 (82%) HNS ranged from 0.01 (Madhubani) to 8.47 m (Patna) whereas, only 97 (17%) HNS have shown fall in water level ranged from 0.02 (Nalanda) to 1.97 m (Banka). The majority of HNS (372 well, 63%) have shown rise in the range of 0-2 m whereas the 88 and 23 HNS have shown rise in water level in the range of 2-4 m and >4m respectively.

About 72 % area of the State has shown rise in water level. The 0-2 m segment has spread in the major part and a larger area in north-eastern part of NBP and in the adjoining part of Nawada Jamui Lakhisarai, Bhagalpur Munger and Gaya in SBP and in many other localised area of the State. About 18% area of the State spread in the major part of Nawada, Jamui, Gaya, Banka, and Lakhisarai and parts of Aurangabad, Rohtas Kaimur, Samastipur, E& W Champaran, Patna, and Purnia district has shown water level in the range of 2-4 m. The areas covering part of Nawada, Jamui, Lakhisarai, Munger, Samastipur, Kaimur, Rohtas, Aurangabad, EChamparan and Patna district are categorised in the segment of more than 4 m rise of water level. The fall is recorded as disseminated patches at many locations in the State. (Fig 9, Table 10).

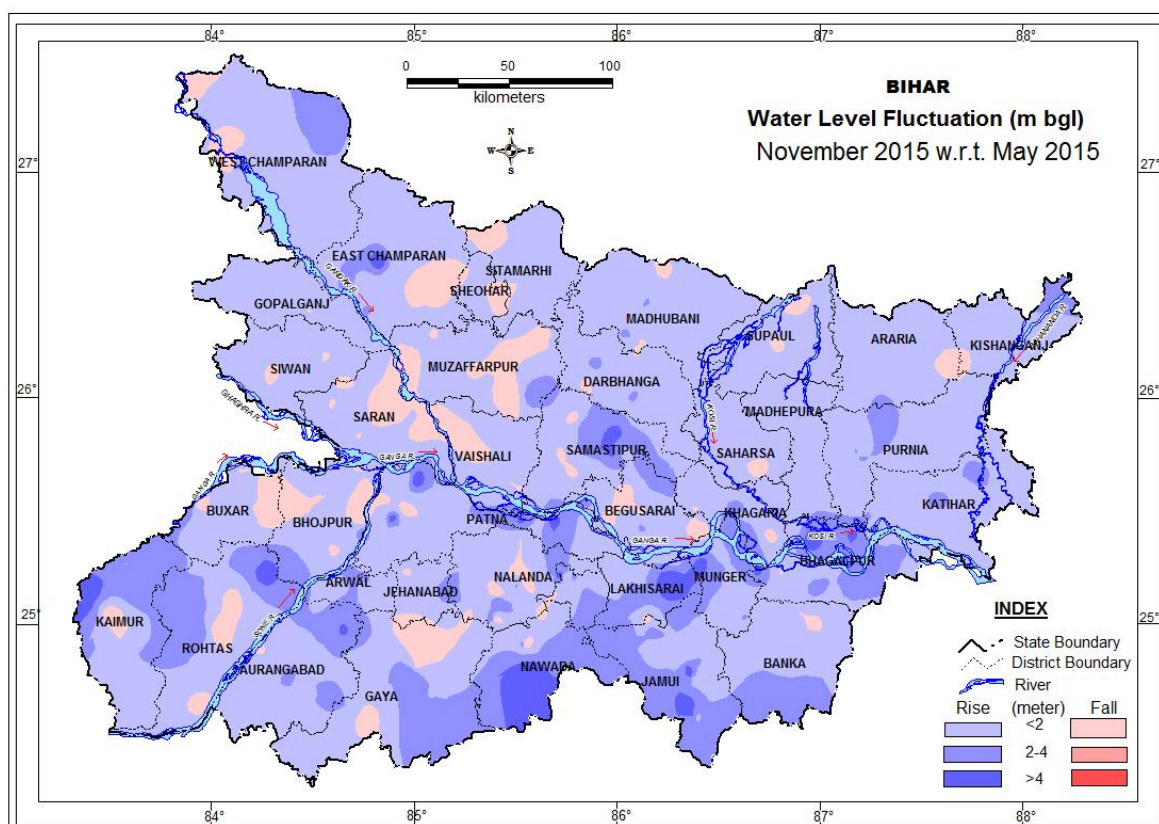


Fig. 9: Fluctuation in ground water level between May 2015 and Nov. 2015

Table – 10 District wise categorization of fluctuation and their frequency of water levels of HNS of Nov. 2015 w.r.t. May 2015 for Bihar State

SN	District	No. of HNS Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise (m)		Fall (m)		Rise				Fall									
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%	Rise	Fall
1	Araria	6	1.34	2.01	0.94	0.94	4	67	1	17	0	0	1	17	0	0	0	0	5	1
2	Aurangabad	15	0.2	4.34	1.8	1.8	8	53	4	27	2	13	1	7	0	0	0	0	14	1
3	Banka	14	0.3	3.06	0.06	0.38	9	64	2	14	0	0	2	14	0	0	0	0	11	2
4	Begusarai	24	0.41	2.56	0.19	1.17	14	58	5	21	0	0	5	21	0	0	0	0	19	5
5	Bhagalpur	12	0.62	5.88	0.1	0.1	4	33	4	33	3	25	1	8	0	0	0	0	11	1
6	Bhojpur	33	0.1	3.38	0.03	1.91	19	58	1	3	0	0	13	39	0	0	0	0	20	13
7	Buxar	22	0.33	4.61	0.38	1.97	11	50	2	9	2	9	6	27	1	5	0	0	15	7
8	Darbhanga	11	0.03	2.49	0.1	1.2	7	64	3	27	0	0	1	9	0	0	0	0	9	2
9	Gaya	7	0.59	3.45	0.23	1.4	3	43	1	14	0	0	2	29	1	14	0	0	4	3
10	Gopalganj	15	0.23	1.57	0.11	0.11	14	93	0	0	0	0	1	7	0	0	0	0	14	1
11	Jamui	19	0.85	7.28	0.05	0.81	8	42	5	26	2	11	2	11	0	0	0	0	15	2
12	Jehanabad	12	0.26	2.59	0.37	0.37	9	75	2	17	0	0	1	8	0	0	0	0	11	1
13	Kaimur	7	0.36	5.07	1.81	1.81	3	43	2	29	1	14	1	14	0	0	0	0	6	1
14	Katihar	17	0.86	3.12	-	-	12	71	4	24	0	0	0	0	0	0	0	0	16	0
15	Khagaria	15	0.24	3.94	0.42	0.64	10	67	3	20	0	0	2	13	0	0	0	0	13	2
16	Kishanganj	5	1.1	2.48	-	-	4	80	1	20	0	0	0	0	0	0	0	0	5	0
17	Lakhisarai	8	0.44	6.27	-	-	3	38	2	25	2	25	0	0	0	0	0	0	7	0
18	Madhepura	13	0.02	1.68	-	-	13	100	0	0	0	0	0	0	0	0	0	0	13	0
19	Madhubani	25	0.01	2.72	0.13	0.25	19	76	2	8	0	0	3	12	0	0	0	0	21	3
20	Munger	9	0.92	4.59	-	-	5	56	2	22	1	11	0	0	0	0	0	0	8	0
21	Muzaffarpur	24	0.02	3.9	0.03	1.48	13	54	0	0	0	0	10	42	1	4	0	0	13	11
22	Nalanda	31	0.04	3.87	0.02	1.64	14	45	7	23	0	0	7	23	1	3	0	0	21	8
23	Nawada	11	0.3	5.28	0.05	0.99	2	18	6	55	1	9	2	18	0	0	0	0	9	2
24	W Champaran	13	0.26	2.81	0.27	1.11	9	69	1	8	0	0	3	23	0	0	0	0	10	3
25	Patna	23	0.09	8.47	0.39	0.7	14	61	3	13	4	17	2	9	0	0	0	0	21	2
26	E Champaran	27	0.03	5.9	0.97	1.44	21	78	3	11	1	4	2	7	0	0	0	0	25	2
27	Purnia	14	0.19	2.47	-	-	9	64	4	29	0	0	0	0	0	0	0	0	13	0
28	Rohtas	17	0.41	5.2	0.28	1.1	5	29	8	47	1	6	3	18	0	0	0	0	14	3
29	Saharsa	17	0.26	2.14	0.89	0.89	14	82	2	12	0	0	1	6	0	0	0	0	16	1
30	Samastipur	17	0.53	4.62	0.21	0.59	7	41	5	29	2	12	3	18	0	0	0	0	14	3
31	Saran	28	0.14	1.88	0.2	1.02	23	82	1	4	0	0	5	18	1	4	0	0	22	6
32	Seikhpura	7	0.2	5.96	0.1	0.1	3	43	2	29	1	14	1	14	0	0	0	0	6	1
33	Sheohar	4	0.2	1.44	1.44	1.44	3	75	0	0	0	0	1	25	0	0	0	0	3	1
34	Sitamarhi	12	0.1	1.18	0.12	0.95	10	83	0	0	0	0	2	17	0	0	0	0	10	2
35	Siwan	17	0.02	1.63	0.06	0.27	15	88	0	0	0	0	2	12	0	0	0	0	15	2
36	Supaul	21	0.11	1.83	0.45	0.67	19	90	0	0	0	0	2	10	0	0	0	0	19	2
37	Vaishali	15	0.13	1.93	0.05	0.9	12	80	0	0	0	0	3	20	0	0	0	0	12	3
	Total	587	0.01	8.47	0.02	1.97	372	63	88	15	23	4	91	16	5	1	0	0	480	97

3.2.3 May 2015 to January 2016

Water level fluctuation between May 2015 and January 2016 has been analysed for 574 HNS which indicates rise in water level in about 65 % (372 wells) of the HNS. The rise in water level in the range of 0 – 2 m in 57 % of the HNS, 2 – 4 m in 6% of the HNS and >4 m only in 1% HNS. The fall in water level has been observed in 186 wells (32%). 30%, 2% and 0.1% HNS have shown fall in the range of 0-2, 2-4, and >4m respectively. About 64% area has shown rise in water level up to 2m covers major part of Araria, Purnia, Katihar, Kishanganj, E & W Champaran, Gopalganj, Gaya, Jehanabad, Madhepura, Saharsa, and Darbhanga districts and some other parts of Bihar State. The range of 2 to 4 m rise has been observed in many localised areas constitutes about 8% area of the State which shown as patches in Nawada, Jamui, Lakhisarai, Banka, Munger Samastipur, and Gaya District. Only SBP has shown rise of water level more than 4m as patches in Jamui, Nawada, and Banka district. Including the part of Madhubani, Kishanganj, Muzaffarpur, Vaishali, Saran, Bhojpur, Buxar, Rohtas, and Kaimur district the fall in the segment of 0-2m has been shown as patches at many disseminated locations in the State. The range of 2-4 m fall is observed as small patches in Patna, Aurangabad, and Madhubani district. Only one location in Patna has shown fall of water level more than 4 m (**Fig. 10, Table 11**).

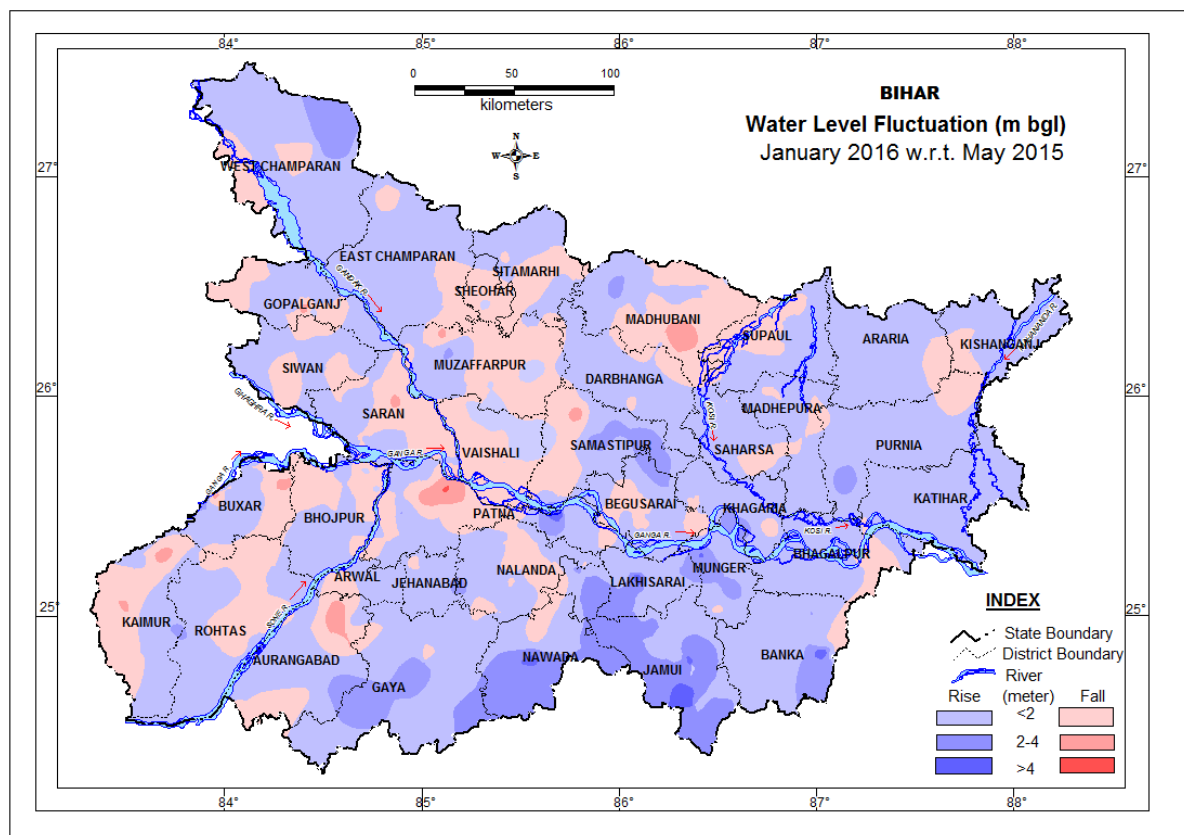


Fig. 10: Fluctuation in ground water level between May 2015 and Jan. 2016.

Table – 11 District wise categorization of fluctuation and their frequency of water levels of HNS of Jan. 2016 w.r.t. May 2015 for Bihar State

SN	District	No. of HNS Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise (m)		Fall (m)		Rise						Fall						Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	6	0.86	1.3	1.16	1.16	5	83	0	0	0	0	1	17	0	0	0	0	5	1
2	Aurangabad	15	0.33	3.23	0.23	2.3	8	53	1	7	0	0	5	33	0	0	0	0	9	6
3	Banka	14	0.11	8.94	1.59	1.59	10	71	2	14	1	7	1	7	0	0	0	0	13	1
4	Begusarai	24	0.28	2.29	0.1	1.59	16	67	1	4	0	0	7	29	0	0	0	0	17	7
5	Bhagalpur	12	0.7	1.3	0.28	1.12	8	67	0	0	0	0	3	25	0	0	0	0	8	3
6	Bhojpur	33	0.07	1.44	0.02	1.92	11	33	0	0	0	0	22	67	0	0	0	0	11	22
7	Buxar	21	0.12	2.97	0.01	2.05	8	38	5	24	0	0	6	29	2	10	0	0	13	8
8	Darbhanga	6	0.43	1.28	0.26	0.26	5	83	0	0	0	0	1	17	0	0	0	0	5	1
9	Gaya	6	0.08	2.79	0.25	0.25	4	67	1	17	0	0	1	17	0	0	0	0	5	1
10	Gopalganj	16	0.23	1.21	0.03	2.01	8	50	0	0	0	0	7	44	1	6	0	0	8	8
11	Jamui	17	0.05	6.6	-	-	6	35	7	41	2	12	0	0	0	0	0	0	15	0
12	Jehanabad	11	0.04	1.3	0.45	2.03	8	73	0	0	0	0	2	18	1	9	0	0	8	3
13	Kaimur	9	0.55	1.92	0.1	2.93	3	33	0	0	0	0	3	33	2	22	0	0	3	5
14	Katihar	16	0.4	2.22	0.14	0.27	13	81	1	6	0	0	2	13	0	0	0	0	14	2
15	Khagaria	15	0.32	2.55	0.24	1.32	11	73	1	7	0	0	3	20	0	0	0	0	12	3
16	Kishanganj	5	0.15	0.89	-	-	4	80	0	0	0	0	0	0	0	0	0	0	4	0
17	Lakhisarai	8	0.3	6.53	-	-	6	75	0	0	2	25	0	0	0	0	0	0	8	0
18	Madhepura	15	0.1	1.73	0.02	0.37	11	73	0	0	0	0	4	27	0	0	0	0	11	4
19	Madhubani	25	0.02	3.03	0.01	3.35	12	48	1	4	0	0	11	44	1	4	0	0	13	12
20	Munger	9	1.05	4.22	0.25	0.25	5	56	2	22	1	11	1	11	0	0	0	0	8	1
21	Muzaffarpur	24	0.19	2.41	0.02	2.53	7	29	1	4	0	0	14	58	1	4	0	0	8	15
22	Nalanda	27	0.04	3.09	0.01	1.53	12	44	1	4	0	0	13	48	0	0	0	0	13	13
23	Nawada	10	0.3	4.45	0.12	1.65	4	40	1	10	1	10	3	30	0	0	0	0	6	3
24	W Champaran	13	0.21	3.07	0.58	1.01	9	69	1	8	0	0	2	15	0	0	0	0	10	2
25	Patna	19	0.01	7.23	0.08	4.3	8	42	2	11	1	5	4	21	1	5	1	5	11	6
26	E Champaran	25	0.06	1.6	0.23	0.28	20	80	0	0	0	0	2	8	0	0	0	0	20	2
27	Purnia	15	0.18	2.64	0.36	0.36	13	87	1	7	0	0	1	7	0	0	0	0	14	1
28	Rohtas	16	0.18	2.17	0.3	1.89	8	50	1	6	0	0	6	38	0	0	0	0	9	6
29	Saharsa	17	0.1	1.92	0.03	1.12	14	82	0	0	0	0	3	18	0	0	0	0	14	3
30	Samastipur	17	0.5	3.03	0.09	2.9	6	35	4	24	0	0	6	35	1	6	0	0	10	7
31	Saran	28	0.07	1.76	0.08	2.36	15	54	0	0	0	0	11	39	1	4	0	0	15	12
32	Seikhpura	7	0.05	3.95	0.79	0.79	4	57	2	29	0	0	1	14	0	0	0	0	6	1
33	Sheohar	4	0.15	1.12	0.28	2.04	2	50	0	0	0	0	1	25	1	25	0	0	2	2
34	Sitamarhi	12	0.14	0.56	0.05	0.84	5	42	0	0	0	0	7	58	0	0	0	0	5	7
35	Siwan	18	0.06	1.72	0.01	1.09	11	61	0	0	0	0	7	39	0	0	0	0	11	7
36	Supaul	24	0.04	1.61	0.62	1.19	20	83	0	0	0	0	4	17	0	0	0	0	20	4
37	Vaishali	15	0.01	1.1	0.03	1.48	8	53	0	0	0	0	7	47	0	0	0	0	8	7
	Total	574	0.01	8.94	0.01	4.3	328	57	36	6	8	1	172	30	12	2	1	0	372	186

3.3.0 ANNUAL FLUCTUATION

3.3.1 May 2014 to May 2015

Fluctuation of ground water level between May 2014 and May 2015 of 441 HNS has been analysed which indicates rise in water level in 181 wells (41%) of the HNS and fall in water level in 255 No.(58%) of HNS. The rise has covered almost entire State. The rise to the tune of 0 – 2 m in 37% of HNS, in the tune of 2 – 4 m in the 4% and only 0.5% HNS has shown rise >4 m. The segment of >4m rise is observed in 02 NHS located each in Jamui and Nalanda district. The fall of water level in the segment of 0-2 m has been observed in the major and adjoining part of East Champaran, Bhojpur, Kaimur, Aurangabad, Buxar, Nalanda, Lakhisarai, Purnia, Katihar, Araria, and Darbhanga district and as patches at few locations. The fall of water level in the range of 2-4 m has been observed which spread in 5% area of the State occurred in Gaya, Nawada, Jamui, Patna, Munger, Lakhisarai, Nalanda, Kaimur.and Banka district. Only small patches in Gaya, Nawada, Jamui and Banka district have shown fall of water level > 4 m. (Fig. 11, Table 12).

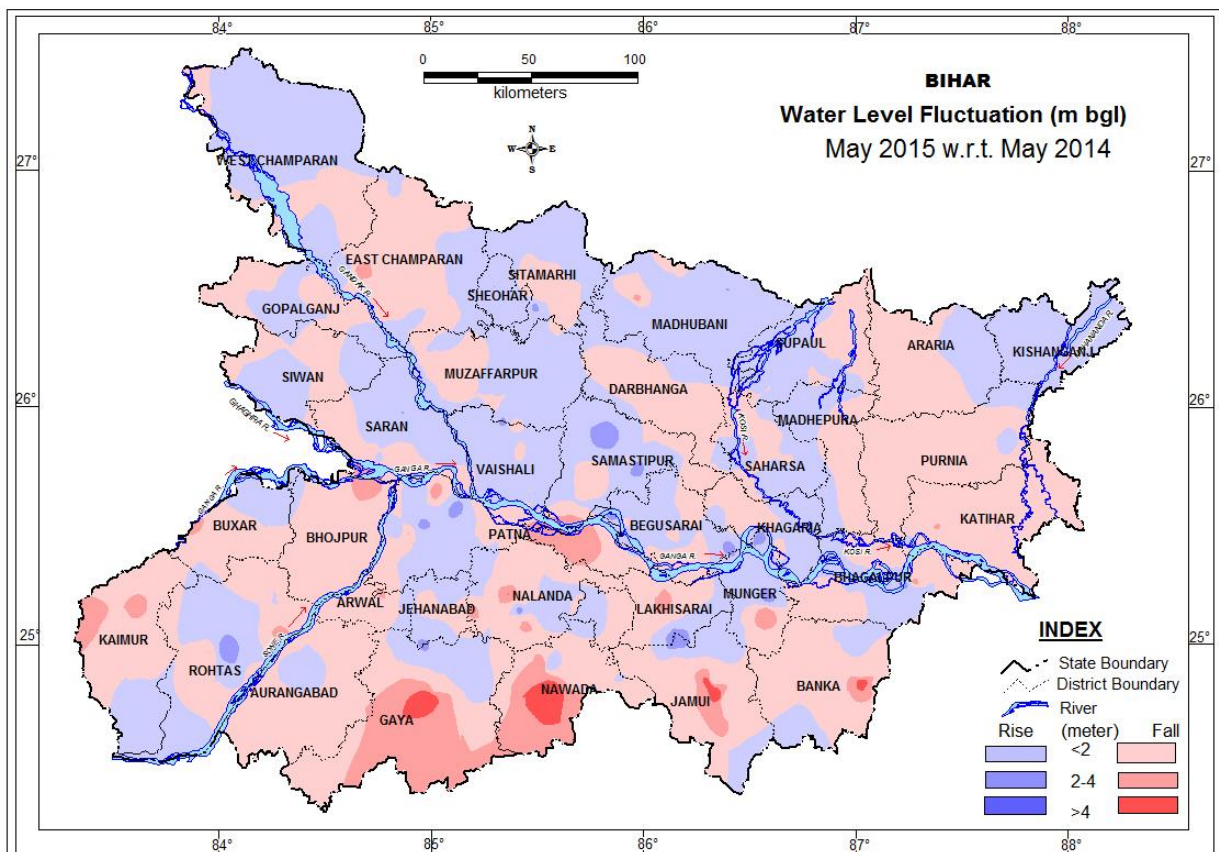


Fig. 11: Fluctuation in ground water level between May 2014 and May 2015

Table – 12 District wise categorization of fluctuation and their frequency of water levels of HNS of May. 2015 w.r.t. May 2014 for Bihar State

SN	District	No. of HNS Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise (m)		Fall (m)		Rise				Fall								Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	6	2.01	2.01	0.52	1.31	0	0	1	17	0	0	5	83	0	0	0	0	1	5
2	Aurangabad	10	1.54	1.54	0.04	1.3	1	10	0	0	0	0	9	90	0	0	0	0	1	9
3	Banka	13	0.46	1.18	0.22	4.08	3	23	0	0	0	0	7	54	2	15	1	8	3	10
4	Begusarai	15	0.47	2.78	0.67	1.51	7	47	2	13	0	0	5	33	1	7	0	0	9	6
5	Bhagalpur	14	0.11	2.94	0.22	2.82	4	29	1	7	0	0	7	50	2	14	0	0	5	9
6	Bhojpur	7	-	-	0.1	3.37	0	0	0	0	0	0	6	86	1	14	0	0	0	7
7	Buxar	5	0.59	1	0.17	2.38	2	40	0	0	0	0	2	40	1	20	0	0	2	3
8	Darbhangha	8	0.04	0.43	0.02	1.68	2	25	0	0	0	0	6	75	0	0	0	0	2	6
9	Gaya	4	1	2.4	1.34	3.95	1	25	1	25	0	0	1	25	0	0	1	25	2	2
10	Gopalganj	12	0.07	0.32	0.05	0.62	6	50	0	0	0	0	6	50	0	0	0	0	6	6
11	Jamui	15	0.72	4.15	0.15	4.5	2	13	0	0	1	7	6	40	3	20	3	20	3	12
12	Jehanabad	10	0.09	1.56	0.01	2.48	4	40	0	0	0	0	5	50	1	10	0	0	4	6
13	Kaimur	7	0.1	0.1	0.2	3.14	1	14	0	0	0	0	4	57	2	29	0	0	1	6
14	Katihar	15	0.07	0.63	0.22	2.11	3	20	0	0	0	0	11	73	1	7	0	0	3	12
15	Khagaria	12	0.02	1.96	0.4	2.13	6	50	0	0	0	0	5	42	1	8	0	0	6	6
16	Kishanganj	3	0.11	0.46	-	-	3	100	0	0	0	0	0	0	0	0	0	0	3	0
17	Lakhisarai	4	-	-	0.38	3.42	0	0	0	0	0	0	2	50	2	50	0	0	0	4
18	Madhepura	7	0.48	0.48	0.09	0.63	1	14	0	0	0	0	6	86	0	0	0	0	1	6
19	Madhubani	19	0.06	2.05	0.34	2.6	15	79	2	11	0	0	1	5	1	5	0	0	17	2
20	Munger	9	0.43	2.9	0.23	3.01	2	22	2	22	0	0	4	44	1	11	0	0	4	5
21	Muzaffarpur	18	0.09	1.3	0.01	1.45	9	50	0	0	0	0	9	50	0	0	0	0	9	9
22	Nalanda	31	0.03	4.1	0.09	4.12	11	35	0	0	1	3	15	48	3	10	1	3	12	19
23	Nawada	9	0.05	1.44	0.13	4.25	2	22	0	0	0	0	5	56	1	11	1	11	2	7
24	W Champaran	10	0.18	1.26	0.04	0.4	5	50	0	0	0	0	5	50	0	0	0	0	5	5
25	Patna	21	0.04	2.93	0.06	2.43	8	38	2	10	0	0	7	33	4	19	0	0	10	11
26	E Champaran	19	0.03	0.35	0.05	3.76	7	37	0	0	0	0	9	47	1	5	0	0	7	10
27	Purnia	12	0.43	0.43	0.15	1.37	1	8	0	0	0	0	11	92	0	0	0	0	1	11
28	Rohtas	15	0.02	3.21	0.03	3.18	6	40	1	7	0	0	5	33	2	13	0	0	7	7
29	Saharsa	12	0.15	1.81	0.06	1.45	6	50	0	0	0	0	6	50	0	0	0	0	6	6
30	Samastipur	14	0.1	3.31	0.01	1.17	8	57	2	14	0	0	4	29	0	0	0	0	10	4
31	Saran	25	0.03	2.04	0.01	3.31	8	32	1	4	0	0	15	60	1	4	0	0	9	16
32	Seikhpura	6	0.29	1.82	0.11	0.11	5	83	0	0	0	0	1	17	0	0	0	0	5	1
33	Sheohar	2	0.39	2.04	-	-	1	50	1	50	0	0	0	0	0	0	0	0	2	0
34	Sitamarhi	8	0.47	2.49	0.46	1.86	4	50	1	13	0	0	3	38	0	0	0	0	5	3
35	Siwan	14	0.04	1.81	0.02	1.54	5	36	0	0	0	0	8	57	0	0	0	0	5	8
36	Supaul	18	0.13	1.47	0.01	1.85	4	22	0	0	0	0	13	72	0	0	0	0	4	13
37	Vaishali	12	0.09	2.68	0.03	0.55	8	67	1	8	0	0	3	25	0	0	0	0	9	3
	Total	441	0.02	4.15	0.01	4.5	161	37	18	4	2	0	217	49	31	7	7	2	181	255

3.3.2 August 2014 to August 2015

Water level fluctuation between August 2014 and August 2015 has been analysed for 443 HNS, which indicates that the fall of water level is in about 69% of the HNS and rise in about 30% of the HNS. The rise of water level observed in the eastern part of the State except part of the Banka, Bhagalpur and Katihar district and as patches in eastern part, which spread in range of 0 – 2 m in 29% area of the State. The segment of rise in water level 2–4m had covered the only some patches in Purnia, Katihar, Bhagalpur, Jehanabad, and Arwal districts.

About 61 % area of the State has shown fall in water level to the tune of 0 to 2 m spread in western part of the State and in the eastern Bihar in part of Supaul Banka, Bhagalpur Katihar Munger and Jamui district. The segment of fall in the range of 2 to 4 m has been covered major part of the state, except eastern part and some patches in districts of western part like Gaya, Aurangabad, Kaimur, Buxar, East Champaran. Only 06 wells located in Aurangabad, Jamui, Nalanda, Samastipur, and Saran district have shown fall more than 4 m. (**Fig. 12, Table 13**).

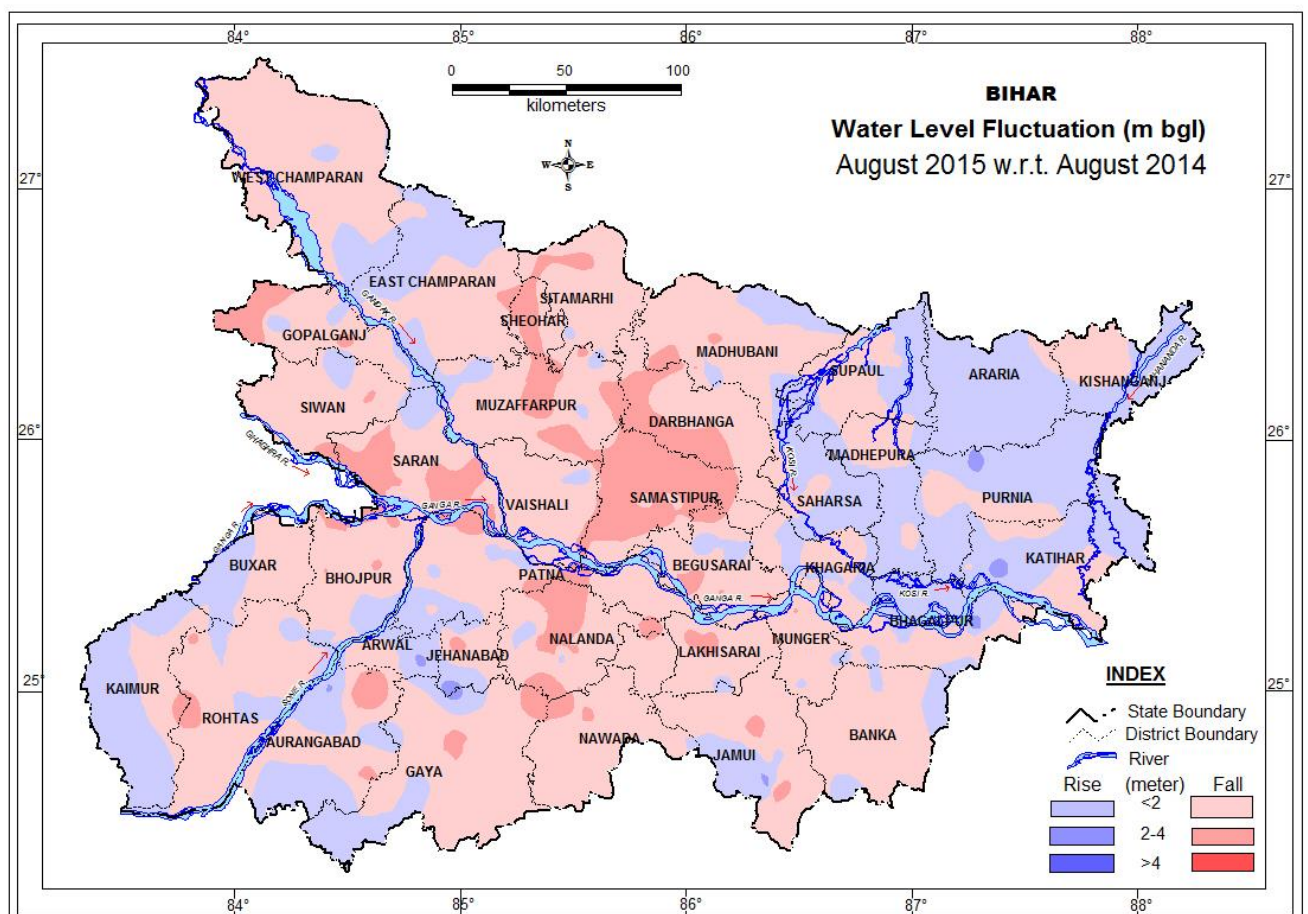


Fig. 12: Fluctuation in ground water level between Aug. 2014 and Aug. 2015

Table –13 District-wise categorization of frequency and fluctuation water levels of HNS of Aug. 2015 w.r.t. Aug. 2014 for Bihar State

SN	District	No. of HNS Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise		Fall		Rise						Fall							
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%	Rise	Fall
1	Araria	6	0.22	1.65	-	-	6	100	0	0	0	0	0	0	0	0	0	6	0	
2	Aurangabad	8	0.04	2.23	1.47	4.06	4	50	1	13	0	0	1	13	1	13	1	13	5	3
3	Banka	10	0.24	1.34	0.15	1.05	3	30	0	0	0	0	7	70	0	0	0	0	3	7
4	Begusarai	16	0.07	1.28	0.01	3.19	4	25	0	0	0	0	9	56	3	19	0	0	4	12
5	Bhagalpur	14	0.12	3.17	0.11	1.1	5	36	1	7	0	0	8	57	0	0	0	0	6	8
6	Bhojpur	8	0.04	0.04	0.08	2.41	1	13	0	0	0	0	3	38	3	38	0	0	1	6
7	Buxar	6	0.09	1.25	0.6	1.2	3	50	0	0	0	0	3	50	0	0	0	0	3	3
8	Darbhanga	6	-	-	0.05	3.7	0	0	0	0	0	0	2	33	4	67	0	0	0	6
9	Gaya	11	0.48	2.74	0.48	3.91	1	9	1	9	0	0	7	64	2	18	0	0	2	9
10	Gopalganj	14	0.2	1.9	0.34	3.9	3	21	0	0	0	0	7	50	4	29	0	0	3	11
11	Jamui	16	0.16	2.53	0.3	4.43	2	13	1	6	0	0	11	69	1	6	1	6	3	13
12	Jehanabad &	6	0.27	2.3	3.53	3.53	4	67	1	17	0	0	0	0	1	17	0	0	5	1
13	Kaimur	7	1.05	1.3	0.43	0.8	4	57	0	0	0	0	2	29	0	0	0	0	4	2
14	Katihar	14	0.01	2.67	0.1	1.19	7	50	1	7	0	0	6	43	0	0	0	0	8	6
15	Khagaria	13	0.1	1.46	0.17	1.32	6	46	0	0	0	0	7	54	0	0	0	0	6	7
16	Kishanganj	4	0.13	1.02	0.63	0.63	3	75	0	0	0	0	1	25	0	0	0	0	3	1
17	Lakhisarai	2	-	-	2.18	2.52	0	0	0	0	0	0	0	0	2	100	0	0	0	2
18	Madhepura	9	0.23	1.39	0.09	1.11	6	67	0	0	0	0	3	33	0	0	0	0	6	3
19	Madhubani	19	0.18	1.39	0.12	2.29	4	21	0	0	0	0	12	63	2	11	0	0	4	14
20	Munger	8	0.15	0.17	0.18	2.14	2	25	0	0	0	0	5	63	1	13	0	0	2	6
21	Muzaffarpur	23	0.4	1.77	0.33	3.51	4	17	0	0	0	0	10	43	9	39	0	0	4	19
22	Nalanda	29	0.71	1.55	0.02	4.46	2	7	0	0	0	0	18	62	7	24	2	7	2	27
23	Nawada	10	-	-	0.06	2.66	0	0	0	0	0	0	9	90	1	10	0	0	0	10
24	W Champaran	13	0.22	0.96	0.07	1.54	2	15	0	0	0	0	11	85	0	0	0	0	2	11
25	Patna	19	0.12	1.85	0.13	2.66	6	32	0	0	0	0	10	53	3	16	0	0	6	13
26	E Champaran	19	0.03	1.44	0.1	2.06	9	47	0	0	0	0	9	47	1	5	0	0	9	10
27	Purnia	11	0.13	2.33	0.3	1.74	6	55	1	9	0	0	4	36	0	0	0	0	7	4
28	Rohtas	13	0.21	0.61	0.42	2.77	5	38	0	0	0	0	5	38	2	15	0	0	5	7
29	Saharsa	10	0.06	1.08	0.75	0.75	9	90	0	0	0	0	1	10	0	0	0	0	9	1
30	Samastipur	14	-	-	1.5	2.1	0	0	0	0	0	0	5	36	8	57	1	7	0	14
31	Saran	27	0.26	0.96	0.06	2.9	3	11	0	0	0	0	12	44	11	41	1	4	3	24
32	Seikhpura	6	-	-	0.08	1.15	0	0	0	0	0	0	6	100	0	0	0	0	0	6
33	Sheohar	2	-	-	2.24	2.28	0	0	0	0	0	0	0	0	2	100	0	0	0	2
34	Sitamarhi	8	0.65	0.65	1.19	2.1	1	13	0	0	0	0	5	63	2	25	0	0	1	7
35	Siwan	14	0.03	0.03	0.33	2.22	1	7	0	0	0	0	12	86	1	7	0	0	1	13
36	Supaul	16	0.08	0.95	0.04	0.43	9	56	0	0	0	0	7	44	0	0	0	0	9	7
37	Vaishali	12	0.78	0.78	0.07	2.02	1	8	0	0	0	0	10	83	1	8	0	0	1	11
	Total	443	0.01	3.17	0.01	4.46	126	28	7	2	0	0	228	51	72	16	6	1	133	306

3.3.3 November 2014 to November 2015

Water level fluctuation between November 2014 and November 2015 has been analysed for 462 HNS, which indicates that there is a rise of water level in about 17% of the HNS and fall in about 83% of the HNS. The rise of water level of 0-2 m range spread in 9% area covers the parts of Kishanganj, Purnia, Katihar, Bhagalpur, Aurangabad, Arwal, Jehanabad, Patna, Kaimur, and Samastipur districts and some other parts. The segment of 2 to 4m and >4m rise has been observed only in Aurangabad district.

Almost entire part of the state (80%) except some patches in eastern and central part is covered by the segment of 0-2m fall in water level. Area covering the parts of Vaishali, Patna, Bhojpur, and Saran, kaimur, Sitamarhi, East Champaran, Darbhanga, and Muzaffarpur district and as patches at few locations has shown the fall of water level 2- 4 m. The range of > 4 m fall has been observed in Nalanda, Gaya, Kaimur and Rohtas district as patches. (Fig.13, Table 14).

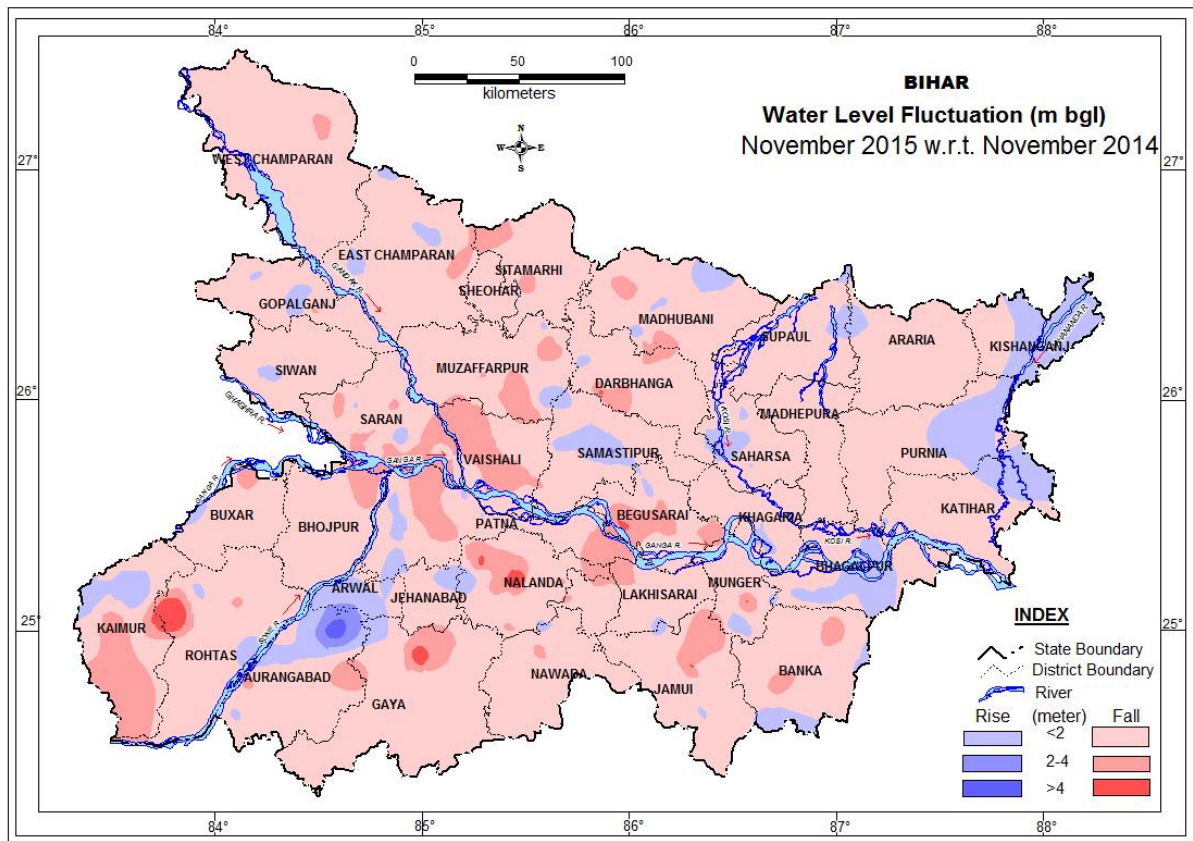


Fig. 13: Fluctuation in ground water level between Nov 2014 and Nov. 2015.

Table –14 District-wise categorization of frequency and fluctuation water levels of HNS of Nov. 2015 w.r.t. Nov. 2014 for Bihar State																						
SN	District	No. of HNS	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total Wells			
			Rise		Fall		Rise				Fall								Rise	Fall		
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%				
1	Araria	6	-	-	0.22	0.59	0	0	0	0	0	0	6	100	0	0	0	0	0	0	6	6
2	Aurangabad	12	0.15	5.83	0.2	3.07	3	25	0	0	2	17	5	42	2	17	0	0	5	7	5	7
3	Banka	11	0.13	0.51	0.14	3.29	2	18	0	0	0	0	7	64	2	18	0	0	2	9	2	9
4	Begusarai	16	0.2	0.2	0.06	4.1	1	6	0	0	0	0	6	38	7	44	2	13	1	15	1	15
5	Bhagalpur	10	0.1	0.76	0.36	0.82	6	60	0	0	0	0	4	40	0	0	0	0	6	4	6	4
6	Bhojpur	7	-	-	0.15	3.35	0	0	0	0	0	0	5	71	2	29	0	0	0	7	0	7
7	Buxar	6	0.17	0.17	0.08	2.36	1	17	0	0	0	0	4	67	1	17	0	0	1	5	1	5
8	Darbhanga	8	0.31	0.31	0.09	4.04	1	13	0	0	0	0	4	50	2	25	1	13	1	7	1	7
9	Gaya	12	-	-	0.11	4.5	0	0	0	0	0	0	11	92	0	0	1	8	0	12	0	12
10	Gopalganj	13	0.21	1.15	0.42	2.3	3	23	0	0	0	0	9	69	1	8	0	0	3	10	3	10
11	Jamui	16	0.73	1.13	0.5	4.48	2	13	0	0	0	0	12	75	1	6	1	6	2	14	2	14
12	Jehanabad	8	0.01	0.47	0.16	1.3	3	38	0	0	0	0	5	63	0	0	0	0	3	5	3	5
13	Kaimur	6	0.37	1.87	0.35	3.46	2	33	0	0	0	0	2	33	2	33	0	0	2	4	2	4
14	Katihar	16	0.53	1.24	0.23	1.88	2	13	0	0	0	0	14	88	0	0	0	0	2	14	2	14
15	Khagaria	14	0.11	0.6	0.52	2.58	3	21	0	0	0	0	9	64	2	14	0	0	3	11	3	11
16	Kishanganj	4	0.38	1.15	0.13	0.13	3	75	0	0	0	0	1	25	0	0	0	0	3	1	3	1
17	Lakhisarai	2	-	-	0.92	2.01	0	0	0	0	0	0	1	50	1	50	0	0	0	2	0	2
18	Madhepura	9	-	-	0.08	1.79	0	0	0	0	0	0	9	100	0	0	0	0	0	9	0	9
19	Madhubani	21	0.11	0.37	0.22	4.01	4	19	0	0	0	0	13	62	2	10	2	10	4	17	4	17
20	Munger	10	2.06	2.06	0.15	4.2	0	0	1	10	0	0	8	80	0	0	1	10	1	9	1	9
21	Muzaffarpur	23	0.51	0.6	0.07	4	2	9	0	0	0	0	15	65	6	26	0	0	2	21	2	21
22	Nalanda	30	1.53	1.53	0.12	4.22	1	3	0	0	0	0	20	67	6	20	3	10	1	29	1	29
23	Nawada	10	0.63	0.63	0.05	2.93	1	10	0	0	0	0	8	80	1	10	0	0	1	9	1	9
24	W Champaran	13	-	-	0.17	2.2	0	0	0	0	0	0	12	92	1	8	0	0	0	13	0	13
25	Patna	18	0.16	1.92	0.05	3.27	6	33	0	0	0	0	9	50	3	17	0	0	6	12	6	12
26	E Champaran	22	0.07	1.21	0.08	2.48	7	32	0	0	0	0	14	64	1	5	0	0	7	15	7	15
27	Purnia	11	0.1	0.69	0.21	1.94	2	18	0	0	0	0	9	82	0	0	0	0	2	9	2	9
28	Rohtas	17	0.34	1.16	0.22	4.05	3	18	0	0	0	0	11	65	1	6	1	6	3	13	3	13
29	Saharsa	12	0.05	0.7	0.02	1.05	4	33	0	0	0	0	8	67	0	0	0	0	4	8	4	8
30	Samastipur	15	0.1	2.29	0.05	2.16	5	33	1	7	0	0	8	53	1	7	0	0	6	9	6	9
31	Saran	26	0.22	1.02	0.08	4	2	8	0	0	0	0	9	35	15	58	0	0	2	24	2	24
32	Seikhpura	6	0.16	0.16	0.56	2.51	1	17	0	0	0	0	3	50	2	33	0	0	1	5	1	5
33	Sheohar	2	-	-	0.1	0.92	0	0	0	0	0	0	2	100	0	0	0	0	0	2	0	2
34	Sitamarhi	8	-	-	0.64	2.66	0	0	0	0	0	0	6	75	2	25	0	0	0	8	0	8
35	Siwan	15	0.32	0.32	0.13	1.77	1	7	0	0	0	0	14	93	0	0	0	0	1	14	1	14
36	Supaul	15	0.04	0.71	0.04	1.18	2	13	0	0	0	0	13	87	0	0	0	0	2	13	2	13
37	Vaishali	12	-	-	0.35	3.32	0	0	0	0	0	0	6	50	6	50	0	0	0	12	0	12
	Total	462	0.01	5.83	0.02	4.50	73	16	2	0	2	0	302	65	70	15	12	3	77	384	384	

3.3.4 January 2015 to January 2016

Water level fluctuation between January 2015 and January 2016 has been analysed for 455 HNS. The rise of water level ranged from 0.02m (Supaul) to 5.98 m (Aurangabad) has been observed in 78 wells (17%) whereas the fall in water level was between 0.01 and 4.59m noticed in 373 Well (82%). The rise to the tune of 0 to 2 m has been shown in 9% area of the State spread as patches in Kishanganj, Jamui, Lakhisarai, Munger, Saharsa, Muzaffarpur and Aurangabad district.. The segment of 2 to 4 m is observed in localised area in part of Banka and Aurangabad district. No well has shown water level rise more than 4m.

The fall in the range of 0 – 2 m, 2 – 4 m and > 4m has been observed in 62%, 18 % and 2% of HNS respectively. The fall ranged from 0 to 2 m has covered almost entire area (76%) of the state except parts of Kishanganj, Banka, Araria, Patna, Vaishali, Muzaffarpur, Sitamarhi, Sheohar, Kaimur Jamui and Gaya district. The segment of 2 to 4 m has been calculated for only 82 wells covers the area as patches in part of Kaimur, Buxar, Patna, Gaya, Vaishali, Muzaffarpur, Sitamarhi, Madhubani and Jamui district and some other parts. Only 10 wells analysed have shown fall of water level more than 4 m located in Rohtas, Kaimur, Gaya, Jamui, Munger, and Patna district. **(Fig.14, Table 15).**

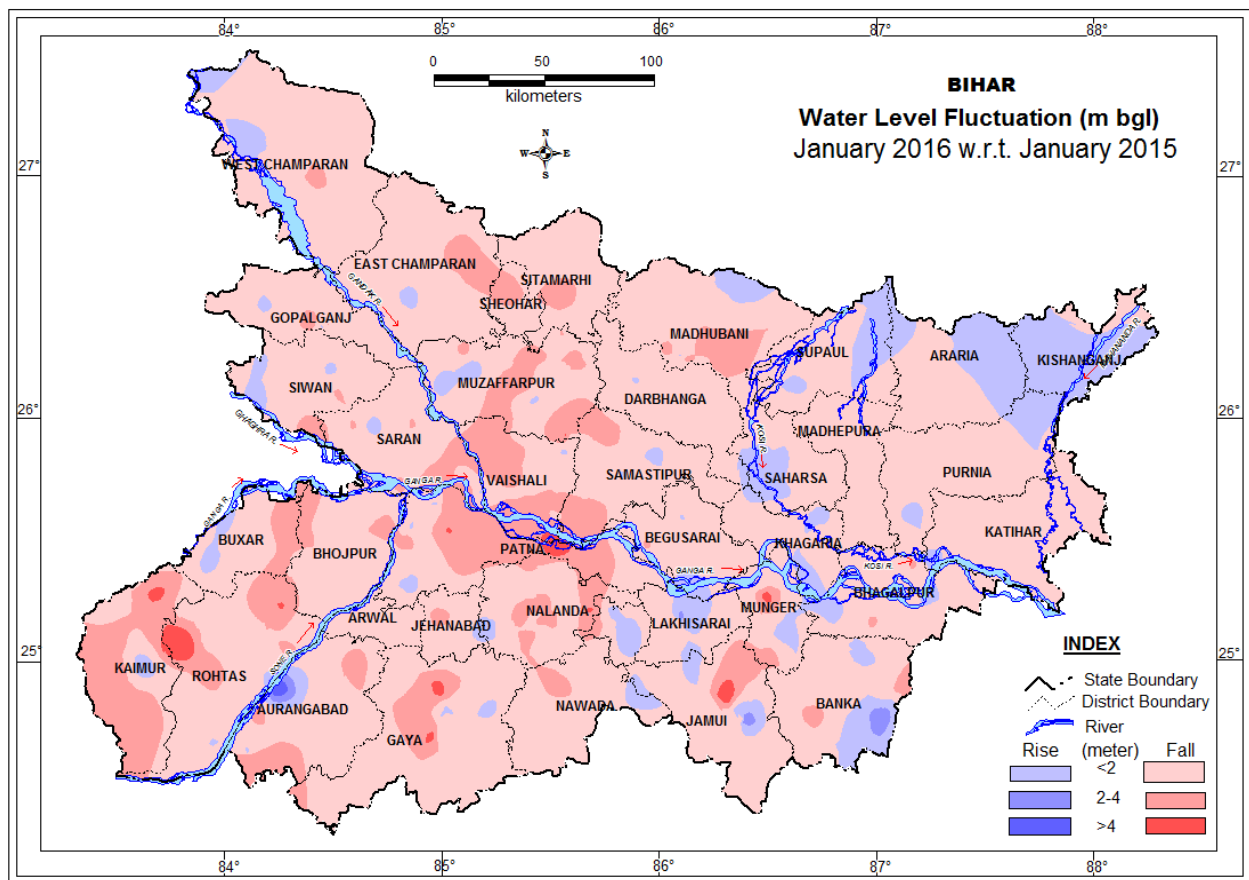


Fig. 14: Fluctuation in ground water level between Jan. 2015 and Jan. 2016

Table – 15 District-wise categorization of fluctuation and their frequency of water levels of HNS of Jan 2015 w.r.t. Jan 2016 for Bihar State

SN	District	No. No. of HNS	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total Wells	
			Rise		Fall		Rise				Fall								Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	6	0.56	0.56	0.09	0.81	1	17	0	0	0	0	5	83	0	0	0	0	1	5
2	Aurangabad	13	0.19	5.98	0.15	3.15	1	8	0	0	1	8	6	46	4	31	0	0	2	10
3	Banka	12	0.21	2.66	0.1	2.52	3	25	1	8	0	0	6	50	2	17	0	0	4	8
4	Begusarai	16	0.06	0.28	0.24	2.47	2	13	0	0	0	0	13	81	1	6	0	0	2	14
5	Bhagalpur	10	0.22	1.02	0.4	2.35	3	30	0	0	0	0	5	50	2	20	0	0	3	7
6	Bhojpur	9	-	-	0.38	2.4	0	0	0	0	0	0	6	67	3	33	0	0	0	9
7	Buxar	6	0.22	0.5	0.3	3.04	2	33	0	0	0	0	3	50	1	17	0	0	2	4
8	Darbhanga	5	0.06	0.06	0.12	1.91	1	20	0	0	0	0	4	80	0	0	0	0	1	4
9	Gaya	11	0.12	0.24	0.33	4.11	3	27	0	0	0	0	6	55	0	0	2	18	3	8
10	Gopalganj	14	0.1	0.46	0.28	3.37	3	21	0	0	0	0	8	57	3	21	0	0	3	11
11	Jamui	15	0.39	3.39	0.41	4.59	3	20	1	7	0	0	9	60	1	7	1	7	4	11
12	Jehanabad & Arwal	9	-	-	0.08	2.83	0	0	0	0	0	0	8	89	1	11	0	0	0	9
13	Kaimur	7	1.17	1.17	1.55	4.02	1	14	0	0	0	0	1	14	4	57	1	14	1	6
14	Katihar	16	0.6	0.6	0.29	1.93	1	6	0	0	0	0	15	94	0	0	0	0	1	15
15	Khagaria	14	0.07	0.55	0.06	1.84	5	36	0	0	0	0	8	57	0	0	0	0	5	8
16	Kishanganj	3	0.14	0.38	0.36	0.36	2	67	0	0	0	0	1	33	0	0	0	0	2	1
17	Lakhisarai	4	2.4	2.4	0.25	1.25	0	0	1	25	0	0	3	75	0	0	0	0	1	3
18	Madhepura	9	-	-	0.17	1.6	0	0	0	0	0	0	9	10	0	0	0	0	0	9
19	Madhubani	21	0.23	0.24	0.13	3.7	2	10	0	0	0	0	15	71	4	19	0	0	2	19
20	Munger	10	0.12	1.15	0.56	4.02	2	20	0	0	0	0	5	50	1	10	1	10	2	7
21	Muzaffarpur	21	0.19	1.01	0.42	4.11	3	14	0	0	0	0	8	38	9	43	1	5	3	18
22	Nalanda	26	1.03	1.03	0.04	4.05	1	4	0	0	0	0	15	58	8	31	1	4	1	24
23	Nawada	9	0.49	0.49	0.3	2.91	1	11	0	0	0	0	4	44	4	44	0	0	1	8
24	W Champaran	12	0.66	0.92	0.17	3.56	2	17	0	0	0	0	9	75	1	8	0	0	2	10
25	Patna	16	0.09	0.6	0.03	2.4	4	25	0	0	0	0	5	31	6	38	1	6	4	12
26	E Champaran	18	0.41	0.41	0.22	2.84	1	6	0	0	0	0	15	83	2	11	0	0	1	17
27	Purnia	11	0.03	0.37	0.07	1.71	2	18	0	0	0	0	9	82	0	0	0	0	2	9
28	Rohtas	16	0.07	0.07	0.18	4.05	1	6	0	0	0	0	10	63	3	19	2	13	1	15
29	Saharsa	12	0.15	1.01	0.01	0.93	4	33	0	0	0	0	8	67	0	0	0	0	4	8
30	Samastipur	15	0.04	0.38	0.1	2.99	2	13	0	0	0	0	9	60	4	27	0	0	2	13
31	Saran	25	0.19	0.72	0.62	3.29	2	8	0	0	0	0	16	64	7	28	0	0	2	23
32	Seikhpura	6	0.58	1.83	1.24	3.26	2	33	0	0	0	0	2	33	2	33	0	0	2	4
33	Sheohar	2	-	-	1.69	2.43	0	0	0	0	0	0	1	50	1	50	0	0	0	2
34	Sitamarhi	8	-	-	0.35	3.01	0	0	0	0	0	0	7	88	1	13	0	0	0	8
35	Siwan	15	0.21	0.87	0.18	2.88	3	20	0	0	0	0	10	67	2	13	0	0	3	12
36	Supaul	20	0.02	0.89	0.09	1.28	10	50	0	0	0	0	10	50	0	0	0	0	10	10
37	Vaishali	13	0.13	0.13	0.63	3.83	1	8	0	0	0	0	7	54	5	38	0	0	1	12
	Total	455	0.02	5.98	0.01	4.59	74	16	3	1	1	0	281	62	82	18	10	2	78	373

3.4 DECADAL FLUCTUATION

3.4.1 Decadal Mean of May to May 2015

Fluctuation in water level of May 2015 with respect to decadal mean of May has been analysed for 482 HNS, which indicates rise in 53% and fall in the 45% of the analysed HNS. The major area (49%) of the state has shown rise in the tune of 0 – 2 m which observed in the 48% of the HNS analysed, spatially covers the major and adjoining part of E & W Champaran, Sitamarhi, Madhubani, Madhepura, Saharsa, Darbhanga, Muzaffarpur, Gopalganj, Siwan, Saran, Vaishali, Bhojpur, Rohtas, Jehanabad, Patna, Nalanda, Jamui, and Munger district and as patches at many locations. In only 18 HNS located in Lakhisarai, Sheikhpura, Samastipur, Sheohar, Rohtas, Aurangabad, and Munger district has shown rise in the tune of 2-4 m. Only 3 wells located each in Nalanda, Rohtas, and Sheikhpura district has recorded rise more than 4m. The major area (45% area) of the State has shown fall in water level less than 2 m whereas the segment of 2 – 4 m observed in only 4% (18 Nos.) NHS covered the area as patches mostly in SGP. The fall of water level more than 4m has been recorded in only 8 wells located in Jamui, Gaya and Patna district. (Fig.15, Table 16).

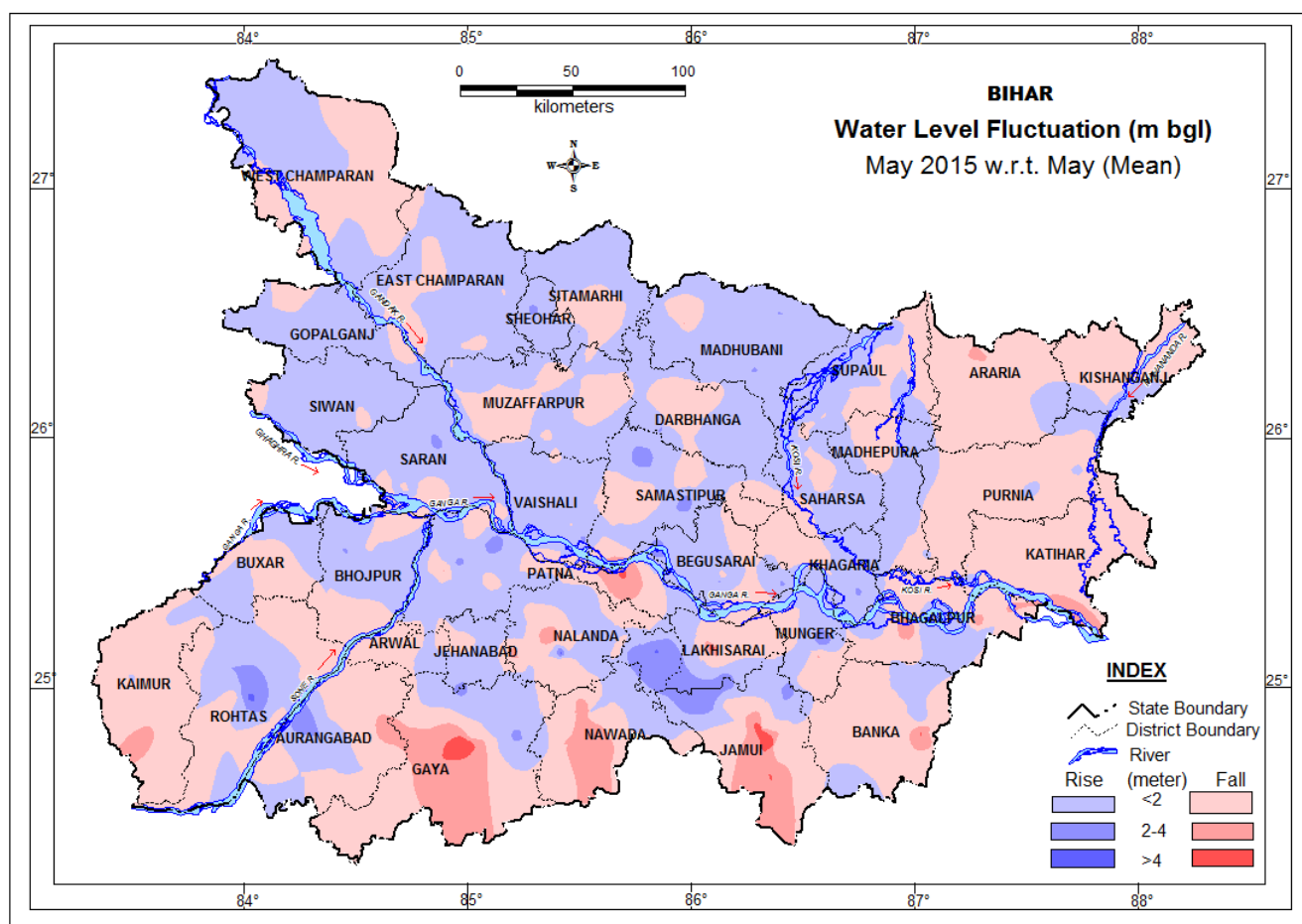


Fig. 15 Fluctuation in water level between May (mean) and May 2015

Table – 16 District-wise categorization of fluctuation and their frequency of water levels of HNS of May, 2015 w.r.t. May mean (2005-2014) for Bihar State

SN	District	No. of Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise		Fall		Rise						Fall						Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	7	1.47	1.47	0.03	2.49	1	14	0	0	0	0	5	71	1	14	0	0	1	6
2	Aurangabad	12	0.34	3.79	0.1	2.56	3	25	1	8	0	0	7	58	1	8	0	0	4	8
3	Banka	13	0.47	1.63	0.49	4.55	4	31	0	0	0	0	7	54	1	8	1	8	4	9
4	Begusarai	16	0.01	2.78	0.25	0.99	9	56	3	19	0	0	4	25	0	0	0	0	12	4
5	Bhagalpur	15	0.19	1.4	0.03	3.37	5	33	0	0	0	0	7	47	3	20	0	0	5	10
6	Bhojpur	7	0.3	2.09	0.36	1.42	4	57	1	14	0	0	2	29	0	0	0	0	5	2
7	Buxar	6	0.69	1.02	0.11	0.37	3	50	0	0	0	0	3	50	0	0	0	0	3	3
8	Darbhanga	9	0.12	2.42	0.02	1.3	4	44	1	11	0	0	4	44	0	0	0	0	5	4
9	Gaya	5	0.45	2.4	1.34	4.95	1	20	2	40	0	0	1	20	0	0	1	20	3	2
10	Gopalganj	12	0.02	1.75	0.02	0.62	9	75	0	0	0	0	3	25	0	0	0	0	9	3
11	Jamui	15	0.72	3.5	0.01	6.5	1	7	3	20	0	0	5	33	2	13	3	20	4	10
12	Jehanabad & Arwal	12	0.09	0.84	0.31	1.04	8	67	0	0	0	0	4	33	0	0	0	0	8	4
13	Kaimur	8	0.12	0.26	0.69	2.13	2	25	0	0	0	0	5	63	1	13	0	0	2	6
14	Katihar	15	0.44	0.5	0.18	2.32	2	13	0	0	0	0	12	80	1	7	0	0	2	13
15	Khagaria	13	0.03	2.12	0.36	1.29	8	62	1	8	0	0	4	31	0	0	0	0	9	4
16	Kishanganj	5	0.7	0.7	0.38	0.93	1	20	0	0	0	0	3	60	0	0	0	0	1	3
17	Lakhisarai	4	-	-	0.04	6.42	0	0	0	0	0	0	3	75	0	0	1	25	0	4
18	Madhepura	9	0.07	1.39	0.15	1.8	5	56	0	0	0	0	4	44	0	0	0	0	5	4
19	Madhubani	22	0.01	2.08	1.52	2.12	18	82	2	9	0	0	1	5	1	5	0	0	20	2
20	Munger	9	0.05	2.9	0.27	2.11	3	33	1	11	0	0	4	44	1	11	0	0	4	5
21	Muzaffarpur	23	0.05	1.93	0.01	1.58	12	52	0	0	0	0	11	48	0	0	0	0	12	11
22	Nalanda	31	0.02	4.62	0.03	4.06	12	39	0	0	1	3	16	52	1	3	1	3	13	18
23	Nawada	9	0.14	0.25	0.28	3.81	4	44	0	0	0	0	3	33	2	22	0	0	4	5
24	W Champaran	13	0.18	1.26	0.1	1.18	7	54	0	0	0	0	6	46	0	0	0	0	7	6
25	Patna	21	0.08	2.93	0.08	4.33	11	52	2	10	0	0	5	24	2	10	1	5	13	8
26	E Champaran	24	0.04	1.26	0.03	1.27	14	58	0	0	0	0	7	29	0	0	0	0	14	7
27	Purnia	14	0.06	0.11	0.15	1.55	2	14	0	0	0	0	12	86	0	0	0	0	2	12
28	Rohtas	15	0.01	4.4	0.14	1.68	5	33	1	7	1	7	8	53	0	0	0	0	7	8
29	Saharsa	13	0.05	1.82	0.07	1.03	9	69	0	0	0	0	4	31	0	0	0	0	9	4
30	Samastipur	15	0.02	2.97	0.26	1.25	9	60	2	13	0	0	4	27	0	0	0	0	11	4
31	Saran	26	0.1	2.17	0.04	3.31	15	58	1	4	0	0	9	35	1	4	0	0	16	10
32	Seikhpura	6	0.15	4.1	-	-	5	83	0	0	1	17	0	0	0	0	0	0	6	0
33	Sheohar	2	0.39	2.32	-	-	1	50	1	50	0	0	0	0	0	0	0	0	2	0
34	Sitamarhi	8	0.44	2.04	0.7	1.86	5	63	1	13	0	0	2	25	0	0	0	0	6	2
35	Siwan	16	0.03	1.3	0.08	1.54	13	81	0	0	0	0	3	19	0	0	0	0	13	3
36	Supaul	20	0.1	0.97	0.01	1.58	6	30	0	0	0	0	13	65	0	0	0	0	6	13
37	Vaishali	12	0.09	2.26	0.03	0.55	9	75	1	8	0	0	2	17	0	0	0	0	10	2
	Total	482	0.01	4.62	0.01	6.50	230	48	24	5	3	1	193	40	18	4	8	2	257	219

3.4.2 Decadal Mean of August to August 2015

Fluctuation in water level of August 2015 with respect to decadal mean of August has been analysed for 466 HNS, which shows fall in water level in the 59% of HNS and rise in the remaining 41% of HNS. The rise in the range of 0 – 2 m has been observed in 38% of the HNS, spatially covers the major area in eastern part of the State and localised area in northern and southern part. The range of 2 to 4 m rise has been recorded as patches at many locations and in an area including the adjoining part of Sheikhpura, Purnia, Banka, and Jamui district. Only 1 well located in Sheikhpura district has shown rise more than 4m. About 52% area of the State has shown fall of water level in the range of 0 to 2m spread in the parts of Madhubani, Darbhanga, Sitamarhi, Nalanda, Begusarai, Vaishali, Muzaffarpur, Saran, Gaya, Aurangabad, Bhojpur, Buxar, Rohtas, Siwan, Gopalganj, and E& W Champaranr district. The range of 2 to 4 m rise has been recorded as patches at many locations and in an area including the adjoining part of Darbhanga, Samastipur, Muzaffarpur, Vaishali, Saran, Rohtas, Kaimur, Gaya, and Aurangabad district. The fall of water level more than 4m has been recorded only in 5 wells located in Saran, Samastipur, Rohtas, and Kaimur district. (Fig.16, Table 17).

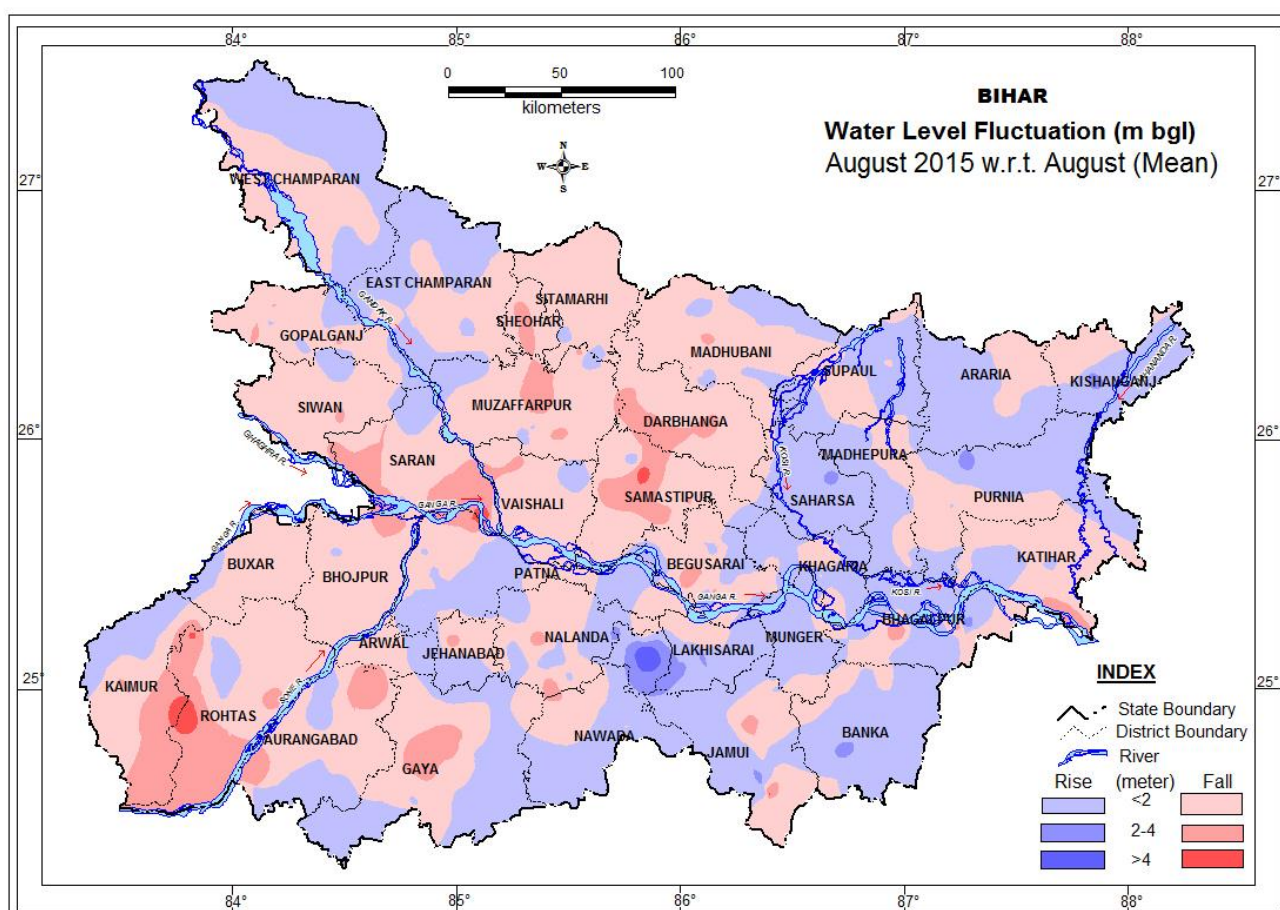


Fig. 16 Fluctuation in water level between Aug. (mean) and Aug. 2015

Table – 17 District-wise categorization of fluctuation and their frequency of water levels of HNS of Aug. 2015 w.r.t. Aug. mean (2005-2014) for Bihar State

SN	District	No. of Wells analysed	Range of fluctuation				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise		Fall		Rise				Fall				Rise	Fall				
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%			2-4m	%	>4m	%
1	Araria	6	0.13	1.65	0.18	0.18	5	83	0	0	0	0	1	17	0	0	0	0	5	1
2	Aurangabad	11	0.15	1.8	0.32	3.94	4	36	0	0	0	0	5	45	2	18	0	0	4	7
3	Banka	11	0.17	2.35	0.05	0.72	7	64	1	9	0	0	3	27	0	0	0	0	8	3
4	Begusarai	16	0.02	1.04	0.15	3.41	7	44	0	0	0	0	7	44	2	13	0	0	7	9
5	Bhagalpur	15	0.36	3.17	0.2	3.62	8	53	1	7	0	0	4	27	2	13	0	0	9	6
6	Bhojpur	8	0.15	0.15	0.11	3.41	1	13	0	0	0	0	6	75	1	13	0	0	1	7
7	Buxar	6	0.58	0.58	0	1.97	1	17	0	0	0	0	5	83	0	0	0	0	1	5
8	Darbhanga	6	-	-	0.06	3.7	0	0	0	0	0	0	2	33	4	67	0	0	0	6
9	Gaya	12	0.03	1.87	0.26	3.91	4	33	0	0	0	0	5	42	3	25	0	0	4	8
10	Gopalganj	14	0.13	1.9	0.52	2.37	5	36	0	0	0	0	6	43	3	21	0	0	5	9
11	Jamui	16	0.06	2.53	0.3	4.43	7	44	1	6	0	0	6	38	1	6	1	6	8	8
12	Jehanabad & Arwal	9	0.03	1.34	0.08	3.53	5	56	0	0	0	0	3	33	1	11	0	0	5	4
13	Kaimur	7	0.63	1.01	1.85	2.07	4	57	0	0	0	0	2	29	1	14	0	0	4	3
14	Katihar	14	0.24	1.1	0.09	2.36	3	21	0	0	0	0	10	71	1	7	0	0	3	11
15	Khagaria	14	0.1	1.48	0.33	1.23	8	57	0	0	0	0	6	43	0	0	0	0	8	6
16	Kishanganj	5	0.07	2.39	0.63	0.63	3	60	1	20	0	0	1	20	0	0	0	0	4	1
17	Lakhisarai	3	2.33	2.33	0.65	2.09	0	0	1	33	0	0	1	33	1	33	0	0	1	2
18	Madhepura	11	0.09	1.33	0.19	1.43	7	64	0	0	0	0	4	36	0	0	0	0	7	4
19	Madhubani	19	0.03	1.39	0.06	2.29	5	26	0	0	0	0	12	63	2	11	0	0	5	14
20	Munger	8	0.03	1.66	0.04	0.59	6	75	0	0	0	0	2	25	0	0	0	0	6	2
21	Muzaffarpur	23	0.21	2.07	0.07	3.33	5	22	1	4	0	0	13	57	4	17	0	0	6	17
22	Nalanda	29	0.17	1.86	0.21	3.63	13	45	0	0	0	0	14	48	2	7	0	0	13	16
23	Nawada	11	0.37	1.92	0.06	1.94	4	36	0	0	0	0	7	64	0	0	0	0	4	7
24	W Champaran	13	0.04	0.76	0.09	0.64	5	38	0	0	0	0	8	62	0	0	0	0	5	8
25	Patna	21	0.11	1.15	0.02	1.93	10	48	0	0	0	0	11	52	0	0	0	0	10	11
26	E Champaran	20	0.04	1.62	0.15	1.38	13	65	0	0	0	0	7	35	0	0	0	0	13	7
27	Purnia	12	0.07	2.33	0.01	1.74	5	42	1	8	0	0	6	50	0	0	0	0	6	6
28	Rohtas	13	0.16	1.41	0.14	4.98	3	23	0	0	0	0	6	46	2	15	2	15	3	10
29	Saharsa	12	0.08	3.32	-	-	10	83	1	8	0	0	0	0	0	0	0	0	11	0
30	Samastipur	15	0.74	0.74	0.45	4.99	1	7	0	0	0	0	6	40	7	47	1	7	1	14
31	Saran	27	0.02	1.94	0.06	6.41	3	11	0	0	0	0	14	52	9	33	1	4	3	24
32	Seikhpura	6	0.22	5.47	-	-	3	50	2	33	1	17	0	0	0	0	0	0	6	0
33	Sheohar	2	-	-	2.16	2.28	0	0	0	0	0	0	0	0	2	10	0	0	0	2
34	Sitamarhi	8	0.93	0.93	0.27	1.87	1	13	0	0	0	0	7	88	0	0	0	0	1	7
35	Siwan	14	-	-	0.13	2.22	0	0	0	0	0	0	13	93	1	7	0	0	0	14
36	Supaul	17	0.08	1.37	0.07	1.1	11	65	0	0	0	0	6	35	0	0	0	0	11	6
37	Vaishali	12	1.76	1.76	0.29	2.32	1	8	0	0	0	0	10	83	1	8	0	0	1	11
	Total	466	0.02	5.47	0.00	6.41	178	38	10	2	1	0	219	47	52	11	5	1	189	276

3.4.3 Decadal Mean of November to November 2015

Fluctuation in water level of November 2015 with respect to decadal mean of November has been analysed for 481 HNS, which shows rise in water level ranged from 0.01 to 4.66 m in 20% of the HNS and fall in the remaining 80 % of HNS. The rise in the range of 0 – 2 m and 2 – 4 m has been observed in the 19% and 1% HNS. No well shows rise >4m. The rise up to 2m has been observed in 15% area and spread as patches in Purnia, Katihar, Kishanganj, Saharsa, Patna, Gaya, Nalanda, Gopalganj, and E & W Champaran district and some other places. Except few patches almost entire area of the State (74%) is covered by the segment of 0-2m fall. 2-4m fall observed in 4% of HNS. The fall in water level >4 m has been observed in only 10 station located in Kaimur, Aurangabad, Muzaffarpur, Jamui Darbhanga and Banka district. (Fig. 17, Table18).

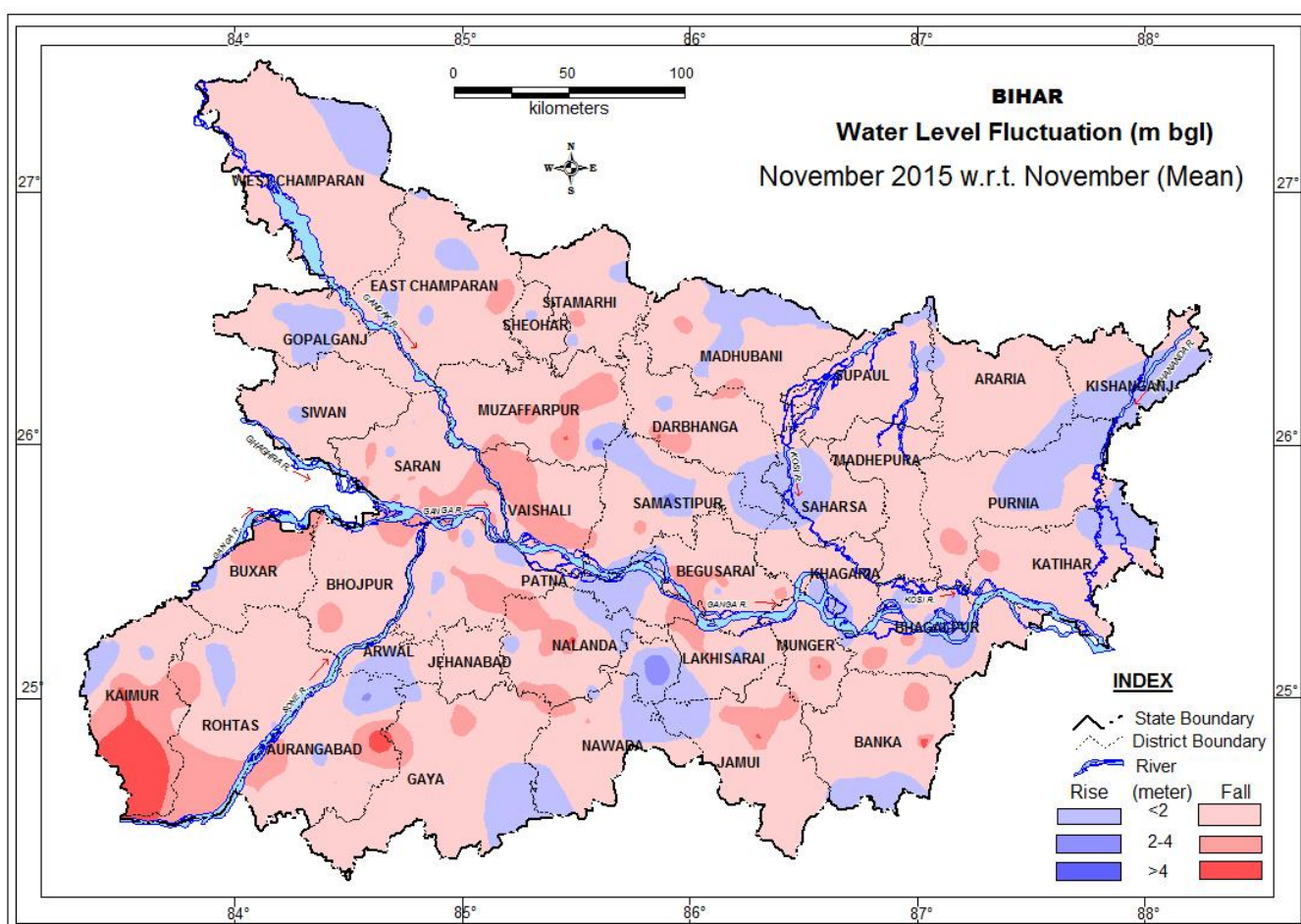


Fig. 17 Fluctuation in water level between Nov. (mean) and Nov. 2015

Table – 18 District-wise categorization of fluctuation and their frequency of water levels of HNS of Nov. 2015 w.r.t. Nov. mean (2005-2014) for Bihar State

SN	District	No. of Wells analysed	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total wells	
			Rise		Fall		Rise						Fall						Rise	Fall
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%		
1	Araria	6	0.04	0.04	0.22	0.49	1	17	0	0	0	0	5	83	0	0	0	0	1	5
2	Aurangabad	13	0.06	4.66	0.05	5.17	2	15	0	0	1	8	7	54	2	15	1	8	3	10
3	Banka	12	0.82	0.82	0.12	7.2	1	8	0	0	0	0	9	75	1	8	1	8	1	11
4	Begusarai	17	-	1.55	0.15	3.04	3	18	0	0	0	0	7	41	7	41	0	0	3	14
5	Bhagalpur	11	0.31	0.59	0.41	3.2	6	55	0	0	0	0	3	27	2	18	0	0	6	5
6	Bhojpur	8	0.04	0.04	0.38	3.33	1	13	0	0	0	0	5	63	2	25	0	0	1	7
7	Buxar	6	0.38	0.38	0.16	2.65	1	17	0	0	0	0	1	17	4	67	0	0	1	5
8	Darbhanga	9	0.25	0.25	0.13	4.87	1	11	0	0	0	0	5	56	2	22	1	11	1	8
9	Gaya	12	1.12	1.12	0.04	2.64	1	8	0	0	0	0	10	83	1	8	0	0	1	11
10	Gopalganj	13	0.01	0.63	0.23	1.9	6	46	0	0	0	0	7	54	0	0	0	0	6	7
11	Jamui	17	0.92	1.13	0.5	4.48	2	12	0	0	0	0	9	53	5	29	1	6	2	15
12	Jehanabad & Arwal	10	-	-	0.06	1.25	0	0	0	0	0	0	10	100	0	0	0	0	0	10
13	Kaimur	6	0.26	1.28	0.56	5.28	2	33	0	0	0	0	1	17	1	17	2	33	2	4
14	Katihar	17	0.35	0.46	0.33	3.2	2	12	0	0	0	0	14	82	1	6	0	0	2	15
15	Khagaria	14	0.07	1.49	0.48	2.02	3	21	0	0	0	0	10	71	1	7	0	0	3	11
16	Kishanganj	4	0.77	0.78	0.13	0.63	2	50	0	0	0	0	2	50	0	0	0	0	2	2
17	Lakhisarai	5	0.26	0.26	1.29	2.48	1	20	0	0	0	0	2	40	2	40	0	0	1	4
18	Madhepura	9	-	-	0.25	1.55	0	0	0	0	0	0	9	100	0	0	0	0	0	9
19	Madhubani	21	0.1	1.21	0.11	3.39	8	38	0	0	0	0	11	52	2	10	0	0	8	13
20	Munger	10	0.42	0.42	0.36	4.27	1	10	0	0	0	0	8	80	0	0	1	10	1	9
21	Muzaffarpur	23	2.69	2.69	0.18	4.21	0	0	1	4	0	0	16	70	5	22	1	4	1	22
22	Nalanda	30	0.5	1.11	0.12	5.06	3	10	0	0	0	0	20	67	5	17	2	7	3	27
23	Nawada	10	0.05	0.63	0.18	2.25	3	30	0	0	0	0	6	60	1	10	0	0	3	7
24	W Champaran	14	0.24	0.24	0.15	1.88	1	7	0	0	0	0	13	93	0	0	0	0	1	13
25	Patna	20	0.12	1.81	0.22	3.08	8	40	0	0	0	0	8	40	4	20	0	0	8	12
26	E Champaran	22	0.05	0.77	0.27	2.74	6	27	0	0	0	0	15	68	1	5	0	0	6	16
27	Purnia	12	0.41	0.78	0.21	2.48	2	17	0	0	0	0	9	75	1	8	0	0	2	10
28	Rohtas	17	0.03	1.03	0.37	3.95	4	24	0	0	0	0	11	65	2	12	0	0	4	13
29	Saharsa	13	0.01	1.02	0.02	0.75	6	46	0	0	0	0	7	54	0	0	0	0	6	7
30	Samastipur	15	0.1	2.84	0.1	2.32	5	33	1	7	0	0	7	47	2	13	0	0	6	9
31	Saran	27	0.03	0.43	0.06	4	2	7	0	0	0	0	11	41	14	52	0	0	2	25
32	Seikhpura	6	3.07	3.16	0.7	1.28	0	0	2	33	0	0	4	67	0	0	0	0	2	4
33	Sheohar	2	0.32	0.32	0.92	0.92	1	50	0	0	0	0	1	50	0	0	0	0	1	1
34	Sitamarhi	8	0.14	0.52	0.39	2.66	2	25	0	0	0	0	5	63	1	13	0	0	2	6
35	Siwan	15	0.22	0.22	0.08	1.77	1	7	0	0	0	0	14	93	0	0	0	0	1	14
36	Supaul	15	0.18	0.36	0.02	1.17	3	20	0	0	0	0	11	73	0	0	0	0	3	11
37	Vaishali	12	0.18	0.18	0.04	3.21	1	8	0	0	0	0	4	33	7	58	0	0	1	11
	Total	481	0.01	4.66	0.02	7.20	92	19	4	1	1	0	297	62	76	16	10	2	97	383

3.4.4 Decadal Mean of January to January 2016

Fluctuation in water level of January 2016 with respect to decadal mean of January has been analysed for 468 HNS. In 24% of the HNS, rise in water level is recorded and remaining 76% HNS fall in water level has been observed. The rise in the range of 0 – 2 m has been spread in 16% area of the State, and covered the major part of Lakhisarai, Sheikhpura, Saharsa and small patches in some other districts. The segment of 2-4m rise has been observed as patches in Aurangabad and Sheikhpura district. Only 2 wells located in Aurangabad and Supaul has shown rise more than 4m. About 71% area of the State has shown fall in the tune of 0 to 2 m including almost entire part of the state except some patches in eastern part. The segment of 2-4m fall has been observed as patches in Kaimur, Rohtas Buxar, Gaya, Patna, Muzaffarpur, Madhubani, and Bhagalpur district. Parts of Kaimur, Rohtas, Gaya, Patna, Muzaffarpur, and Aurangabad has shown fall of water level more than 4 m.(Fig. 18, Table 19).

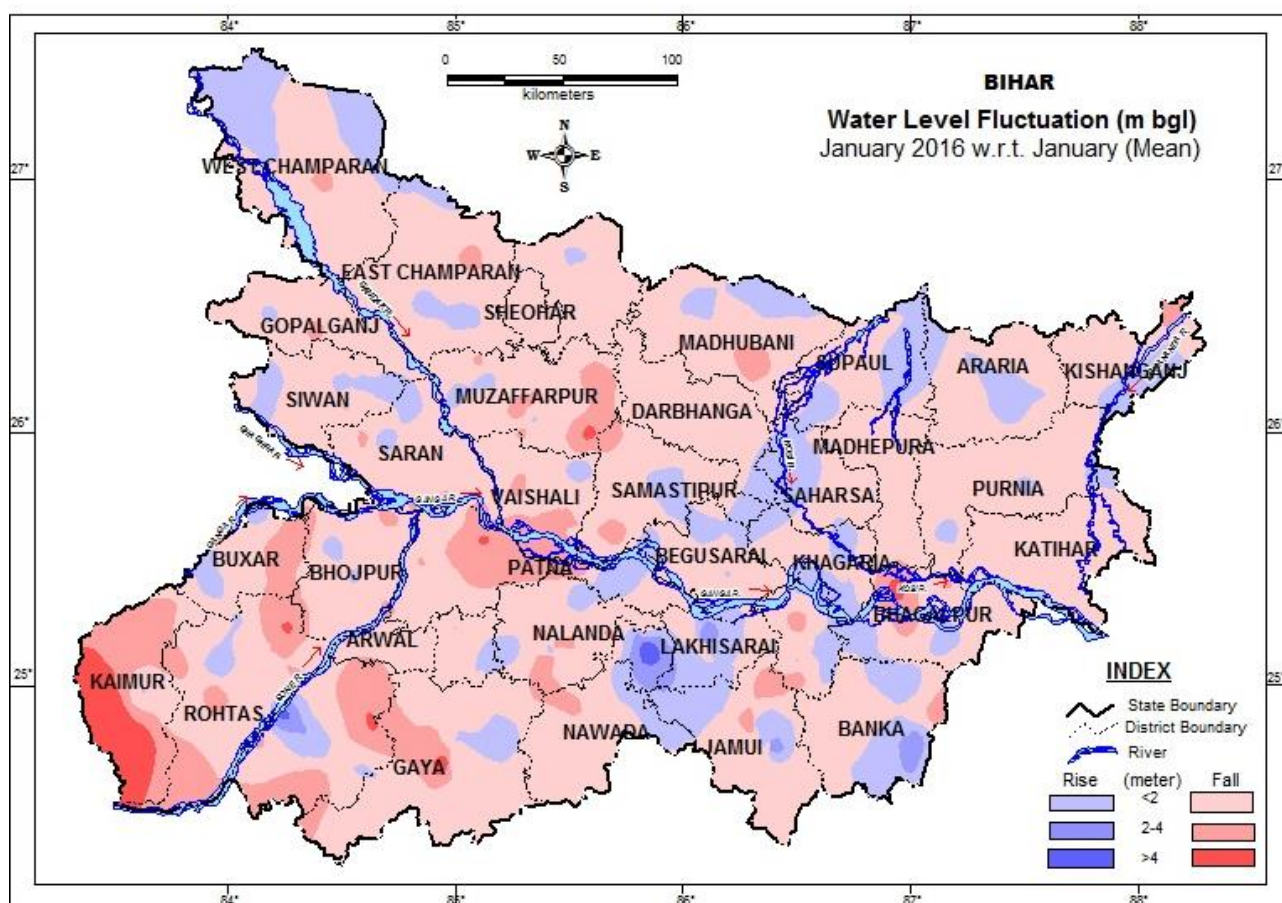


Fig. 18 Fluctuation in water level between Jan. (mean) and Jan. 2016

Table – 19 District-wise categorization of fluctuation and their frequency of water levels of HNS of Jan. 2016 w.r.t. Jan. mean (2006-2015) for Bihar State

SN	District	No. of	Range of fluctuation (m)				No. of Wells / Percentage showing fluctuation												Total	
			Rise		Fall		Rise						Fall							
			Min.	Max.	Min.	Max.	<2m	%	2-4m	%	>4m	%	<2m	%	2-4m	%	>4m	%	Rise	Fall
1	Araria	6	0.26	0.28	0.02	0.82	2	33	0	0	0	0	4	67	0	0	0	0	2	4
2	Aurangabad	13	0.37	4.78	0.38	4.96	2	15	0	0	1	8	4	31	4	31	2	15	3	10
3	Banka	12	0.23	2.66	0.23	3.19	3	25	2	17	0	0	6	50	1	8	0	0	5	7
4	Begusarai	17	0.11	1.42	0.16	1.46	4	24	0	0	0	0	13	76	0	0	0	0	4	13
5	Bhagalpur	11	0.09	0.93	0	4.74	3	27	0	0	0	0	5	45	2	18	1	9	3	8
6	Bhojpur	9	0.1	0.97	0.1	2.28	2	22	0	0	0	0	6	67	1	11	0	0	2	7
7	Buxar	6	0.47	0.93	1.42	3.47	3	50	0	0	0	0	2	33	1	17	0	0	3	3
8	Darbhangha	5	-	-	0.33	1.27	0	0	0	0	0	0	5	100	0	0	0	0	0	5
9	Gaya	11	0.01	0.53	0.08	5.22	4	36	0	0	0	0	6	55	0	0	1	9	4	7
10	Gopalganj	14	0.5	0.5	0.03	3.18	1	7	0	0	0	0	11	79	1	7	0	0	1	12
11	Jamui	16	0.44	3.39	0.54	4.25	5	31	1	6	0	0	8	50	1	6	1	6	6	10
12	Jehanabad & Arwal	10	0.08	0.08	0.23	2.62	1	10	0	0	0	0	8	80	1	10	0	0	1	9
13	Kaimur	8	0.11	0.11	2.28	5.18	1	13	0	0	0	0	0	0	4	50	3	38	1	7
14	Katihar	16	-	-	0.3	2.21	0	0	0	0	0	0	15	94	1	6	0	0	0	16
15	Khagaria	14	0.08	1.79	0.07	2.22	5	36	0	0	0	0	8	57	1	7	0	0	5	9
16	Kishanganj	4	0.15	0.44	0.86	2.17	2	50	0	0	0	0	1	25	1	25	0	0	2	2
17	Lakhisarai	4	3.71	3.71	0.17	1.07	0	0	1	25	0	0	3	75	0	0	0	0	1	3
18	Madhepura	10	-	-	0.38	1.22	0	0	0	0	0	0	10	100	0	0	0	0	0	10
19	Madhubani	21	0.02	0.77	0.03	2.96	3	14	0	0	0	0	17	81	1	5	0	0	3	18
20	Munger	10	0.01	1.09	0.33	3.85	5	50	0	0	0	0	3	30	2	20	0	0	5	5
21	Muzaffarpur	23	0.41	0.76	0.79	4.54	3	13	0	0	0	0	13	57	6	26	1	4	3	20
22	Nalanda	26	0.05	1.32	0.11	4.05	5	19	0	0	0	0	12	46	8	31	1	4	5	21
23	Nawada	9	0.49	0.49	0.19	3.04	1	11	0	0	0	0	6	67	2	22	0	0	1	8
24	W Champaran	14	0.08	0.93	0.22	3.04	6	43	0	0	0	0	7	50	1	7	0	0	6	8
25	Patna	16	1	1	0.02	4.2	1	6	0	0	0	0	10	63	4	25	1	6	1	15
26	E Champaran	20	0.28	0.9	0.29	2.84	3	15	0	0	0	0	16	80	1	5	0	0	3	17
27	Purnia	13	0.13	0.26	0.31	1.45	3	23	0	0	0	0	10	77	0	0	0	0	3	10
28	Rohtas	17	0.13	1.07	0.2	4.55	2	12	0	0	0	0	10	59	4	24	1	6	2	15
29	Saharsa	13	0.14	1.01	0.02	0.57	5	38	0	0	0	0	8	62	0	0	0	0	5	8
30	Samastipur	15	0.06	1.48	0.01	2.84	4	27	0	0	0	0	10	67	1	7	0	0	4	11
31	Saran	28	0.47	1.06	0.49	2.75	3	11	0	0	0	0	20	71	5	18	0	0	3	25
32	Seikhpura	6	1.96	5.24	0.3	1.48	1	17	0	0	1	17	4	67	0	0	0	0	2	4
33	Sheohar	2	-	-	1.35	1.78	0	0	0	0	0	0	2	100	0	0	0	0	0	2
34	Sitamarhi	8	0.19	0.19	0.15	1.29	1	13	0	0	0	0	0	0	0	0	0	0	1	7
35	Siwan	16	0.01	1.51	0.2	3.21	7	44	0	0	0	0	8	50	1	6	0	0	7	9
36	Supaul	20	0.02	0.85	0.11	1.24	12	60	0	0	0	0	8	40	0	0	0	0	12	8
37	Vaishali	13	0.1	1.29	0.82	3.76	2	15	0	0	0	0	8	62	3	23	0	0	2	11
	Total	468	0.01	5.24	0.00	5.22	104	22	4	1	2	0	287	61	58	12	12	3	110	357

4. HYDROCHEMISTRY

In order to assess the chemical quality of ground water of phreatic aquifers of Bihar 521 ground water samples have been analysed for 16 major parameters viz. EC, pH, TDS, HCO₃, CO₃, Cl, F, NO₃, PO₄, SO₄, TH, Ca, Mg, K, Na, SiO₂. The results of the completed chemical analysis of the ground water samples are given in Annexure-II. A perusal of the Annexure-II indicates that the water is by and large suitable for domestic and drinking purposes. The pH of ground water mostly lies between 7 and 8 except few districts. Some locations in Begusarai, Darbhanga, Gopalganj, Jamui, Madhepura, Nalanda, Nawada, Patna, Saharsa, Samastipur, Saran and Siwan district has pH 9 and one one location of Sheikhpura has pH 10. Majority of the ground water samples are mildly alkaline in nature. As shown in EC map of the state, Major part shows EC value within the Range of 250-750 which covers major part of E & W Champaran, Madhubani, Sitamarhi, Araria, Kishanganj, Katihar, Purnia, Banka, Gaya, Aurangabad, Kaimur, Rohtas district and many other places. A few patches in SBP shows EC value >2250 includes small parts of Gaya, Nalanda, Jamui, Lakhisarai, Jehanabad districts. (Fig.19)

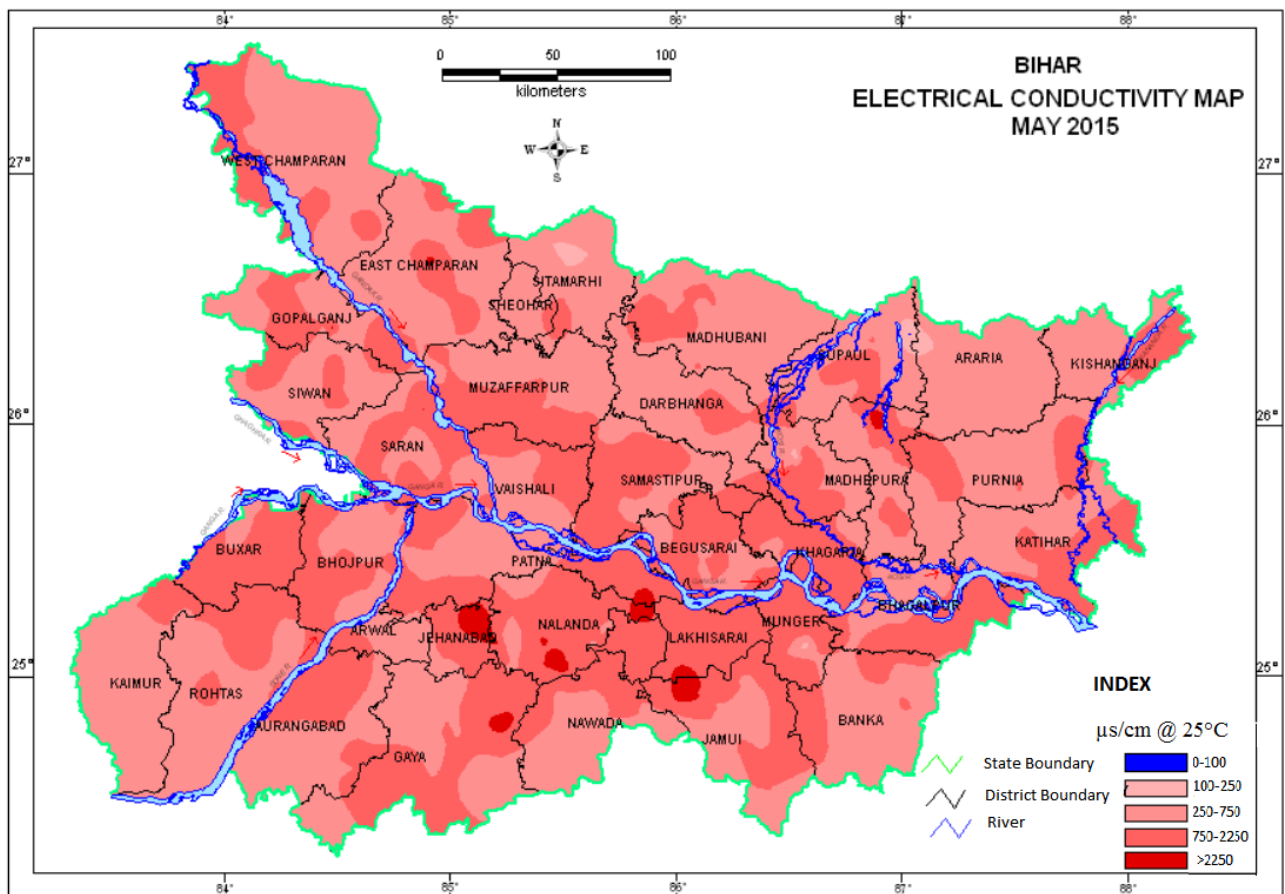
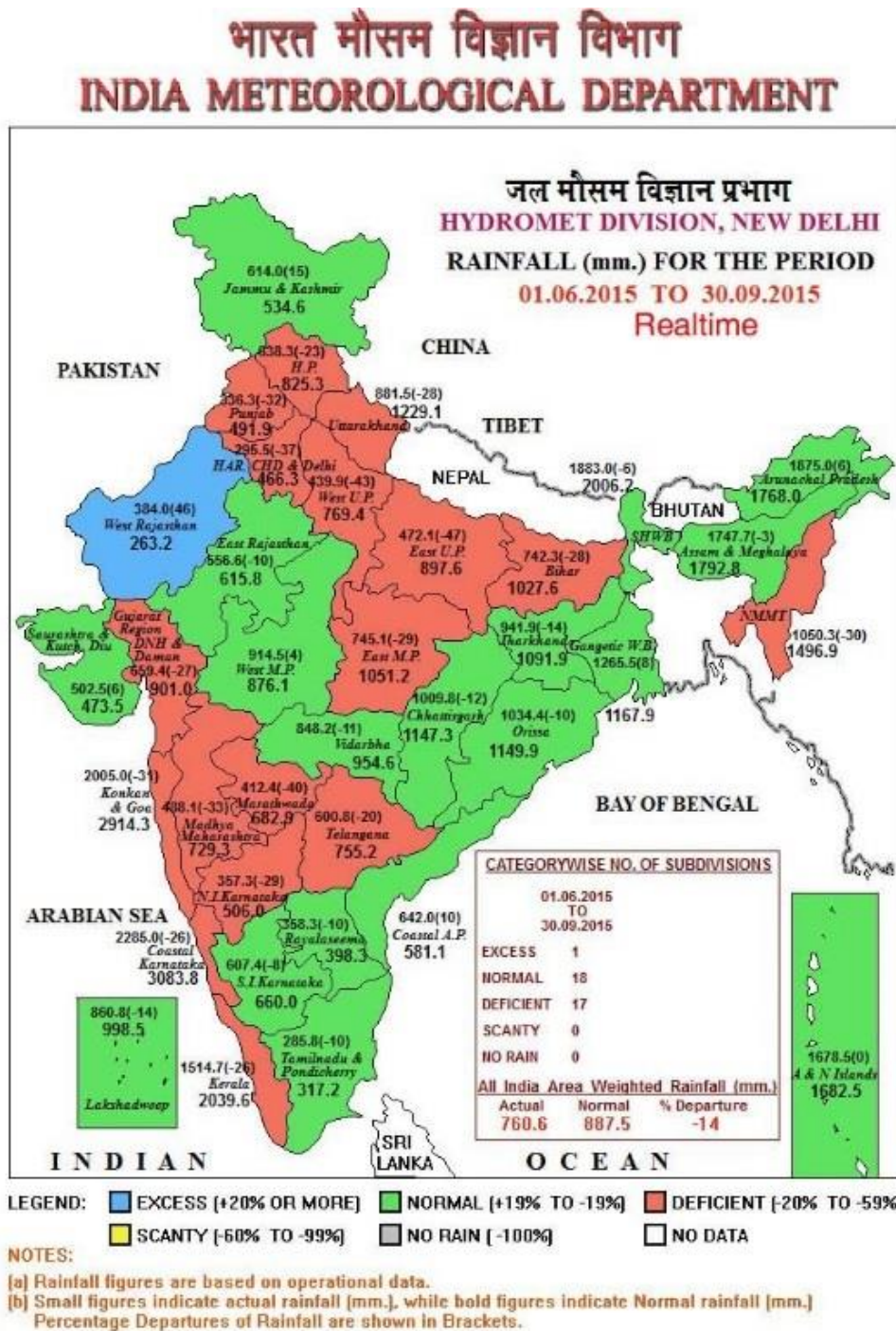


Fig. 19 Electrical Conductivity Map, 2015

5. RAINFALL

The map prepared by IMD shows that Bihar received deficit rainfall during the monsoon period. The same has been reflected in unconfined aquifers. During the year 2015 the State has received only 742.3 mm rainfall which is about 28% less than normal monsoon (**Fig.20**) (Source: IMD). Therefore 69% of HNS well have shown fall in water level in August 2015 while compared to August 2014.



Source:IMD

Fig.20 Rainfall for the period 01.06.205 to 30.09.2015

6.0 TREND ANALYSIS DURING PRE AND POST MONSOON

Trend of the ground water level for the last ten year (2006-2015) have been analyzed. District wise percentage of well showing rise, fall or no significant trend during pre- monsoon and post monsoon season has been given in the Annexure – III. Total 23 districts have shown long term water level trend more than 50% of the HNS is showing the falling trend during the pre-monsoon period whereas during post monsoon period 28 districts are also showing falling trend in more than 50% of the HNS analysed.

Depth to Water level (m bgl) in various seasons

STATE : BIHAR

YEAR: 2015-16

District	Location	Depth to Water Level (m bgl)*			
		May-15	Aug. 15	Nov. 15	Jan-16
Araria	Araria	5.10	2.80	3.68	4.00
	Bhargama	New Well		2.40	3.00
	Bathnaha I	4.70	2.74	3.36	3.63
	Bathnaha_badres	5.73	Dry	Dry	Dry
	Haripur	3.95	1.32	2.39	3.09
	Matiyari	4.60	2.45	2.98	3.30
	Jokihat I	1.36	1.23	2.30	2.52
	Pallasi	4.10	1.15	2.09	3.01
	Raniganj	New Well		3.06	3.38
Aurangabad	Aurangabad	5.00	2.59	2.50	3.03
	Barun	4.30	7.48	9.30	3.76
	Narari Kala	11.10	3.27	10.30	10.64
	Daudnagar	5.73	1.61	3.62	4.82
	Deo I	5.60	3.33	5.40	5.27
	Deohara_goh	9.44	7.50	5.32	10.80
	Deonara	4.50	Could not be	4.07	10.80
	Dhobi Tola_Goh	5.24	2.67	0.90	4.86
	Etwan	New well		2.70	2.61
	Madanpur	6.66	2.94	3.00	3.43
	Pataya	4.85	1.47	3.75	5.27
	Dhanibar	8.60	5.48	7.52	8.27
	Nabinagar dbib	3.30	0.42	1.40	3.81
	Obra	6.10	2.88	4.80	5.36
	Rafiganj	9.97	4.42	9.47	10.20
Tineri Morh	5.21	1.16	2.46	7.30	
Banka	Amarpur ps	3.08	0.99	3.14	1.87
	English More	3.71	1.86	2.75	2.22
	Rampur	3.50	1.13	2.58	2.00
	Banka ps	4.60	0.97	3.87	3.69
	Barahat	4.70	1.98	2.94	4.24
	Baunsi	5.94	2.76	3.98	2.89
	Bausi pwdib	12.16	2.60	12.16	3.22
	Chandan	6.70	2.78	3.64	5.33
	Panjwara	5.36	3.04	4.44	6.95
	Katoria	8.70	1.92	6.40	7.10
	Rajaun ps	7.24	4.28	7.62	5.19
	Fulidumer	3.61	0.86	2.12	3.50
	Kharharia	4.08	Partilly filled	Partilly filled	Partilly filled
	Mirjapur	4.38	2.00	4.08	4.21
	Sambhuganj	5.01	2.60	3.56	3.90
Begusarai	Baraun mile	6.02	4.39	6.68	6.92
	Kumharson	5.57	2.72	3.24	3.58
	Naya Nagar Dularpur	6.38	3.17	5.42	5.93
	Teghra	6.92	3.18	7.47	8.05
	Bagrash	7.22	4.06	5.97	6.28
	Bakhari_salauna	6.87	3.23	4.52	4.89
	Manjaul	6.49	3.27	4.47	5.66
	Peernagar	6.90	3.87	5.24	5.64
	Simri	5.97	4.01	3.41	3.68
	Parihara	6.90	3.43	5.32	5.56
	Begusarai	6.61	4.79	5.61	6.12

	Begusarai fc_ib	5.77	2.40	4.88	5.24
	Gopalpur	6.15	2.75	5.40	5.87
	Haridia	5.90	3.73	5.17	5.60
	Kaithma	7.84	5.06	6.81	7.28
	Lakho	6.43	3.55	5.68	6.10
	Matihani	6.78	3.04	4.22	8.02
	Mohanpur Usrai	6.17	3.49	6.36	7.12
	Pokharia	7.76	3.92	6.19	6.43
	Aghara	5.82	5.44	6.96	7.22
	Cheriabariarpur	6.11	4.63	4.80	5.21
	Kumbhidera	5.77	3.95	4.07	4.31
	Badalpura	7.55	4.33	7.14	7.65
	Bintoli	5.82	3.22	6.99	7.41
Bhagalpur	Bihpur ib	8.83	1.43	2.95	8.83
	Marwa	5.78	1.96	3.51	4.85
	Ghoga rly stn	4.28	1.00	1.74	3.23
	Harchandpur	3.12	2.04	Agitation on	3.40
	Jagnathpur	6.00	2.92	Road Jam	6.68
	Kahalgaon rlyco	8.62	8.23	9.5	9.74
	Madrauni Chowk	7.00	0.90	2.48	5.70
	Bhagalpur city	12.67	10.14	11.02	11.56
	Jagadishpur	4.50	1.18	1.98	3.41
	Naugachhia h.s	6.30	0.85	3.16	5.22
	Pirpanti db.ib	9.37	3.56	Road Jam	Road Jam
	Sabaur	3.63	1.92	2.22	Dry
	Shahkund db.ib	7.30	4.18	6.68	4.85
	Akbarnagar stn	3.94	1.64	4.04	2.66
	Asarganj	4.37	1.97	3.12	3.67
Sultanganj	9.59	3.68	5.08	7	
Bhojpur	Jarawarpur Milki	5.12	4.30	3.66	5.50
	Bakhorapur	6.07	4.12	5.57	6.13
	Balua	9.05	5.65	8.58	9.20
	Barahara	8.90	5.71	8.53	9.51
	Dhusaria	7.48	5.33	6.90	7.41
	Ekauna	6.81	6.18	8.72	7.61
	Farhda	6.74	4.23	6.21	6.78
	Jagatpur	7.16	4.53	6.18	6.68
	Milki	8.10	6.27	6.97	7.20
	Simariya	7.02	4.62	6.46	7.04
	Bihiya	4.60	4.40	4.90	5.06
	Garhani	5.50	2.98	4.60	4.22
	Jagadishpur I	Approched	4.06	4.83	5.68
	Birampur	7.33	5.12	7.36	8.00
	Giddha	6.42	7.06	7.23	7.23
	Inglishpur	7.00	5.80	6.90	7.30
	Kulharia	6.39	6.30	8.20	8.20
	Lodhipur	6.48	6.18	7.98	8.40
	Mokhlisa	7.03	6.48	7.92	7.92
	Muhammadpur	7.40	6.65	7.70	7.70
	Pachrukhiya	7.51	5.73	7.23	8.50
	Rajapur Bazar	7.50	6.50	7.25	8.37
	Sakkadi	5.36	3.44	4.48	4.93
	Songhata	7.17	7.52	8.33	8.33
	Pirro	Partilly filled	Partilly filled	Partilly filled	Partilly filled
	Baruna	4.48	3.98	4.90	Road jam
	Guljarpur	6.80	2.85	5.45	6.25
	Kori	5.49	3.02	5.22	5.10
	Nasratpur	7.57	6.77	7.80	8.77
	Pauna	5.10	2.13	3.80	4.86
Sandesh	6.64	2.96	3.26	5.20	
Karnempur	5.09	5.19	4.94	6.49	
Chandawa	4.58	2.94	3.24	4.50	
Harnath Kundi	4.33	2.92	4.37	4.90	
Kasap	New well	1.10	2.58	2.95	

	Sasaram Chota	4.76	3.89	4.89	5.13
	Udwantnagar	4.33	3.10	4	3.50
Buxar	Bagen Bazar	6.22	4.74	7.60	8.79
	Barhampur	4.95	5.50	6.92	9.00
	Hathilpur	6.05	5.57	7.00	7.83
	Jugia Dera	7.10	5.23	7.7	8.08
	Khochariwan	7.02	5.60	7.40	7.40
	Mharajgunj	4.95	6.25	8.20	9.90
	Raghunathpur	6.88	6.12	7.70	7.70
	Buxar(SSA)	5.70	3.02	5.10	5.40
	Chausa	3.90	1.40	1.70	1.75
	Churamanpur DW	7.55	3.55	6.40	7.96
	Danikutia	8.52	5.37	5.55	6.40
	Dudharchak	New well	7.73	7.53	8.00
	Kritpur	11.07	4.60	6.46	8.78
	Mishrvalia	7.82	2.55	3.35	4.85
	Ramobariya	9.05	7.87	7.42	7.05
	Thodagaon	6.78	Partilly filled	Partilly filled	Partilly filled
	Dumraon	10.33	8.85	10.00	9.82
	Rajpur	3.52	1.42	2.52	2.72
	Barka Rajpur	9.23	7.16	7.18	7.65
	Dumri	5.42	4.29	4.57	4.80
Durasan	7.21	6.05	5.55	7.22	
Karathar	7.35	6.57	6.91	7.23	
Manikpur	10.50	7.60	8.80	9.65	
Neazipur	7.20	6.41	7.61	7.24	
Sohiar	7.75	7.04	7.07	7.32	
Darbhanga	Darbhangha	3.98	1.50	1.69	2.70
	Bithauli	6.00	8.54	3.51	4.69
	Jorja	5.51	6.04	4.58	4.22
	Bahera	4.75	5.17	3.81	4.32
	Baheri1	4.18	3.65	2.91	4.44
	Barhi Tola	7.26	Locked	5.20	6.63
	Hayaghat	3.19	Dry	Dry	Dry
	Pouram	5.76	6.02	4.91	5.30
	Keoti	3.47	3.89	3.44	4.3
	Sakari1	3.90	2.82	4.00	3.95
	Simri (bithauli)	4.30	4.15	2.73	3.82
Gaya	Akauna	6.70	4.57	7.40	4.75
	Bhadeya	7.65	4.32	5.43	6.16
	Dobhi	6.4	4.60	5.29	4.98
	Paligaon	5.60	4.62	8.00	5.10
	Bodh Gaya	5.73	4.15	4.66	4.93
	Khandail	Dry	Dry	Dry	Dry
	Fatehpur	6.43	3.18	4.92	5.83
	Bitho Sharif	5.1	3.78	4.32	9.00
	Chakand	4.7	Dry	Dry	Dry
	Ram Kund	5.21	5.06	5.44	5.46
	Sangat Gali	10.15	11.50	6.70	7.36
	Manpur	7.66	5.53	6.55	Dry
	Sherghati	3.5	2.92	3.79	3.45
	Tekari	5.18	3.12	3.62	5.10
	Wazirganj	3.20	1.70	2.61	2.46
Gopalganj	Barauli	3.07	2.05	2.69	3.32
	Bhojpurwa	4.26	3.11	3.42	3.18
	Bhore	4.44	4.01	3.71	4.75
	Rampur2	2.67	2.18	2.44	1.96
	Turkaha	2.57	0.39	1.05	1.88
	Hathua1	3.67	1.78	2.10	3.70
	Jamunaha	4.38	3.16	3.29	4.51
	Katiya	4.83	2.15	2.35	3.89
	Lala Pachmawa	New well	2.34	3.35	4.19

	Misirbatha1	4.79	4.35	4.20	4.91
	Jalalpur2	3.75	2.81	2.86	3.52
	Kuchaikot	2.74	1.21	1.70	2.31
	Bangra	3.08	1.08	2.08	2.31
	Bangra Deoria	3.84	2.62	2.81	2.63
	Bishambarpur	New well	2.35	3.42	4.60
	Chanwabe	2.31	1.87	1.98	6.32
	Lachchwar	3.63	3.05	3.31	3.31
	Manjhwal	4.12	3.91	4.23	4.53
	Nunachapra	2.81	1.25	1.19	3.16
	Phulwariya	New well	2.44	2.59	2.93
Jamui	Chakai	9.60	4.18	6.35	6.02
	Chakai B	13.40	4.02	6.12	6.80
	Tarakhakhar	11.98	6.78	10.46	11.20
	Aghara	6.93	3.05	4.14	4.33
	Jamui	10.60	6.15	8.73	8.19
	Manjhwe	3.85	1.02	4.66	3.47
	Ambedkar Nagar	10.40	1.18	3.48	5.41
	Chandramanita	6.60	2.64	4.82	5.00
	Chandwari	14.50	9.10	4.82	3.99
	Harna	8.65	7.49	8.70	5.19
	Jhajha	11.25	9.10	10.12	11.25
	Gidhaur O	13.50	5.95	13.50	13.50
	Purna Khaira	3.80	1.80	2.95	2.87
	Gidhaur	9.78	Water logged by Severage water	9.78	7.05
	Lalmatia	9.58	6.98	7.52	Dry
	Laxmipur	6.15	0.45	4.50	6.10
	Sandipi	6.85	1.62	5.00	5.7
Sikandra	5.41	2.04	2.54	2.40	
Batia1	15.80	11.8	12.71	12.30	
Sono	7.70	3.59	5.79	5.98	
Jehanabad	Arwall	7.21	2.94	4.62	5.91
	Dirpal Bigha	4.10	3.23	3.52	6.13
	Madhubani	4.60	2.48	3.32	5.10
	Ghoshi	4.29	Partially filled	Partially filled	Partially filled
	Kako	5.94	3.50	4.74	5.57
	Lakhwar	New well		3.28	3.55
	Gaurakhini	8.47	6.87	8.21	8.43
	Jahanabad hosp.	4.05	2.70	3.67	3.64
	Teni Bigha	3.46	2.05	3.83	3.91
	Imamganj	5.55	2.88	3.30	4.25
	Kinjer	7.35	3.22	6.33	6.78
	Jhunathi	6.26	2.73	5.26	5.49
	Kurtha bdo	3.46	2.10	2.76	3.15
Makhdumpur	5.25	3.29	4.12	Gate Closed	
Kaimur	Bhabhua	12.20	6.80	10.46	12.30
	Saraiya	New well	7.90	9.50	10.00
	Tori f.ck.post	7.50	5.60	7.14	5.58
	Chainpur	7.45	5.36	9.26	9.70
	Chand in p.s.	8.10	2.35	3.03	9.70
	Karmanasa	Partially	Partially filled	Partially filled	Partially filled
	Nuawan	9.00	3.80	5.91	8.00
	Mohania	9.40	4.58	5.50	9.90
	Bandipur	4.99	3.62	Dry	Dry
	Bevnaliya	7.30	4.02	5.37	6.75
Katihar	Barari-1	6.33	2.87	4.40	5.26
	Dumaria	7.36	3.59	4.65	5.52
	Kursela	6.56	2.88	5.24	6.70
	Paranpur	4.97	1.20	1.85	3.59
	Dumer	Partially	Partially filled	Partially filled	Partially filled
Mahendrapur	4.90	3.50	3.87	4.30	

	Narahaiya	5.50	3.58	3.69	5.77
	Kadwa	5.30	2.64	2.95	4.22
	Sonauli	4.80	3.04	3.53	4.01
	Haflal	5.00	2.84	3.26	3.48
	Katihar	6.30	3.19	3.83	4.08
	Khiria	5.66	3.78	3.79	4.27
	Korha	5.73	4.02	4.09	4.66
	Routru	4.94	3.64	3.61	3.93
	Manihari	8.37	5.99	6.43	7.07
	Basantpur	4.70	3.43	3.84	4.21
	Bastaul	4.37	2.80	3.48	3.97
Khagaria	Pirnasara	4.81	1.82	3.44	3.72
	Basantpur	6.46	3.12	3.77	5.38
	Chautham	5.05	2.52	3.74	4.30
	Maheshkhunt 1	4.98	1.12	3.82	4.66
	Gandhinagar	4.68	1.91	3.21	3.65
	Jamalpur	5.63	2.35	1.69	3.08
	Maheshkhunt	6.88	1.34	4.54	4.66
	Maheshkhunt _Lohiya Chowk	6.44	1.12	5.20	5.42
	Maheshkunt	6.48	2.12	4.54	5.12
	Gangaut	6.64	2.85	6.40	6.88
	Ismailpur	5.63	2.43	6.27	6.95
	Kasimpur	7.60	2.74	4.90	5.60
	Khagaria	7.37	2.31	6.40	6.94
	Labhgaon	8.29	3.17	6.40	6.82
	Dewri	3.40	2.08	1.57	1.76
Mohaddipur	4.46	2.36	4.88	5.02	
Kishanganj	Bahadurganj	4.30	Partially filled	Partially filled	Partially filled
	Bahadurganj B	4.00	1.75	2.88	4.00
	Gunsagar	4.10	1.90	3.00	3.21
	Kishanganj	3.04	0.89	1.83	2.89
	Bhagalbari	6.08	Partially filled	Partially filled	Partially filled
	Kochadhamin	New Well		2.95	2.30
	Kaswa Kaliganj	2.68	0.44	0.95	2.09
	Teragachhi	New well		3.04	3.98
	Thakurganj	10.13	7.20	7.65	9.47
Lakhisarai	Dariyapur	8.40	3.22	7.96	7.82
	Barhaiya	8.91	4.22	8.41	8.51
	Kiul_1	8.00	2.3	3.78	1.47
	Lakhisarai	8.40	8.10	8.40	3.10
	Surajgarha 1	7.40	Not approached	4.48	5.85
	Arma	9.45	1.76	2.74	7.45
	Kajra2	Partially	Partially filled	Partially filled	Partially filled
	Rishi Paharpur	7.88	5.12	7.02	7.58
	Saidpur	9.48	6.12	7.41	8.20
Madhepura	Abhiyatola	6.26	1.13	4.65	4.84
	Chausal	5.91	3.45	New well	4.18
	Ganeshpur	4.26	3.37	3.27	3.48
	Bhimpura	3.82	2.02	3.06	3.41
	Hatkora bazar	3.85	1.69	2.92	3.38
	Madhepura	4.95	3.43	4.93	4.82
	Surajganj	2.97	1.02	can not located	2.51
	Gaushala Chowk	3.93	1.72	3.57	3.68
	Murliganj	2.43	1.92	New well	2.80
	Rampur	4.37	1.82	3.63	3.90
	Barahari	3.44	1.73	2.68	3.34
	Jiwachhapur	3.92	2.74	2.82	3.98
	Singeswar	4.88	2.25	3.50	4.90
	Gwalpara	3.95	1.72	3.07	4.05
	Kusthan	4.33	2.03	3.34	3.74
Uda Kishanganj	5.69	3.17	4.01	4.28	

Madhubani	Harri	New well		2.26	3.98
	Babubarhi	2.33	2.32	2.32	1.82
	Narar	3.85	1.04	1.98	2.58
	Benipatti	4.80	-	4.80	1.77
	Dhakjari	3.30	3.40	2.28	2.82
	Kapasia	2.36	2.60	2.01	2.40
	Baurahar Chowk	4.65	4.85	3.54	3.68
	Harlakhi	3.85	3.77	2.94	3.23
	Khutauna1	Partially	Partially filled	Partially filled	Partially filled
	Jaynagar	2.94	1.88	2.26	2.54
	Bideshwar Asthan	5.36	4.73	3.99	5.22
	Jhanjharpur	1.00	0.22	0.68	4.35
	Bentadih	2.95	2.60	1.87	2.82
	Khajauli	3.11	2.61	2.21	3.02
	Thantola	3.32	2.50	2.67	3.15
	Jogiya	2.70	3.68	2.95	3.53
	Ambedkar Nagar	2.61	1.00	1.85	2.59
	Bihari	3.82	3.96	3.44	3.98
	Madhubani	1.46	0.95	1.59	2.18
	Bhawanipur	5.12	2.38	5.36	6.13
	Pandaul	4.72	3.48	4.12	5.09
	Phulparas1	2.15	1.33	1.79	2.16
	Shambhuar	4.30	3.91	1.58	5.44
	Kapileshwar	3.51	2.55	3.14	4.93
	Siswar	3.50	3.38	3.14	3.57
	Karmnali	3.68	-	1.48	3.95
	Pariharpur	4.42	4.39	2.48	4.07
	Munger	Bariarpur	Dry	1.80	5.60
Singhiya chawk		9.05	2.73	4.46	4.83
Jamalpur1		6.52	3.35	4.91	5.41
Gangta Morh		7.35	4.95	6.35	7.60
Gobadda		4.78	1.98	3.20	3.22
Havelikharapur		9.00	4.27	9.00	5.65
Tarapur		5.00	2.72	3.45	3.62
Purabsarai		8.38	1.70	5.26	5.43
Rampur2		Dry	1.76	2.77	3.45
Purabsarai		4.90	1.7	2.77	3.45
Sangrampur		3.92	1.78	3.00	2.87
Muzaffarpur		Aurai	2.42	0.02	2.27
	Rajkhand	5.00	4.36	3.77	4.48
	Bhagwanpur Chowk	3.07	1.03	3.22	5.60
	Jaffarpur	4.75	4.05	3.07	2.34
	Mahammadpur Balmi	New well	3.80	4.56	4.97
	Bochaha	5.60	6.06	6.68	6.59
	Barkurwa	5.58	4.26	1.68	7.00
	Surfuddinpur	6.14	4.30	5.20	5.38
	Muzaffarpur	4.58	4.10	4.93	5.61
	Katral	5.31	4.82	5.39	5.95
	Ramnagar	4.49	3.48	5.43	5.74
	Sakri chatti	3.22	2.45	2.52	3.03
	Turki	4.52	3.34	3.65	4.52
	Wazitpur	5.56	2.35	3.87	5.98
	Gargaliya	5.16	5.42	5.14	6.40
	Digra	4.44	3.39	4.68	5.34
	Japaha	5.82	5.22	5.91	6.38
	Dewaria	4.55	4.17	5.00	2.87
	Paro	5.55	2.78	4.53	4.34
	Daha Chhapra	3.33	3.16	3.76	3.86
	Rajwara	5.60	2.37	4.70	4.71
	Sahebganj	4.97	2.18	5.00	4.67
	Dholi	6.77	4.95	6.61	7.14
Mahantmanihari	4.67	4.78	7.15	5.20	
Mushari	4.84	3.81	4.54	6.70	
Seho	New well	3.54	5.60	6.40	

Nalanda	Asthwan	3.24	1.61	2.30	3.39
	Jangipur	6.30	2.10	4.13	7.15
	Sare	7.43	3.32	6.35	8.85
	Shahpur Morh	3.48	1.58	2.18	2.60
	B Sharif Rly Stn	2.30	2.66	2.30	3.17
	Biharsharif	2.93	1.50	2.58	2.89
	Muraura	3.25	2.44	4.35	3.80
	Ranabigha	7.90	4.54	5.70	7.46
	Sohdh	3.46	2.98	3.54	3.38
	Ekangarsarai	6.05	5.69	4.01	Covered
	Parwalpur	4.87	3.94	4.45	4.60
	Giriak	6.04	3.40	3.91	Dry
	Pawapuri	3.65	2.90	3.56	3.46
	Harnaut1	1.27	1.04	1.30	1.28
	Hilsa	7.07	1.83	7.03	8.42
	Nischalganj	5.51	2.91	3.96	4.60
	Ankuri Bazar	7.50	4.05	7.81	7.70
	Islampur	5.56	1.84	2.06	2.47
	Sherpur	2.64	0.96	1.98	2.20
	Daudpur	8.50	4.16	8.50	Not approached
	Doiya	5.50	4.09	5.46	5.60
	Heganpura	8.05	5.77	8.32	8.34
	Paparnhosa	5.67	4.52	4.75	5.00
	Vena	8.03	4.80	8.05	9.56
	Bhui	8.57	3.08	4.70	8.45
Kundalpur	8.82	5.70	7.38	9.12	
Nalanda	6.70	6.02	6.63	6.83	
Nirpur	3.10	2.99	6.74	2.56	
Pilkhi	7.60	5.40	5.26	7.60	
Rajgir	6.00	6.20	7.00	6.02	
Silao	6.22	2.81	2.90	4.62	
Sithaura	4.49	1.61	2.89	3.38	
Nawada	Tungi	10.00	3.53	4.72	5.55
	Hisua	7.50	2.13	4.07	5.63
	Roh	7.20	2.16	3.77	Dry
	Kawakol ashram	7.90	3.61	4.86	4.31
	Rupau	5.91	2.00	2.18	4.90
	Garhpar	5.36	3.84	4.16	5.06
	Gonama	8.00	3.10	5.54	8.00
	Nawada2	7.20	7.97	8.19	8.85
	Pakribrawan Pond	5.00	0.83	2.81	4.20
	Shahpur Morh	2.48	1.58	2.18	2.60
	Warshaliganj	1.93	1.59	1.98	2.10
W Champaran	Bagaha	2.99	1.46	3.26	4.00
	Belwa	3.03	1.13	2.22	2.67
	Mangalpur	2.97	1.62	3.59	2.72
	Bettiah	2.54	0.50	1.76	1.98
	Chanpatia	5.50	2.55	4.42	4.69
	Gurwalia	3.75	1.61	2.79	3.09
	Banspur pipra	6.09	1.67	3.28	3.02
	Lauria	Dry	1.74	3.31	6.72
	Panchpurwa	4.74	1.78	4.33	4.74
	Shishwania	New well	1.87	4.10	5.76
	Majhwalia	4.33	1.60	3.16	3.54
	Korigawa Chowk	2.49	1.00	1.55	3.07
	Ramnagar	Dry	5.05	Dry	Dry
	Harnatanr	4.30	1.72	3.32	3.87
	Naurangia	4.03	2.16	3.77	3.58
Valmikinagar	2.19	1.84	3.30	1.98	
Patna	Bakhtiarpur	11.47	4.70	7.02	11.47
	Agwanpur	5.90	3.76	2.75	4.10
	Barh1	11.83	1.62	3.36	4.60

	Rajpura	9.47	Not approched	8.14	5.83
	Shahri	4.32	1.22	1.77	2.93
	Raghopur	5.30	5.03	5.69	5.38
	Ardhra Chowki	6.02	1.24	0.44	3.87
	Bharatpura	3.15	1.53	1.52	2.47
	Dulhin Bazar	3.99	0.99	3.90	4.82
	Mariyawa	3.52	2.90	2.30	4.25
	Noniatola	3.57	2.42	2.02	3.67
	Khaspur	8.12	4.11	2.51	7.22
	Daniyawan	6.32	2.76	4.70	6.45
	Fatuha	5.90	0.97	4.23	6.24
	Mokama	7.10	3.34	4.36	5.36
	Lalbegam	6.92	4.33	5.37	6.21
	Maner	4.42	3.05	2.53	3.24
	Maranchi	9.20	3.75	8.18	9.20
	Snehitola	3.54	2.96	4.24	-
	Bali Pakar	3.08	1.45	2.52	2.98
	Patna-City	2.05	0.97	1.04	1.45
	Etwarpur	3.67	1.90	2.43	7.97
	Hulas Chak	2.63	4.70	2.30	6.10
	Deokali	8.02	3.09	7.58	8.01
E Champaran	Shyampur	5.36	3.83	4.28	5.23
	Areraj	4.66	2.50	1.27	4.66
	Chakia1	4.28	2.96	5.72	4.18
	Uttari Gavandra	4.11	2.85	3.45	3.14
	Belai	Partially	0.59	Dry	2.23
	Chatia	3.70	2.32	2.34	Not approached
	Chiraiya	4.60	0.80	3.05	4.60
	Mohabbatpur	3.62	1.22	2.22	3.29
	Bhakatiy Tola	New well	2.36	4.05	3.62
	Ghorashan	3.54	1.56	3.44	3.54
	Sheoraha	4.20	1.00	0.97	2.71
	Dharampur	4.82	3.46	4.32	3.72
	Dipau	3.16	1.88	2.42	2.51
	Rajpur	4.41	2.29	3.85	3.67
	Dubey Tola	3.59	1.67	3.19	2.51
	Khajuriachowk	5.62	0.93	3.30	4.02
	Kizerpura	4.92	3.16	4.30	4.64
	Lala Chapra	3.75	2.02	2.49	2.60
	Lakhwara	2.40	Not approachable	0.60	2.07
	Motihari	4.55	2.56	3.82	4.15
	Chhauradanu	3.69	1.50	3.13	2.22
	Bishunpur Matiyarwan	3.69	0.76	2.59	3.02
	Gobindganj	3.05	0.62	2.38	2.69
	Patahi	4.16	3.47	5.13	4.39
	Belhi	2.68	Partially filled	Partially filled	Partially filled
	Raghunathpur	2.20	0.66	2.17	2.48
	Raxaul	3.78	1.09	2.92	3.72
Chhapwa	3.45	0.66	2.67	Dry	
Sagauli	4.50	1.76	Dry	Dry	
Bairiya Bazar	5.30	0.50	-0.60	4.36	
Nawadal	4.90	0.59	3.20	4.17	
Purnia	Amour	New Well		4.50	5.14
	Bansbari	4.02	1.12	2.30	4.38
	Baisi2	4.30	1.60	3.58	3.99
	Chadia	5.39	1.97	4.39	4.77
	Budhia Gola	5.20	1.37	2.73	3.48
	Mangujan	4.67	3.98	4.34	4.49
	Dargaha	5.82	4.86	5.82	3.18
	Amri Kukran E	Partially	Partially filled	Partially filled	Partially filled
	Amri Kukran W	6.30	4.27	4.23	4.58
	Banmankhi	4.90	2.61	2.70	3.37
	Dhamdaha	5.55	3.65	4.72	5.20
	Kajha	4.30	3.65	2.27	3.13

	Jalalgarh	New Well		3.83	4.31
	Kasba	New Well		5.10	5.48
	Barsoni	5.17	3.25	3.65	4.38
	Purnia	3.93	2.61	2.41	3.46
	Ranipatra	5.57	3.65	3.80	4.20
	Tikapatti Chowk	4.30	2.22	4.11	3.55
Rohtas	Bikramganj pp	9.90	3.24	4.70	9.90
	Chenari hospita	10.90	9.20	7.38	8.73
	Maliabagh	8.10	3.21	5.20	8.40
	Anikut	11.53	11.08	10.37	10.59
	Karbindia(templ	7.50	7.67	6.88	8.03
	Kochas	4.00	1.90	2.60	5.14
	Nokha in temple	3.42	2.12	4.00	Dry
	Bahaura	4.88	3.48	2.23	3.10
	Ambwalia	4.75	1.14	2.22	3.67
	Belthari	5.32	1.62	2.12	4.75
	Sirisiyan	5.50	1.8	3.00	4.88
	Jahanabad (kudra)	Non-approachability		10.35	9.25
	Rajandih	6.63	5.55	2.65	4.75
	Nasriganj	8.85	6.10	7.75	9.97
	Auraiya	8.10	6.49	Dry	Dry
	Akbarpur in bdo	11.62	11.00	10.10	10.70
	Sasaram p.o.	3.23	2.85	4.33	5.12
	Tilothu bustand	8.85	7.88	8.44	8.67
Amawan	4.00	0.70	1.11	4.75	
Saharsa	Bangaon	3.34	0.97	1.67	1.85
	Basudeva	2.31	0.87	1.44	1.59
	Chainpur	2.78	0.81	1.73	1.95
	Kharakuti	3.95	1.97	2.98	Dry
	Niralatola	3.56	1.72	2.30	3.35
	Panchgachhi	3.39	1.67	1.47	2.79
	Patodibazar	2.23	1.16	1.97	2.34
	Potwaha	4.02	1.48	1.98	2.22
	Saharsa1	3.69	2.40	2.95	3.25
	Tulsiyahi	2.29	1.06	1.15	1.40
	Sonbarsaraj1	2.55	1.2	3.44	3.67
	Jamunia	3.81	1.42	1.67	1.89
	Semribaktiarpur	3.29	1.52	2.82	3.32
	Simri Bakhtiyarpur	2.85	1.19	2.50	2.75
	Adrahch	3.81	1.81	2.78	3.32
	Baidnathpur	3.05	2.10	2.63	2.95
	Chandaur Purbi	3.77	1.26	2.79	3.22
Samastipur	Kalyanpur	6.45	5.81	4.89	5.58
	Patapara	5.40	2.17	1.40	2.73
	Singhia Ghat	7.72	7.35	3.54	6.98
	Dalsinghsarai	6.57	5.77	6.82	6.97
	Malipur	5.95	5.84	3.66	2.92
	Basudebpur	New well	5.27	3.21	4.43
	Jakhra	6.43	5.90	4.48	5.78
	Kishanpur2	3.72	3.50	4.31	6.62
	Madudabad	6.68	5.76	5.22	8.06
	Bajidpur	7.04	6.24	6.27	7.17
	Shahpurpatori	7.10	4.70	6.57	7.46
	Kerian	7.79	5.37	3.17	5.28
	Rosera	7.37	7.13	5.93	6.87
	Sarai Ranjan	6.40	8.33	6.61	7.49
	Motipur	New well		10.16	7.47
	Tajpur1	7.98	7.80	6.21	7.17
	Vikrampur	New well	5.11	5.47	6.63
	Dandia Asadpur	7.05	7.42	3.86	4.43
Ujiarpur	8.00	7.03	5.67	6.48	
Jathmalpur	5.57	7.55	2.84	5.66	

Saran	Jalalpur	4.57	5.33	2.69	2.91
	Manopali	4.26	4.08	4.49	4.63
	Chhapra	5.58	5.12	5.21	5.66
	Chirand	7.41	6.05	6.16	7.68
	Daldali Bazar A	5.60	5.10	5.12	5.38
	Daldali Bazar B	5.29	4.94	4.99	5.09
	Kapiya Niyamat	3.75	3.05	3.31	Dry
	Karbinidia	non-approachability		4.02	Not approached
	Mahuapakri	4.80	4.21	4.28	4.17
	Mauna Pakri	4.81	4.11	4.31	4.53
	Nagra	5.49	4.92	5.69	5.70
	Taraiya	3.70	1.70	2.44	3.11
	Ammi	8.36	7.42	7.51	8.56
	Bishunpur	4.66	4.11	4.89	4.66
	Ekma	4.18	3.82	3.35	4.11
	Garkha	6.99	5.68	6.24	6.83
	Minapur	5.74	4.25	4.38	3.98
	Bisunpur	4.66	4.11	4.21	4.66
	Rampur Kala	3.26	3.01	3.06	3.75
	Majhanpura	8.66	5.61	7.65	8.13
	Majhanpura New	8.23	4.58	6.40	7.64
	Manjhi	7.34	6.63	8.79	7.54
	Manjhi 2	7.34	6.64	6.32	7.19
	Marhaura	2.46	4.06	4.48	4.82
	Masrakh	3.19	1.30	2.52	3.11
	Masrakh I	4.41	2.86	2.96	3.28
	Saguni	3.94	3.97	3.67	4.04
	Saidpur	3.60	5.03	5.14	5.35
	Baleshara	4.42	4.13	4.28	4.51
	Chausia	8.83	7.81	8.02	8.64
Nayagaon	6.81	5.37	5.21	7.46	
Sonepur I	1.64	0.46	0.58	1.27	
Sheikhpura	Ambari	4.38	2.08	4.48	5.17
	Barbigha	6.18	4.84	5.98	6.13
	Keoti I	4.72	0.80	1.88	0.77
	Koeri Bigha	3.88	2.00	2.88	3.83
	Sherpar	8.58	2.03	2.62	8.00
	Nemdarganj	3.65	1.11	2.42	3.15
	Seikhpura	5.34	0.98	3.16	2.37
Sheohar	Belsand	2.57	3.48	4.01	2.85
	Sarbarpur	3.44	3.86	2.00	3.29
	Purnhaiya Bazar	3.70	3.55	3.50	2.58
	Sheohar	1.06	3.00	0.75	3.10
Sitamarhi	Dheng	2.55	4.00	3.50	2.41
	Bangaon	New well		3.08	3.80
	Jagwanabazar	3.20	3.42	2.66	2.78
	Bhpbhana Khaptola	4.32	4.61	4.13	4.72
	Kodwara Tola	2.74	2.73	2.64	3.10
	Panaura	3.05	3.05	2.75	3.10
	Sitamarhi	5.21	5.40	5.33	6.05
	Sursand	3.18	3.00	2.71	3.02
	Nanpur	New well		1.23	2.30
	Khairwa	3.01	3.00	1.83	3.14
	Pupri	3.34	2.99	2.40	3.13
	Karahniya Chowk	3.56	2.49	2.43	3.00
	Kushmari	3.04	3.30	2.72	3.20
	Thumba	2.04	1.10	1.47	2.40
	Bhutahi	New well		1.45	2.05
Dastiya	New well		2.45	2.89	
Siwan	Andar	4.81	4.81	5.08	5.90
	Basantpur	2.88	1.99	2.20	2.01
	Chimanpur	4.33	3.23	3.51	3.63

	Hardia	4.02	3.86	3.77	4.20
	Malmalia Chowk	3.74	2.19	2.29	2.70
	Sarripatti	3.45	3.11	3.43	3.46
	Darauli	6.91	5.26	5.41	5.41
	Agaya	3.06	2.96	3.12	3.11
	Tarwara	3.26	2.70	3.08	2.71
	Chitakhal	4.31	3.11	4.05	4.61
	Deoria	4.02	3.21	3.62	3.42
	Maharajganj	3.38	4.11	2.18	2.60
	Patrehi	4.15	3.93	4.13	4.61
	Mairwal	4.62	4.11	2.99	2.90
	Sadikpur	3.98	3.12	3.36	3.32
	Murarpatti	4.71	4.21	4.39	4.81
	Bhagar	5.20	3.26	3.31	5.61
	Gangapur Siswanl	4.90	1.85	3.2	4.81
	Siwanl	4.37	3.98	4.13	4.31
Supaul	Balua	4.09	1.36	Dry	2.52
	Bhawanipur l	2.81	1.01	2.17	1.60
	Bhimnagar	3.06	1.30	1.62	1.68
	Birpur	3.58	1.63	Dry	2.20
	Ratanpura l	1.96	0.97	2.41	2.58
	Balua l	3.86	1.41	2.66	2.38
	Balua Bazar	3.82	1.06	2.17	2.28
	Bhasanpatti	2.22	0.07	can not located	1.40
	Andauli	1.61	1.77	1.47	2.80
	Hardi	3.52	2.36	2.91	3.22
	Kario	3.28	1.18	1.95	2.42
	Malhani	2.74	1.61	2.63	2.22
	Supaul	2.58	1.49	2.29	1.75
	Thumba	3.42	2.01	3.02	3.30
	Pipra chowk	5.30	4.02	4.59	4.98
	Shyam Nagar	4.12	2.23	3.34	3.59
	Ganpatganj l	4.22	1.49	2.39	2.61
	Kaithtola	2.63	2.32	3.30	3.55
	Karjain	3.28	1.55	2.90	4.15
	Norha	2.93	1.32	2.73	2.58
	Parsarma	2.75	1.45	2.44	2.60
	Pratapganj	2.46	1.37	2.06	2.32
Jadia	2.87	1.22	2.56	2.83	
Tribeniganj	4.45	1.35	3.10	3.69	
Vaishali	Chak Sikandar	5.90	5.50	5.61	5.93
	Kachanpur	New well	2.10	6.12	8.10
	Mathura 2	Well	1.98	5.96	7.14
	Baksama	5.36	5.01	3.54	4.66
	Bhaluhia (Garaul)	5.42	4.99	5.12	5.10
	Chandpur Kala	5.06	4.63	4.19	4.68
	Garaul	4.82	4.12	2.89	3.72
	Harpur	5.61	4.29	4.59	5.21
	Hajipur	7.54	5.17	6.97	7.86
	Sahjadpur	New well	2.76	6.23	7.18
	Chakiyai	5.14	5.14	5.19	6.44
	Kumharkal	6.45	5.19	5.84	6.85
	Mahnar	6.18	5.52	6.37	7.66
	Mahua l	4.92	4.11	4.59	5.37
	Sarai l	6.06	5.21	6.96	6.95
	Tariya Supaul	4.92	3.99	4.31	4.11
	Patepur	4.63	3.99	4.22	3.91
	Gajipur	6.31	5.29	6.18	6.30

*m bgl = meter below ground level

Major Chemical parameters of ground water samples of HNS collected during Pre-Monsoon 2015 in Bihar State																			
SN	District	Block	Location	pH	EC µs/cm@ 25°C	TDS	TH	Ca ²⁺	Mg ²⁺	Na ⁺	K ⁺	CO ₃ ²⁻	HCO ₃ ⁻	Cl ⁻	NO ₃ ⁻	SO ₄ ²⁻	F ⁻	PO ₄ ³⁻	SiO ₄
						mg/l													
1	Araria	Araria	Araria	8	438		110	32	7	33	31	nd	183	21	27	20	0	nd	28
2	Araria	Forbesganj	Farbisganj	8	403		110	32	7	21	48	nd	183	14	37	18	0	nd	26
3	Araria	Forbesganj	Forbisganj	8	838		260	72	19	68	33	nd	329	35	50	85	0	nd	40
4	Araria	Forbesganj	Forbisganj	8	371		150	36	14	13	7	nd	171	7	27	19	0	nd	18
5	Araria	Jokihat	Jokihat	8	479		110	20	14	42	30	nd	256	14	0	14	0	nd	32
6	Araria	Forbesganj	Narpatganj	8	291		140	40	10	4	5	nd	171	7	0	4	nd	nd	14
7	Arwal	Arwal	Arwal	7	675	432	240	56	24	44	5	0	195	71	89	0	0	0	24
8	Arwal	Jehanabad	Gaurakshini	7	1378	779	390	42	69	123	4	0	543	103	23	41	1	0	42
9	Arwal	Karpi	Imamganj	8	663	394	170	20	29	71	3	0	226	78	21	10	1	0	23
10	Arwal	Ratni Faridpur	Jhunathi	8	579	365	190	40	22	48	2	0	275	36	10	10	0	0	29
11	Arwal	Karpi	Kinjer	8	448	298	190	32	27	28	2	0	256	11	3	10	1	0	29
12	Arwal	Kurtha	Kurtha	8	494	303	170	20	29	35	4	0	268	21	3	0	1	0	27
13	Aurangabad	Aurangabad	Aurangabad	7	291	192	90	16	12	22	2	0	116	25	5	5	1	0	34
14	Aurangabad	Barun	Barun	7	1465	822	440	60	70	93	41	0	494	121	41	49	0	0	45
15	Aurangabad	Daudnagar	Daudnagar	8	1930	1151	560	84	85	208	2	0	616	280	28	57	0	0	30
16	Aurangabad	Deo	Deo	8	420	262	120	24	15	29	8	0	122	11	22	45	1	0	33
17	Aurangabad	Nabinagar	Dhanibar	8	556	347	165	22	27	42	11	0	189	28	39	40	0	0	22
18	Aurangabad	Madanpur	Madanpur	8	914	567	315	44	50	54	42	0	360	85	12	25	0	0	35
19	Aurangabad	Nabinagar	Nabinagar	8	582	331	195	16	38	32	12	0	177	71	2	17	1	0	35
20	Aurangabad	Barun	Narari Kala	8	527	346	150	20	24	55	13	0	183	74	13	22	0	0	13
21	Aurangabad	Obra	Obra	7	1629	1025	440	80	58	180	21	0	634	156	41	71	1	0	29
22	Aurangabad	Raftganj	Raftganj	7	592	340	205	24	35	22	12	0	189	21	5	69	0	0	36
23	Banka	Amarpur	Amarpur	8	2069	1345	455	138	27	217	92	0	621	206	72	86	0	2	38
24	Banka	Banka	Banka	8	522	339	170	40	17	25	19	0	207	43	8	12	0	0	39
25	Banka	Barahat	Barahat	8	810	527	250	32	41	88	6	0	418	64	0	2	1	0	12
26	Banka	Bausi	Baunsi	8	306	199	115	18	5	38	1	12	148	14	6	0	2	0	27
27	Banka	Charian	Chandan	8	702	456	230	76	10	40	2	0	314	43	8	0	2	0	46
28	Banka	Amarpur	English Morh	7	366	238	100	28	7	26	15	0	116	28	28	13	0	0	27
29	Banka	Katoria	Katuria	8	690	449	250	72	17	38	2	0	197	78	58	2	1	0	45
30	Banka	Shambhuganj	Mirjapur	8	434	282	140	18	23	28	0	0	246	18	0	4	2	0	12
31	Banka	Shambhuganj	Nagardih more	8	440	286	115	18	17	43	1	0	185	11	0	76	1	0	10
32	Banka	Dhuraiya	Panjwara	7	336	218	95	14	15	26	5	0	111	35	8	24	0	0	22
33	Banka	Rajon	Rajaun	8	614	399	200	48	19	49	8	0	281	46	5	9	0	0	32
34	Banka	Shambhuganj	Shambhuganj	8	806	524	210	48	22	74	3	0	305	71	13	31	1	0	34
35	BEGUSARAI	Mathani	Badalpur	8	647	414	260	48	34	27	1	0	323	25	0	11	0	0	8
36	BEGUSARAI	Bakhri	Bagrash	8	586	375	240	30	40	28	32	0	348	28	0	18	0	0	7
37	BEGUSARAI	Begusarai	Matihani	8	475	304	185	28	28	19	3	0	214	25	2	19	0	0	7
38	BEGUSARAI	Tegra	Naya nagar	8	603	386	280	24	53	17	0	0	342	18	0	6	0	1	8
39	BEGUSARAI	Bakhri	Bakhri	8	1822	1166	280	52	36	161	68	0	275	333	6	43	0	2	9
40	BEGUSARAI	Cheriabariarpur	Aghara	7	1031		210	72	7	113	8	0	348	128	0	27	0	1	8
41	BEGUSARAI	Cheriabariarpur	Basahe	8	1940	1242	470	50	83	182	8	0	232	443	0	57	0	1	9
42	BEGUSARAI	Barauni	Begusarai	9	1526	977	200	10	42	252	3	90	494	145	2	18	0	2	11

43	BEGUSARAI	Mathani	Begusarai fc/ib	8	812	520	150	24	22	99	0	0	317	53	0	28	0	0	9
44	BEGUSARAI	Tegra	Begusarai o mile	8	1669	1068	455	18	98	145	3	0	677	149	1	22	0	1	11
45	BEGUSARAI	Cheribariarpur	Cheria	8	1768	1132	525	24	112	150	11	0	390	340	10	52	0	0	9
46	BEGUSARAI	Begusarai	Gopalpur	8	1004	643	390	46	66	39	6	0	366	89	0	61	0	0	9
47	BEGUSARAI	Begusarai	Haridia	8	878	562	220	24	38	88	6	0	299	106	0	29	0	0	6
48	BEGUSARAI	Begusarai	Kaithma	8	543	348	240	20	46	19	1	0	317	11	0	3	0	0	12
49	BEGUSARAI	Bachhwara	Kumarshan	8	844	540	275	44	40	31	1	0	256	64	0	22	0	1	14
50	BEGUSARAI	Cheribariarpur	Kumbhidera	8	1572	1006	235	18	46	214	5	0	390	262	0	23	0	1	7
51	BEGUSARAI	Begusarai	Lakho	8	1191	762	325	28	61	117	1	0	427	149	3	26	0	0	5
52	BEGUSARAI	Bakhri	Manjaul	8	2180	1395	520	22	112	213	6	0	476	404	2	34	0	1	6
53	BEGUSARAI	Navkothi	Mohanpur	8	524	335	210	24	36	20	1	0	287	11	0	11	0	0	7
54	BEGUSARAI	Dhandari	Parihara	8	417	267	175	24	28	7	0	0	207	11	0	4	0	0	8
55	BEGUSARAI	Bakhri	Peernagar	8	1417	907	185	18	34	215	2	0	378	213	0	40	0	0	6
56	BEGUSARAI	Bakhri	Simri	8	974	623	255	20	49	94	4	0	360	110	4	11	0	0	7
57	BEGUSARAI	Balia	Pakharia	8	495		225	22	41	12	1	0	262	18	0	16	0	0	7
58	Bhagalpur	Sultanganj	Akbarnagar	7	617	401	190	36	24	67	2	0	281	11	6	53	0	0	30
59	Bhagalpur	Sultanganj	Asarganj	7	1733	1126	390	76	49	218	67	0	689	177	23	58	0	0	33
60	Bhagalpur	Jagdishpur	Bhagalpur	8	586	381	215	26	38	28	1	0	281	11	15	13	0	0	28
61	Bhagalpur	Bihpur	Bihpur	8	577		250	64	22	26	5	nd	354	7	8	6	0	nd	47
62	Bhagalpur	Kahalgaon	Ghoga	7	1128	733	420	120	29	82	1	0	397	135	35	0	1	0	32
63	Bhagalpur	Kahalgaon	Harchandpur	8	869	565	210	30	33	60	66	12	232	135	5	7	1	0	28
64	Bhagalpur	Jagdishpur	Jagdishpur	8	2188	1422	420	58	67	313	26	0	677	255	25	79	1	0	37
65	Bhagalpur	Kahalgaon	Kahalgaon	7	1261	820	290	34	50	146	12	0	424	96	70	33	1	0	31
66	Bhagalpur	Jagdishpur	Makhana	7	687	447	265	48	34	41	0	0	320	21	20	12	0	0	24
67	Bhagalpur	Naugachhia	Naugachia	8	691		310	80	26	28	4	nd	354	14	0	62	0	nd	22
68	Bhagalpur	Rangra Chowk	Rangara	8	437		180	36	22	15	5	nd	256	7	1	5	0	nd	20
69	Bhojpur	Barahara	Barahara	8	692		250	40	36	46	6	nil	244	57	3	68	0	nd	0
70	Bhojpur	Agion	Baruna	8	645		240	60	22	42	1	nil	189	71	30	40	0	nd	0
71	Bhojpur	Bihyan	Bihia	8	466		200	60	12	25	2	nil	256	21	8	6	0	nd	0
72	Bhojpur	Barahara	Bokharapur	8	335		130	32	12	13	4	nil	153	18	0	11	0	nd	0
73	Bhojpur	Udwantnagar	Chandwa	8	480		220	48	24	15	1	nil	281	7	4	3	0	nd	0
74	Bhojpur	Barahara	Farhda	8	425		210	52	19	9	4	nil	244	14	1	5	0	nd	0
75	Bhojpur	Koilwar	Giddha	8	580		240	68	17	33	2	nil	342	14	6	1	0	nd	0
76	Bhojpur	Sahar	Gulzarapur	8	413		170	48	12	21	1	nil	232	14	10	4	1	nd	0
77	Bhojpur	Udwantnagar	Harnath kundi	8	550		180	40	19	46	3	nil	268	21	1	22	1	nd	0
78	Bhojpur	Barahara	Inglishpur	8	860		350	100	24	54	3	nil	305	92	15	72	0	nd	0
79	Bhojpur	Barahara	Jarawarpur milki	8	1175		310	68	34	150	5	nil	342	156	2	119	0	nd	0
80	Bhojpur	Udwantnagar	Kasap	8	580		190	28	29	58	2	nil	342	14	6	7	0	nd	0
81	Bhojpur	Koilwar	Koilwar	7,24	439		170	48	12	22	4	nd	244	7	nd	9	0	nd	0
82	Bhojpur	Sandesh	Kori	8	505		200	52	17	26	1	nil	256	21	9	5	1	nd	0
83	Bhojpur	Koilwar	Mokhlisa	8	566		270	80	17	18	3	nil	354	7	1	4	0	nd	0
84	Bhojpur	Garhani	Nahsi	8	1400		450	60	73	127	1	nil	342	191	94	86	1	nd	0
85	Bhojpur	Koilwar	Nasratpur	8	1025		420	116	32	66	2	nil	354	92	90	49	0	nd	0
86	Bhojpur	Sandesh	Pauna	8	1318		280	32	49	182	5	nil	464	128	55	65	1	nd	0
87	Bhojpur	Charpokhri	Pirro	8	1026		320	92	22	92	2	nd	268	128	99	60	0	nd	0
88	Bhojpur	Koilwar	Rajapur Bazar	8	357		165	44	13	9	3	nil	207	7	0	1	0	nd	0
89	Bhojpur	Sandesh	Sandesh	8	735		330	60	44	29	2	nil	317	71	12	16	1	nd	0
90	Bhojpur	Koilwar	Songhata	8	660		240	84	7	43	3	nil	354	35	8	1	0	nd	0
91	Bhojpur	Udwantnagar	Udwantnagar	8	585		220	32	34	46	1	nil	354	14	1	3	0	nd	0
92	Buxar	Brahampur	Brahampur	8	2206		470	60	78	320	3	nil	458	308	160	158	1	nd	0

93	Darbhanga	Benipur	Bahera	8	1050	605	340	44	56	81	1	0	537	35	2	24	1	0	33
94	Darbhanga	Baheri	Baheri	9	491	335	170	36	19	55	3	18	268	14	1	5	1	0	27
95	Darbhanga	Biraul	Deokuli Dham	8	534	352	110	36	8	68	2	0	311	14	0	0	1	0	33
96	Darbhanga	Manigachhi	Dharampur Ujan	8	431	269	165	18	29	28	1	12	226	11	7	0	1	0	30
97	Darbhanga	Darbhanga	Dharbhanga	8	458	314	90	24	7	72	1	0	281	7	1	5	0	0	25
98	Darbhanga	Baheri	Jorja	8	592	394	170	24	27	73	2	0	329	21	2	14	1	0	28
99	Darbhanga	Keotiranway	Keoty	8	480	304	190	20	34	25	7	0	207	43	11	10	1	1	28
100	Darbhanga	Shankarpur	Pouram	8	2756	1447	615	72	106	287	119	0	897	245	134	133	1	3	50
101	Darbhanga	Manigachhi	Sakri	8	451	293	170	34	21	23	15	0	195	28	11	24	0	0	18
102	Darbhanga	Benipur	Samapur	8	621	384	160	24	24	60	16	0	281	46	7	5	0	0	30
103	Darbhanga	Singhara	Simri	7	705	411	200	60	12	50	3	0	329	28	6	5	1	0	44
104	E.Champaran	Turkauliya	Bairiya bazar	8	594		250	62	23	2	7	0	287	11	4	7	0	0	2
105	E.Champaran	Paharpur	Bishunpur	8	529	344	145	40	11	62	3	0	283	18	0	0	0	0	8
106	E.Champaran	Paharpur	Bishunpur	8	776		305	64	35	8	10	0	287	53	5	23	1	0	4
107	E.Champaran	Madhuban	Chakial	8	741		310	46	47	25	2	0	311	14	0	89	1	0	3
108	E.Champaran	Sugauli	Chapwa	8	760		295	76	25	15	30	0	354	57	2	7	1	0	4
109	E.Champaran	Madhuban	Chatia	8	939		330	92	24	47	7	0	299	71	2	83	0	0	1
110	E.Champaran	Narkatia	Chaudanu	8	459		175	46	14	19	0	6	232	11	1	9	1	0	3
111	E.Champaran	Kalyanpur	dharampur	8	508		245	46	31	0	5	0	244	18	0	24	0	0	10
112	E.Champaran	Kalyanpur	Dipau	8	299		90	34	1	3	3	0	55	18	0	32	1	0	4
113	E.Champaran	Sangrampur	Dubey tola	8	558		205	46	22	33	3	0	293	21	0	12	1	0	3
114	E.Champaran	Bankatwa	Ghorashashan	8	1616		585	50	110	108	4	0	415	248	5	114	1	0	4
115	E.Champaran	Paharpur	Govindganj	8	608		215	44	25	38	3	0	311	11	9	21	1	0	10
116	E.Champaran	Kesaria	kizerpura	8	674		235	44	30	34	3	0	226	21	3	92	0	0	9
117	E.Champaran	Kesaria	lala chpra	8	734		285	48	40	24	2	0	268	18	1	92	1	0	3
118	E.Champaran	Bankatwa	Lkhwara	8	515		255	52	30	26	2	0	323	7	1	36	1	0	2
119	E.Champaran	Dhaka	mohabbatpur	8	514		130	36	10	55	1	0	281	7	1	13	0	0	11
120	E.Champaran	Motihari	motihari	8	2380		570	26	121	169	150	0	781	245	36	92	1	0	6
121	E.Champaran	Harsidhi	murarpur	8	599		235	56	23	8	3	0	262	18	3	8	1	0	1
122	E.Champaran	Patahi	patahi	8	576		235	80	8	19	2	0	311	18	4	7	0	0	3
123	E.Champaran	Areraj	Radia	8	470		185	54	12	19	3	0	250	14	0	7	0	0	2
124	E.Champaran	Ramgarhwa	Raghunathpur	8	368		115	48	-1	14	2	0	146	18	0	7	1	0	5
125	E.Champaran	Kesaria	Rampur	7	869	499	225	16	45	99	13	0	449	25	0	4	1	0	35
126	E.Champaran	Kesaria	Rampur	8	938		360	86	35	41	3	0	299	21	0	165	0	0	5
127	E.Champaran	Kesaria	Rampur	8	641	417	250	70	18	46	2	0	338	35	0	0	0	0	13
128	E.Champaran	Kesaria	Rampur	8	1313	853	385	105	32	133	9	0	415	152	37	36	1	0	32
129	E.Champaran	Raxaul	Raxaul	8	385		145	42	10	17	2	0	189	14	0	9	0	0	6
130	E.Champaran	Adepur	Shayampur	8	1899		560	78	88	93	80	0	512	220	38	88	1	0	1
131	E.Champaran	Harsidhi	Sheoraha	8	421		195	58	12	2	3	0	171	18	0	36	0	0	4
132	E.Champaran	Sugauli	Sugauli	8	406		100	38	1	50	2	0	214	18	0	8	1	0	6
133	Gaya	Bodhgaya	Bitho sarif	8	541		120	14	21	55	6	3	86	74	26	81	0	0	17
134	Gaya	Bodhgaya	Bodhgaya	8	983		200	52	17	59	93	0	289	105	75	59	0	1	16
135	Gaya	Gaya	Chakan	8	590		165	8	23	67	6	29	240	35	18	13	0	0	20
136	Gaya	Gaya	Chandauti	8	475		185	10	39	33	0	0	203	46	23	13	0	0	17
137	Gaya	Dobhi	Dobhi	7	815		175	10	36	87	8	0	387	64	14	10	1	0	22
138	Gaya	Fatehpur	Fatehpur	8	542		135	40	9	50	5	0	295	14	0	14	0	0	21
139	Gaya	Sherghati	Gopalpur Koiri Tola	7	1130		260	58	28	115	4	0	443	74	79	76	1	0	19
140	Gaya	Manpur	Manpur	8	695		145	6	32	75	8	0	209	106	22	23	0	0	13
141	Gaya	Belaganj	Paligaon	8	448		85	8	16	54	3	0	166	50	18	19	0	0	17
142	Gaya	Manpur	Ram kund	8	445		50	6	9	70	3	0	141	89	0	4	6	0	20

143	Gaya	Gaya	Sangat Gali	7	1277		217	24	51	138	9	0	234	188	41	112	1	0	21
144	Gaya	Wazirganj	Wajir ganj	7	2380		475	162	103	109	27	0	650	425	14	149	1	0	16
145	Gopalganj	Manjha	Bangra	8	448	299	120	14	21	34	13	0	209	7	0	22	0	2	34
146	Gopalganj	Manjha	Bangra deoria	8	855	556	300	46	45	71	3	0	308	92	3	43	0	0	9
147	Gopalganj	Barauli	Barauli	9	444	249	160	30	21	33	6	9	215	11	2	13	1	0	8
148	Gopalganj	Sidhwalia	Bhojpurwa	8	1516	985	405	40	74	83	160	0	437	156	10	108	0	0	11
149	Gopalganj	Bhorey	Bhore	8	448	291	170	40	17	23	7	0	240	7	0	0	0	0	8
150	Gopalganj	Manjha	Bishambpurhar	8	687	447	255	28	45	53	5	0	301	50	0	0	0	0	15
151	Gopalganj	Uchkagaon	Chanwabe	8	926	602	250	40	36	88	6	0	289	121	0	60	0	0	10
152	Gopalganj	Hatwa	Hathua	8	1143	734	280	38	45	122	38	0	458	167	8	14	1	0	26
153	Gopalganj	Kuchaikot	Jalalpur	8	700	455	285	56	35	47	4	0	283	35	26	20	0	0	11
154	Gopalganj	Kuchaikot	Jalalpur	8	1014	648	185	40	21	129	45	0	415	103	9	34	0	0	19
155	Gopalganj	Kuchaikot	Jamunaha	8	872	567	300	50	43	80	7	0	277	128	0	20	0	0	10
156	Gopalganj	Kataiya	Kateya	8	590	384	250	46	33	32	5	0	240	32	21	12	0	0	9
157	Gopalganj	Kuchaikot	Kuchaikot	8	741	482	230	56	22	82	2	0	258	82	10	40	0	0	8
158	Gopalganj	Uchkagaon	Lachwar	8	833	541	325	54	46	57	9	0	277	85	0	52	1	0	9
159	Gopalganj	Manjha	Manjhwa	7	2560	1498	440	80	51	325	43	0	615	291	105	72	0	0	55
160	Gopalganj	Manjha	Nuna Chapra	8	583	379	245	36	38	31	5	0	221	28	19	28	0	0	13
161	Gopalganj	Manjha	Phulwaria	8	516	335	175	42	17	50	3	0	215	32	19	0	0	0	11
162	Gopalganj	Gopalganj	Turkaha (Gopalganj)	8	428	276	135	16	23	26	4	9	154	14	14	55	0	0	34
163	Jamui	Jamui	Aghara	9	1685	1095	360	16	78	261	4	0	258	287	33	137	0	0	14
164	Jamui	Jhajha	Ambekarnagar	8	604	393	210	52	19	44	1	0	244	46	12	0	0	0	32
165	Jamui	Sono	Batia	8	668	434	180	20	32	65	0	15	258	46	0	12	0	0	15
166	Jamui	Chakai	Chakai	7	1065	692	390	88	36	88	1	0	381	78	60	14	1	0	33
167	Jamui	Sono	Chakai B	8	963	626	305	54	41	98	1	0	295	92	30	40	1	0	32
168	Jamui	Jhajha	Chandra Mandih	8	1044	679	295	54	39	98	16	0	421	64	31	44	1	1	44
169	Jamui	Jhajha	Gidhaur	8	490	319	160	36	17	30	0	0	207	28	4	20	1	0	38
170	Jamui	Jamui	Jamui	7	767	499	250	60	24	54	13	0	232	99	6	24	0	0	24
171	Jamui	Jhajha	Jhajha	7	777	505	230	40	34	67	4	0	262	74	11	28	1	0	31
172	Jamui	Lakshmipur	Kala	8	788	512	250	70	18	83	1	0	183	178	17	0	0	0	18
173	Jamui	Barhat	Lalmatia	8	714	464	95	38	0	106	1	0	246	89	17	35	3	0	12
174	Jamui	Lakshmipur	Laxmipur	7	810	527	245	36	38	71	1	0	287	67	20	33	0	0	36
175	Jamui	Jamui	Manjhwe	7	1608	1045	390	58	60	187	13	0	590	145	59	25	3	0	33
176	Jamui	Khaira	Purna Khaira	8	712	463	265	40	40	57	0	0	326	35	20	18	1	0	29
177	Jamui	Sikandra	Sikandra	8	2830	1840	535	64	91	385	38	0	738	411	42	100	1	0	34
178	Jamui	Chakai	Tarakhakhar	9	435	283	190	28	29	4	2	0	154	28	24	27	0	0	16
179	Jehanabad	Ghoshi	Kako	7	2865	1862	570	36	117	378	80	0	793	397	13	248	1	0	23
180	Jehanabad	Makhdumpur	Makhdumpur	8	764	425	90	4	19	112	2	0	317	25	8	30	1	0	31
181	Jehanabad	Jehanabad	Tenibigha	7	1792	1017	305	32	55	246	6	0	525	245	13	61	1	0	38
182	Kaimur	Ramgarh	Bandipur	8	960		410	68	58	52	4	nd	317	64	128	56	1	nd	0
183	Kaimur	Ramgarh	Devnahalia	8	518		195	56	13	39	2	nd	305	11	6	2	1	nd	0
184	Kaimur	Ramgarh	Nuawan	8	550		250	60	24	22	3	nd	317	18	6	12	1	nd	0
185	Katihar	Falka	Falka	8	476		180	24	29	29	2	nd	268	7	1	8	1	nd	30
186	Katihar	Falka	Falka	8	435		190	48	17	7	4	nd	232	7	0	10	0	nd	29
187	Katihar	Manihari	Kajra	8	638		190	48	17	52	25	nd	305	28	37	16	0	nd	36
188	Katihar	Katihar	Katihar	8	848		260	68	22	94	7	nd	427	28	17	62	1	nd	26
189	Katihar	Katihar	Katihar	8	846		250	76	14	52	67	nd	390	28	56	41	0	nd	28
190	Katihar	Kadwa	Kodwa	8	483		150	44	10	46	8	nd	207	21	46	21	0	nd	26
191	Katihar	Kadwa	Kodwa	8	513		180	56	10	40	15	nd	293	14	7	22	0	nd	34
192	Katihar	Korha	Korha	8	630		200	56	14	52	9	nd	342	14	3	17	0	nd	16

193	Katihar	Korha	Korha	8	811		190	48	17	66	85	nd	378	35	67	26	0	nd	28
194	Katihar	Samoli	Kursela	8	758		220	68	12	69	7	nd	390	28	2	18	0	nd	24
195	Katihar	Manihari	Manihari	8	2005		490	108	53	79	277	nd	634	64	217	117	0	nd	42
196	Katihar	Samoli	Pranpur	8	720		250	36	38	45	7	nd	354	28	4	20	0	nd	40
197	Katihar	Samoli	Pranpur	8	572		210	76	5	43	6	nd	244	21	28	52	0	nd	32
198	Katihar	Falka	Sameli	8	279		120	32	10	7	4	nd	146	14	1	5	0	nd	35
199	khagaria	Chautham	Chautham	8	1362	872	405	28	80	119	7	0	525	142	13	29	0	0	8
200	Khagaria	Parbatta	Dewri	7	1667	1067	350	28	67	111	63	0	427	199	12	31	0	0	4
201	Khagaria	Gogri	Gandhinagar	8	1297	830	475	42	89	55	1	0	317	209	9	30	0	0	5
202	Khagaria	Khagaria	Gangaur	8	921	589	285	22	55	65	13	0	354	103	0	13	0	0	9
203	Khagaria	Khagaria	Ismailpur	8	537	344	210	26	35	27	2	0	268	28	0	7	0	0	7
204	Khagaria	Gogri	Jamalpur	8	803	514	280	60	31	40	1	0	366	43	6	11	0	1	7
205	Khagaria	Khagaria	Kasimpur	8	434	278	130	24	17	36	2	0	220	14	0	7	0	0	7
206	Khagaria	Khagaria	Khagaria	8	811	519	280	36	46	70	4	0	384	74	0	14	0	1	6
207	Khagaria	Khagaria	Labhgaon	8	624	399	220	20	41	35	2	0	317	25	0	7	0	1	9
208	Khagaria	Gogri	Lohia chowk	8	1893	1212	245	56	25	287	19	0	305	443	0	33	0	2	8
209	Khagaria	Gogri	Maheskhunt 1	7	975	624	270	30	47	93	7	0	366	103	9	22	0	1	7
210	Khagaria	Beldaur	Pirnasa ward 4	8	593	380	195	18	36	28	2	0	293	11	0	14	0	1	7
211	Khagaria	Gogri	Maheskunt	8	1675		570	22	124	107	1	0	610	202	8	31	0	1	5
212	khagaria	Mansi	Basantpur	7	1269		465	24	97	82	0	0	482	163	14	19	0	0	6
213	Kishanganj	Bahadurganj	Bhadurganj	8	164		60	16	5	7	7	nd	85	7	0	7	nd	nd	16
214	Kishanganj	Bahadurganj	Bhadurganj	8	402		150	40	12	25	9	nd	146	21	53	19	nd	nd	24
215	Kishanganj	Bahadurganj	Bhadurganj	8	459		110	21	10	49	21	nd	146	21	94	19	0	nd	20
216	Kishanganj	Kishanganj	Kishanganj	8	300		90	24	7	26	3	nd	134	7	14	17	nd	nd	14
217	Kishanganj	Pothia	Pothia	8	1839		120	16	19	17	42	nd	73	7	nd	4	nd	nd	34
218	Kishanganj	Thakurganj	Thakurganj	8	699		200	64	10	66	27	nd	232	35	90	64	nd	nd	26
219	Lakhisarai	Surajgarha	Arma	8	1497	973	295	20	49	193	22	39	555	124	1	11	1	0	43
220	Lakhisarai	Lakhisarai	Barahiya	8	554		170	48	12	46	8	nd	256	21	16	27	0	nd	18
221	Lakhisarai	Lakhisarai	Barahiya	8	1677	1090	470	58	79	118	140	0	25	510	40	114	0	0	16
222	Lakhisarai	Lakhisarai	Lakhisarai	7	1077	700	520	168	24	31	2	0	476	97	11	0	0	0	30
223	Lakhisarai	Lakhisarai	Surajgarha	8	987	642	260	32	44	107	2	0	449	71	9	0	0	0	23
224	Madehpura	Shankarpur	Barhari	8	860	550	310	34	54	34	13	0	366	57	7	13	0	1	9
225	Madehpura	Alamnagar	Gaushala	8	729	467	265	36	42	33	17	0	336	35	17	15	0	4	11
226	Madehpura	Biharriganj	Kusthan	8	504	323	80	32	0	77	37	ND	244	43	20	12	0	4	11
227	Madehpura	Madhepura	Madhepur	7	787	504	155	32	18	70	40	ND	299	60	15	14	0	2	10
228	Madehpura	Murliganj	murliganj	8	927	593	285	38	46	68	15	ND	348	103	3	21	0	3	11
229	Madehpura	Chausa	Abhiyatola	8	675		265	36	42	28	9	0	317	39	3	18	0	0	9
230	Madehpura	Madhepura	Bathkora	8	821		300	26	56	47	7	0	281	103	16	12	0	0	6
231	Madehpura	Puraini	ganeshpur	8	860		265	22	50	73	6	0	323	103	14	12	0	0	6
232	Madehpura	Gwalpara	Gwalpara	9	453		160	22	25	25	6	0	195	28	4	16	0	0	10
233	Madehpura	Gamharia	Jiwachhapur	8	518		170	28	24	18	32	ND	195	43	19	13	0	2	12
234	Madehpura	Murliganj	rampur	8	608		235	24	42	18	18	ND	305	25	5	18	0	2	9
235	Madehpura	Singheswar	Singeswar	8	429		185	30	26	10	10	ND	214	21	12	15	0	5	9
236	Madehpura	Madhepura	surajganj	8	259		105	22	12	5	2	0	73	25	6	16	0	1	8
237	Madehpura	Biharriganj	Uda kisanaganj	8	957		300	28	55	48	7	0	311	74	17	38	0	3	9
238	Madhubani	Babubari	Babubarhi	8	410	272	140	16	24	33	1	0	232	7	2	9	1	0	38
239	Madhubani	Benipatti	Benipatti	8	407	273	140	44	7	33	2	0	244	7	1	5	0	0	25
240	Madhubani	Khajauli	Bentadih	8	385	242	90	16	12	41	1	0	214	7	2	0	1	0	33
241	Madhubani	Pandaul	Bhawanipur	8	471	319	70	8	12	85	1	0	281	7	1	10	1	0	23
242	Madhubani	Jhanjharpur	Bideswar Asthan	8	423	274	130	18	21	38	2	0	238	7	5	0	1	0	39

243	Madhubani	Madhawpur	Bihari	8	459	266	140	36	12	30	2	0	220	11	0	5	0	0	36
244	Madhubani	Benipatti	Dhakjari	8	1645	1120	490	80	71	182	53	0	708	234	39	14	0	0	15
245	Madhubani	Jainagar	jaynagar	7	705	457	225	76	9	69	2	0	427	7	1	10	0	0	23
246	Madhubani	Kaluhi	Kapasia	8	1398	840	215	28	35	146	108	0	421	188	25	30	0	1	22
247	Madhubani	Laukahi	Kapileswar	8	346	226	105	18	15	25	9	0	134	18	26	18	1	0	16
248	Madhubani	Khajauli	Karmauli	8	409	257	90	12	15	55	1	0	220	7	2	10	1	0	21
249	Madhubani	Babubari	Khajauli	8	813	517	255	52	30	58	26	0	378	67	14	18	0	0	21
250	Madhubani	Basipatti	Khutauna	8	506	346	190	48	17	42	1	0	329	7	2	5	1	0	22
251	Madhubani	Rajnagar	Madhubani	8	684	395	210	26	35	61	1	0	232	78	1	21	0	0	31
252	Madhubani	Jainagar	Narar	8	920	533	280	60	32	54	33	0	342	82	7	24	1	0	33
253	Madhubani	Pandaul	Pandaul	8	330	201	90	14	13	20	13	0	92	35	18	14	0	0	18
254	Madhubani	Rajnagar	Pariharpur	8	411	263	210	20	39	6	1	0	214	11	1	18	1	0	36
255	Madhubani	Pandaul	Phulparas	8	318	214	140	20	22	14	1	0	171	11	4	5	1	0	32
256	Madhubani	Pandaul	Shambhuar	8	1284	790	320	46	50	73	119	0	543	71	27	38	0	4	35
257	Madhubani	Laukaha	Siswar	8	638	390	190	64	7	56	2	0	293	43	12	5	0	0	22
258	Munger	Bariarpur	Bariarpur	7	1134	737	445	100	47	70	1	0	480	82	46	0	0	0	30
259	Munger	Karagpur	Gangta More	8	975	634	290	50	40	108	11	0	437	67	12	28	1	0	27
260	Munger	Karagpur	Gobadda	8	1016	660	340	22	69	86	1	0	388	89	28	0	1	0	31
261	Munger	Karagpur	Haveli Kharagpur	7	180	117	60	20	2	12	4	0	49	21	22	0	1	0	27
262	Munger	Jamalpur	Jamalpur	8	1001	651	365	100	28	66	1	0	415	57	21	20	1	0	25
263	Munger	Munger	Purabsarai (Navtolia)	7	1104	718	370	44	63	53	44	0	488	64	14	14	0	0	36
264	Munger	Jamalpur	Singhiya Chowk	7	1325	861	440	60	70	122	20	0	381	167	66	12	0	0	31
265	Munger	Karagpur	Tarapur	7	748	486	300	72	29	48	1	0	293	46	0	37	1	0	30
266	Muzaffer.	Aurai	Aurai	8	495		150	34	16	38	32	0	305	14	1	8	1	0	12
267	Muzaffer.	Dholi	Barkurwachowk	8	1018		405	80	49	44	2	0	378	103	0	72	1	0	4
268	Muzaffer.	Dholi	Barkurwamorph	8	771		300	58	37	35	3	0	342	35	0	55	1	0	7
269	Muzaffer.	Bochaha	Bochaha	8	699		340	58	47	15	8	0	183	35	1	181	0	0	9
270	Muzaffer.	Sahebganj	Daha chapra	8	670		275	56	32	29	1	0	299	18	0	62	0	0	10
271	Muzaffer.	Paroo	dewaria	8	795		330	88	26	13	4	0	244	71	1	62	1	0	7
272	Muzaffer.	Sakra	Dholi	8	828		320	92	22	36	3	0	433	18	1	21	0	0	10
273	Muzaffer.	Musahari	Digra	8	720		295	60	35	29	1	0	366	11	0	35	1	0	8
274	Muzaffer.	Minapur	Gargalia	8	522		245	64	20	4	3	0	256	21	1	17	0	0	7
275	Muzaffer.	Baruraj(Motipur)	Jaffarpur	8	576		240	70	16	14	3	0	250	21	0	35	1	0	7
276	Muzaffer.	Musahari	Japaha	8	999		320	52	46	46	31	0	384	53	30	53	0	0	10
277	Muzaffer.	Katra	katra	8	427		95	26	7	55	1	0	214	14	0	14	1	0	11
278	Muzaffer.	Baruraj(Motipur)	Mahamadpur	8	578		215	50	22	20	3	0	268	14	1	27	1	0	5
279	Muzaffer.	Kurhani	Mahant manihari	8	1055		305	62	36	85	3	0	287	85	0	124	1	0	12
280	Muzaffer.	Sakra	Mushari	8	830		315	44	49	32	3	0	299	53	6	52	1	0	6
281	Muzaffer.	Kanti	Muzaffarpur	8	783		275	32	47	40	3	0	409	11	1	17	0	0	7
282	Muzaffer.	Saraiya	paroo	8	1224		475	60	78	53	6	0	323	152	2	121	1	0	3
283	Muzaffer.	Aurai	Rajkhund	8	473		145	40	11	31	1	0	226	11	1	16	0	0	9
284	Muzaffer.	Katra	Ramnagar	8	585		190	56	12	31	3	0	153	11	0	109	1	0	16
285	Muzaffer.	Sahebganj	Sahebganj	8	787		285	60	32	39	3	0	360	7	0	71	1	0	10
286	Muzaffer.	Kurhani	Sakri chatti	8	917		355	78	38	40	6	0	189	71	35	177	1	0	10
287	Muzaffer.	Gaighat	Sarfuddin	8	586		210	58	16	15	6	0	73	28	0	142	1	0	15
288	Muzaffer.	Dholi	Se ho	8	1059		410	60	62	46	3	0	464	21	5	88	1	0	12
289	Muzaffer.	Kurhani	Shukrahat	8	728		310	64	36	16	6	0	232	21	2	132	1	0	6
290	Muzaffer.	Kurhani	Wazitpur	8	831		325	56	44	35	4	0	360	18	0	82	0	0	12
291	Nalanda	Islampur	Ankuri Bazar	8	717	477	175	14	34	86	20	0	256	78	16	32	1	0	40
292	Nalanda	Bind	Asthwan	7	1337	803	399	94	40	130	4	0	500	128	22	38	0	0	42

293	Nalanda	Bari	Bhui	8	1582	915	504	52	91	122	14	12	397	255	44	52	1	0	35
294	Nalanda	Bihar Shariff	Biharsharif	8	1601	918	475	72	72	140	21	24	555	135	38	41	1	0	46
295	Nalanda	Bihar Shariff	Biharsharif Rly Stn	8	634	409	232	61	19	44	11	0	280	42	2	42	0	0	16
296	Nalanda	Sarmara	Doiya	8	2545	1751	571	36	117	422	10	0	793	397	13	248	1	0	23
297	Nalanda	Giriak	Giriak	7	1962	1110	640	16	146	156	4	0	610	262	33	78	1	0	42
298	Nalanda	Asthawan	Gohpur More	8	808		117	10	35	91	57	9	154	85	64	66	1	0	7
299	Nalanda	Harnaut	Harnaut	7	1253	741	50	16	2	186	78	0	268	156	67	29	0	1	43
300	Nalanda	Rahul	Heganpura	8	1172	801	504	66	83	54	64	0	280	283	1	58	2	0	21
301	Nalanda	Hilsa	Hilsa	8	753	515	190	24	32	42	90	0	336	64	40	0	0	0	18
302	Nalanda	Islampur	Islampur	8	2284	1518	320	82	28	305	117	0	390	355	328	44	0	0	22
303	Nalanda	Asthawan	Jangipur	9	396	267	140	20	22	31	1	0	171	28	16	10	0	0	34
304	Nalanda	Silao	Kundalpur	8	968	570	321	56	44	59	23	0	427	43	8	50	1	0	26
305	Nalanda	Bihar Shariff	Moghra	8	739	459	266	48	36	47	8	0	310	54	0	50	0	0	27
306	Nalanda	Bihar Shariff	Muraura	7	1055	607	258	64	24	64	54	0	439	74	25	0	0	0	34
307	Nalanda	Silao	Nalanda	8	970	643	480	74	72	30	7	0	482	79	8	60	0	0	18
308	Nalanda	Bari	Nirpur	8	2916	1984	590	88	90	448	61	0	610	358	265	269	1	0	32
309	Nalanda	Prabalpur	Nischalganj	8	960	591	240	36	36	96	11	0	275	121	40	54	0	0	30
310	Nalanda	Bari	Papanhosa	8	987	588	255	42	37	101	4	0	268	106	23	78	1	0	32
311	Nalanda	Islampur	Parwalpur	7	1248	624	269	32	46	114	23	36	275	110	40	39	1	0	29
312	Nalanda	Giriak	Pawapuri	8	861	520	210	42	26	80	14	0	220	86	37	70	1	0	31
313	Nalanda	Rajgir	Pilkh	9	930	607	322	40	54	66	16	0	275	36	5	190	1	0	32
314	Nalanda	Rajgir	Rajgir	7	1289	799	710	100	112	11	9	18	549	145	22	32	0	0	22
315	Nalanda	Bihar Shariff	Ranabigha	8	1138	633	155	58	27	116	8	0	323	138	42	12	1	0	34
316	Nalanda	Asthawan	Sare	8	573	351	110	16	17	84	4	24	146	71	1	24	0	0	30
317	Nalanda	Eknagarsari	Sherpur	9	357	212	90	12	15	29	8	0	134	21	0	22	0	0	23
318	Nalanda	Silao	Silao	8	4386	2822	849	120	134	576	197	0	958	631	192	340	1	0	47
319	Nalanda	Giriak	Sithuara	7	3090	1767	500	100	61	430	48	0	647	390	100	194	1	0	49
320	Nalanda	Rahul	Sodh	8	895	571	205	48	21	120	2	0	317	131	29	0	0	0	25
321	Nawada	Nawada	garphar	8	394		105	32	6	28	2	0	98	57	33	12	0	0	16
322	Nawada	Nawada	Gunama	8	758		185	26	29	72	3	0	357	74	0	15	1	1	12
323	Nawada	Roh	hisua	8	294		75	8	13	33	2	0	148	18	5	4	0	0	14
324	Nawada	Kawakol	Kauakol Ashram	8	432		75	16	9	56	0	0	264	4	0	3	3	0	27
325	Nawada	Nawada	Nawada	8	551		150	22	23	45	4	0	326	25	0	2	0	0	16
326	Nawada	Roh	Roh	8	366		145	4	33	26	1	9	129	25	15	13	0	0	16
327	Nawada	Kawakol	Rupau	9	1670		315	10	70	140	50	48	381	177	104	155	0	0	28
328	Nawada	Akbarpur	Tungi	8	464		90	8	17	51	9	15	117	57	2	42	1	0	17
329	Nawada	Warisaliganj	Warsaliganj	9	1110		350	20	73	89	30	42	264	121	78	76	1	1	12
330	Patna	Barh	Agwanpur	7	880	572	315	80	28	56	4	0	418	47	0	30	0	0	24
331	Patna	Bikram	Andhra Chauki	8	261	162	90	20	10	11	1	0	134	4	5	0	0	0	30
332	Patna	Bakhtiarapur	Bakhtiyarpur	8	786	511	215	60	16	80	3	0	277	74	16	46	0	0	18
333	Patna	Paliganj	Baliapakar	8	1465	866	290	16	61	184	30	0	512	85	44	106	0	0	27
334	Patna	Barh	Barh	8	1687	1097	490	112	53	168	4	0	652	138	33	11	1	0	32
335	Patna	Dulhin Bazar	Bharatpura	9	934	543	110	12	19	153	1		415	35	33	10	1	0	26
336	Patna	Daniwan	Daniyawan	9	281	173	100	8	19	17	3	12	104	11	4	13	1	0	27
337	Patna	Sampatchak	Deokoli	8	600	380	125	24	16	85	2	0	244	35	19	32	0	0	19
338	Patna	Fathua	Fatuha	8	526	314	120	12	22	65	3	18	195	35	18	0	0	0	30
339	Patna	Maner	Maner	8	1514	920	310	40	51	215	3	0	354	220	6	144	1	0	24
340	Patna	Bikram	Mariwama	8	384	226	125	28	13	30	1	0	195	14	3	4	0	0	14
341	Patna	Patna	Patna City	8	653	390	200	36	27	49	3	0	134	85	39	34	0	0	36
342	Patna	Bihta	Raghopur	8	1629	1068	600	80	97	166	12	0	470	337	20	44	0	0	25

343	Patna	Naubatpur	Snehi Tola, Naubatpur	7	620	396	215	26	36	41	5	0	189	92	41	3	0	0	36
344	Purnea	Baisi	Baiosi	8	1256		340	68	41	117	8	nd	476	71	76	50	0	nd	38
345	Purnea	Baisi	Baiosi	8	1357		340	80	34	108	40	nd	415	78	118	82	0	nd	42
346	Purnea	Damdaha	Banmankhi	8	798		270	56	31	53	21	nd	354	21	49	51	0	nd	38
347	Purnea	Damdaha	Banmankhi	8	484		190	32	26	14	4	nd	256	7	0	6	0	nd	48
348	Purnea	Dagaura	Barsoni	8	262		110	24	12	5	4	nd	134	7	0	8	0	nd	24
349	Purnea	Damdaha	Damdaha	8	1406		370	88	36	81	164	nd	622	57	105	76	1	nd	36
350	Purnea	Damdaha	Damdaha	8	630		240	44	31	32	18	nd	293	21	46	29	nd	nd	39
351	Purnea	Damdaha	Damdaha	8	595		290	60	34	7	8	nd	293	14	0	51	1	nd	41
352	Purnea	Purnia East	Purnea	8	435		170	52	10	25	8	nd	220	14	17	16	0	nd	20
353	Purnea	Purnia East	Purnea	8	1554		500	100	60	94	4	nd	500	57	173	76	0	nd	50
354	Purnea	Purnia East	Purnea E	8	458		160	40	14	38	5	nd	244	21	1	22	0	nd	30
355	Purnea	Rupauli	Rupauli	8	353		160	40	14	8	4	nd	207	7	0	4	0	nd	38
356	Purnea	Rupauli	Rupauli	8	268		100	24	10	16	10	nd	159	7	0	2	nd	nd	32
357	Purnea	Rupauli	Rupauli	8	535		210	68	10	25	16	nd	305	14	1	15	0	nd	44
358	Rohtas	Rohats	Akbarpur	8	572	333	145	18	24	41	21	0	195	53	25	17	0	0	15
359	Rohtas	Sheosagar	Amawan Gate	8	961	529	225	44	28	100	4	15	207	138	0	52	0	0	28
360	Rohtas	Karghar	Ambwalia	8	470		210	64	12	21	4	nd	268	14	11	8	0	nd	0
361	Rohtas	Karghar	Ambwalia	8	700	397	105	12	18	98	11	0	317	32	16	0	0	0	16
362	Rohtas	Dehri	Anikut	8	337		135	28	16	20	1	nd	159	21	6	9	1	nd	0
363	Rohtas	Dehri	Anikut	8	516	312	145	18	24	52	4	0	244	35	7	0	0	0	22
364	Rohtas	Karakat	Bahaura	8	440	267	150	18	26	40	1	0	226	18	8	2	0	0	16
365	Rohtas	Karakat	Bahuara	8	400		170	44	15	16	1	nd	201	21	8	9	0	nd	0
366	Rohtas	Karghar	Balthari	8	525		195	44	21	42	1	nd	329	11	4	3	0	nd	0
367	Rohtas	Bikramganj	Bikramganj	8	725		285	64	30	53	2	nd	317	60	29	27	1	nd	0
368	Rohtas	Bikramganj	Bikramganj	8	754	436	150	14	28	94	2	0	189	78	49	38	0	0	17
369	Rohtas	Buxar	Chausa	8	1559		245	30	41	175	175	nd	793	57	26	73	1	nd	0
370	Rohtas	Chenari	Chenari	8	628	407	175	32	23	64	21	0	317	43	11	1	0	0	18
371	Rohtas	Simri	Dudharchak	8	525		200	54	16	39	3	nd	323	7	nd	4	0	nd	0
372	Rohtas	Akorhi Gota	Karbindia	8	795		240	40	34	75	28	nd	451	35	1	14	1	nd	0
373	Rohtas	Akorhi Gota	Karbindia	8	456	264	140	18	23	47	1	0	220	21	0	6	0	0	14
374	Rohtas	Karghar	Kochas	8	715		245	44	33	69	1	nd	336	64	8	10	1	nd	0
375	Rohtas	Karghar	Kochas	8	1110	646	335	52	50	102	21	0	366	174	1	8	1	0	15
376	Rohtas	Suryapura	Maliabagh	8	1147	808	155	16	28	135	102	0	201	106	251	31	0	0	17
377	Rohtas	Narsiganj	Nasriganj	8	828		330	88	27	43	1	nd	275	74	64	49	1	nd	0
378	Rohtas	Narsiganj	Nasriganj	8	371	216	90	18	11	35	21	0	159	14	5	0	0	0	15
379	Rohtas	Simri	Neazipur	8	652		230	48	27	44	4	nil	281	53	5	10	0	nd	0
380	Rohtas	Sanjhauli	Nokha	8	928	605	95	12	16	179	3	0	275	89	0	123	1	0	15
381	Rohtas	Karghar	Rajandih	8	535		150	36	15	67	1	nd	329	11	0	5	1	nd	0
382	Rohtas	Karghar	Rajandih	8	752	437	160	36	17	79	21	0	201	103	29	17	0	0	13
383	Rohtas	Rajpur	Rajpur	8	942		280	48	39	99	1	nd	439	53	6	37	1	nd	0
384	Rohtas	Sasaram	Sasaram	8	492		190	44	19	35	3	nil	268	28	5	4	0	nd	0
385	Rohtas	Sasaram	Sasaram	8	514	282	155	14	29	38	3	0	214	35	14	4	0	0	14
386	Rohtas	Karghar	Sirisiya	8	632		250	40	36	45	1	nd	354	25	7	15	1	nd	0
387	Rohtas	Tilothu	Tilothu	8	505	301	185	16	35	35	1	0	195	28	20	13	0	0	33
388	Saharsa	Kahara	Bahgaon	9	312	200	35	8	4	39	28	27	73	25	9	11	0	1	5
389	saharsa	Saurbazar	Bajjnathpur	8	419	268	150	24	22	27	4	0	195	21	2	15	0	1	12
390	Saharsa	Kahara	Basudev	8	1708	1093	480	26	100	134	34	0	604	216	9	37	0	2	10
391	Saharsa	Kahara	Chainpur	8	896	573	100	26	8	83	81	0	287	85	23	18	0	11	11
392	Saharsa	Saurbazar	Chandaur	8	464	297	130	20	19	36	19	0	134	53	33	19	0	1	9

393	saharsa	Saurbazar	Kharkutti	8	712	456	75	20	6	100	17	0	183	82	33	20	0	20	21
394	saharsa	Saurbazar	Adarch	9	685		225	18	43	38	20	24	183	82	8	19	0	0	5
395	Saharsa	Saurbazar	Niralatola	8	423	271	110	26	11	39	2	0	177	25	4	17	0	1	11
396	Saharsa	Satar Kateya	Patodi bazaar	8	670	429	190	20	34	51	12	0	244	64	5	18	0	1	10
397	Saharsa	Satar Kateya	Patodi bazaar	8	687	440	185	24	30	57	15	0	244	71	3	32	0	1	12
398	Saharsa	Saurbazar	Potwaha	8	828	530	180	28	26	80	42	0	305	85	20	19	0	10	17
399	Saharsa	Satar Kateya	Punchgachi	9	394	252	90	26	6	37	19	30	122	14	9	19	0	53	5
400	Saharsa	Satar Kateya	Saharsa 1	8	164	105	55	12	6	13	3	0	49	18	4	16	0	2	8
401	Saharsa	Sonbarsa	Sobarsaraj	8	867	555	315	36	54	35	17	0	397	53	6	14	0	1	9
402	Saharsa	Satar Kateya	Tulsiyahi	8	624	399	290	32	50	14	18	0	317	53	9	15	0	1	15
403	Saharsa	Simri Bakhtiyarpur	Simri bakhtiyarpur	8	753		230	40	31	49	36	0	323	57	9	17	0	4	11
404	Samastipur	Ujjiarpur	Bhagwanpur Kamla (Ujjiarpur)	8	961	592	220	44	44	95	3	0	439	67	5	50	1	0	14
405	Samastipur	Bibhutipur	Dadiya	7	648	406	225	42	29	24	23	0	287	18	21	27	0	0	32
406	Samastipur	Dalsinghsarai	Dalsingh Sarai	9	656	417	180	12	60	42	3	18	329	14	30	16	0	0	27
407	Samastipur	Kalyanpur	Jakhra	8	681	384	240	18	47	41	7	0	116	113	12	41	1	0	52
408	Samastipur	Warisnagar	Jathmal pur (Samastipur)	8	933	523	320	60	41	45	2	0	403	50	21	25	0	0	33
409	Samastipur	Bibhutipur	Kalyanpur	7	543	333	215	54	19	29	3	0	305	18	4	0	1	0	14
410	Samastipur	Rosare	Karian	8	1040	621	310	52	72	49	2	0	476	57	30	35	1	0	33
411	Samastipur	Vidyapatinaragar	Madudabad (new well)	8	1029	640	275	38	44	114	3	0	268	103	42	108	0	0	25
412	Samastipur	Bibhutipur	Patpara	7	730	432	310	34	55	38	2	0	390	11	11	29	0	0	24
413	Samastipur	Rosare	Rosera	7	421	267	140	28	28	10	3	0	183	14	20	25	0	0	27
414	Samastipur	Patori	Sahit (Bajidpur)	8	1326	823	410	54	67	110	21	0	561	71	41	90	0	0	27
415	Samastipur	Patori	Shahpur Patori (Shahpur Undi)	8	810	540	230	52	40	94	1	0	378	57	4	35	0	0	26
416	Samastipur	Singhia	Singhiya Ghat	8	546	293	200	16	39	33	2	0	244	14	6	42	0	0	25
417	Samastipur	Tajpur	Tajpur (Harishakarpur Baghauni)	8	956	578	295	54	39	82	4	12	500	28	8	16	0	0	35
418	sapaul	basantpur	Balaua	8	99	63	45	12	4	9	1	0	49	11	0	15	0	1	6
419	sapaul	Supaul	Andauli	8	592		115	24	13	24	82	0	244	39	0	21	0	5	5
420	Sapaul	basantpur	Bhawanipur	8	655	419	170	20	29	50	7	0	244	53	0	24	0	1	9
421	Sapaul	basantpur	Bhimnagar	8	330	211	125	18	19	18	2	0	146	21	2	16	0	2	13
422	Sapaul	Supaul	Hardi	8	537	344	210	32	31	21	5	0	244	25	9	21	0	4	16
423	Sapaul	Tribeniganj	Jadia	8	440	282	200	16	38	10	3	0	232	11	2	14	0	0	9
424	Sapaul	Raghapur	Kaithtola	8	2230	1427	675	28	145	79	70	0	683	230	13	38	0	6	16
425	Sapaul	Supaul	Kario	8	752	481	230	20	43	53	9	0	317	50	4	25	0	1	9
426	Sapaul	Raghapur	Karzain	8	380	243	85	16	11	32	5	0	85	46	8	20	0	0	7
427	Sapaul	Supaul	Malhani	8	316	202	85	30	2	12	36	0	85	35	26	19	0	0	8
428	Sapaul	Raghapur	Norha	8	801	513	95	40	-1	88	64	0	262	78	24	22	0	11	15
429	Sapaul	Raghapur	Parsharma	8	344	220	130	22	18	17	3	0	134	32	2	15	0	1	13
430	Sapaul	Pipra	Pipra chowk	8	307	196	110	22	13	17	3	0	104	32	2	15	0	0	12
431	Sapaul	Pratapganj	Pratapganj	8	478	306	180	26	28	22	2	0	214	25	2	16	0	0	6
432	Sapaul	basantpur	Ratanpura	8	486	311	130	44	5	43	15	0	85	89	17	20	0	2	11
433	Sapaul	Pipra	Shym nagar	8	918	588	340	22	68	46	2	0	451	32	15	16	0	1	8
434	Sapaul	Supaul	Supaul	8	411	263	100	26	8	33	6	0	24	99	16	14	0	0	6
435	Sapaul	Supaul	Thumba	8	845	541	305	32	54	39	5	0	366	50	4	18	0	0	9
436	Sapaul	Supaul	Birpur	8	402		150	22	23	20	2	0	165	21	16	19	0	1	8
437	Sapaul	Chhatapur	Balaua bazaar	7	98	63	25	10	0	9	1	0	24	7	0	15	0	1	7
438	Saran	Dighwara	AAMI	8	883	574	370	66	50	25	3	0	252	113	33	24	0	0	5
439	Saran	Baniapur	Baleshra	8	1036	673	335	40	57	75	4	0	351	96	30	79	0	0	6

440	Saran	Chapra	Chapra	8	872	567	310	64	36	68	3	0	240	128	0	36	0	0	10
441	Saran	Sonepur	Chausia	8	758	493	255	114	7	47	2	0	338	37	29	0	0	0	11
442	Saran	Chapra	Chirand	8	532	346	160	30	21	57	2	0	301	11	0	0	0	0	10
443	Saran	Chapra	Daldali Bazar A	8	903	587	320	34	57	76	2	0	400	18	30	46	0	0	7
444	Saran	Chapra	Daldali Bazar B	8	1284	835	400	64	58	85	2	0	394	184	30	67	0	0	8
445	Saran	Ekma	Ekma	8	479	311	80	30	1	67	3	0	301	11	0	0	0	0	11
446	Saran	Garkha	Garkha	8	543	353	195	30	29	42	7	0	209	46	0	13	0	0	8
447	Saran	Chapra	Kapiya Niyamat	8	412	268	180	36	22	19	3	0	252	14	0	0	0	0	10
448	Saran	Ravelganj	Mahajanpura	8	790	514	280	34	47	70	2	0	320	32	0	65	0	0	9
449	Saran	Ravelganj	Mahajanpura New	8	1597	1038	630	90	98	75	4	0	437	274	24	85	0	0	10
450	Saran	Chapra	Mahua Pakri	8	1090	709	320	110	11	86	10	0	474	110	19	27	0	0	8
451	Saran	Ravelganj	Manjhi	8	663	431	285	40	45	34	3	0	320	14	29	20	1	0	10
452	Saran	Masrakh	Manopali	8	526	342	205	38	26	37	4	0	246	18	0	14	0	0	10
453	Saran	Amnour	Marhaura	8	710	462	230	26	40	69	3	0	344	14	0	27	0	0	10
454	Saran	Panapur	Mashrakh	8	704	458	230	52	24	70	2	0	369	7	11	7	0	0	9
455	Saran	Chapra	Mashrakh I	8	798	519	270	34	45	77	2	0	424	28	0	48	0	0	11
456	Saran	Chapra	Mauna Pakari	8	1095	712	250	46	33	89	101	0	431	50	26	66	0	0	8
457	Saran	Garkha	Minapur	7	1927	1309	420	60	66	285	11	0	406	298	111	37	1	0	36
458	Saran	Chapra	Nagra	8	495	353	155	20	15	50	6	0	191	35	25	27	0	0	28
459	Saran	Sonepur	Nayagaon	9	518	305	140	28	18	45	2	12	195	39	11	10	0	0	26
460	Saran	Nagra	Rampur kala	7	610	350	210	38	28	36	1	0	332	11	0	0	1	0	30
461	Saran	Parsa	Saguni	8	838	494	360	40	63	43	2	0	500	11	2	0	1	0	30
462	Saran	Sonepur	Sonepur	8	931	621	205	48	21	128	1	0	437	78	21	22	0	0	26
463	Saran	Taraiya	Taraia	8	2267	1388	445	62	52	280	101	0	615	284	78	68	1	0	47
464	Seikhpura	Shekhopur Sarai	Ambari	8	1870		270	38	43	130	294	0	191	344	63	191	0	0	23
465	Seikhpura	Barbhiga	Barbhiga	8	874		370	16	27	111	5	0	141	206	3	66	0	0	12
466	Seikhpura	Barbhiga	Keoti	7	952		275	16	57	71	6	0	400	57	6	107	1	0	13
467	Seikhpura	Barbhiga	Koeribigha	8	1180		260	40	39	110	34	0	529	105	16	56	1	0	22
468	Seikhpura	Barbhiga	Sherpar	10	255		45	6	7	28	10	24	92	4	5	14	1	0	15
469	Sheohar	Piprahi	Sarbarpur	8	408	249	155	30	19	12	10	9	171	14	1	19	0	1	34
470	Sheohar	Sheohar	Sheohar	8	329	202	110	12	19	23	4	0	165	14	1	0	0	0	28
471	Sitamarhi	Majorganj	Dheng	8	390	236	120	20	17	32	2	0	195	14	2	5	0	0	24
472	Sitamarhi	Sonbarsa	Jagwana Bazar	8	180	114	60	8	10	10	1	0	55	18	2	7	0	0	26
473	Sitamarhi	Parsauni	Karhania Chowk	7	268	184	105	14	17	21	2	0	122	18	11	12	0	0	15
474	Sitamarhi	Parihar	Khairwa	8	356	232	150	44	10	17	2	0	195	21	1	5	0	0	13
475	Sitamarhi	Riga	Punurwa	8	407	260	150	44	10	26	2	0	195	25	1	10	0	0	24
476	Sitamarhi	Dumra	Sitamarhi Police Line	8	358	236	130	30	13	22	7	15	183	11	2	0	1	1	30
477	Sitamarhi	Riga	Sursand	8	410	283	170	32	22	33	2	0	220	14	1	30	0	0	15
478	Sitamarhi	Balsand	Thumba	8	1258	768	400	68	56	70	48	0	537	71	27	52	1	1	47
479	Siwan	Hussainganj	Ander	8	345	222	155	20	26	9	10	0	146	14	9	13	0	0	26
480	Siwan	Basantpur	Basantpur	9	486	296	210	40	27	25	3	21	191	16	50	0	1	0	11
481	Siwan	Guthani	Chitakahl	8	300	194	80	6	18	16	11	0	134	11	21	0	1	0	29
482	Siwan	Darauli	Darauli	7	520	314	170	30	23	26	9	0	232	20	11	14	1	0	38
483	Siwan	Darauli	Deuria	8	628	370	300	48	44	16	1	0	283	35	6	35	0	0	22
484	Siwan	Basantpur	Hardia	8	371	244	130	14	23	30	4	0	166	18	4	14	1	0	27
485	Siwan	Maharajanj	Maharajanj	8	832	541	295	42	46	58	4	0	215	113	18	31	0	0	10
486	Siwan	Nautan	Mairwa	7	1310	804	345	30	66	135	23	0	461	113	35	52	0	0	26
487	Siwan	Basantpur	Malmalia Chowk	8	533	346	220	44	27	14	3	0	295	14	0	22	0	0	8
488	Siwan	Basantpur	Malmalia Chowk	8	533	346	220	44	27	14	3	0	295	14	0	22	0	0	8
489	Siwan	Raghunathpur	Murarpati	8	827	538	245	52	28	82	3	0	338	78	16	52	0	0	11

490	Siwan	Bhagwanpur	Sarripatti	8	724	471	245	50	29	62	16	0	332	35	16	54	0	0	11
491	Siwan	Pachrukhi	Siwan	8	360	219	120	18	18	21	5	0	166	21	10	4	1	0	25
492	Siwan	Goriakothi	Tarwara	8	999	591	255	40	38	91	14	0	504	46	19	9	1	0	37
493	Vaishali	Chehra Kalan	Baksama	8	521	339	220	48	34	6	5	0	258	7	23	0	0	0	5
494	Vaishali	Goraul	Bhaluhia	8	833	541	290	18	60	51	4	0	369	11	8	16	1	0	9
495	Vaishali	Raja Pakar	Chak Sikandra	7	463	301	185	42	19	21	4	0	240	14	0	0	1	0	9
496	Vaishali	Jandaha	Gajipur	7	720	468	245	44	33	66	5	0	258	85	0	0	0	0	9
497	Vaishali	Goraul	Garaul	8	2150	1316	460	42	86	211	113	0	523	347	95	41	1	0	31
498	Vaishali	Goraul	Goroul	8	761	495	310	22	62	48	6	0	351	35	13	0	0	0	9
499	Vaishali	Hajipur	Hajipur	8	315	198	125	24	16	11	10	9	140	11	3	0	1	0	21
500	Vaishali	Chehra Kalan	Harpur	7	796	517	355	38	63	38	3	0	400	25	0	0	0	0	8
501	Vaishali	Hajipur	Kanchanpur	7	637	404	230	52	24	40	0	0	314	11	10	29	0	0	31
502	Vaishali	Mehnar	Mahnar	8	435	278	170	32	22	23	5	0	214	11	11	15	1	0	20
503	Vaishali	Mahua	Mahua	8	920	556	335	80	33	49	14	3	326	82	41	22	0	0	36
504	Vaishali	Bidupur	Mathura	8	596	373	245	24	45	25	1	0	252	35	0	27	1	0	33
505	Vaishali	Patepur	Patepur	8	889	578	365	58	53	57	2	0	203	149	28	19	0	0	6
506	Vaishali	Hajipur	Sahjadpur	8	1078	662	290	36	49	110	14	0	455	89	19	21	1	1	30
507	Vaishali	Goraul	Sarai	8	440	292	170	40	17	26	14	6	135	14	28	62	1	0	12
508	w.Champaran	Bagha	Bagha	8	838		255	60	25	71	1	0	207	113	37	41	0	0	3
509	w.Champaran	Chiraia	Belai	8	482		185	66	5	22	3	0	250	14	1	11	1	0	4
510	w.Champaran	Adepur	Belwa	8	486		195	72	4	14	2	0	256	7	0	8	0	0	5
511	w.Champaran	Bettiah	Bettiah	8	538		210	68	10	16	4	0	281	11	0	9	0	0	5
512	w.Champaran	Chanpatia	Chanpatia	8	355		130	40	7	17	1	0	189	7	0	8	1	0	2
513	w.Champaran	Chanpatia	Gurwalia	8	861		285	54	36	37	30	0	354	50	2	40	1	0	8
514	w.Champaran	Sidhaw	Harnatanr	8	880		265	74	19	65	15	0	281	85	38	51	1	0	6
515	w.Champaran	Narkatiyaganj	korigawa	8	341		150	50	6	13	1	0	177	14	1	8	1	0	4
516	w.Champaran	Lauriya	lauria	8	492		155	14	29	25	3	0	195	18	0	30	0	0	4
517	w.Champaran	Manjhaulia	majhwalia	8	884		285	68	28	54	7	0	287	57	0	95	1	0	6
518	w.Champaran	Bagha	Mangalpur	8	710		295	68	30	30	2	0	256	67	0	45	0	0	6
519	w.Champaran	Sidhaw	Naurangia	8	1046		345	84	32	45	30	0	299	71	38	119	0	0	9
520	w.Champaran	Lauriya	shishwania	8	664		270	82	16	16	6	0	311	21	4	19	0	0	5
521	w.Champaran	Sidhaw	Valmiki nagar	8	855		335	68	40	26	14	0	220	71	29	96	0	0	5

nd = Not determind

District wise percentage of well showing Rise, fall or no significant trend during Pre-Monsoon and Post-Monsoon Season

SN	District	Pre-monsoon (in Percent)			Post-monsoon (in Percent)		
		Rise	Fall	Significant Trend	Rise	Fall	Significant Trend
1	Araria	50	50	100	50	50	50
2	Aurangabad	33	67	67	30	70	60
3	Banka	22	78	67	22	78	78
4	Begusarai	44	56	67	40	60	60
5	Bhagalpur	36	64	45	36	64	55
6	Bhojpur	75	25	63	50	50	75
7	Buxar	60	40	80	33	67	67
8	Darbhanga	67	33	100	67	33	100
9	Gaya	20	80	80	13	87	63
10	Gopalganj	56	44	78	55	45	100
11	Jamui	14	86	71	14	86	57
12	Jehanabad & Arwal	29	71	86	0	100	63
13	Kaimur	57	43	86	50	50	63
14	Katihar	11	89	78	8	92	75
15	Khagaria	50	50	83	29	71	100
16	Kishanganj	50	50	100	50	50	50
17	Lakhisarai	67	33	67	20	80	80
18	Madhepura	0	100	100	0	100	80
19	Madhubani	50	50	90	44	56	89
20	Munger	29	71	86	25	75	75
21	Muzaffarpur	50	50	70	14	86	64
22	Nalanda	29	71	86	13	87	88
23	Nawada	17	83	67	17	83	100
24	W Champaran	25	75	100	57	43	86
25	Patna	45	55	100	45	55	63
26	E Champaran	80	20	100	64	36	93
27	Purnia	17	83	67	29	71	86
28	Rohtas	42	58	67	40	60	80
29	Saharsa	57	43	100	14	86	100
30	Samastipur	38	62	75	0	100	25
31	Saran	80	20	90	58	42	83
32	Seikhpura	0	0	0	100	0	0
33	Sheohar	0	0	0	100	0	100
34	Sitamarhi	100	0	100	50	50	100
35	Siwan	88	12	88	70	30	100
36	Supaul	25	75	100	78	12	100
37	Vaishali	80	20	100	17	83	100