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जल संसाधन, नदी विकास व गंगा संरक्षण विभाग
केंद्रीय भूमिजल बोर्ड

Goverment of India
Ministry of Jal Shakti
Dept of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Board

वार्षिक भूजल पुस्तिका

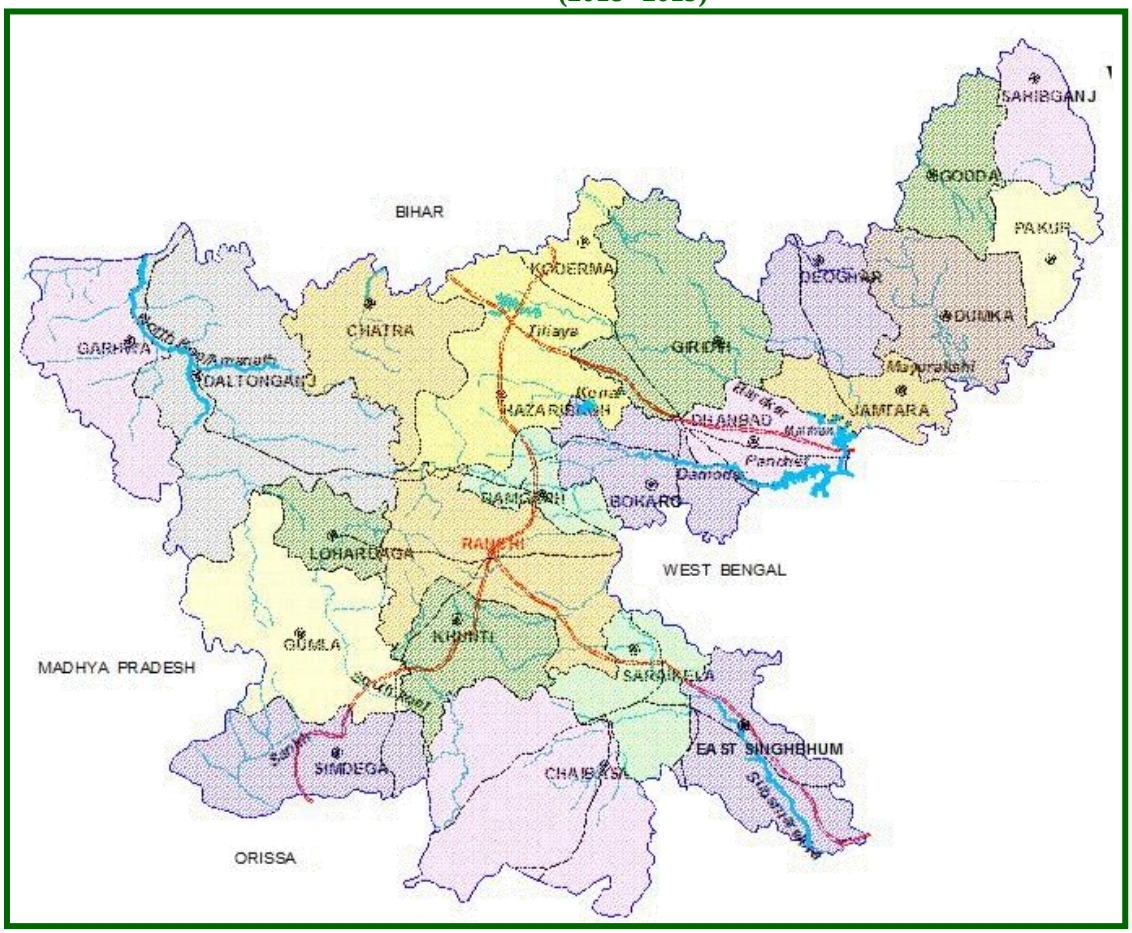
झारखण्ड

(2018 - 2019)

GROUND WATER YEAR BOOK

JHARKHAND

(2018 - 2019)



मध्य पूर्वी क्षेत्र, पटना
राज्य एकक कार्यालय, राँची
MID-EASTERN REGION, PATNA
STATE UNIT OFFICE, RANCHI

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भारत सरकार

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CENTRAL GROUND WATER BOARD

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GROUND WATER YEAR BOOK
JHARKHAND
(2018 - 2019)

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GROUND WATER YEAR BOOK
JHARKHAND
(2018-2019)

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FOREWORD

To understand the groundwater situations in diverse hydrogeological environments, changes in various facets of ground water, like variation in water level and water quality are to be monitored. A regular monitoring of ground water regime through a network of observation wells i.e. Ground water Monitoring Well (GWMW) is being carried out by Central Ground Water Board, MER Patna for the state of Jharkhand. Initially the task was taken up with the help of a few GWMW but gradually the numbers of stations were increased, which is now totals 474 GWMW (as on March 2019) which represents all 24 districts and almost all blocks of the state.

This is an attempt to make a presentation in the form of a report for Jharkhand State where the scenarios of water levels for the year 2018-2019 has been produced. The comparisons with decadal mean, seasonal & annual fluctuations, chemical quality of ground water, different maps along with data have been incorporated.

Periodic water level measurements were taken 4 times in a year in 2018-2019, (i.e. in the months of May, 2018, August, 2018, November, 2018 and January, 2019). Water samples from the GWMW were collected during the month of May-2018 to study the changes in hydrochemical regime.

The scientific officers and technical personnel of the state unit office of Jharkhand and the Mid Eastern Regional office Patna, systematically collected field data from the GWMW as required for monitoring purposes and collected water samples during the pre-monsoon period which were analysed in the chemical lab of this region.

The compilation and analyzing data, its retrieval, evaluation, preparation of suitable maps and their reproduction in the form of present report has been carried out by Dr.Anukaran kujur, Assistant Hydrogeologist, under the guidance of Dr Sudhanshu Shekhar, Scientist-D.

It is sincerely hoped that the appended write up, maps and basic information in this report would be very useful to the Planners and concerned beneficiaries in Jharkhand State

(A.K.Agrawal)
Regional Director

EXECUTIVE SUMMARY

In Jharkhand state ground water levels of 474 Ground Water Monitoring Wells (GWMW) were monitored four times in the year 2018 - 2019 as a part of regime monitoring of phreatic aquifer in different hydrogeological and agro-climatic zones. The water level monitoring was carried out in the months of May'18, August'18, November'18 and January'19 and ground water samples were collected in pre-monsoon period (May, 2018) for chemical analysis. In the state the phreatic aquifer consists of weathered mantle and saprolite zone. Over 78% area of the state is underlain by rocks of Chotanagpur Granitic Gneissic Complex (CGGC) suit. Hence, most of the GWMW represented water level in weathered CGGC. A few GWMW represented water level of phreatic aquifer of Gondwana Super Group, Basalts, Limestones, Tertiary Formation and recent alluvium.

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

The depth to water level data of all the Ground Water Monitoring Wells collected during the four measurements are also presented along with the general well information. The water samples were collected during May, 2018 chemical analysis report is under progress.

During 2018-19, the water level in the State ranges between 0.74 to 18.92 mbgl. The minimum and the maximum depth to water levels during pre-monsoon period have been recorded as 0.74 m bgl and 18.92 m bgl at West-Singhbhum and East-Singhbhum. In general the water level throughout the State varies in the range of 5 – 10 m bgl. During Post-monsoon season minimum and the maximum depth to water levels have been recorded as 0.60 mbgl and 15.90 m bgl in Pakur and East singhbhum district respectively and in general the water level throughout the State varies in the range of 2 – 5 m bgl.

Fluctuation in water level for November, 2018 compared with May, 2018 shows rise in water level (92%) for the entire state of Jharkhand. Out of 269 wells analysed, in the tune of 0.00 - 2.00 m (43%), 2.00 - 4.00 m (35%) and above 4 m (13%) during the period, which is a normal phenomenon due to recharge of ground water, as a result of onset of monsoon and rapid recharge due to moderate to steep slope in undulating tracts. A fall in water level is recorded in 20 wells out of 269 wells of the state which is mainly due to temporal withdrawal of ground water in those areas.

The fluctuation of water level of May, 2018 with respect to decadal mean water level of May 2017 indicate that the fall (67%) as well as rise (33%) in water level in the range of 0 – 2 m shows variation in almost the entire state. However the higher magnitude (>4m) of fall also recorded in 6 wells in 5 districts which may be due to temporal higher withdrawal of ground water on that area.

The fluctuation of water level of November 2018 with respect to decadal mean water level of November 2017 indicate the fall (60%) as well as rise (40%) in water level in the range of 0 – 2 m. However, overall regional fluctuation of water level in the entire state is mainly restricted within 2 m only which is normal phenomenon and no abnormal rise or fall in water level is observed except in few localized well.

GROUND WATER YEAR BOOK OF JHARKHAND

2018 – 2019

JHARKHAND AT A GLANCE

Geographical Area (sq. km.)	79714
Population (Census 2011)	3,29,66,238
Population density(Persons/Sqkm)	413
Male Population(Million)	16.93
Female Population(Million)	16.03
Decadal Growth (2001-2011)	22.3%
Literacy Rate	67.63%
Sex ratio	947 females to 1000 males
No. of Districts	24
No. of Blocks	260
Normal Annual Rainfall (mm)	1251.2
Net sown area (in hectare)-2014-15	13,84515
Area under forest (in hectare) -2014-15	2339481
Barren and uncultivated area (in hectare)-2014-15	568009
Cultivable waste land (in hectare)-2014-15	352871
Cropping intensity(%) - 2011	114 %
Annual Replenishable Ground Water Resource in BCM (2017)	6.21
Net ground water availability in BCM (2017)	5.69
Annual Ground Water Draft For Domestic & Industrial use in BCM	0.78
Gross annual ground water draft in BCM (2017)	1.58
Stage of ground water development (in %) (2017)	27.73
Number of over-exploited blocks (As on 2017)	3
Number of critical blocks (As on 2017)	2
Number of semi critical blocks (As on 2017)	10
Number of Safe block (As on March-2017)	245
Ground Water Quality	In general chemical Constituents are within permissible limit except fluoride Contamination in parts of Palamu, Garhwa, Koderma, Pakur Districts and Arsenic contamination in parts of Sahebganj district

GROUND WATER YEAR BOOK OF JHARKHAND

2018 – 2019

1.0 INTRODUCTION:

Jharkhand state, was created on 15th November, 2000, consists of districts falling on Chotanagpur Plateau of erstwhile Bihar on the birthday of legendary tribal freedom fighter Birsa Munda. Presently it consists of 24 districts and 260 administrative blocks. The capital of the state is Ranchi. The state spreads over 79714 sq km, between Latitude 21º 55' 00" and 25º 15' 00" and Longitude 83º 15' 00"and 87º 55' 00". The state is bounded by Bihar in the north and by West Bengal in the east. The other two sides, west and south, are bounded by Chhattisgarh and Orissa states respectively (Plate-I).

The population of the state as per 2011 census is 03.30 crore. The population density is 414 person/km^2. The urban population is 7.912 million and the rural population is 25.05 million. The tribal population constitutes about 28% of total population. The state is moderately urbanized with Ranchi as its capital city. Nearly 24% of total population of the state lives in urban areas. Important urban centers are in the state are Jamshedpur, Dhanbad, Hazaribagh, Daltonganj, Dumka and Deoghar.

To acquire a detailed knowledge vis–a–vis scenario of ground water level with respect to behaviour, availability and quality, Ground Water monitoring is essential in time and space. Thus, the data so collected during monitoring gives an important input for ground water management. Periodical monitoring of ground water regime covering different geomorphic, hydrogeological units is an effort to get information on the behaviour of ground water levels and chemical quality of formation water through representative sampling. Monitoring of ground water regime includes:

(a) Monitoring of ground water levels
(b) Monitoring of ground water quality and
(c) Temperature of ground water.

Monitoring is being carried out by establishing suitable *Ground Water Monitoring Well* (GWMW) based on Geomorphology, Geology, Hydrogeology and status of ground water resource of the area with a view to observe the trend of water level and change of chemical quality with time and space. It is also very useful to estimate the dynamic ground water resources and to demarcate the water logged as well as drought prone areas.

2.0 BACKGROUND:

The Central Ground Water Board, State Unit office, Ranchi, is at present monitoring 474 GWMW (Ground water monitoring wells) to delineate the behaviour of ground water level with time and space covering 24 districts in the State of Jharkhand (Plate-I) four times a year, viz January (from 1st to 10th), May (from 20th to 30th), August (from 20th to 30th) and November (from 1st to 10th). The locations of GWMW are shown in Plate - II.

The district-wise status of GWMW in Jharkhand during the period from May, 2018 to January, 2019 is given in Table 1. The district-wise water level data of GWMW for the period May, 2018, August, 2018, November, 2018 and January, 2019 are given in Annexure- I. The Trend of ground water level data (2009 to 2018) is presented in Annexure-II. The results of chemical analysis of water samples collected during May, 2018 and analytical data is under progress.

3.0 GEOLOGY AND HYDROGEOLOGY:

The generalized geological succession of Jharkhand state is given Table 1 - Generalized geological succession of Jharkhand state.

Age	***Formation***	***Broad Lithology***
Quaternary	Alluvial deposits	Sand, clay, silt and occasional gravels.
Tertiary	Dhalbhumgarh Formation	Boulder, pebbly grits, sand, and mottled clay
L-Cretaceous - U-Jurassic	Rajmahal Trap	Basalt flows with inter-trappean sedimentary beds
Cretaceous-Carboniferous	Gondwana Super group	Sandstone, shale, clay conglomerate and coal beds.
L-Cambrian-Proterozoic	Vindhyan Super group	Sandstone, quartzite, shale, limestone etc.
Proterozoic	Younger Granite, Granophyre and Soda Granite. Chhotanagpur Granite Gneissic Complex. Kolhan Group, Singhbhum Group, Gangpur Group. Mahakosal Group. Volcano-Sedimentary Sequence. Iron Ore Group. Singhbhum Granite.	Granites, granite gneiss, schists, phyllites, dolomites, basic lavas, amphibolites, gabbro anorthosite
Archean	Older Metamorphics Gneiss, Older Metamorphic Tonalite Gneiss	Gneiss, amphibolites,schists, arenites

GRANITE - GNEISS, SCHIST, PHYLLITE, AND OTHER ROCKS BELONGING TO CGGC

It covers nearly 85 % of the geographical area of the state. The phreatic aquifer in this formation consists of weathered mantle and underlying secondary porosities like fractures, joints and fissures. In general, the thickness of weathered zone varies between 10 and 25 m, however in localized patches it is > 35 m. The weathered zone is the main repository of ground water. Exploratory wells of CGWB reveal that the fractures underlying the weathered zones form the potential aquifer. The fracture zones (generally beyond 100 m depth) are exploited particularly in urban areas. In general 2-5 sets of fractures have been encountered within 150 m bgl. In a few wells, fractures have been encountered beyond 150 m depth. The ground water occurs under semi-confined to confined condition in the fractures situated at a deeper level. In this formation discharge from negligible to 30 lps has been recorded from the bore wells.

VINDHYAN SUPERGROUP

The rocks of this group are exposed in Palamu and Garhwa districts over a limited aerial extent, in the south of the river Son. The sandstones are hard and compact. The ground water occurs within the secondary porosities like fractures and joints. The fractured sandstone has good ground water potential in comparison to the shale. The ground water occurs under unconfined condition in weathered zone. The yield potential of sandstone is poorer than granite gneiss.

VOLCANIC ROCKS

The volcanic rocks occur mainly in the northeastern part of the state in Sahebganj, Pakur, Dumka and Godda districts, and in southeastern part of the state in East & West Singhbhum, and Saraikela districts. The Rajmahal trap is a series of flows horizontally disposed. In an individual flow, the lower part is massive and the upper part is vesicular. In some cases, vesicles are filled with secondary material. Partially filled interconnected vesicles form the potential aquifers. Thin inter-trappean beds are also observed between the flows. The ground water occurs under unconfined conditions in upper vesicular flows, which are exposed generally at the ground level. In the vesicular layers disposed at deeper levels the ground water occurs under semi-confined to confined condition.

GONDWANA SUPERGROUP

The Gondwana Super Group ranging in age from Upper Carboniferous to Cretaceous is considered as semi-consolidated formation. Ground water occurs within inter-granular space as well as within the secondary porosities like fractures and joints. Rocks of this unit are exposed as patches in the districts of Hazaribagh, Dhanbad, Giridih, Bokaro, Ranchi, Dumka, Jamtara, Latehar, Godda and Garhwa districts. The sandstones form repository of ground water. The exploratory drilling of CGWB and other agencies indicate that ground water occur in semi-confined to confined condition

in aquifers situated at deeper level, and under unconfined condition at shallow level. At few places, the piezometric head rises above the ground level to give rise to auto flow condition.

LATERITES AND TERTIARY SEDIMENTS

The Dhalbhumgarh Formation of Tertiary age occur in Chakulia- Bahragora-Dhalbhumgarh tract of East Singhbhum district. Exploration to a depth of 120 m indicates presence of 2 to 4 sedimentary layers. Laterite formations also occur as cappings in some parts of the state. These sedimentary layers are repository of ground water, which occurs under unconfined condition in aquifers disposed at shallow level and under confined to semi-confined condition in aquifers situated at deeper levels.

YOUNGER ALLUVIUM

The Younger Alluvium deposits are confined mainly to the bordering area of the state and occur in patches in the districts of Godda, Sahebganj and Pakur in the northeast and in Latehar, Palamu, Deoghar and Garhwa districts. In the bordering areas alluvial patches is extension of the Gangetic Plain. There is a patch of alluvial deposit in Ranchi district also. The ground water occurs under unconfined condition in aquifer disposed at shallow level. The depth of dug wells ranges between 10 –15 m in general while the depth of shallow tube well ranges between 20 - 30 m. The hydrogeological map & Geological map of Jharkhand is given in Plate III & IV.

4.0 GROUND WATER SCENARIO

4.1 DEPTH TO WATER LEVELS IN JHARKHAND DURING 2018 - 2019

May 2018

Water levels during May, 2018 were monitored from 333 wells (out of 474 existing wells). The district-wise status of distribution of Ground Water Monitoring Wells with different ranges of depth to water level is presented in *Table-2*

The minimum and the maximum depth to water levels have been recorded as 0.47 m bgl in Saraikela-Kharsawan district and 19.82 m bgl in East Singhbhum district. In general the water level throughout the State varies in the range of 5 – 10 m bgl and has been observed in the 202 wells (66.67%) out of 333 analysed wells. Secondly, water level >10 m bgl has been observed in the 43 wells (13%). The water level in the range of 2– 5 m bgl has been observed in the 54 wells (16.23%). The water level below 2 m has been observed only in 8 wells, out of which 4 wells located in E Singhbhum 2 well in Saraikela-Kharsawan 1 well in Paschimi-Singhbhum and 1 well is in Dumka districts.

As depicted in Plate V, the entire state shows water level varying between 5 and 10 m bgl except few patches where water level is more than 10 m bgl. Including few patches in the State, an area

covering the parts of East singhbhum, Saraikela, Dumka and W Singhbhum has shown water level less than 2 m bgl.

August 2018

Water levels during August, 2018 were monitored from 316 Dug wells. The district-wise status of distribution of Ground Water Monitoring Wells with different ranges of depth to water level is presented in Table 3**.**

The minimum and the maximum depth to water levels have been recorded as 0.06 m bgl in Saraikel-Kharsawan district and 11.30m bgl in Palamu district. About 35.45% of wells have water level ranging between 0-2 mbgl. In general the water level throughout the State varies in the range of 2 – 5 (40.82%) m bgl from 316 analysed wells. Secondly, the water level in the range of 5–10 m bgl has been observed in the 22.78 % of the wells. Water level >10m bgl has been observed only in 3 wells (1%) 1 well in palamu, 1 well in Chatra and 1 well in Godda district.

As depicted in Plate VI**,** major part of the State shows water level varying 2 - 5 mbgl. Water level above 5 mbgl is observed mainly in northern and north eastern part of the state whereas the water level less than 2 m bgl has been observed in sourthern, central, eastern and western part.

November 2018

A total of 322 GWMW has been monitored during post-monsoon period in November 2018, five groupings were made based on the range of water level data viz. 0-2, 2-5, 5-10, 10-20 and 20-40 m bgl. The district-wise status of distribution of network hydrograph stations with different ranges of depth to water level is presented *in Table 4.*

Minimum and the maximum depth to water levels have been recorded as 0.64 m bgl and 15.90 m bgl in Pakur and Purbi-Singhbhum district respectively. Out of 322 wells 163 (50.62%) of GWMW, water level ranges 2 - 5 m bgl which covers almost entire Jharkhand State. The water level in the range of 5-10 m bgl has been observed in the 124 wells (38.51%).Ground water level of 0 – 2 m bgl depth range has been observed only in 27 wells (8.39%) at different locations. Only 9 wells (2.80%) have shown water level more than 10 m bgl**. (**Plate VII).

January 2019

To study the water levels of recession period data were collected during January, 2019 from 308 wells. The district-wise status of distribution of network hydrograph stations with different ranges of depth to water level is presented *in Table 5.*

The minimum and the maximum depth to water levels in the State have been recorded 0.85 m bgl in Saraikela-Kharsawan district and 16.60 m bgl in Purbi-Singhbhum district. The water level in the range of 5 – 10 m bgl has been observed in the 191 wells (62.01%) covered almost entire State. Few patches 13 wells about 4.22% of water level range from 10 to 20 m bgl has been observed. 88

wells about 28.57 % of the wells analysed has shown water level in the range of 2-5 m bgl. The water level below 2 m has been observed in 17 wells Plate VIII.

4.2 SCENARIO OF ANNUAL FLUCTUATIONS IN JHARKHAND DURING 2017-18 TO 2018-19

The annual fluctuation in water levels for the periods of (1) May 2017 and May 2018, (2) August 2017 and August 2018, (3) November 2017 and November 2018 and (4) January 2018 and January 2019 have been analysed to study the net status of ground water conditions during the previous and current year.

May 2017 & May 2018

The annual fluctuation in water level between May, 2017 and May, 2018 indicates the net status of ground water condition during the previous year and current pre-monsoon measurement and the same is presented in Plate IX. The district wise statement of frequency of distribution of ground water monitoring wells falling in different ranges of water level fluctuation is presented in *Table-6.*

The major part of the state shows general rise in water level (67.40%) and general fall in water level (26%). Total 160 wells out of 273 analysed wells, comes under 0-2 m rise zone category, on the other hand 64 wells show fall within 2 m, which may indicate that the regional fluctuation of the state (85.60%) is mainly restricted within 2 m. The next higher magnitude of fluctuation is of 2 -4 mbgl rises in water level in the state 7% is observed and 2% fall in some part of the state. The highest magnitude of >4 mbgl rise has been observed in only 2% of wells.

Overall the entire State is covered under rising and falling zone category (160 and 64 wells out of 273 analysed well), which may indicate the slightly moderate rainfall (2017).

August 2017 and August 2018

The annual fluctuation in water level between Aug, 2017 and Aug, 2018 indicates the status of ground water condition during the previous year and current monsoon measurement and the same is presented in Plate X. The district wise statement of frequency of distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in Table 7.

A general fall in water level (56%) has been found in major part of the State whereas rise in (44%). Water level rise is recorded in 37% of wells and fall in 34% within 2 m, 6% rise and 19% fall within 2-4m and 2.84% rise has been observed in >4 mbgl.

Overall the entire State is covered under the category of 44% rise and 56 % fall which may be due to less rainfall in respect to during previous year.

November 2017 And November 2018

The Annual fluctuation in water level between November 2017 and November 2018 indicates the net status of ground water conditions during the previous and current post-monsoon year and the same is presented in Plate XI. The district-wise statement of distribution of network hydrograph stations in different ranges of water level fluctuation is presented in *Table 8.*

The comparison of fluctuation in water level between November 2017 and November 2018 shows fall in 78% GWMW as well as rise in 22% GWMW of the total 250 analysed wells during the period. The major part of the state shows a general fall in water level within 2.00 m. Out of 250 wells fall of water levels are observed, 153 wells (61.20%) water level ranges 0 - 2m, 38 wells (15%) 2 – 4 m and 4 wells (1.6%) > 4 m. Only 54 wells (22%) wells are observed rise in water level. In which 49 wells (19.6%) ranges 0-2m, 4 wells (1.6%) 2-4 m and only 1 wells > 4m during the period.

January 2018 And January 2019

The annual fluctuation in water level between January, 2018 and January, 2019 indicates the status of ground water condition during the previous year and current measurement and the same is presented in Plate XII. The district wise statement of frequency of distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in *Table 9.*

The major part of the state shows general fall (66.66%) and rise (31.33%) in water level. Out of 222 well 64 wells (28.83%) are observed water level rise 0 - 2 m, 6 wells (2.70%) 2-4m and 1 well more than 4m. Fall of water level range is observed in 115 wells (51.80%) 0-2m, 28 wells (12.61%) 2-4m and only 4 wells (2.25%)

4.3 SCENARIO OF SEASONAL FLUCTUATIONS IN JHARKHAND DURING THE GROUND WATER YEAR 2018 – 2019:

An attempt has been made to compare the pre-monsoon water levels of May, 2018 with water levels of August 2018, November 2018 and January 2019 to delineate the impact of rainfall as well as ground water development on ground water regime in the state during the above period.

May 2018 and August 2018

The fluctuation in water level between May 2018 and August 2018 indicates the change in water level from pre-monsoon measurement to monsoon measurement and the same is presented in Plate XIII. Fluctuation in water level map for May 2018 and August 2018 has been prepared from 277 analyzed wells. The district wise statement of frequency distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in *Table 10.*

During this period the entire state of Jharkhand shows a general rise in water level, which is mainly due to recharging of ground water on onset of monsoon from June 2018. However 6 well shows fall in water level which may be mainly due to temporal withdrawal of ground water and less rainfall in those areas.

May 2018 and November 2018

The seasonal fluctuation in water level between May 2018 and November 2018 indicates the change in water level from pre-monsoon measurement to post-monsoon measurement and the same is presented in Plate XIV. The district-wise statement of distribution of network hydrograph stations in different ranges of water level fluctuation is presented in *Table 11*.

Fluctuation in water level for November 2018 compared with May 2018 shows rise in water level (92%) for the entire state of Jharkhand. Out of 269 wells analysed, in the tune of 0.05 - 2.00 m (43.50%), 2.00 - 4.00 m (35.31%) and above 4 m (13.38%) during the period, which is a normal phenomenon due to recharge of ground water, as a result of onset of monsoon and rapid recharge due to moderate to steep slope in undulating tracts. A fall in water level is recorded in 20 wells out of 269 wells of the state which is mainly due to temporal withdrawal of ground water in those areas.

May 2018 and January 2019

The fluctuation in water level between May 2018 and January 2019 indicates the change in water level from pre-monsoon measurement to January measurement and the same is presented in Plate XV. Fluctuation in water level maps for May 2018 and January 2019 have been retrieved from 260 analyzed wells. The district wise statement of frequency distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in *Table 12.*

During the period the entire state of Jharkhand shows a general rise (205 wells) in water level, in the range of 0.00 to 2.00 m (57.70%), 2.00 to 4.00 m (16.90%) and > 4 mbgl (4%) which is mainly due to recharge on ground water for onset monsoon from June 2018 and rainfall during July - October 2018. However, 55 wells of the state shows fall in water level which may be due to temporal withdrawal of ground water at that area.

4.4 SCENARIO OF DECADAL WATER LEVEL FLUCTUATIONS WITH THE GROUND WATER YEAR 2017 – 2018

Decadal Mean and May 2018

Water level fluctuation map (Plate XVI) has been prepared by comparing the water level data of 300 wells for May Mean (2008-2017) with the depth to water level data May 2018. The district wise statement of frequency distribution of ground water monitoring wells falling in different ranges of water level fluctuation is presented in *Table 13.*

The fall (58%) as well as rise (26.33%) in water level in the range of 0 – 2 m shows variation in almost the entire state. However the higher magnitude (>4m) of fall also recorded in 6 wells in 5 districts which may be due to temporal higher withdrawal of ground water on that area.

However, overall regional fluctuation of water level in the entire state is mainly restricted within 2 m only which is normal phenomenon and no abnormal rise or fall in water level is observed except in few localized well.

Decadal Mean and August 2018

Water level fluctuation map *(Plate XVII)* has been prepared by comparing the water level data (308 wells) for August Mean (2008-2017) with the depth to water level data August 2018. The district wise statement of frequency distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in *Table 14.*

The rise (48%) as well and fall (29%) in water level in the range of 0 – 2 m shows variation almost in the entire state. Rise in water level in the range of 2 – 4 m bgl is recorded in 11% wells and for > 4 m in 1.60% through entire state.

However, overall regional fluctuation of water level in the entire state is mainly restricted within 2 m only which is normal phenomenon and no abnormal rise or fall in water level is observed except in few localized well. Fall > 2 mbgl may be due to irregularities of rainfall during last 3 to 4 years.

Decadal Mean and November 2018

The fluctuation map of water level between November Mean and November 2018 (Plate XVIII) has been prepared on the basis of available Mean water level data (319 wells) of November for last 10 years (2008-2017) with the present water level data for Jharkhand. The district-wise statement of distribution of network hydrograph stations in different ranges of water level fluctuation is presented in *Table 15.*

The fluctuation of water level of November 2018 with respect to decadal mean water level of November, 2017 indicate the fall (48%) as well as rise (38%) in water level in the range of 0 – 2 m. Fluctuation in water level 2-4 m has been recorded fall in more than 10 % of the wells and rise in 2 % of the wells. Fluctuation more than 4m fall 1.50% wells and no rise in water level of wells are recorded.

However, overall regional fluctuation of water level in the entire state is mainly restricted within 2 m only which is normal phenomenon and no abnormal rise or fall in water level is observed except in few localized well.

Decadal Mean and January 2019

Water level fluctuation map (Plate XIX) has been prepared by comparing the water level data (281 wells) for January Mean (2009-2018) with the depth to water level data January, 2019. The district wise statement of frequency distribution of network hydrograph stations falling in different ranges of water level fluctuation is presented in *Table 16.*

The fluctuation of water level of January, 2019 with respect to decadal mean water level of January, 2018 indicates 48 % fall and 37% rise in the range of 0 – 2 m has been observed in almost entire state. Out of 281 wells analysed 10 % wells have shown fall and only 1% wells rise in water level in the range of 2-4m. And 4wells fall ans 1 well well rise have been shown > 4 mbgl.

However, overall (85%) regional fluctuation of water level in the entire state is mainly restricted within 2 m only which is normal phenomenon and no abnormal rise or fall in water level is observed except in few localized well.

4.5 TREND OF GROUND WATER LEVEL

The Trend of ground water level data is presented **in Annexure-II.**

The observation shows the rising trend of ground water level in 114 wells and falling trend in 50 wells. The trend of ground water level of the entire state is mainly restricted within 0.5 m only which is normal phenomenon and no abnormal rise or fall in water level is observed in the well of the state. Only one place at Chaibasa city is showing declining trend of water level more than 0.50m.

5.0 HYDROCHEMESTRY:

The chemical quality of groundwater is dependent on the source of water and on the course over which it flow. Ground water carries a higher mineral content than surface water due to the slow circulation and longer period of contact with the rocks formation. Depending on the dissolved salts, the quality of ground water in Jharkhand has been depicted with the help of Iso-Conductance and Iso-Chloride map in Plate XIX and XX. In order to assess the chemical quality of ground water of phreatic aquifers of Jharkhand state ground water samples have been analysed for major 15 parameters viz. EC, pH, HCO_3, CO_3, Cl, TH, Ca, Mg, K, Na, F, SiO_2, PO_4 and NO_3. The chemical analysis data of ground water samples were collected (390) during the period May 2017.

Ground water samples throughout the state found to be slightly alkaline in nature as the pH mostly varies between 6.20-8.60. The quality of ground water in most of part of the state is potable with low mineral contents having electrical conductance varying from 84.20 (recorded at Kudri, Khunti) to 2450 (at Chandankiyari, Bokaro) µS/cm at 25^0c. The samples found to be suitable for drinking and irrigation purposes. Only 3 samples are having electrical conductivity greater than 2000 µS/cm, which can be treated as brackish water. Spatially in major part of the state EC rested in the range of 400-1000 µS/cm. In most of the samples the concentration of chloride is within the desirable limit of drinking water (250 mg/l). Concentration of chloride in ground water >250 mg/l is recorded in 14 number of samples in Dumka, Giridih, Sahibganj, Jamtara, Khunti, Saraikela, Dhanbad, palamau, Hazaribagh, Pakur West singhbhum districts.

Thus it is observed that the quality of ground water in shallow aquifers in the entire state is suitable for drinking, irrigation and industrial purposes except in arsenic & fluoride infested areas.

Table - 1

DISTRICT-WISE STATUS OF NHNS FOR THE STATE OF JHARKHAND FOR 2018 – 2019

Sl. No.	District	No. of GWMW as on March 31.03.2018			No. of GWMW abandoned during the year 2018			No. of GWMW established during the year 2018			No. of GWMW as on 31.03. 2019		
		DW	PZ	Total	DW	PZ	Total	DW	PZ	Total	DW	PZ	Total
1	Bokaro	22	-	22	3	-	-	-		-	19	-	19
2	Chatra	10	-	10	-	-	-	1		-	11	-	11
3	Deoghar	11	-	11	-	-	-	-		-	11	-	11
4	Dhanbad	24	-	24	-	-	-	-		-	24	-	24
5	Dumka	16	-	16	-	-	-	-		-	17	-	17
6	Garhwa	10	-	10	-	-	-	-		-	11	-	11
7	Giridih	17	-	17	-	-	-	-		-	17	-	17
8	Godda	17	-	17	-	-	-	2		-	17	-	12
9	Gumla	15	-	15	-	-	-	-		-	15	-	15
10	Hazaribag	30	-	30	1	-	-	-		-	29	-	29
11	Jamtara	10	-	10	-	-	-	-		-	10	-	10
12	Khunti	36	1	36	-	-	-	-		-	36	1	36
13	Kodarma	7	-	7	-	-	-	-		-	7		8
14	Latehar	11	-	11	-	-	-	1		-	12	-	12
15	Lohardaga	11	-	11	-	-	-	-		-	11	-	11
16	Pakaur	13	-	13	-	-	-	1		-	14	-	14
17	Palamu	19	-	19	-	-	-	-		-	19	-	19
18	W Singhbhum	18	-	18	-	-	-	-		-	18	-	18
19	E Singbhum	31	-	31	-	-	-	-		-	31	-	31
20	Ramgarh	17	4	21	-	-	-	-		-	17	4	21
21	Ranchi	56	17	73	-	3	3	-		-	56	16	72
22	Sahebganj	19	-	19	-	-	-	6		-	24	-	25
23	Saraikela-Kharswan	12	-	12	-	-	-	-		-	12	-	12
24	Simdega	15		15	-	-	-	-		-	15	-	15
	Total	**447**	**22**	**468**	**13**	**-**	**17**	**18**	**0**	**13**	**453**	**21**	**474**

Table 2: ***District wise categorisation of depth to water level - May, 2018***

Sl. No.	District Name	No. of Wells	Depth to water level (m bgl)		No./Percentage of wells Showing Depth to Water Level in the Range of									
					0 to 2		2 to 5		5 to 10		10 to 20		20 to 40	
			Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%
1	Bokaro	13	3.10	11.10	0		5	38.46	6	46.15	2	15.38	0	0
2	Chatra	8	5.90	13.33	0		0		6	75	2	25	0	0
3	Deoghar	8	7.10	8.79	0		0		8	100	0		0	0
4	Dhanbad	21	2.19	13.13	0		7	33.33	10	47.61	4	19.06	0	0
5	Dumka	15	1.97	10.60	1	6.66	3	20	10	66.66	1	6.66	0	0
6	Jamtara	10	5.15	9.80	0		0		10	100	0		0	0
7	Garhwa	7	6.50	15.94	0		0		6	85.71	1	14.29	0	0
8	Giridih	17	6.10	14.20	0		0		10	58.82	7	41.18	0	0
9	Godda	14	3.77	12.10	0		3	21.43	10	71.43	1	7.14	0	0
10	Gumla	13	2.15	9.70	0		2	15.38	11	84.61	0		0	0
11	Simdega	10	2.65	8.75	0		2	20	8	80	0		0	0
12	Hazaribag	26	4.08	13.35	0		5	7.69	16	61.53	8	30.76	0	0
13	Ramgarh	10	3.43	8.05	0		3	30	7	70	0		0	0
14	Kodarma	6	4.25	8.76	0		1	16.67	5	83.33	0		0	0
15	Lohardaga	10	5.48	12.40	0		0		9	90	1	10	0	0
16	Pakur	9	2.57	10.48	0		4	44.44	4	44.44	1	11.11	0	0
17	Palamu	14	5.47	14.58	0		0		12	85.72	2	14.28	0	0
18	Latehar	8	2.88	12.85	0		1	12.5	6	75	1	12.5	0	0
19	Pashchimi Singhbhum	13	1.61	13.30	1	7.69	2	15.38	8	61.53	2	15.38	0	0
20	Saraikela Kharsawan	8	0.74	10.35	2	25	0		5	62.5	1	12.5	0	0
21	Purbi Singhbhum	23	0.80	18.92	4	17.39	10	43.48	5	21.74	4	17.39	0	0
22	Ranchi	45	2.45	12.10	0		7	15.55	31	68.88	7	15.55	0	0
23	Khunti	8	3.20	9.75	0		2	25	6	75	0		0	0
24	Sahibganj	17	2.67	12.00	0		4	23.53	12	70.59	1	5.88	0	0
	Total	**333**	**0.74**	**18.92**	**8**		**54**		**202**		**43**		**0**	**0**

Table 3: ***District wise categorisation of depth to water level – August, 2018***

Sl. No.	District Name	No. of Wells	Depth to water level (m bgl)		No./Percentage of wells Showing Depth to Water Level in the Range of									
					0 to 2		2 to 5		5 to 10		10 to 20		20 to 40	
			Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%
1	Bokaro	13	0.90	9.95	7	53.85	3	23.08	3	23.08	0		0	0
2	Chatra	8	1.17	10.16	1	12.50	3	37.50	3	37.50	1	12.50	0	0
3	Deoghar	6	4.31	7.54	0		2	33.33	4	66.66	0		0	0
4	Dhanbad	19	0.22	7.95	6	31.57	8	42.10	5	26.31	0		0	0
5	Dumka	15	1.29	9.15	2	13.33	6	40	7	46.66	0		0	0
6	Jamtara	9	1.82	8.03	1	11.11	5	55.55	3	33.33	0		0	0
7	Garhwa	6	1.59	4.26	1	16.67	5	83.33	0		0		0	0
8	Giridih	17	1.40	8.64	4	23.53	9	52.94	4	23.53	0		0	0
9	Godda	13	1.20	11.08	3	23.08	6	46.15	3	23.08	1	7.69	0	0
10	Gumla	10	1.10	7.18	1	10	4	40	5	50	0		0	0
11	Simdega	10	1.20	5.40	2	20	6	60	2	20	0		0	0
12	Hazaribagh	25	0.34	8.55	10	40	9	36	6	24	0		0	0
13	Ramgarh	12	1.15	5.01	2	16.66	9	75	1	8.33	0		0	0
14	Kodarma	5	0.65	9.30	2	40	1	20	2	40	0		0	0
15	Lohardaga	11	2.10	6.12	0		7	63.64	4	36.36	0		0	0
16	Pakur	10	0.33	5.52	5	50	3	30	2	20	0		0	0
17	Palamu	13	1.10	11.30	5	38.46	4	30.76	3	23	1	7.69	0	0
18	Latehar	9	0.33	5.78	5	55.55	2	22.22	2	22.22	0		0	0
19	Pashchimi Singhbhum	13	0.45	9.00	9	69.23	3	23	1	7.69	0		0	0
20	Saraikela Kharsawan	9	0.06	7.35	5	55.55	3	33.33	1	11.11	0		0	0
21	Purbi Singhbhum	19	0.45	8.20	13	68.42	5	26.32	1	5.26	0		0	0
22	Ranchi	39	0.24	8.80	21	56.41	12	30.76	5	12.82	0		0	0
23	Khunti	7	1.90	6.55	1	14.28	3	42.85	3	42.85	0		0	0
24	Sahibganj	17	0.55	6.59	5	29.41	11	64.71	1	5.88	0		0	0
	Total	**316**	**0.06**	**11.30**	**112**		**129**		**72**		**3**		**0**	**0**

Table 4: ***District wise categorisation of depth to water level – November, 2018***

Sl. No.	District Name	No. of Wells	Depth to water level (m bgl)		No./Percentage of wells Showing Depth to Water Level in the Range of									
					0 to 2		2 to 5		5 to 10		10 to 20		20 to 40	
			Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%
1	Bokaro	12	1.18	10.81	2	16.81	6	50	3	25	1	8.33	0	0
2	Chatra	8	3.75	11.47	0		1	12.50	6	75	1	12.50	0	0
3	Deoghar	6	3.84	8.80	0		1	16.67	5	83.33	0		0	0
4	Dhanbad	18	1.85	9.71	2	11.11	9	50	7	38.88	0		0	0
5	Dumka	14	1.48	9.40	2	14.28	7	50	5	35.72	0		0	0
6	Jamtara	9	2.48	8.23	0		5	55.55	4	44.44	0		0	0
7	Garhwa	7	3.97	7.99	0		5	71.43	2	28.57	0		0	0
8	Giridih	14	2.85	9.30	0		8	57.14	6	42.86	0		0	0
9	Godda	14	2.49	10.33	0		9	64.29	4	28.57	1	7.14	0	0
10	Gumla	11	1.10	6.70	2	18.18	1	9.09	8	72.72	0		0	0
11	Simdega	10	1.35	5.90	2	20	4	40	4	40	0		0	0
12	Hazaribag	25	2.04	10.48	0		11	44	12	48	2	8	0	0
13	Ramgarh	10	3.28	6.58	0		6	10	4	40	0		0	0
14	Kodarma	4	2.49	10.70	0		2	50	1	25	1	25	0	0
15	Lohardaga	11	3.00	7.10	0		8	72.73	3	27.27	0		0	0
16	Pakur	9	0.64	7.07	3	33.33	3	33.33	3	33.33	0		0	0
17	Palamu	14	3.27	12.00	0		7	50	6	42.85	1	7.15	0	0
18	Latehar	9	2.38	8.70	0		7	77.77	2	22.23	0		0	0
19	Pashchimi Singhbhum	14	2.05	11.15	0		8	57.14	5	35.71	1	7.11	0	0
20	Saraikela Kharsawan	9	1.34	7.15	2	22.22	2	22.22	5	55.55	0		0	0
21	Purbi Singhbhum	22	1.00	15.90	7	31.82	11	50	3	13.64	1	4.55	0	0
22	Ranchi	46	1.17	8.10	4	8.70	24	52.17	18	39.13	0		0	0
23	Khunti	9	1.25	6.45	1	11.11	3	33.33	4	44.44	0		0	0
24	Sahibganj	17	2.06	7.00	0		13	76.47	4	23.53	0		0	0
	Total	**322**	**0.64**	**15.90**	**27**		**163**		**124**		**9**		**0**	**0**

Table 5: ***District wise categorisation of depth to water level – January, 2019***

Sl. No.	District Name	No. of Wells	Depth to water level (m bgl)		No./Percentage of wells Showing Depth to Water Level in the Range of									
					0 to 2		2 to 5		5 to 10		10 to 20		20 to 40	
			Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%
1	Bokaro	13	2.49	11.10	0		5	38.46	6	46.15	2	15.38	0	0
2	Chatra	7	4.37	12.21	0		1	14.29	5	71.43	1	14.29	0	0
3	Deoghar	8	6.51	9.72	0		0		8	100	0		0	0
4	Dhanbad	18	2.21	12.40	0		7	38.88	10	55.55	1	5.55	0	0
5	Dumka	14	1.94	8.03	1	7.15	4	28.57	9	64.28	0		0	0
6	Jamtara	10	3.34	9.65	0		1	10	9	90	0		0	0
7	Garhwa	7	4.58	9.34	0		2	28.57	5	71.43	0		0	0
8	Giridih	17	4.81	10.60	0		1	5.88	14	82.35	2	11.76	0	0
9	Godda	12	2.78	11.24	0		7	58.33	4	33.33	1	8.33	0	0
10	Gumla	12	1.98	7.60	1	8.33	2	16.67	9	75	0		0	0
11	Simdega	10	2.10	7.30	0		4	40	6	60	0		0	0
12	Hazaribag	12	2.79	11.41	0		4	33.33	6	50	2	16.66	0	0
13	Ramgarh	9	3.30	8.88	0		2	22.22	7	77.78	0		0	0
14	Kodarma	4	4.72	10.20	0		2	50	1	25	1	25	0	0
15	Lohardaga	11	4.80	7.86	0		1	9.09	10	90.91	0		0	0
16	Pakur	10	1.05	8.58	2	20	4	40	4	40	0		0	0
17	Palamu	14	4.22	12.86	0		2	14.28	11	78.57	1	7.14	0	0
18	Latehar	9	2.52	9.89	0		4	44.44	5	55.56	0		0	0
19	Pashchimi Singhbhum	14	1.70	10.90	1	7.14	5	35.71	6	42.85	1	7.14	0	0
20	Saraikela Kharsawan	9	0.85	8.00	1	11.11	2	22.22	6	66.67	0		0	0
21	Purbi Singhbhum	19	1.00	16.60	9	47.37	4	21.05	5	26.32	1	5.26	0	0
22	Ranchi	44	1.36	9.46	1	2.27	15	34.09	28	63.63	0		0	0
23	Khunti	9	1.90	7.17	1	11.11	3	33.33	5	55.56	0		0	0
24	Sahibganj	16	2.86	8.83	0		5	31.25	11	68.75	0		0	0
	Total	**308**	**0.85**	**16.60**	**17**		**88**		**191**		**13**		**0**	**0**

Table 6: ***District wise categorisation of fluctuation (Annual) in water level and frequency Distribution between May, 2017 – May, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	13	0.03	6.34	0.1	0.1	9 69.23%	0	2 15.38%	1 7.69%	0	0	11	1
2	Chatra	8	0.31	1.54	0.18	0.73	3 37.50%	0	0	4 50%	0	0	3	4
3	Deoghar	8	0.26	1.62	0.1	4.21	4 50%	0	0	3 37.5%	0	1 12.5%	4	4
4	Dhanbad	18	0.1	7.89	0.08	2.04	8 44.44%	1 5.56 %	2 11.11%	5 27.78%	1 5.56 %	0	11	6
5	Dumka & Jamtara	25	0.01	1.36	0.01	3.92	15 60%	0	0	8 32%	1 4%	0	15	9
6	Garhwa	6	0.06	0.56	0.38	0.65	3 50%	0	0	2 33.33%	0	0	3	2
7	Giridih	17	0.4	1.78	0.1	0.93	6 35.39%	0	0	7 41.18%	0	0	6	7
8	Godda	12	0.01	1.2	0.13	0.13	9 75%	0	0	1 8.33%	0	0	9	1
9	Gumla & Simdega	22	0.2	2.1	0.2	3.05	15 68.18%	1 4.55 %	0	4 18.18%	1 4.55 %	0	16	5
10	Hazaribagh & Ramgarh	18	0.01	3.9	0.06	3.05	10 55.56%	1 5.56 %	0	6 33.33%	1 5.56 %	0	11	7
11	Koderma	3	0.6	0.6	0.05	0.05	1 33.33%	0	0	1 33.33%	0	0	1	1
12	Lohardaga	10	0.2	1	0.2	0.2	6 60%	0	0	2 20%	0	0	6	2
13	Pakaur	9	0.12	1.36	0.93	0.93	7 77.78%	0	0	1 11.11%	0	0	7	1
14	Palamu & Latehar	22	0.01	6.11	0.06	2.49	9 40.91%	0	1 4.55%	11 50%	1 4.55 %	0	10	12
15	Pashchi Singhbhum & Sariakela	21	0.6	3.16	0.85	0.95	11 52.38%	8 38.1 1%	0	2 9.52%	0	0	19	2
16	Purbi Singhbhum	22	0.05	2.65	2.2	2.2	18 81.82%	2 9.09 %	0	0	1 4.55 %	0	20	1
17	Ranchi & Khunti	22	0.15	3.65	0.3	0.3	16 58.82%	5 22.7 3%	0	1 4.55%	0	0	21	1
18	Sahibganj	17	0.04	2.81	0.04	1.6	10 58.82%	1 5.88 %	0	5 29.41%	0	0	11	5
	Total	**273**	**0.60**	**0.56**	**0.01**	**4.21**	**160**	**19**	**5**	**64**	**6**	**1**	**184**	**71**

Table 7: ***District wise categorisation of fluctuation (Annual) in water level and frequency Distribution between August, 2017 – August, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	12	0.26	0.95	0.04	4.55	5 41.67%	0	0	6 50%	0	1 8.33%	5	7
2	Chatra	7	0.02	0.44	0.39	1.05	3 42.86%	0	0	4 57.14 %	0	0	3	4
3	Deoghar	5	0.01	0.01	0.11	3.01	1 20%	0	0	1 20%	3 60%	0	1	4
4	Dhanbad	5	0.02	0.83	1.73	1.73	4 80%	0	0	1 40%	0	0	4	1
5	Dumka & Jamtara	23	0.36	1.25	0.21	4.58	6 26.09%	0	0	9 39.13 %	6 26.09 %	2 8.70%	6	17
6	Garhwa	6	0.32	1.51	0.5	3.38	4 66.67%	0	0	1 33.33 %	1 33.33 %	0	4	2
7	Giridih	12	0.05	4.39	0.13	3.95	6 50%	0	1 8.33 %	4 33.33 %	1 8.33%	0	7	5
8	Godda	11	0.4	6	0.01	2.19	6 54.55%	0	1 9.09 %	3 27.27 %	1 9.09%	0	7	4
9	Gumla & Simdega	18	-	-	0.73	3.88	0	0	0	6 33.33 %	12 66.67 %	0	0	18
10	Hazaribagh & Ramgarh	15	0.06	0.53	0.03	2.91	5 33.33%	0	0	8 53.33 %	2 13.33 %	0	5	10
11	Koderma	5	0.36	0.85	0.21	2.5	2 40%	0	0	2 40%	1 20%	0	2	3
12	Lohardaga	11	0.18	0.18	0.6	3.4	1 9.09%	0	0	6 54.55 %	4 36.36 %	0	1	10
13	Pakaur	8	0.09	3.22	0.35	1.55	2 25%	2 25%	0	4 50%	0	0	4	4
14	Palamu & Latehar	19	0.06	1.82	0.05	4.74	9 47.37%	0	0	5 26.32 %	4 21.05 %	1 5.26%	9	10
15	Pashchi Singhbhum & Sariakela	21	0.02	3.78	0.16	1.95	9 42.86%	8 38.10 %	0	4 19.05	0	0	17	4
16	Purbi Singhbhum	9	0.03	3.12	0.5	0.5	6 66.67%	2 22.22 %	0	1 11.11 %	0	0	8	1
17	Ranchi & Khunti	18	0.24	2.73	0.75	6.48	4 22.22%	1 5.56 %	0	4 22.22 %	6 33.33 %	3 16.67 %	5	13
18	Sahibganj	14	0.21	1.9	0.3	3.39	8 57.14%	0	0	5 35.71 %	1 7.14%	0	8	6
	Total	**219**	**0.40**	**0.01**	**0.01**	**6.48**	**81**	**13**	**2**	**74**	**42**	**7**	**96**	**123**

Table 8: ***District wise categorisation of fluctuation (Annual) in water level and frequency Distribution between November, 2017 – November,2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	12	0.12	0.54	0.07	3.97	2 16.67%	0	0	7 58.33%	3 25%	0	2	10
2	Chatra	8	0.12	0.12	0.67	1.95	1 12.50%	0	0	7 87.50%	0	0	1	7
3	Deoghar	6	0.41	0.41	0.08	6.58		0	0	1 16.67%	1	3 50%	1	5
4	Dhanbad	18	0.02	0.12	0.04	1.47	2 11.11%	0	0	16 88.89%	0	0	2	16
5	Dumka & Jamtara	22	0.21	3.43	0.15	2.72	9 40.91%	2 9.09%	0	9 40.91%	2 9.09%	0	11	11
6	Garhwa	6	0.13	0.6	0.18	0.29	4 66.67%	0	0	2 33.33%	0	0	4	2
7	Giridih	13	-	-	0.08	3.47	0	0	0	9 69.23%	4 30.77 %	0	0	13
8	Godda	13	0.37	6.1	0.12	0.85	8 61.54%	1 7.69%	1 7.69 %	3 23.08%	0	0	10	3
9	Gumla & Simdega	20	0.2	0.2	0.2	3.9	1 5%	0	0	15 75%	4 20%	0	1	19
10	Hazaribagh & Ramgarh	9	-	-	0.05	2.82	0	0	0	6 66.67%	3 33.33 %	0	0	9
11	Koderma	4	-	-	1.03	2.66	0	0	0	3 75%	1 25%	0	0	4
12	Lohardaga	11	0.63	0.8	0.2	2.3	2 18.18%	0	0	8 72.73%	1 9.09%	0	2	9
13	Pakaur	4	0.5	0.76	0.32	0.32	3 75%	0	0	1 25%	0	0	3	1
14	Palamu & Latehar	19	0.03	0.44	0.09	2.55	4 21.05%	0	0	13 68.42%	1 5.26%	0	4	14
15	Pashchi Singhbhum & Sariakela	22	0.3	0.7	0.05	3.55	2 9.09%	0	0	16 72.73%	4 18.18 %	0	2	20
16	Purbi Singhbhum	9	-	-	0.1	2.2	0	0	0	8 88.89%	1 11.11 %	0	0	9
17	Ranchi & Khunti	39	0.1	1.73	0.05	4.5	5 12.82%	0	0	21 53.85%	12 30.77 %	1 2.56%	5	34
18	Sahibganj	15	0.15	3.28	0.4	2.88	5 33.33%	1 6.67%	0	8 53.33%	1 6.67%	0	6	9
	Total	**250**	**0.63**	**0.12**	**0.04**	**6.58**	**49**	**4**	**1**	**153**	**38**	**4**	**54**	**195**

Table 9: ***District wise categorisation of fluctuation (Annual) in water level and frequency Distribution between January, 2018 – January, 2019***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	13	1.22	1.22	0.03	1.35	1 7.69%	0	0	12 92.31 %	0	0	1	12
2	Chatra	7	0.05	0.13	0.03	0.55	2 28.57%	0	0	5 71.43 %	0	0	2	5
3	Deoghar	7	1.65	1.65	0.38	4.27	1 14.29%	0	0	4 57.14 %	1 14.29 %	1 14.29 %	1	6
4	Dhanbad	16	-	-	0.12	1.67	0	0	0	16 100%	0	0	0	16
5	Dumka & Jamtara	17	0.11	1.36	0.34	3.9	4 23.53%	0	0	8 47.06 %	5 29.41 %	0	4	13
6	Garhwa	5	0.29	0.61	0.12	0.24	3 60%	0	0	2 40%	0	0	3	2
7	Giridih	16	0.06	0.34	0.14	4.08	2 12.50%	0	0	5 31.25 %	7 43.75 %	1 6.25%	2	13
8	Godda	6	0.27	1.42	0.17	0.94	2 33.33%	0	0	4 66.67 %	0	0	2	4
9	Gumla & Simdega	22	0.78	0.78	0.15	3.39	1 4.55%	0	0	15 68.18 %	6 27.27 %	0	1	21
10	Hazaribagh & Ramgarh	14	0.03	1.99	0.05	2.34	6 42.86%	0	0	7 50%	1 7.14%	0	6	8
11	Koderma	4	-	-	0.32	4.1	0	0	0	3 75%	0	1 25%	0	4
12	Lohardaga	10	0.85	1.16	0.08	3.74	2 20%	0	0	6 60%	2 20%	0	2	8
13	Pakaur	5	0.45	1.75	0.48	0.48	4 80%	0	0	1 20%	0	0	4	1
14	Palamu & Latehar	20	0.08	4.73	0.05	2.05	12 60%	0	1 5%	5 25%	2 10%	0	13	7
15	Pashchi Singhbhum & Sariakela	21	0.1	3.7	0.17	2.2	8 38.10%	5 23.81 %	0	6 28.57 %	1 4.76%	0	13	7
16	Purbi Singhbhum	10	0.35	1.95	0.3	0.3	9 90%	0	0	1 10%	0	0	9	1
17	Ranchi & Khunti	19	0.19	2.58	0.05	2.65	6 31.58%	1 5.26%	0	10 52.63 %	1 5.26%	0	7	11
18	Sahibganj	10	0.37	0.37	0.03	6.2	1 10%	0	0	5 50%	2 20%	2 20%	1	9
	Total	**222**	**1.65**	**0.13**	**0.03**	**6.20**	**64**	**6**	**1**	**115**	**28**	**5**	**71**	**148**

Table 10: ***District wise categorisation of fluctuation (Seasonal) in water level and frequency Distribution, May, 2018 - August, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	13	1.05	7.89	-	-	3 23.08%	6 46.15%	4 30.08%	0	0	0	13	0
2	Chatra	8	1.87	7.26	-	-	1 12.50%	4 50%	3 37.50%	0	0	0	8	0
3	Deoghar	6	0.67	3.89	-	-	3 50%	3 50%	0	0	0	0	6	0
4	Dhanbad	19	0.37	11.12	2.03	2.55	5 26.32%	5 26.32%	7 36.84%	0	2 10.53%	0	17	2
5	Dumka & Jamtara	24	0.34	6.05	-	-	12 50%	8 33.33%	4 16.67%	0	0	0	24	0
6	Garhwa	6	3.45	5.49	-	-	0	3 50%	3 50%	0	0	0	6	0
7	Giridih	17	1.8	10.25	-	-	1 5.88%	2 11.76%	14 82.35%	0	0	0	17	0
8	Godda	12	0.71	5.02	-	-	4 33.33%	5 41.67%	3 25%	0	0	0	12	0
9	Gumla & Simdega	19	0.3	5.7	-	-	8 42.11%	7 36.84%	4 21.11%	0	0	0	19	0
10	Hazaribagh & Ramgarh	33	0.5	11.62	0.12	0.12	1 3.03%	13 39.39%	18 54.55%	1 3.03 %	0	0	32	1
11	Koderma	5	0.92	4.8	1	1	1 20%	1 20%	2 40%	1 20%	0	0	4	1
12	Lohardaga	10	1.18	6.55	-	-	3 30%	3 30%	4 40%	0	0	0	10	0
13	Pakaur	8	1.56	5.71	-	-	3 37.50%	3 37.50%	2 25%	0	0	0	8	0
14	Palamu & Latehar	21	0.75	9.02	-	-	3 14.29%	3 14.29%	15 71.43%	0	0	0	21	0
15	Pashchi Singhbhum & Sariakela	20	0.8	8.55	3.15	3.15	2 20%	5 25%	12 60%	0	1 5%	0	19	1
16	Purbi Singhbhum	18	0.05	10.72	-	-	6 33.33%	6 33.33%	6 33.33%	0	0	0	18	0
17	Ranchi & Khunti	22	0.1	8.76	0.3	0.3	5 22.73%	8 36.36%	8 36.36%	1 4.55 %	0	0	21	1
18	Sahibganj	16	1.12	8.58	-	-	3 18.75%	8 50%	5 31.25%	0	0	0	16	0
	Total	**277**	**(3.45)**	**(3.89)**			**64**	**93**	**114**	**3**	**3**	**0**	**271**	**6**

Table 11: ***District wise categorisation of fluctuation (Seasonal) in water level and frequency Distribution, May, 2018 - November, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	12	0.19	6.07	-	-	6 50%	5 41.67 %	1 8.33%	0	0	0	12	0
2	Chatra	8	0.1	4.09	-	-	4 50%	3 37.50 %	1 12.50 %	0	0	0	8	0
3	Deoghar	6	0.35	3.88	0.59	0.59	4 66.67%	1 16.67 %	0	1 16.67 %	0	0	5	1
4	Dhanbad	19	0.18	8.79	0.3	2.7	6 31.58%	7 36.84 %	3 15.79 %	1 5.26%	2 10.53 %	0	16	3
5	Dumka & Jamtara	23	0.33	6.13	-	-	11 47.83%	11 47.83 %	1 4.35%	0	0	0	23	0
6	Garhwa	7	1.62	7.95	-	-	2 28.57%	4 57.14 %	1 14.29 %	0	0	0	7	0
7	Giridih	14	0.16	6.15	0.19	0.19	3 21.43%	2 14.29 %	8 57.14 %	1 7.14%	0	0	13	1
8	Godda	13	1	4.79	-	-	7 53.85%	5 38.46 %	1 7.69%	0	0	0	13	0
9	Gumla & Simdega	20	0.9	5.4	0.03	0.5	10 50%	7 35%	1 5%	2 10%	0	0	18	2
10	Hazaribagh & Ramgarh	30	0.38	8.35	0.48	0.48	15 50%	9 30%	5 16.67 %	1 3.33%	0	0	29	1
11	Koderma	4	0.3	2.96	2.4	2.4	1 25%	2 50%	0	0	1 25%	0	3	1
12	Lohardaga	10	1.08	6.05	-	-	2 20%	6 60%	2 20%	0	0	0	10	0
13	Pakaur	7	0.6	3.41	1.07	1.07	4 57.14%	2 28.57 %	0	1 14.29 %	0	0	6	1
14	Palamu & Latehar	20	0.05	6.24	-	-	7 35%	7 35%	6 30%	0	0	0	20	0
15	Pashchi Singhbhum & Sariakela	20	0.2	4.35	0.05	4.1	8 40%	6 30%	1 5%	3 15%	0	1 5%	15	4
16	Purbi Singhbhum	19	0.1	3.7	0.05	0.25	10 52.63%	6 31.58 %	0	3 15.79 %	0	0	16	3
17	Ranchi & Khunti	21	0.2	6.17	0.05	0.6	10 47.62%	7 33.33 %	2 9.52%	2 9.52%	0	0	19	2
18	Sahibganj	16	0.28	8	0.2	0.2	7 43.75%	5 31.25 %	3 18.75 %	1 6.25%	0	0	15	1
	Total	269	1.62	2.96	0.00	4.10	117	95	36	16	3	1	248	20

Table 12: ***District wise categorisation of fluctuation (Seasonal) in water level and frequency Distribution, May, 2018 - January, 2019***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	14	0.08	1.62	0.19	0.56	11 78.57%	0	0	2 14.29 %	0	0	11	2
2	Chatra	7	0.8	1.53	0.65	0.65	6 85.71%	0	0	1 14.29 %	0	0	6	1
3	Deoghar	8	0.39	1.21	0.11	1.51	4 50%	0	0	4 50%	0	0	4	4
4	Dhanbad	19	0.26	7.58	0.11	3.37	8 42.11%	3 15.79 %	2 10.53 %	4 21.05 %	2 10.53 %	0	13	6
5	Dumka & Jamtara	24	0.03	3.62	0.03	1.09	17 70.83%	2 8.33%	0	5 20.83 %	0	0	19	5
6	Garhwa	7	0.85	6.6	-	-	5 71.43%	1 14.29 %	1 14.29 %	0	0	0	7	0
7	Giridih	17	0.1	6.96	0.6	0.98	11 64.71%	3 17.65 %	1 5.88%	2 11.76 %	0	0	15	2
8	Godda	12	0.38	4.39	-	-	7 58.33%	4 33.33 %	1 8.33%	0	0	0	12	0
9	Gumla & Simdega	21	0.06	4.3	0.1	1.3	13 61.90%	4 19.05 %	1 4.76%	3 14.29 %	0	0	18	3
10	Hazaribagh & Ramgarh	19	0.15	4.13	0.42	2.5	10 52.63%	2 10.53 %	1 5.26%	5 26.32 %	1 5.26%	0	13	6
11	Koderma	4	0.58	1.73	0.47	2.79	2 50%	0	0	1 25%	1 25%	0	2	2
12	Lohardaga	10	0.04	4.54	-	-	6 60%	3 30%	1 10%	0	0	0	10	0
13	Pakaur	8	0.48	3.38	1.17	1.3	3 37.50%	2 25%	0	2 25%	0	0	5	2
14	Palamu & Latehar	20	0.36	5.2	0.02	0.81	10 50%	4 20%	3 15%	3 15%	0	0	17	3
15	Pashchi Singhbhum & Sariakela	19	0.15	3.7	1.2	5.3	9 47.37%	7 36.84 %	0	2 10.53 %	0	1 5.26%	16	3
16	Purbi Singhbhum	17	0.2	3.2	0.1	0.5	8 47.06%	5 29.41 %	0	4 23.53 %	0	0	13	4
17	Ranchi & Khunti	19	0.32	3.57	0.45	1.6	11 57.89%	3 15.79 %	0	5 26.32 %	0	0	14	5
18	Sahibganj	15	0.11	2.87	0.85	1.86	9 60%	1 6.69%	0	5 33.33 %	0	0	10	5
	Total	**260**	**0.85**	**1.21**	**0.00**	**5.30**	**150**	**44**	**11**	**48**	**4**	**1**	**205**	**53**

Table 13: ***District wise categorisation of fluctuation (Decadal) in water level and frequency Distribution between May (2008-2017 mean) - May, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	14	0.44	5.18	0.02	0.64	7 50%	1 7.14	1 7.14	5 35.71 %	0	0	9	5
2	Chatra	8	0.01	3.17	0.52	1.32	3 37.50%	1 12.5%	0	4 50%	0	0	4	4
3	Deoghar	8	0.3	2.35	0.17	1.27	3 37.50%	1 12.5%	0	4 50%	0	0	4	4
4	Dhanbad	22	0.03	6.86	0.15	4.29	10 45.45%	3 13.64 %	1 4.55%	6 27.27 %	1	1 4.55%	14	8
5	Dumka & Jamtara	25	0.14	3.32	0.29	3.47	19 76%	1 4%	0	4 16%	1 4%	0	20	5
6	Garhwa	7	1.37	1.78	0.12	4.29	2 28.57%	0	0	3 42.86 %	1 14.29 %	1 14.29 %	2	5
7	Giridih	17	0.36	2.05	0.03	4.29	2 11.76%	1 5.88%	0	11 64.71 %	2 11.76 %	1 5.88%	3	14
8	Godda	13	0.09	1.42	0.02	1	6 46.15%	0	0	6 46.15 %	0	0	6	6
9	Gumla & Simdega	22	0.09	1.88	0.01	0.74	14 63.64%	0	0	8 36.36 %	0	0	14	8
10	Hazaribagh & Ramgarh	36	0.05	4.13	0.01	4.65	14 38.89%	1 2.78%	1 2.78%	14 38.89 %	4 11.11 %	2 5.56%	16	20
11	Koderma	4	0.48	0.88	0.4	0.4	3 75%	0	0	1 25%	0	0	3	1
12	Lohardaga	10	0.03	1.17	0.24	0.39	8 80%	0	0	2 20%	0	0	8	2
13	Pakaur	9	0.07	2.18	-	-	8 88.89%	1 11.11 %	0	0	0	0	9	0
14	Palamu & Latehar	22	0.13	4	0.31	2.06	14 63.64%	2 9.09%	0	5 22.72 %	1 4.55%	0	16	6
15	Pashchi Singhbhum & Sariakela	22	0.12	5.27	1.91	2.58	15 68.18%	3 13.64 %	2 9.09%	1 4.55%	1 4.55%	0	20	2
16	Purbi Singhbhum	22	0.13	2.79	0.08	2.97	16 72.73%	2 9.09%	0	2 9.09%	2 9.09%	0	18	4
17	Ranchi & Khunti	22	0.22	3.05	0.51	0.51	20 90.91%	1 4.55%	0	1 4.55%	0	0	21	1
18	Sahibganj	17	0.13	3.87	0.61	4.41	10 58.82%	4 23.53 %	0	2 11.76 %	0	1 5.88%	14	3
	Total	300	0.88	1.37	0.00	4.65	174	22	5	79	13	6	201	98

Table 14: ***District wise categorisation of fluctuation (Decadal) in water level and frequency Distribution between August (2008-2017 mean) - August, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	13	0.54	1.44	0.01	3.29	7 53.85%	0	0	5 38.46%	1 7.69%	0	7	6
2	Chatra	8	0.33	2.95	0.07	0.88	2 25%	1 12.5%	0	5 62.50%	0	0	3	5
3	Deoghar	6	0.11	5.03	1.89	2.8	2 33.33%	0	1 16.67%	1 16.67%	2 33.33%	0	3	3
4	Dhanbad	19	0.1	3.36	0.08	1.47	13 68.42%	4 21.05%	0	2 10.53%	0	0	17	2
5	Dumka & Jamtara	24	0.1	2.13	0.18	4.27	7 29.17%	1 4.17%	0	9 37.37%	6 25%	1 4.17%	8	16
6	Garhwa	6	0.55	2.63	0.83	0.83	2 33.33%	3 50%	0	1 16.67%	0	0	5	1
7	Giridih	17	0.24	4.28	0.61	4.42	11 64.71%	0	1 5.88%	3 17.65%	1 5.88%	1 5.88%	12	5
8	Godda	12	0.03	2.7	-	2.21	6 50%	1 8.33%	0	4 33.33%	1 8.33%	0	7	5
9	Gumla & Simdega	19	0.02	20.11	0.15	3.49	2 10.53%	0	1 5.26%	10 52.63%	6 31.58%	0	3	16
10	Hazaribagh & Ramgarh	37	0.04	2.19	0	2.89	19 51.35%	2 5.41%	0	15 40.54%	1 2.70%	0	21	16
11	Koderma	5	0.86	0.86	0.19	3.93	1 20%	0	0	2 40%	2 40%	0	1	4
12	Lohardaga	11	0	1.26	0.49	2.26	3 27.27%	0	0	6 54.55%	2 18.18%	0	3	8
13	Pakaur	9	0.6	2.77	0.03	2.44	1 11.11%	2 22.22%	0	5 55.56%	1 11.11%	0	3	6
14	Palamu & Latehar	22	0.27	2.91	0.15	0.64	11 50%	8 36.36%	0	3 13.64%	0	0	19	3
15	Pashchi Singhbhum & Sariakela	22	0.02	3.59	1.2	4.24	15 68.18%	2 9.09%	0	3 13.64%	1 4.55%	1 4.55%	17	5
16	Purbi Singhbhum	18	0.11	2.78	0.51	0.92	15 83.33%	1 5.56%	0	2 11.11%	0	0	16	2
17	Ranchi & Khunti	45	0.03	5.68	0.28	6.28	21 46.67%	9 20%	2 4.44%	9 20%	2 4.44%	2 4.44%	32	13
18	Sahibganj	15	0.04	2.84	0.4	1.67	10 66.67%	1 6.67%	0	4 26.67%	0	0	11	4
	Total	**308**	**0.86**	**0.86**	**0.00**	**6.28**	**148**	**35**	**5**	**89**	**26**	**5**	**188**	**120**

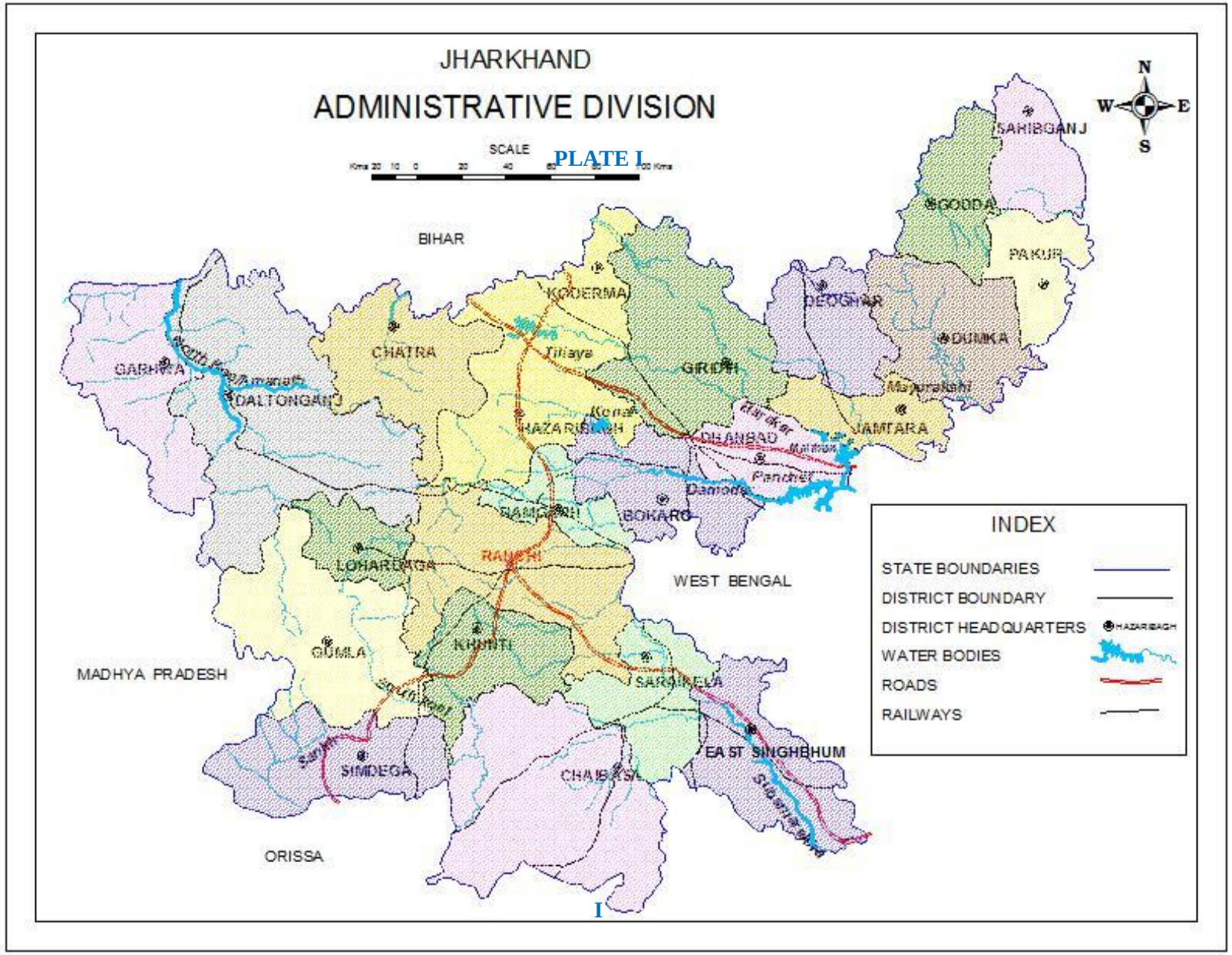
Table 15: ***District wise categorisation of fluctuation (Decadal) in water level and frequency Distribution between November (2008-2017 mean) - November, 2018***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	12	0.24	1.25	0.13	3.59	5 41.67%	0	0	5 41.67%	2 16.67%	0	5	7
2	Chatra	8	1.11	1.11	0.2	1.32	1 12.50%	0	0	7 87.50%	0	0	1	7
3	Deoghar	6	1.57	1.72	0.61	4.59	2 33.33%	0	0	1 16.67%	2 33.33%	1 16.67%	2	4
4	Dhanbad	19	0.22	1.9	0.12	1.23	3 15.79%	0	0	16 84.21%	0	0	3	16
5	Dumka & Jamtara	22	0.05	1.82	0.08	2.48	13 59.09%	0	0	6 27.27%	3 13.64%	0	13	9
6	Garhwa	7	0.69	1.26	0.36	2.29	4 57.14%	0	0	2 28.57%	1 14.29%	0	4	3
7	Giridih	14	0.18	0.78	0.24	3.23	3 21.43%	0	0	6 42.86%	5 35.71%	0	3	11
8	Godda	13	0.31	3.14	0.29	2.27	8 61.54%	1 7.69%	0	2 15.38%	2 15.38%	0	9	4
9	Gumla & Simdega	21	0.03	0.31	0.16	2.48	5 23.81%	0	0	12 57.14%	3 14.29%	0	5	15
10	Hazaribagh & Ramgarh	35	0.18	2.31	0.01	4.07	10 28.57%	1 2.86%	0	18 51.43%	5 14.29%	1 2.86%	11	24
11	Koderma	4	0.72	0.72	0.92	4.7	1 25%	0	0	2 50%	0	1 25%	1	3
12	Lohardaga	11	0.25	1.47	0.54	1.25	6 54.55%	0	0	5 45.45%	0	0	6	5
13	Pakaur	8	0.14	1.02	0.14	1.02	4 50%	0	0	4 50%	0	0	4	4
14	Palamu & Latehar	23	0.07	1.82	0.09	1.41	15 65.22%	0	0	8 34.78%	0	0	15	8
15	Pashchi Singhbhum & Sariakela	23	0.16	1.03	0.01	4.32	4 17.39%	0	0	16 69.57%	2 8.70%	1 4.35%	4	19
16	Purbi Singhbhum	21	0.27	3.53	0.1	3.3	6 28.57%	2 9.52%	0	11 52.38%	2 9.52%	0	8	13
17	Ranchi & Khunti	55	0.01	2.76	0.02	4.32	22 40%	1 1.82%	0	26 47.27%	5 9.09%	1 1.82%	23	32
18	Sahibganj	17	0.12	3.28	0.2	1.29	9 52.94%	1 5.88%	0	7 41.18%	0	0	10	7
	Total	319	0.31	1.57	0.01	4.70	121	6	0	154	32	5	127	191

Table 16: ***District wise categorisation of fluctuation (Decadal) in water level and frequency Distribution between January (2009-2018 mean) - January, 2019***

Sl. No.	District Name	No. of Wells	Range of Fluctuation (m)				No. of Wells/Percentage Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall			Rise	Fall
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
1	Bokaro	14	0.1	1.31	0.1	4.04	3 21.43%	0	0	8 57.14 %	2 14.29 %	1 7.14%	3	11
2	Chatra	7	0.71	0.99	0.37	1.15	2 28.57%	0	0	5 71.43 %	0	0	2	5
3	Deoghar	7	1.07	1.07	0.04	4.5	1 14.29%	0	0	3 42.86 %	2 28.57 %	1 14.29 %	1	6
4	Dhanbad	18	0.17	1.29	0.01	1.62	6 33.33%	0	0	12 66.67 %	0	0	6	12
5	Dumka & Jamtara	20	0.3	1.54	0.05	2.44	5 20%	0	0	14 70%	1 5%	0	5	15
6	Garhwa	7	0.38	0.98	0.24	1.69	4 57.14%	0	0	3 42.86 %	0	0	4	3
7	Giridih	17	0.73	0.73	0.16	5.83	1 5.88%	0	0	5 29.41 %	10 58.82 %	1 5.88%	1	16
8	Godda	10	0.06	1.7	0.15	1.32	8 80%	0	0	2 20%	0	0	8	2
9	Gumla & Simdega	22	0.4	0.4	0.23	2.16	1 4.55%	0	0	20 90.91 %	1 4.55%	0	1	21
10	Hazaribagh & Ramgarh	21	0.01	1.61	0.17	2.84	6 28.57%	0	0	12 57.14 %	3 14.29 %	0	6	15
11	Koderma	4	0.01	0.01	0.32	4.15	1 25%	0	0	2 50%	0	1 25%	1	3
12	Lohardaga	10	0.28	1.13	0.4	2.42	4 40%	0	0	4 40%	2 20%	0	4	6
13	Pakaur	7	0.58	1.75	0.78	2.44	5 71.43%	0	0	1 14.29 %	1 14.29 %	0	5	2
14	Palamu & Latehar	23	0.12	2.23	0.11	2.31	12 52.17%	1 4.35%	0	9 39.13 %	1 4.35%	0	13	10
15	Pashchi Singhbhum & Sariakela	22	0.16	2.37	0.02	2.54	11 50%	1 4.55%	0	9 40.91 %	1 4.55%	0	12	10
16	Purbi Singhbhum	19	0.01	1.95	0.44	1.75	14 73.68%	0	0	4 21.05 %	0	0	14	4
17	Ranchi & Khunti	42	0.07	5.73	0.03	3.47	21 50%	1 2.38%	1 2.38%	16 38.1%	3 7.14%	0	23	19
18	Sahibganj	11	-	-	0.03	2.88	0	0	0	8 72.73 %	3 27.27 %	0	0	11
	Total	**281**	**0.01**	**1.07**	**0.01**	**5.83**	**105**	**3**	**1**	**137**	**30**	**4**	**109**	**171**

PLATE I


JHARKHAND
ADMINISTRATIVE DIVISION
SCALE
PLATE I
N
W
E
S
BIHAR
SAHIBGANJ
GODDA
PAKUR
KODERMA
DEOGHAR
DUMKA
CHATRA
GIRIDH
GARHWA
DALTONGANJ
HAZARIBAGH
DHANBAD
JAMTARA
BOKARO
RAMGARH
RANCHI
LOHARDAGA
WEST BENGAL
GUMLA
KHUNTI
SARAIKELA
MADHYA PRADESH
SIMDEGA
CHAIBASA
EAST SINGHBHUM
ORISSA
INDEX
STATE BOUNDARIES
DISTRICT BOUNDARY
DISTRICT HEADQUARTERS
HAZARIBAGH
WATER BODIES
ROADS
RAILWAYS

I

PLATE II

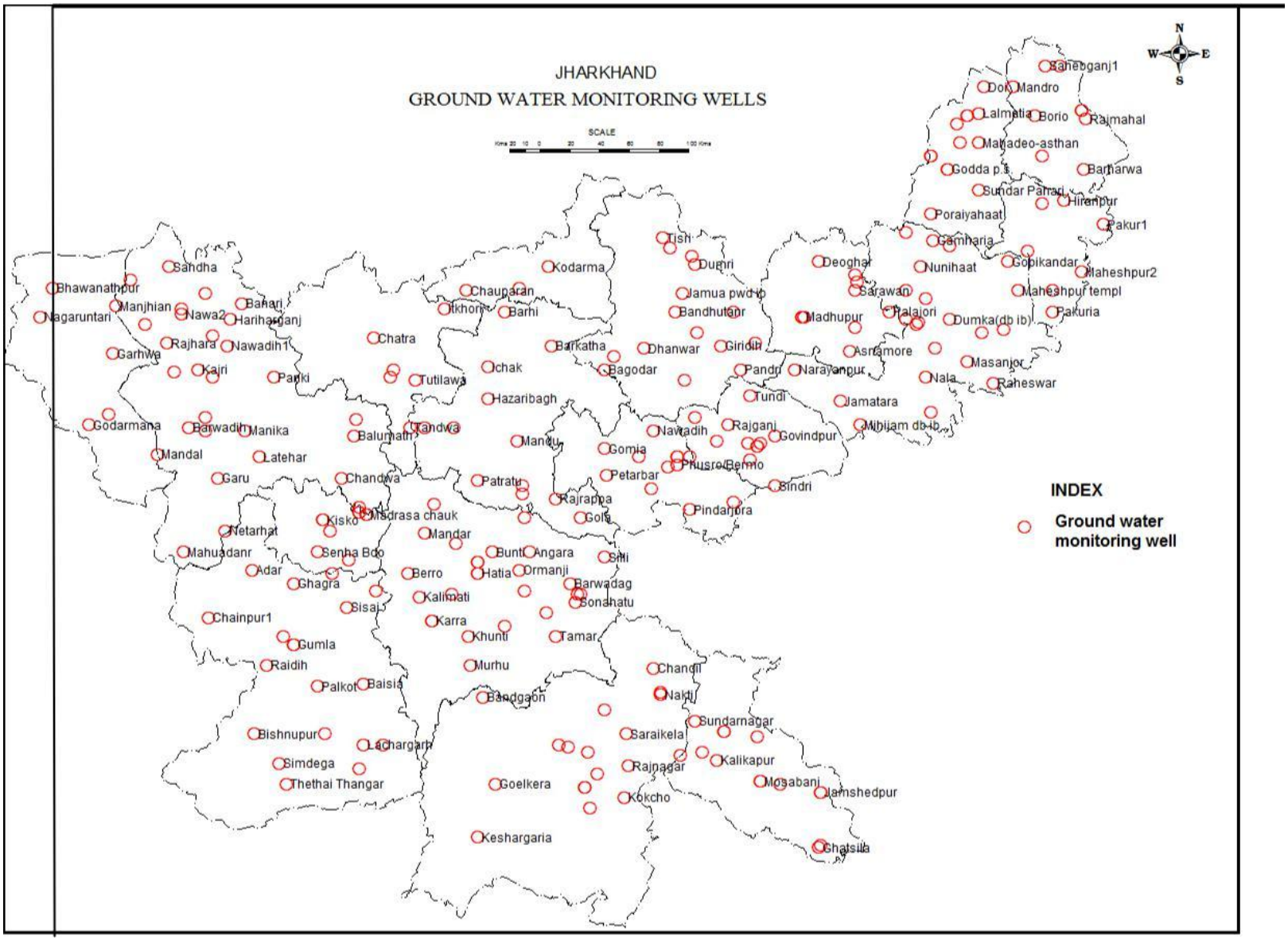
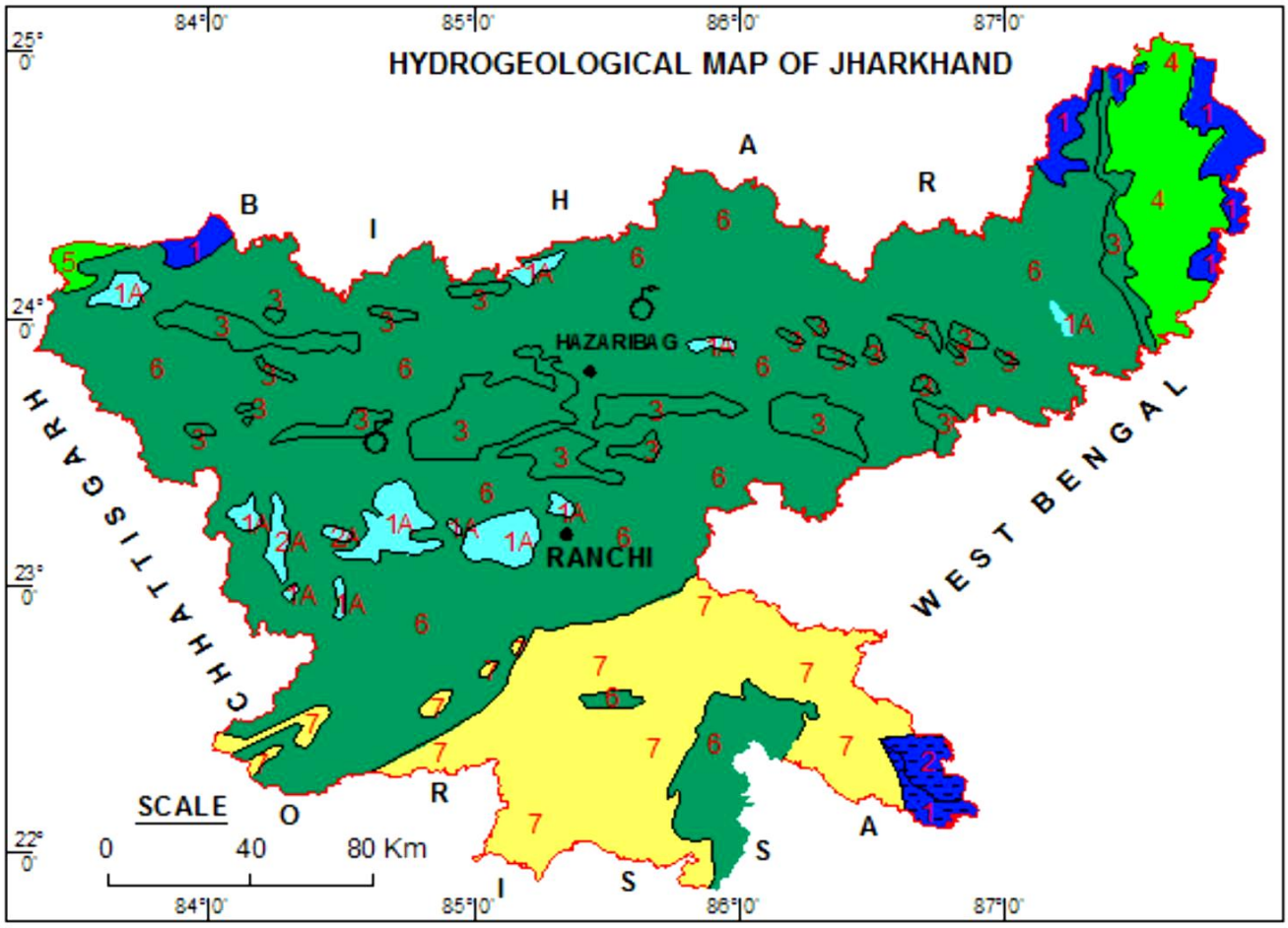

JHARKHAND
GROUND WATER MONITORING WELLS
SCALE
N
W
E
S
INDEX
Ground water monitoring well
Raneganj1
Dol Mandro
Lalmatia
Borio
Rajmahal
Mahadeo-asthan
Godda p.s.
Barharwa
Sundar Pahari
Hiranpur
Poraiyahaat
Pakur1
Gamharia
Tisri
Dumri
Deoghar
Nunihaat
Gopikandar
Maheshpur2
Maheshpur templ
Pakuria
Sarawan
Jamua pwd ib
Bandhutdih
Madhupur
Palajori
Dumka(db ib)
Asnamore
Masanjor
Nala
Raneswar
Jamatara
Mihijam db ib
Govindpur
Rajgani
Navtadih
Pandri
Narayanpur
Tundi
Giridih
Dhanwar
Bagodar
Barkatha
Kodarma
Chauparan
Tkhori
Barhi
Chatra
Chak
Tutilawa
Hazaribagh
Sandha
Bhawanathpur
Manjhian
Nagaruntari
Nawa2
Banari
Harihanganj
Rajhara
Nawadih1
Garhwa
Kajri
Pariki
Godarmana
Barwadih
Manika
Mandal
Latehar
Balumath
Tandwa
Garu
Chandwa
Patratu
Mandu
Gomia
Petarbar
Phusro/Bermo
Rajrappa
Gola
Pindarjora
Sindri
Kisko
Madrasa chauk
Mandar
Netarhat
Mahuadanr
Senha Boo
Adar
Ghagra
Berro
Bunti Angara
Hatia
Ormanji
Barwadag
Sonahatu
Kalimati
Sisai
Karra
Chainpur1
Khunti
Tamar
Gumla
Raidih
Murhu
Palkot
Baisia
Bandgaon
Chandil
Nakti
Sundarnagar
Saraikela
Kalikapur
Rajnagar
Bishnupur
Lachargarh
Simdega
Thethai Thangar
Goelkera
Kokcho
Mosabani
Jamshedpur
Keshargaria
Ghatsila

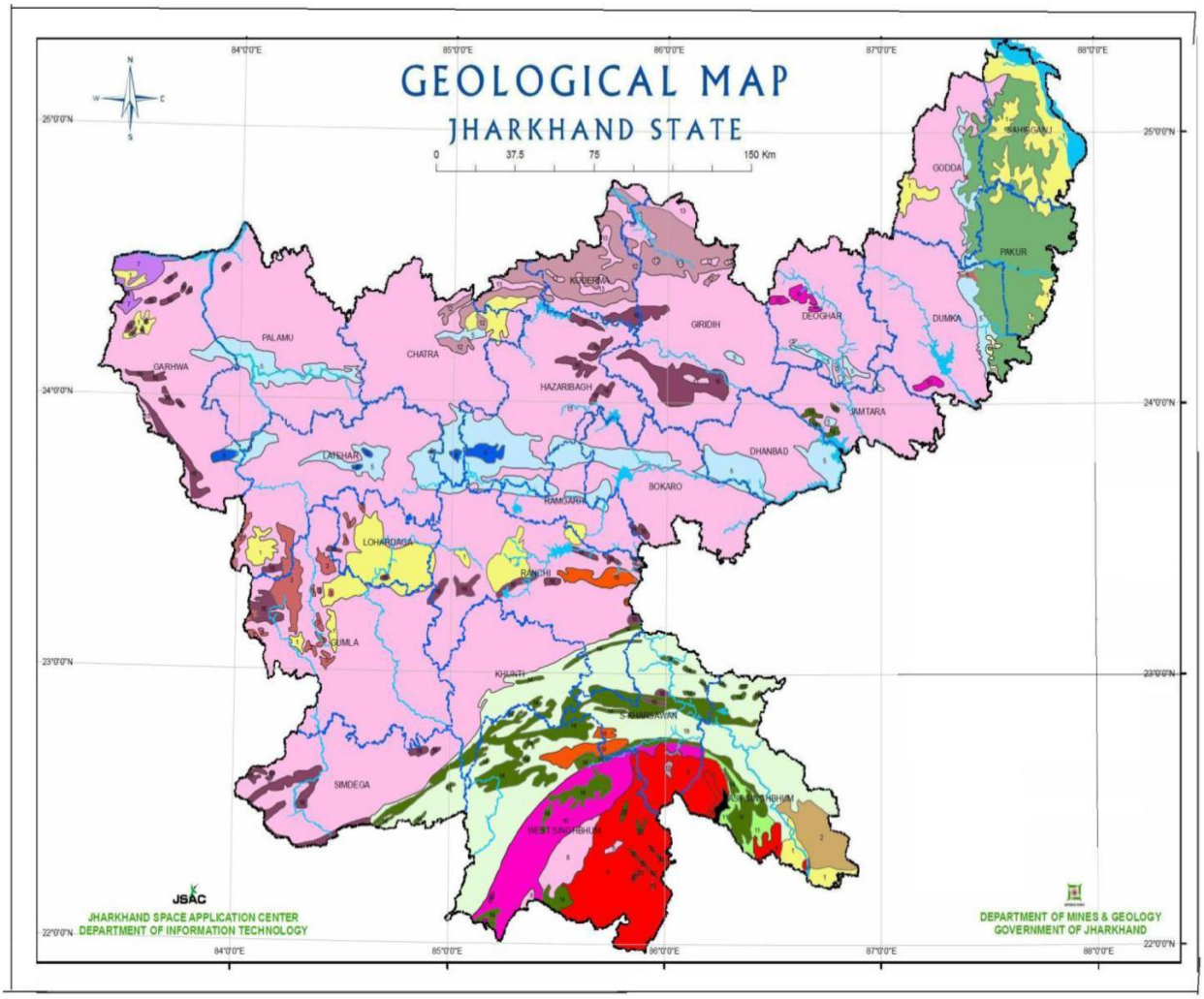
PLATE III



FISSURED & SEMI-CONSOLIDATED FORMATIONS

UNITS	AGE GROUP	FORMATION	COLOUR	LITHOLOGY	GROUN WATER POTENTIAL
1	QUATERNARY	ALLUVIUM		CLAY, SILT, GRAVEL, PEBBLES & CALC	>40 m³/hr
1A	QUATERNARY	ALLUVIUM		CLAY, SILT & SAND	1-10 m³/hr
2	PLEISTOCENE TERTIARY	LATERITES		LATERITES & LITHOMARGE	1-10 m³/hr
2A	PLEISTOCENE TERTIARY	TERTIARY		SAND, SILT, CLAY, PABLE & GRAVEL	10-40 m³/hr
3	CARBONIFEROUS E CRETACEOUS	GONDWANA		CLAY, SILT, GRIT, SANDSTONE & SHALE	1->25 m³/hr
4	L JURASSIC E CRETACEOUS	RAJMAHAL BASALT		BASALT FLOWS WITH INTERTRAPPEANS	1-25 m³/hr
5	PROTEROZOIC E CAMBRIAN	VINDHYAN		QUARTZITE, LIMESTONE, SANDSTONE, DOLOMITE & SHALE	1-25 m³/hr
6	PROTEROZOIC ARCHEAN	CHHOTNAGPUR GNEISSC COMPLEX		GNEISSES & GRANITES	1->25 m³/hr
7	PROTEROZOIC ARCHEAN	VOLCANO-SEDIMENTARY		SCHISTS, PHYLLITES, BASIC & ACIDIC INTRUSIVES	1-15 m³/hr

PLATE IV



INDEX

1, Alluvium, Soil/Boulder Conglomerate, Older Alluvium & Laterite
2, Tertiary Gravels
3, Laterite
4, Rajmahal Trap/Intertrappean Beds/Trap Dykes
5, Lower Gondwana System/Carbonaceous Shale/Sandstone/Coal Seams
6, Upper Godwana System/Sandstone/Red Clay
7, Lower Vindhyan System/Limestone/Shale
8, Kolhan Series/Limestone/Sandstone/Quartzite
9, Singhbhum Granite
10, BHQ/BHJ/Metavolcanics/Metasedimentary
11, Dhanjori Quartzite and Conglomerate
12, Micaschist, Phyllite, Quartzite/Metamorphic of Chhotanagpur
13, Chhotanagpur Gneiss & Granophyre
14, Dhanjori Lava/Dalma Lava/ Basic rocks
15, Sandstone, Shale (Dubrajpur Formation)
16, Basic & Ultrabasic
17, Gabbro -Anorthosite
18, Granite
19, Volcanogenic Meta-sediments and Metasedimentary rocks
20, Newer Dolerite
River/Water Body
District Boundary
State Boundary

PLATE V

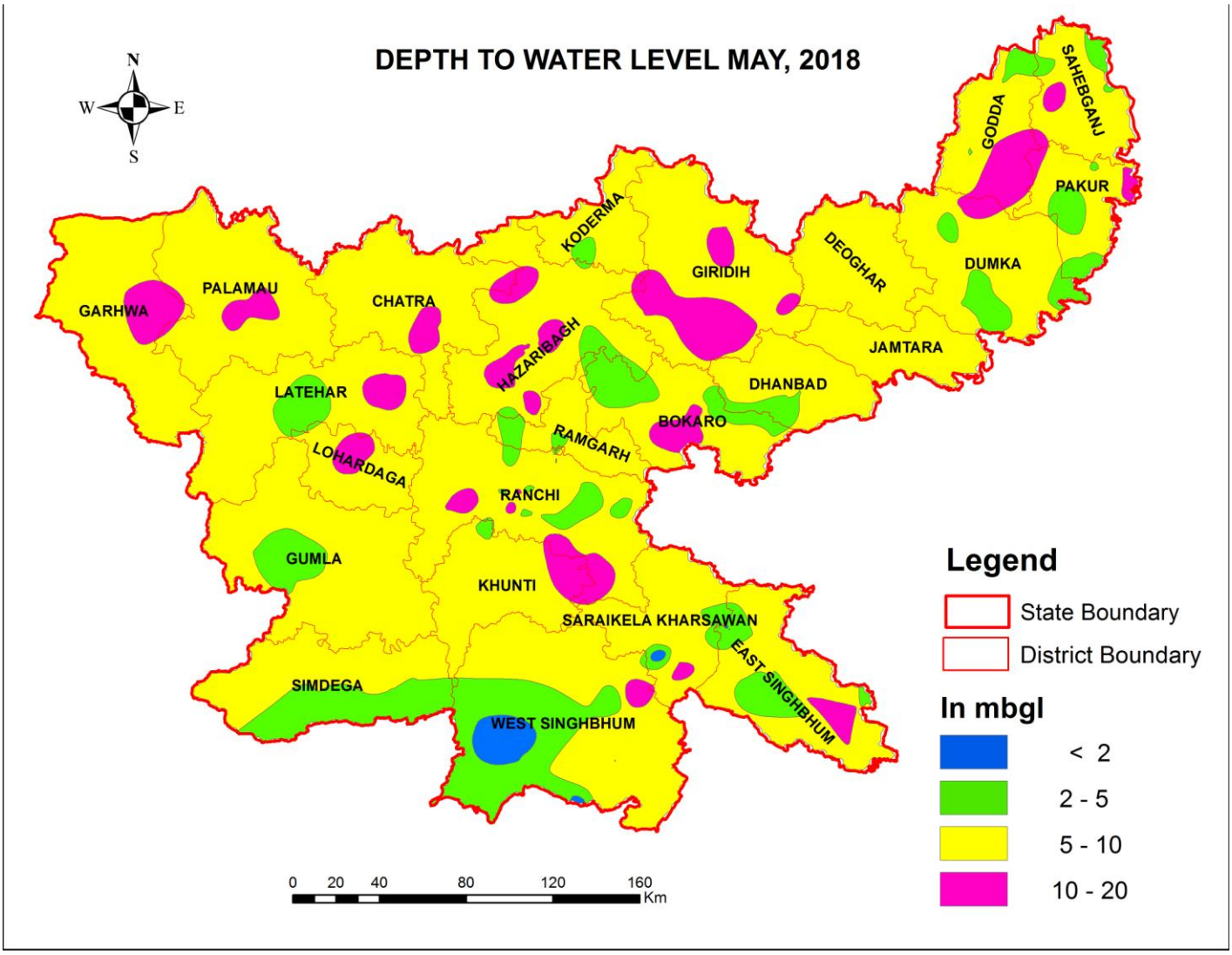

DEPTH TO WATER LEVEL MAY, 2018
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
0 20 40 80 120 160
Km
Legend
State Boundary
District Boundary
In mbgl
< 2
2 - 5
5 - 10
10 - 20

PLATE VI

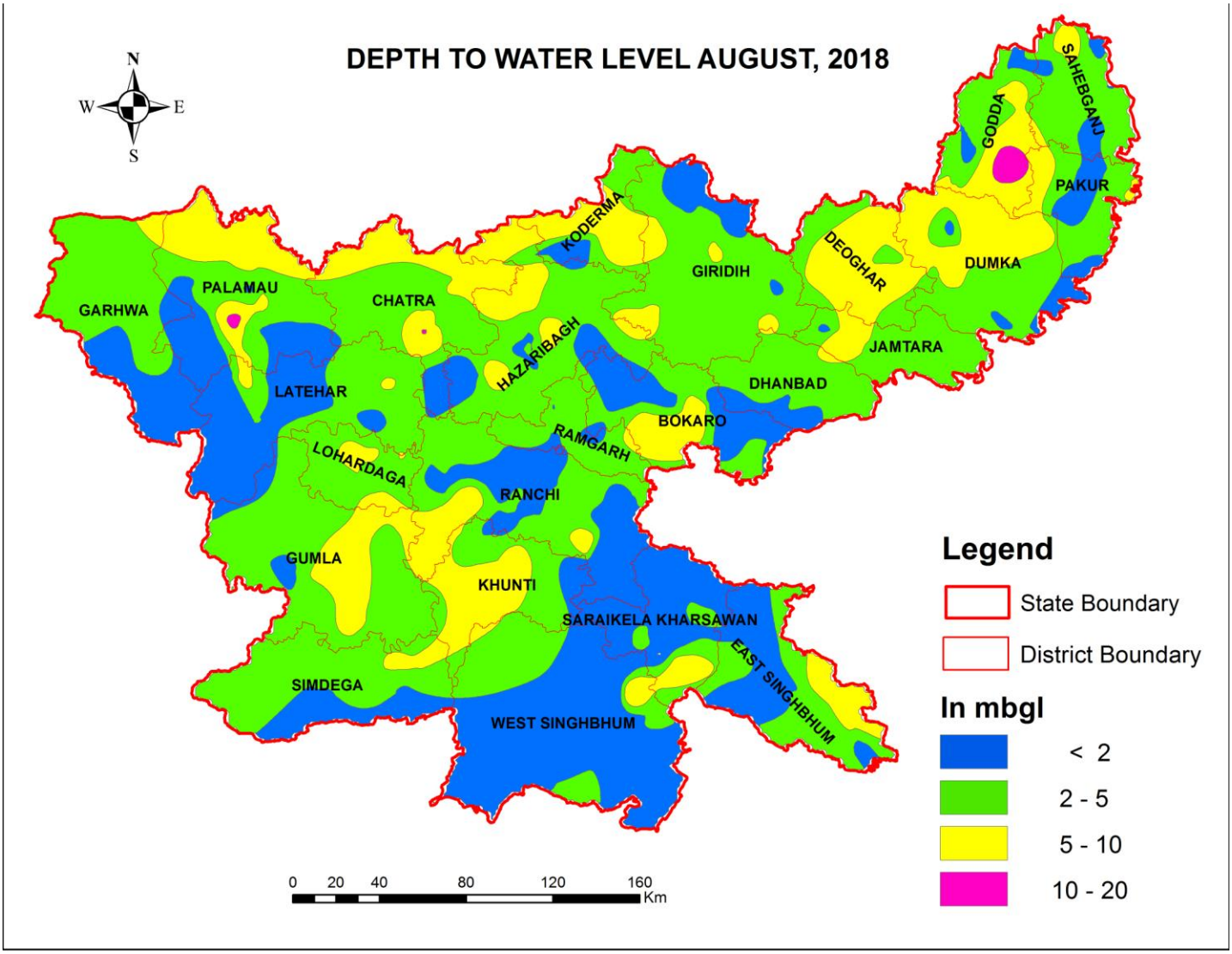

DEPTH TO WATER LEVEL AUGUST, 2018
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
0 20 40 80 120 160
Km
Legend
State Boundary
District Boundary
In mbgl
< 2
2 - 5
5 - 10
10 - 20

PLATE VII

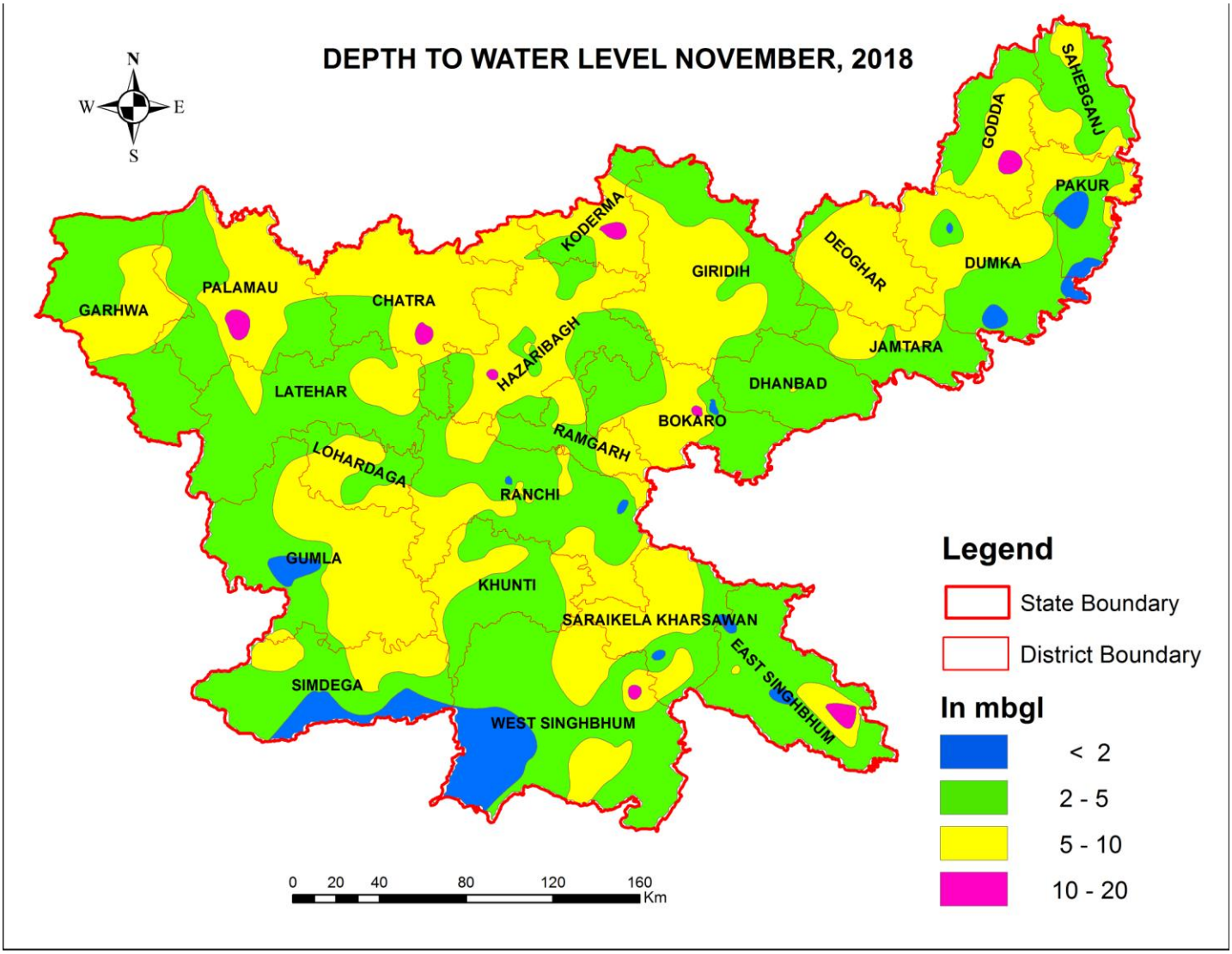

DEPTH TO WATER LEVEL NOVEMBER, 2018
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
DUMKA
DEOGHAR
KODERMA
GIRIDIH
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
0 20 40 80 120 160
Km
Legend
State Boundary
District Boundary
In mbgl
< 2
2 - 5
5 - 10
10 - 20

PLATE-VIII

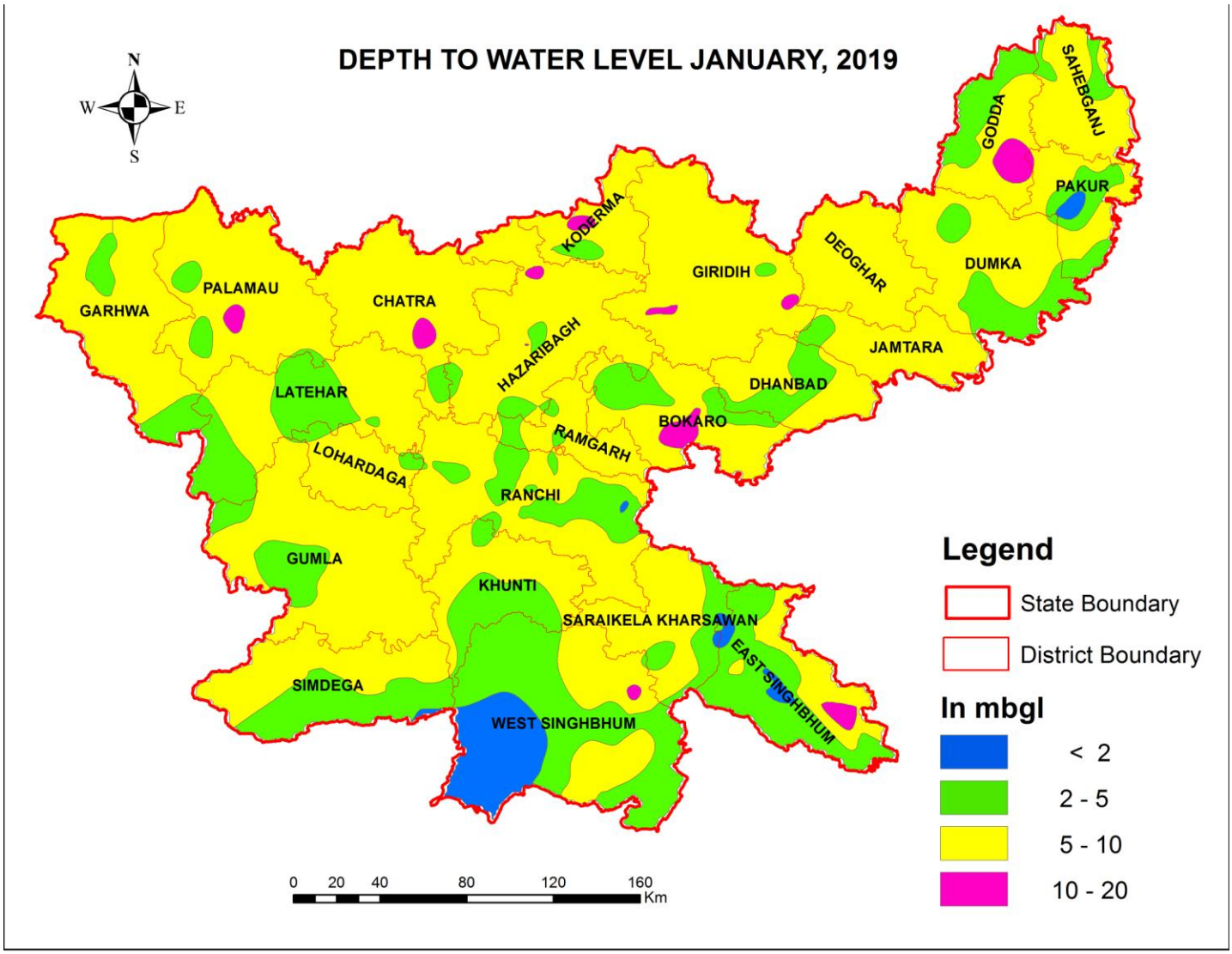

DEPTH TO WATER LEVEL JANUARY, 2019
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
DUMKA
DEOGHAR
JAMTARA
KODERMA
GIRIDIH
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
DHANBAD
BOKARO
LATEHAR
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
0 20 40 80 120 160
Km
Legend
State Boundary
District Boundary
In mbgl
< 2
2 - 5
5 - 10
10 - 20

PLATE IX

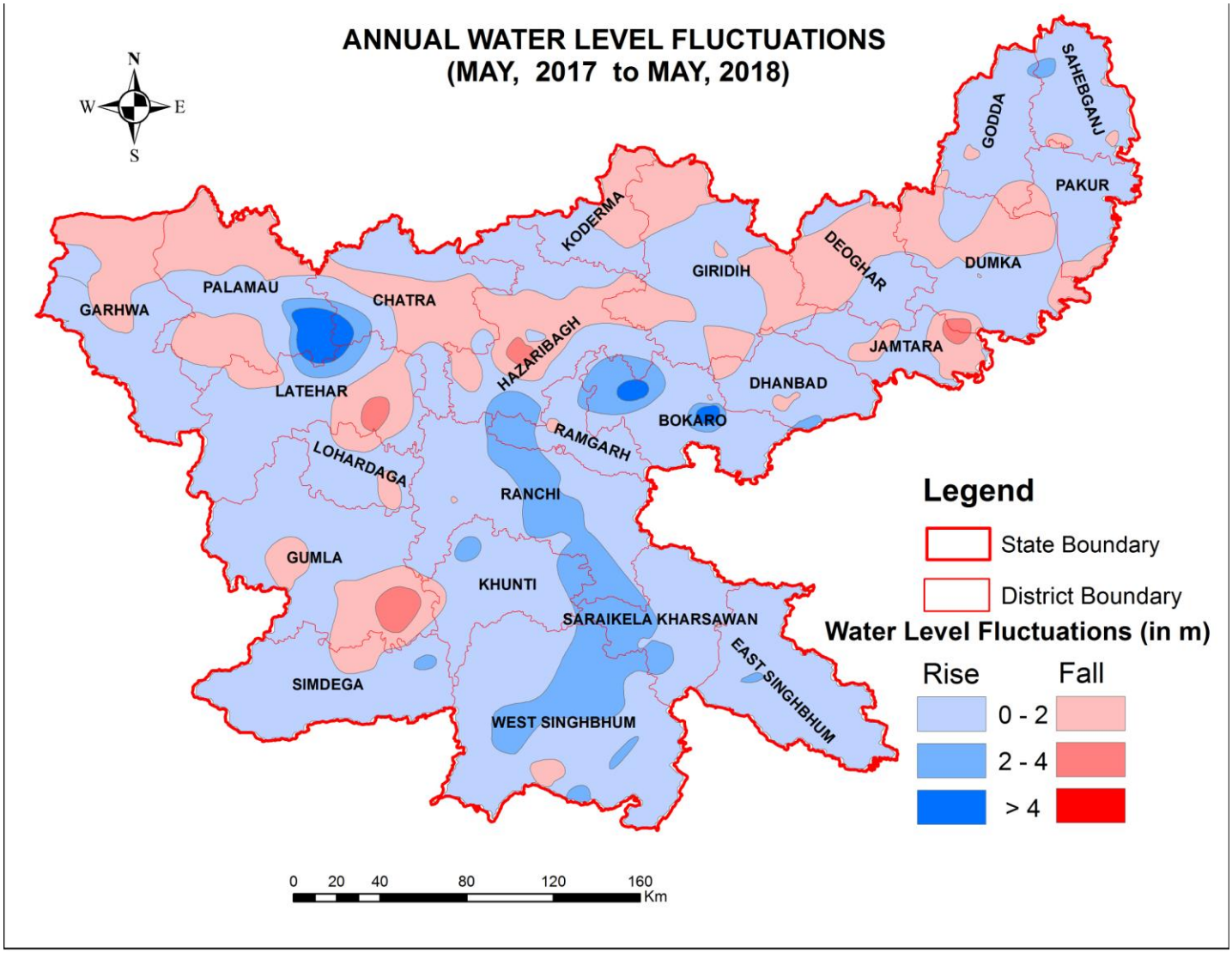

ANNUAL WATER LEVEL FLUCTUATIONS
(MAY, 2017 to MAY, 2018)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE X

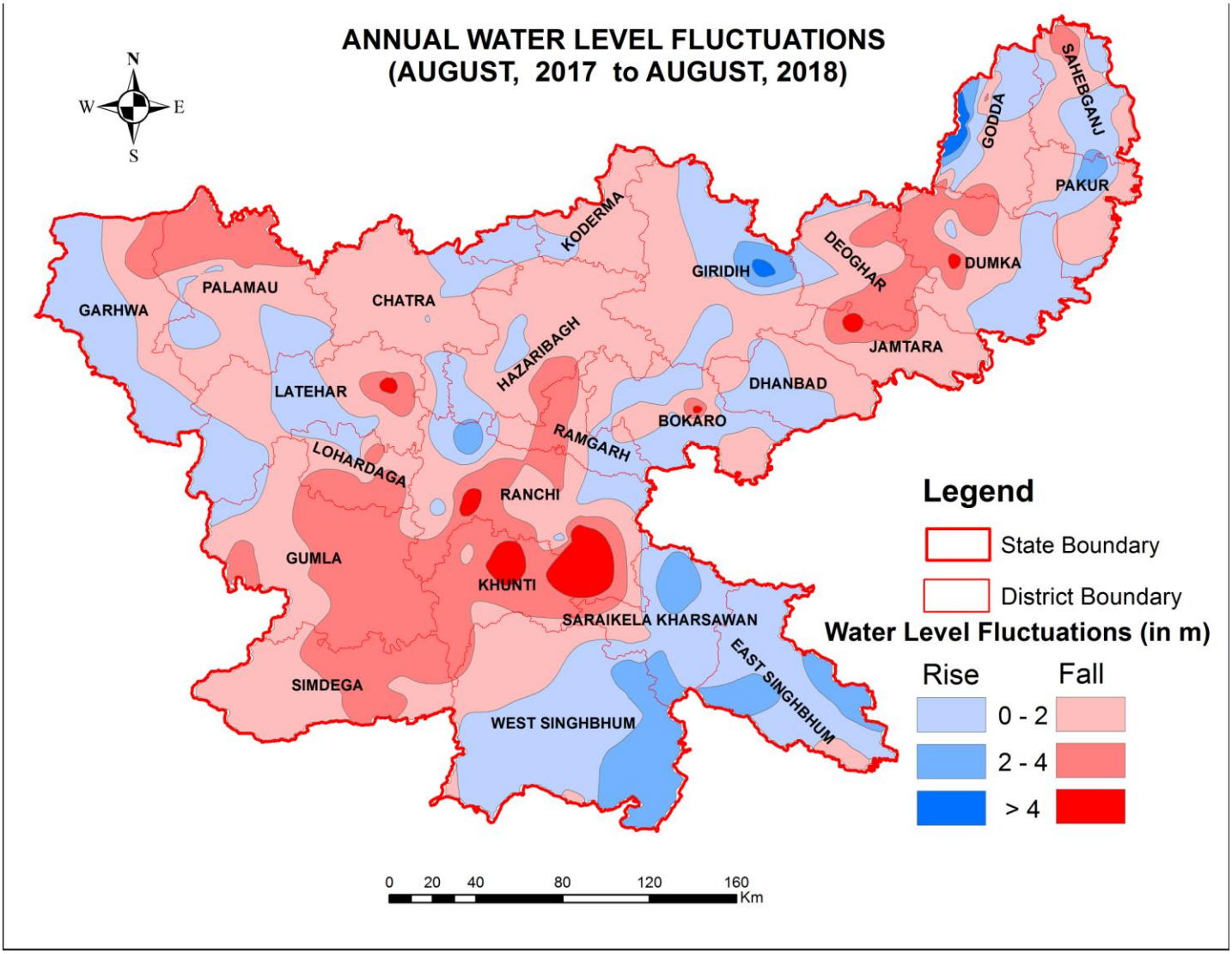

ANNUAL WATER LEVEL FLUCTUATIONS
(AUGUST, 2017 to AUGUST, 2018)
N
W
E
S
GARHWA
PALAMAU
CHATRA
KODERMA
GIRIDIH
DEOGHAR
DUMKA
GODDA
SAHEBGANJ
PAKUR
JAMTARA
DHANBAD
BOKARO
HAZARIBAGH
RAMGARH
LATEHAR
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XI

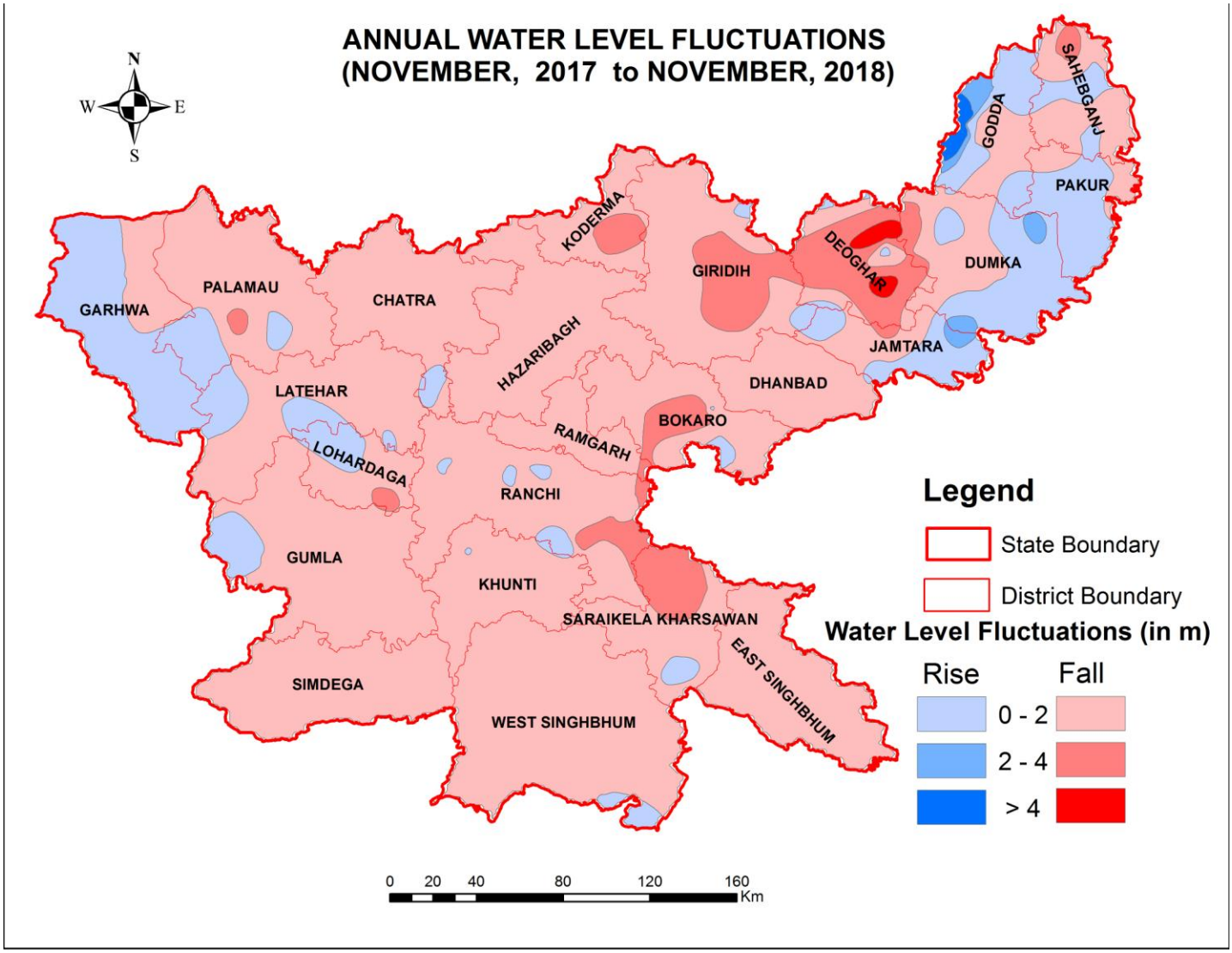

ANNUAL WATER LEVEL FLUCTUATIONS
(NOVEMBER, 2017 to NOVEMBER, 2018)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
DUMKA
DEOGHAR
GIRIDIH
KODERMA
PALAMAU
CHATRA
GARHWA
HAZARIBAGH
JAMTARA
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XII

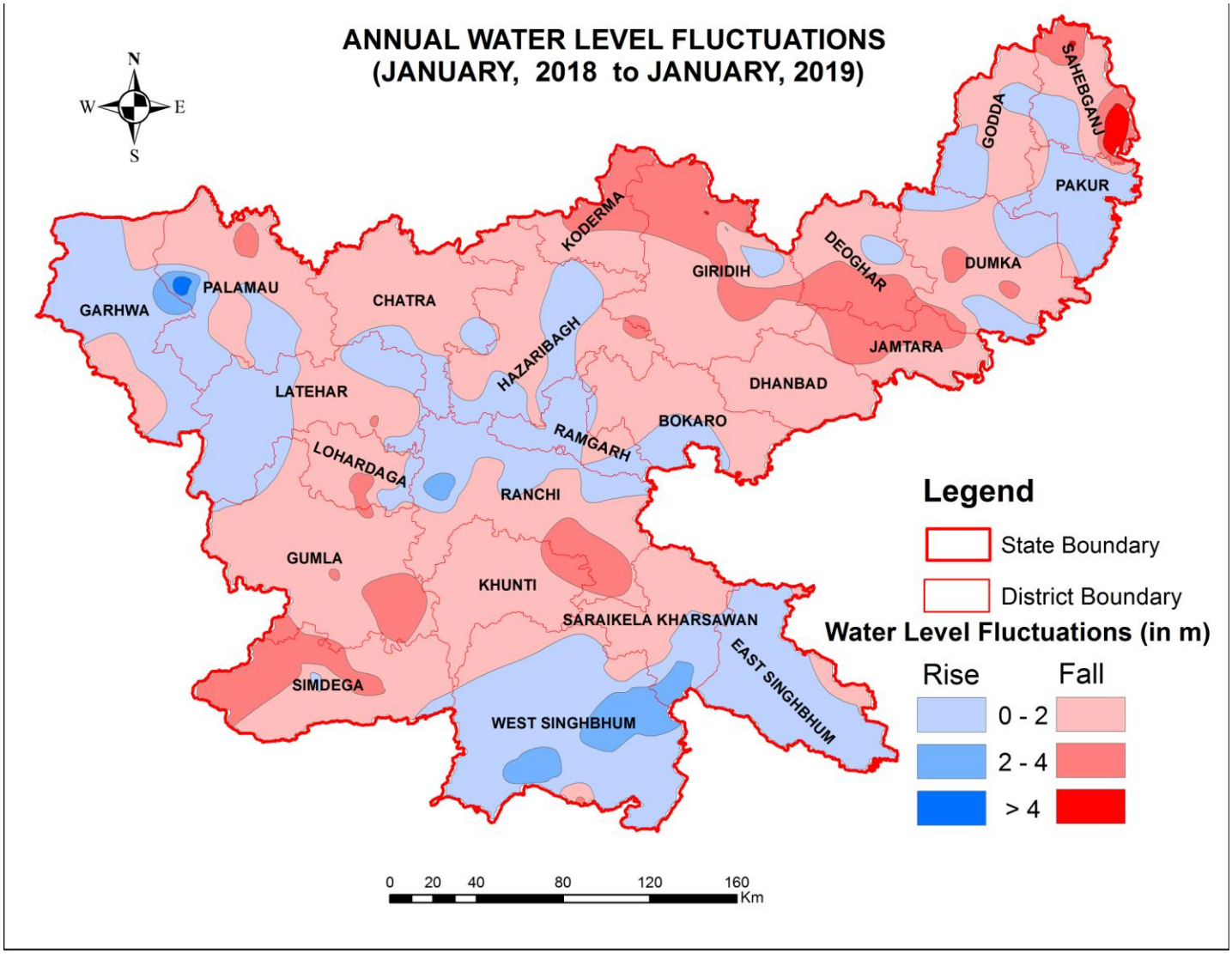

ANNUAL WATER LEVEL FLUCTUATIONS
(JANUARY, 2018 to JANUARY, 2019)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XIII

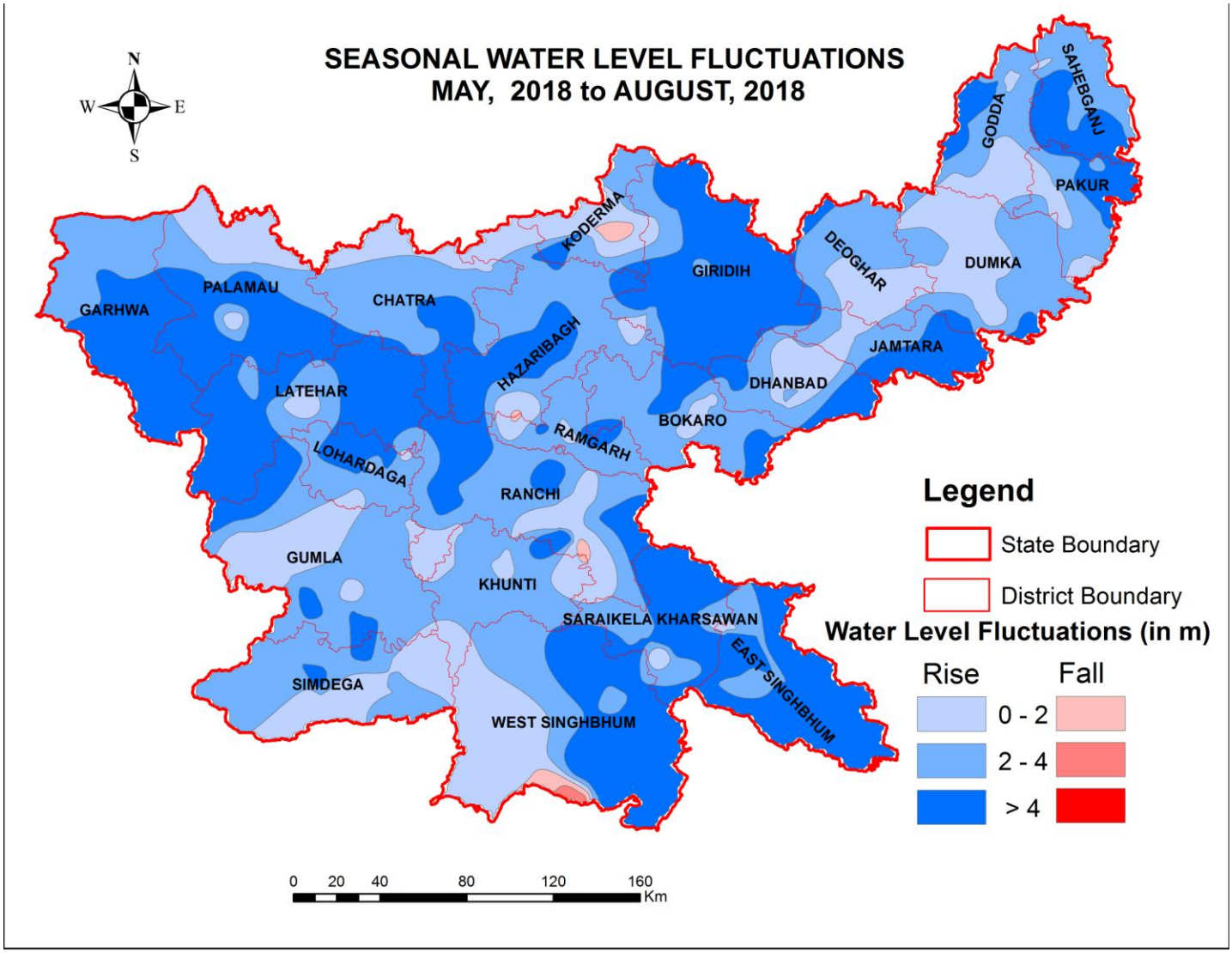

SEASONAL WATER LEVEL FLUCTUATIONS
MAY, 2018 to AUGUST, 2018
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
DUMKA
DEOGHAR
KODERMA
GIRIDIH
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XIV

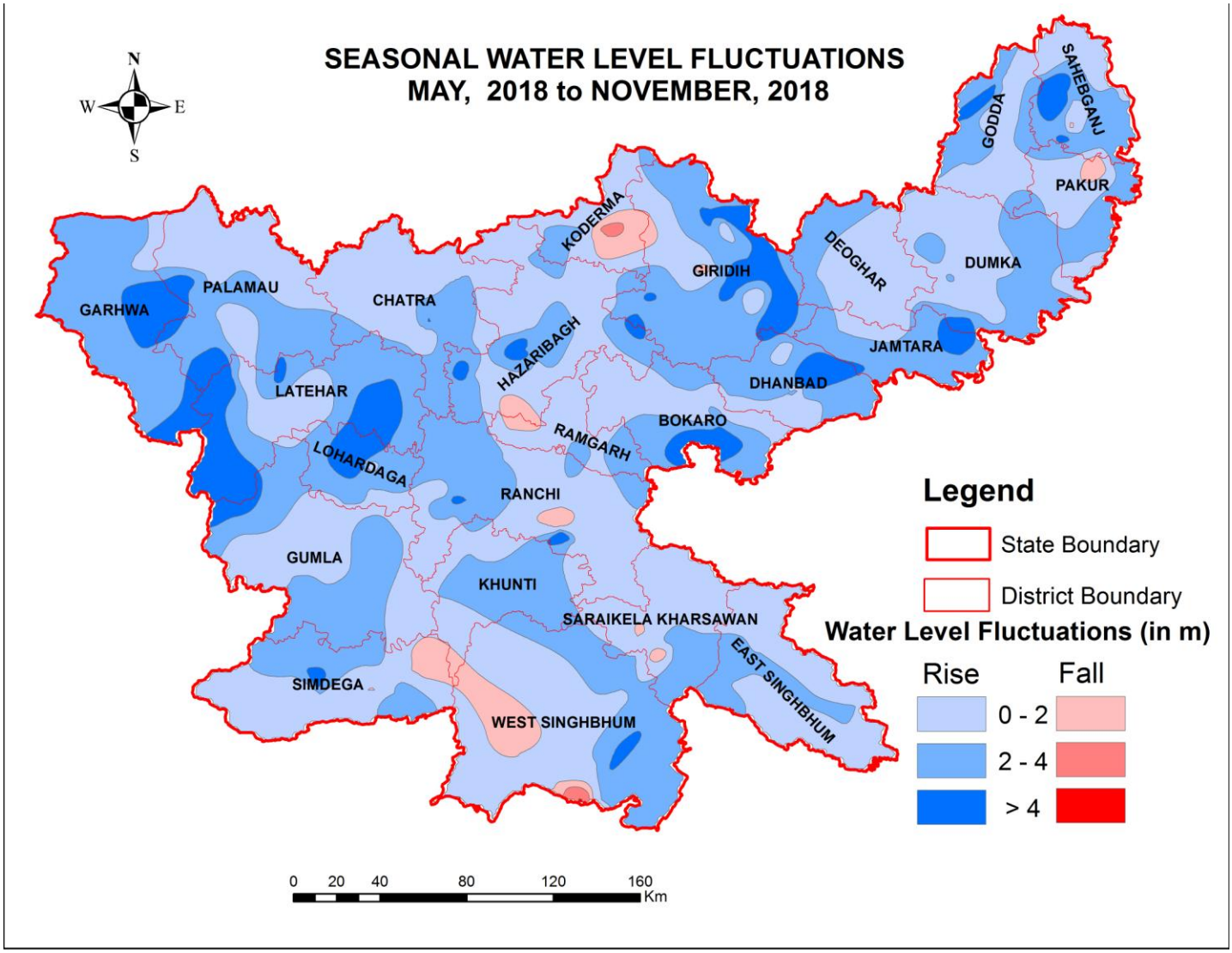

SEASONAL WATER LEVEL FLUCTUATIONS
MAY, 2018 to NOVEMBER, 2018
N
W
E
S
GODDA
SAHEBGANJ
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
CHATRA
GARHWA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XV

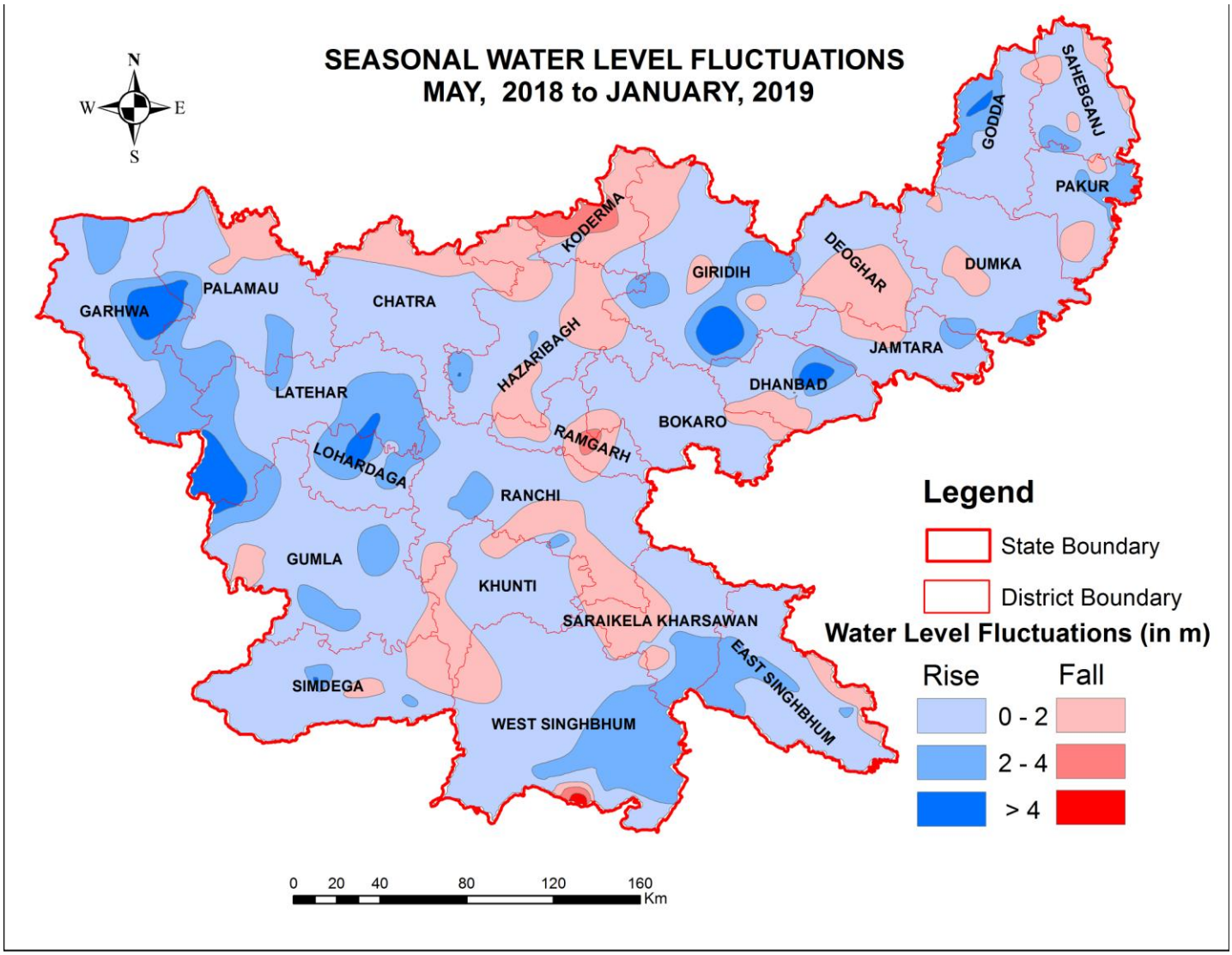

SEASONAL WATER LEVEL FLUCTUATIONS
MAY, 2018 to JANUARY, 2019
N
W
E
S
GARHWA
PALAMAU
CHATRA
KODERMA
GIRIDIH
DEOGHAR
GODDA
SAHEBGANJ
PAKUR
DUMKA
JAMTARA
HAZARIBAGH
DHANBAD
LATEHAR
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XVI

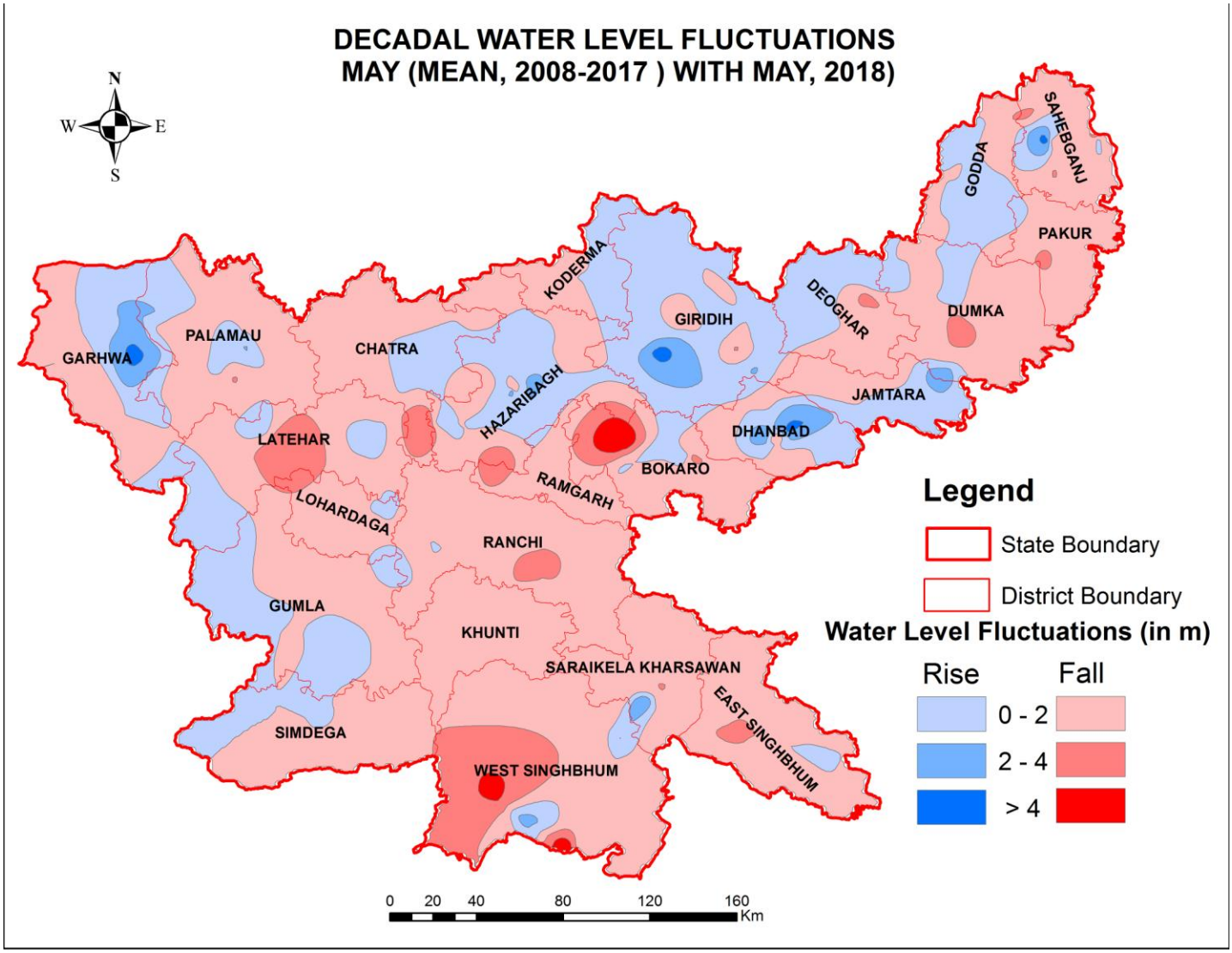

DECADAL WATER LEVEL FLUCTUATIONS
MAY (MEAN, 2008-2017) WITH MAY, 2018)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE XVII

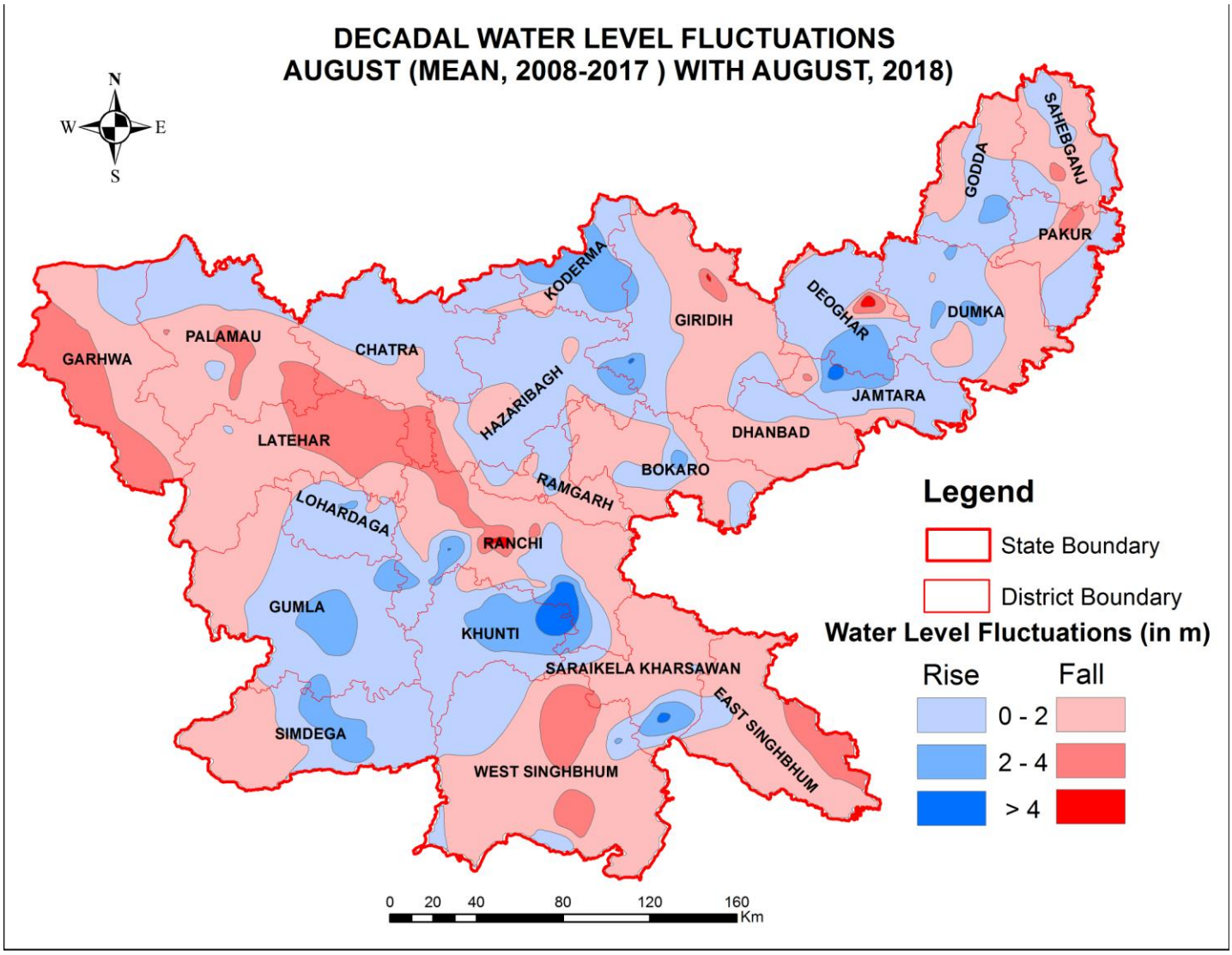
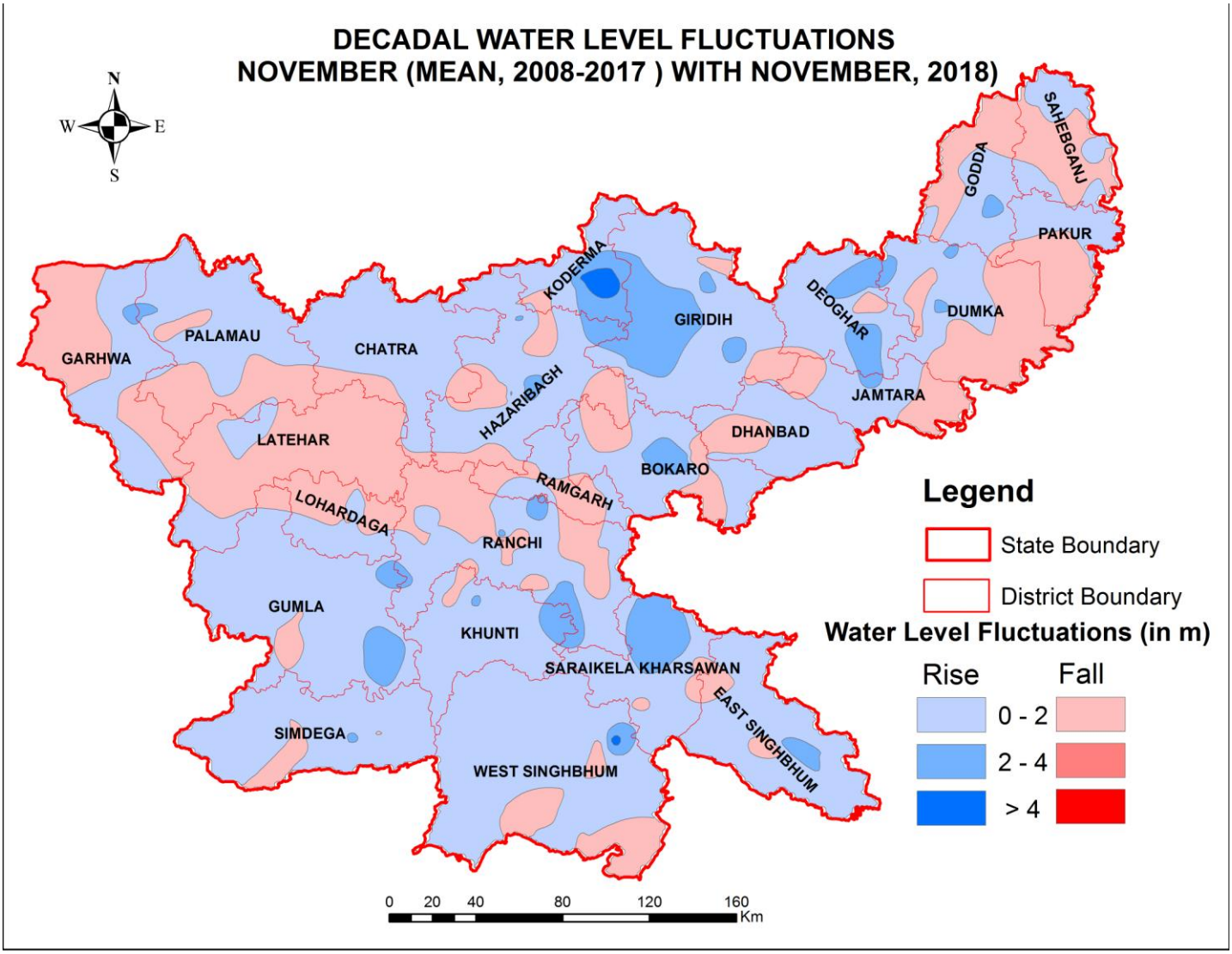
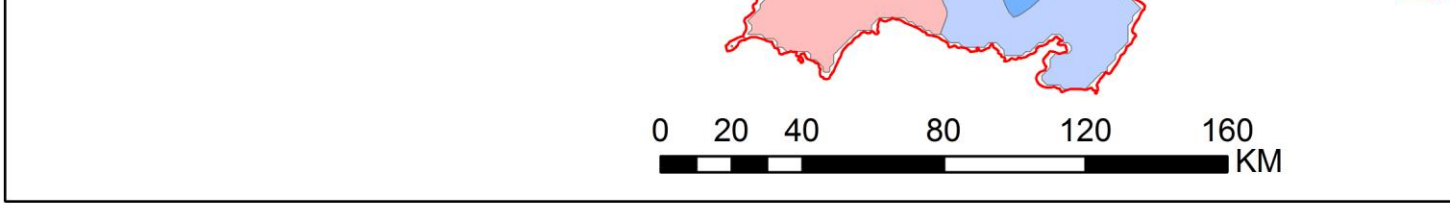

DECADAL WATER LEVEL FLUCTUATIONS
AUGUST (MEAN, 2008-2017) WITH AUGUST, 2018)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE-XVIII


DECADAL WATER LEVEL FLUCTUATIONS
NOVEMBER (MEAN, 2008-2017) WITH NOVEMBER, 2018)
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km


0 20 40 80 120 160
KM

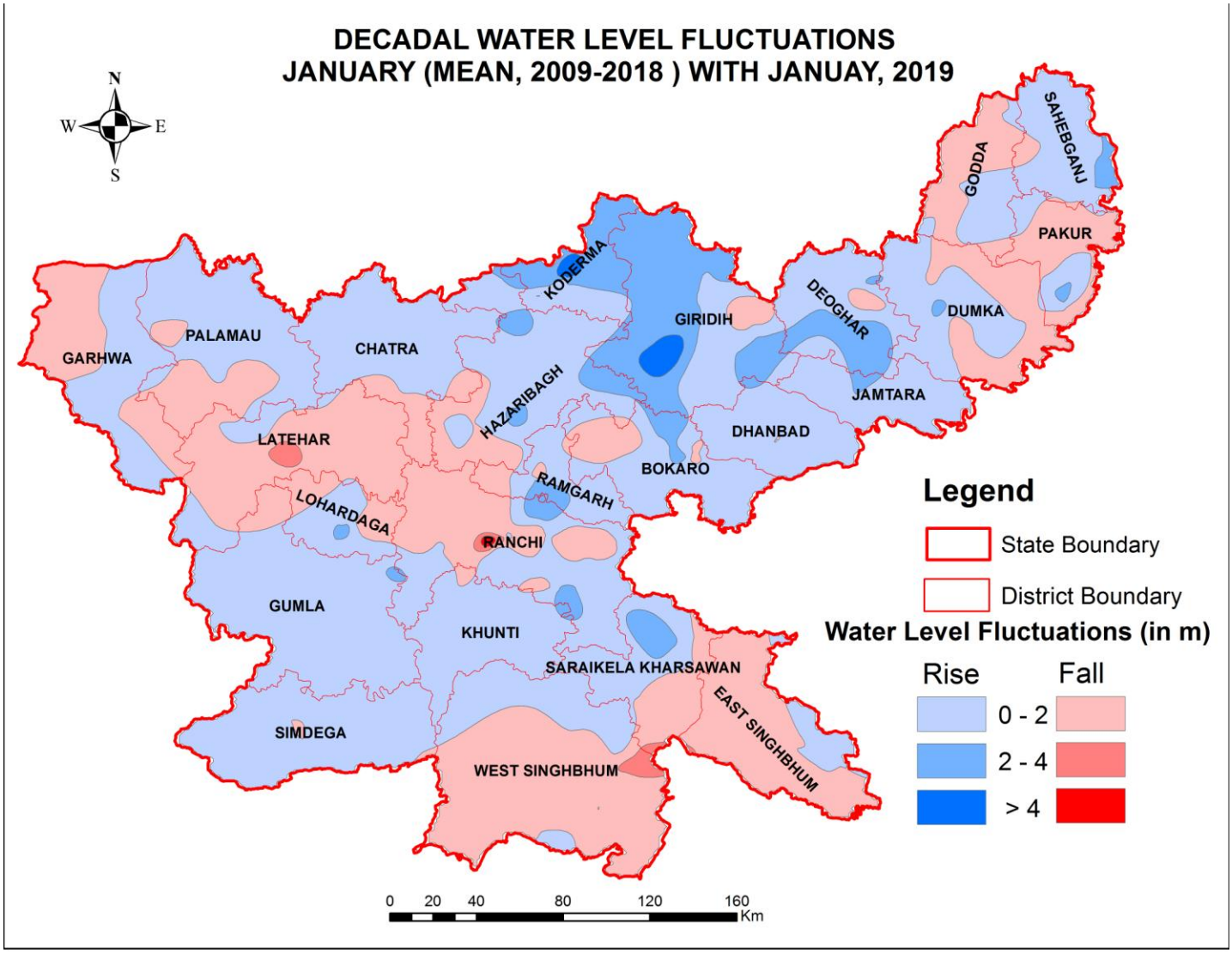

DECADAL WATER LEVEL FLUCTUATIONS
JANUARY (MEAN, 2009-2018) WITH JANUAY, 2019
N
W
E
S
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
GARHWA
CHATRA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
EAST SINGHBHUM
SIMDEGA
WEST SINGHBHUM
Legend
State Boundary
District Boundary
Water Level Fluctuations (in m)
Rise
Fall
0 - 2
2 - 4
> 4
0 20 40 80 120 160
Km

PLATE-XX

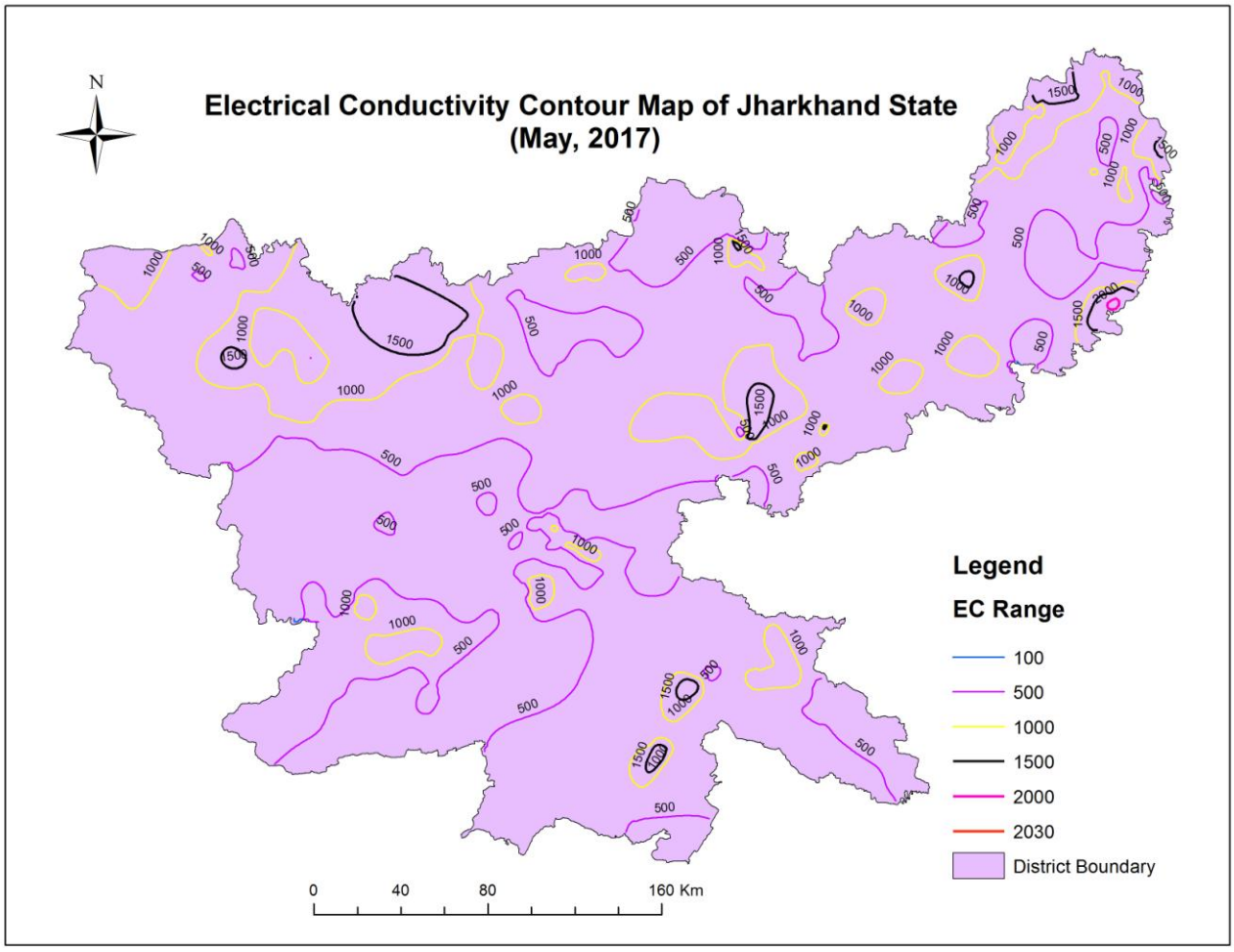
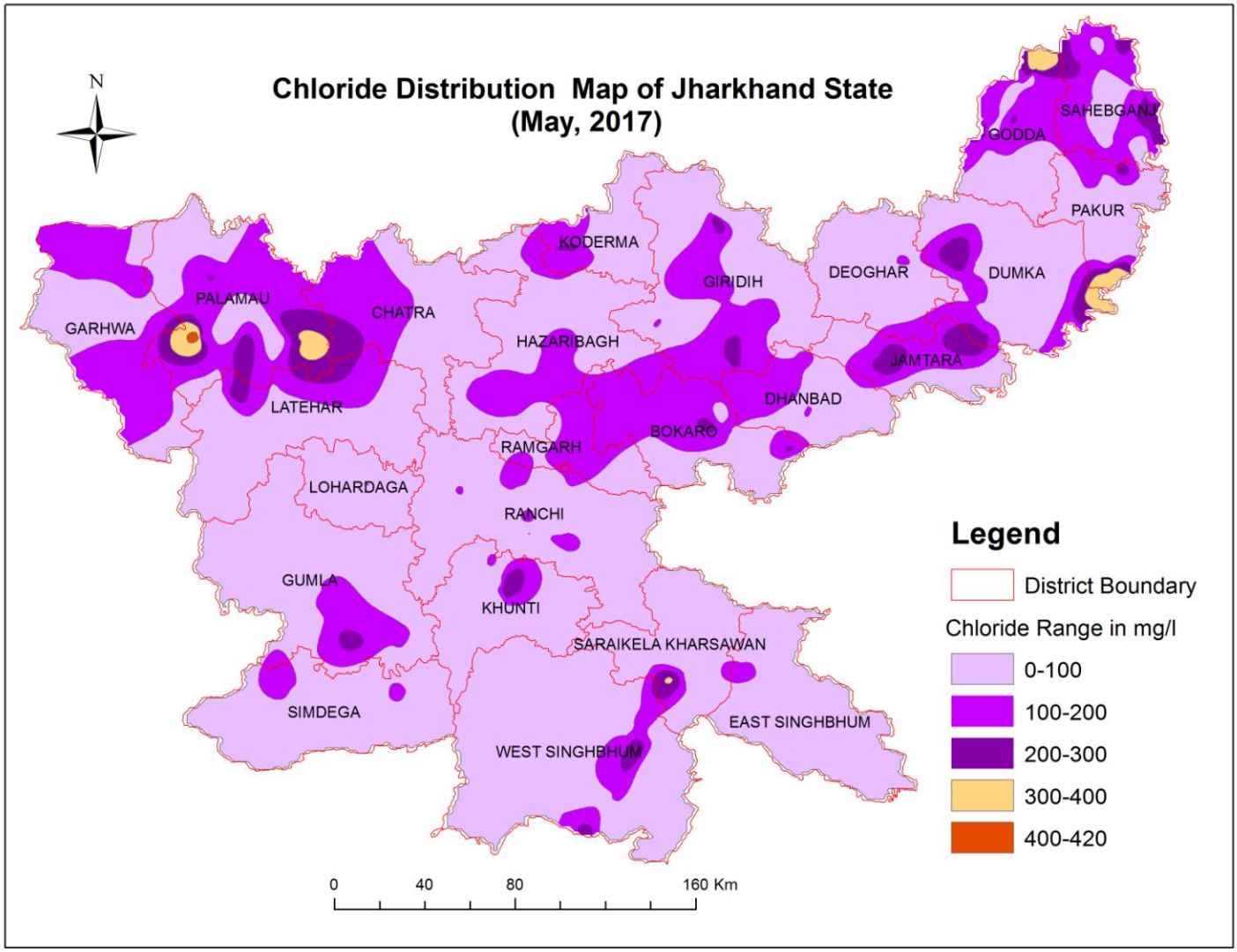

N
Electrical Conductivity Contour Map of Jharkhand State
(May, 2017)
Legend
EC Range
100
500
1000
1500
2000
2030
District Boundary
0
40
80
160 Km

PLATE-XXI


Chloride Distribution Map of Jharkhand State
(May, 2017)
N
SAHEBGANJ
GODDA
PAKUR
KODERMA
GIRIDIH
DEOGHAR
DUMKA
PALAMAU
CHATRA
GARHWA
HAZARIBAGH
JAMTARA
LATEHAR
DHANBAD
BOKARO
RAMGARH
LOHARDAGA
RANCHI
GUMLA
KHUNTI
SARAIKELA KHARSAWAN
SIMDEGA
EAST SINGHBHUM
WEST SINGHBHUM
0
40
80
160 Km
Legend
District Boundary
Chloride Range in mg/l
0-100
100-200
200-300
300-400
400-420

ANNEXURE-I

WATER LEVEL DATA OF NETWORK STATIONS MEASURED BY CGWB, SUO, RANCHI, JHARKHAND

Bokaro District					
Sl No.	**Location**	**May 18 (mbgl)**	**Aug 18 (mbgl)**	**Nov 18 (mbgl)**	**Jan 19(mbgl)**
1	Baramasia	6.10	2.44	3.71	5.96
2	Chandankiyari	7.10	2.20	3.69	5.85
3	Chandrapura	3.10	1.40	1.92	2.52
4	Chas	11.10	9.25		11.10
5	Gomia	3.61	0.90	3.11	3.10
6	Jaina More	11.00	9.95	10.81	10.35
7	Laghla	4.71	1.02	4.51	5.27
8	Nawadih	8.65	3.37	5.94	8.57
9	Petarbar	9.60	5.73	7.41	8.22
10	Phusro_Bermo	3.66	1.49	1.18	2.49
11	Pindarjora new	8.92	1.03	2.85	7.30
12	Pupunki	4.51	1.44	3.10	4.70
13	Tenughat	6.32	1.30	5.45	4.75
Chatra District					
14	Bagra	13.33	10.16	11.47	12.21
15	Birhu	7.30	3.49	5.39	6.32
16	Chatra1	6.30	3.70	5.05	5.50
17	Itkhori1	7.48	5.61	7.38	8.13
18	Pitij	9.00	5.42	6.84	7.52
19	Simaria	12.72	5.46	8.63	
20	Tandwa	5.90	1.17	3.75	4.37
21	Tutilawa1	8.23	3.65	6.07	6.75
Deoghar District					
22	Deoghar new	7.60			7.00
23	Ghormara	8.79	6.76	7.49	8.40
24	Jasidih	7.72	4.69	3.84	6.51
25	Madhupur	8.21			9.72
26	Madhupur1	8.21	7.54	8.80	9.72
27	Palajori	7.10	5.25	5.67	6.69
28	Sarath	7.20	6.28	6.85	8.21
29	Sarawan	8.20	4.31	7.21	8.31
Dhanbad District					
30	Baghmaranew	11.10		9.71	12.40
31	Balajee mandir	10.40	7.95	7.56	8.56
32	Basudeopur Cisf Camp	5.48	5.11	5.78	6.18
33	Bhuli A Block	4.51	7.06	7.21	7.56
34	Chiragora Hirapur	4.19	6.22	6.78	7.56
35	Dbl Buglow	6.10	1.95	3.30	3.81
36	Dhanbad	6.15	4.49	2.45	
37	Dhanbad New	4.10	0.78		3.41
38	Govindpur	9.00		3.14	3.89

39	Jharia	2.19	0.22	2.00	3.10
40	Mahuda	7.23	2.52	3.81	6.56
41	Matkuria	4.10	3.63	3.92	4.21
42	Nirsa p.s.	3.40	0.76	1.85	2.21
43	Panderpalli	8.21	5.85	5.86	5.96
44	Pkroy College	6.76	1.15	2.65	2.97
45	Purandih Jorapokhar	13.13	3.09	4.34	5.55
46	Rajganj	6.81	2.65	4.61	6.10
47	Sindri Goushala More	4.59	2.35	5.07	6.12
48	Topchanchi	8.11	3.71		
49	Tundi	6.10	4.47	4.31	5.45
	Dumka District				
50	Chapodia	6.11	5.04	4.76	5.91
51	Chikania	8.08	6.86	5.95	8.03
52	Dumka(db ib)	4.03	3.69	3.55	4.30
53	Gamharia	10.60	9.15	9.40	
54	Gopikandar	9.09	6.29	6.25	7.67
55	Hansdiha pwdib	7.67	6.17	6.48	7.70
56	Jarmundi db.ib	7.93	5.11	5.11	7.24
57	Kathikund	6.28	4.70	5.00	6.24
58	Masalia	4.88	2.66	3.76	4.79
59	Masanjor	3.00	1.95	1.48	2.24
60	Nunihaat	1.97	1.29	1.62	1.94
61	Parapalashi	7.07	5.78		7.01
62	Patabari	7.03	3.86	4.17	6.44
63	Raneswar	6.34	2.01	2.80	3.88
64	Sikaripara	6.65	3.36	4.35	6.04
	Jamtara District				
65	Basti Palajori	6.03	3.68	4.94	6.82
66	Fatehpur	9.18		6.92	8.66
67	Jasaydih	8.36	6.77	7.20	8.88
68	Jama1	8.56	8.03	8.23	9.65
69	Jamatara	8.32	4.68		7.76
70	Kundahit	6.85	2.30	3.02	5.70
71	Mihijam New	8.58	2.53	4.77	7.66
72	Mohanpur	8.66	8.02	6.04	8.07
73	Nala	9.80	4.07	3.67	6.18
74	Narayanpur	5.15	1.82	2.48	3.34
	Garhwa District				
75	Bhawanathpur	7.70	3.91	4.20	4.58
76	Garhwa	15.94		7.99	9.34
77	Godarmana	7.08	1.59	4.72	6.05
78	Manjhian	7.78	4.26	6.16	6.93
79	Nagaruntari	6.60	3.15	4.70	5.33
80	Ramna1	6.50	2.38	3.97	4.68
81	Ranka	7.28	2.38	4.33	5.35
	Giridih District				
82	Bagodar	8.20	6.40	3.72	8.10
83	Bandhutanr	8.12	4.55	8.31	9.10

84	Bengabad	8.63	2.26	3.92	4.81
85	Birini	10.70	8.64	8.74	10.60
86	Chirki (pirtanr)	14.20	3.95		7.24
87	Dewri	7.56	1.83	2.85	7.45
88	Dhanidih	9.00	2.53	4.51	6.45
89	Dhanwar	10.20	2.10		9.99
90	Dumri	10.10	1.82	9.30	9.45
91	Gandey1	10.70	2.92		10.60
92	Giridih	8.50	4.28	8.34	9.10
93	Jamua pwd ib	11.10	5.41	7.61	9.62
94	Khijri	9.20	3.22	4.65	7.56
95	Maheshmunda1	7.65	1.65	3.11	6.60
96	Pandri	9.60	5.26	3.45	8.10
97	Saraiya new	10.70	2.85	6.57	7.56
98	Tisri	6.10	1.40	3.10	5.98
Godda District					
99	Bara borijore	7.85	2.84	3.06	3.46
100	Bisaha	6.04	2.27	3.10	3.15
101	Chamudih	7.83	7.12	6.65	7.45
102	Doi	4.33	1.88	2.49	3.55
103	Gobra	3.77	2.27	2.77	2.87
104	Godda1	5.80	2.99	4.36	4.60
105	Jainipaharpur	7.80		4.51	5.75
106	Kumardih	4.88	1.20	2.65	2.78
107	Lalmatia	7.62	5.70	6.27	6.33
108	Mahagama	7.35			
109	Mahagama1		5.22	8.33	
110	Maheshpur2	7.00	1.98	3.18	3.20
111	Pathargama	6.35	3.11	5.21	
112	Raghunathpur	7.68	3.21	4.30	6.28
113	Sundar Pahari	12.10	11.08	10.33	11.24
Gumla District					
114	Adar	5.50			
115	Anjam gram	2.60		1.70	2.54
116	Baghma	7.80	6.25		6.18
117	Baisia	7.20	3.30	5.60	6.15
118	Bharno bdo	7.20	5.30	6.10	6.85
119	Bishnupur	7.45	4.20	5.30	7.12
120	Ghagra	8.10		6.70	7.38
121	Gumla1	8.15	7.18	6.60	7.20
122	Kasir	2.15	1.10	1.10	1.98
123	Nagfeni	8.18	6.15	6.35	7.38
124	Palkot	9.70	5.68	6.30	7.60
125	Raidih	6.95	2.60	3.10	4.50
126	Sisai	7.85	4.70	5.05	5.20
Simdega District					
127	Bari Biringa	4.20	1.20	1.35	2.10
128	Bano	5.40	5.10	5.90	6.70
129	Biru	5.25	4.80	5.28	5.78

130	Chainpur1	5.35	4.70	3.90	5.45
131	Jaldega	5.05	2.30	3.10	4.35
132	Kolebira	8.75	4.30	5.90	7.30
133	Lachargarh	7.10	5.40	5.55	6.20
134	Simdega	8.30	2.60	2.90	4.00
135	Thethai Thangar	2.65	1.25	1.55	2.35
136	Tengratuku	7.30	4.20	4.25	5.50
Hazaribagh District					
137	Amritnagar	12.62	3.61	10.09	11.41
138	Barhi	9.95	6.28	7.96	10.40
139	Barkagaon	11.64	7.23	10.48	
140	Barkatha	6.14	3.55	5.60	7.27
141	Battom Bazar	5.07			
142	College More	8.70		5.06	
143	Dari	11.05			
144	Daru	6.40	1.42	3.10	4.12
145	Garrikalan	7.00	1.85	5.30	6.18
146	Habib nagar	10.57	6.05	8.32	
147	Hatyari	6.52	1.87	4.62	6.94
148	Hazaribagh	13.35	1.73	5.00	
149	Hirabag	9.73	2.68	5.65	
150	Ichak more	6.45	4.20	5.50	6.30
151	Kanhari Road	9.60	3.26		
152	Kanjgi	7.04	4.32		
153	Keradari	9.04	0.34	3.72	4.91
154	Korrah Chowk	10.48	2.46	7.28	9.83
155	Kud Ashram	8.66	0.60	3.17	
156	Masipiri	9.30	5.29	8.44	
157	Meru(Silwar)	12.46	6.17	9.04	
158	Old Bus Stand	9.44	2.30	5.80	
159	Padma	10.97	8.55	9.80	
160	Patratu			4.82	
161	Simra Rest House	4.08	0.80	2.04	2.79
162	Sindur	8.47	1.56	3.50	5.04
163	Tatijharia	4.57	1.20	3.25	
164	Thakur Gora		1.60	2.82	3.52
165	Urimari		2.69	4.47	
Ramgarh District					
166	Barkakhana	3.66	1.15	3.28	3.30
167	Chitarpur	6.20	1.30	4.76	8.70
168	Gola		4.42	6.57	8.88
169	Kaitha	4.99	4.49	3.96	
170	Kuju	6.72	4.32	5.51	5.55
171	Kusumbha	6.61	3.66	3.65	
172	Mandu	8.05	5.01	6.21	6.25
173	Ramgarh2	7.33	4.80		5.92
174	Ramgarh2A		4.30	5.21	
175	Sakrej	6.58	2.89	4.65	6.16
176	Sayal	3.43	3.55	3.91	4.51

177	Sirka	7.69	3.10		8.40
Kodarma District					
178	Chandwara	5.45	0.65	2.49	4.87
179	Chauparan1	8.76			
180	Domchanch	8.30	9.30	10.70	
181	Kanobigha	7.78	3.34	5.37	6.05
182	Kodarma	7.41	6.49		10.20
183	Pathaldiha	4.25	1.81	3.95	4.72
Lohardaga District					
184	Barwatoli Chowk	6.20	3.95	4.18	5.58
185	Bhandara	8.30	5.20	6.80	7.10
186	Hesal		5.90	7.10	7.65
187	Hinjla	7.10	5.40	4.70	4.80
188	Irgaon	7.85	4.18	4.48	5.15
189	Kisko1	12.40	6.12	6.35	7.86
190	Kuru1	8.65	2.10	4.60	6.20
191	Lohardaga(Patra Toli)	5.48	4.30	4.40	5.18
192	Lohardaga(pwdib	7.30	2.50	3.30	5.90
193	Rudh1	7.80	3.70	3.95	6.48
194	Senha Bdo	5.70	3.70	3.00	5.66
Pakur District					
195	Amrapara	2.57	1.01	1.64	1.80
196	Hiranpur	4.73	1.23	5.80	5.90
197	Kariodih	6.04	0.33		3.34
198	Litipara	8.58	5.52	6.98	8.58
199	Litipara 2	4.73	2.83	4.13	4.25
200	Maheshpur2	7.15			
201	Pakur1	10.48	5.07	7.07	7.10
202	Pakuria	3.08	1.34	1.60	2.19
203	Pochaibera		0.56	0.64	1.05
204	Salgapara	5.90	3.70	2.87	7.20
205	Vikrampur		2.60	3.44	3.65
Palamu District					
206	Baraw	5.93	1.10	3.27	4.68
207	Bishrampur	8.43	1.64	3.60	4.22
208	Chhatarpur	9.21	8.07	8.42	9.23
209	Daltenganj	6.90		4.10	5.12
210	Haidernagar			3.74	7.19
211	Hariharganj	7.17	3.70	6.11	
212	Kajri	12.05	11.30	12.00	12.86
213	Kanda	5.47	3.39	4.50	5.66
214	Lesliganj	6.59	2.12		5.35
215	Nawadih1	14.58	5.56		
216	Panki	6.17	1.89	3.78	5.10
217	Patan	9.35	1.85	5.61	8.30
218	Rajhara	7.80	2.65	5.19	5.86
219	Sagalim	8.76	1.80	5.24	6.12
220	Sandha			4.50	5.38
221	Satbarwa	8.53	6.01	7.28	7.84

Latehar District					
222	Balumath	12.85	5.44	8.70	9.89
223	Barjatu	7.30	2.70	4.85	5.79
224	Barwadih	8.37	0.33	3.25	5.03
225	Betla		5.78	7.90	8.77
226	Chandwa	8.98	1.39	3.56	4.89
227	Garu	6.54	2.01	4.96	6.02
228	Latehar	2.88	1.65	2.38	2.52
229	Mahuadanr	9.25	0.63	3.01	4.05
230	Manika	7.50	1.04	3.26	4.89
Paschimi Singhbhum					
231	Bandgaon	8.09	4.84		
232	Bandgaonnew	1.61	4.76	5.71	6.91
233	Barajamda		0.85	2.05	1.70
234	Chaibasa	13.30	9.00	11.15	10.90
235	Chakradharpur	6.65	0.80	6.65	6.20
236	Hat Gamhariya	10.02	1.47	5.67	6.92
237	Hata_Tirin			2.70	3.50
238	Hesadih	4.29	1.12	2.84	
239	Jagannathpur	9.15	2.00	7.30	7.20
240	Jaitgarh	6.05	2.00	4.10	4.44
241	Jhinkpani	7.20	1.15	3.70	3.50
242	Kereikela	7.10	0.74	5.60	5.75
243	Khuntpani	6.80	0.45	3.95	6.50
244	Kokcho	8.15	2.15	4.30	4.50
245	Noamundi	4.75		2.95	2.35
Saraikela Kharsawan District					
246	Chandil	7.90	1.90	7.15	7.65
247	Dugani	7.68	0.78	4.78	5.23
248	Harison	6.93	2.53	5.68	6.60
249	Kandra	6.35	3.60	6.15	6.20
250	Keshargaria	1.30	0.45	1.55	0.85
251	Kharsawan	5.49	2.04	5.54	6.69
252	Nabibera	10.35	7.35	6.95	8.00
253	Nimdih_Jamdih		1.30	3.60	3.80
254	Saraikela	0.74	-0.06	1.34	2.04
Purbi Singhbhum					
255	Bagun Nagar	4.50	2.50	3.00	
256	Baharagora	13.90	4.00		
257	Baridih	2.80	0.45	1.00	1.60
258	Burmamines Thana	1.45	1.20	1.50	1.00
259	Chakulia	18.92	8.20	15.90	16.60
260	Deen Bandhu Shiv Mandir	1.40		1.50	
261	Dhalbhumgarh	10.70	2.80	8.55	9.35
262	Garhabasha Jua	0.80	0.45	1.05	1.10
263	Ghatsila	5.40	1.60	4.60	4.80
264	Golmuri	2.50	1.80	2.40	2.60
265	Jabirdiha		0.80	4.40	4.70

266	Jugsalai Thana Jua	2.10	1.30	1.70	1.15
267	Kalikapur	3.85	0.80	2.40	2.20
268	Kendadih	4.90	1.15	2.32	2.00
269	Matigora	5.15	1.00	2.40	1.95
270	Mosabani	2.30		1.73	1.78
271	Pipla	5.30	1.35	4.20	5.10
272	Pithajudi	5.00		4.75	5.40
273	Potka	8.54	4.14	5.19	5.54
274	Rankini Madir Jua			3.70	
275	Shitla Mandir Sackchi	3.55		2.00	1.60
276	Shiv Mandir Barmamines	4.00	1.50	2.50	
277	Sundarnagar1	12.35	4.10	8.65	9.15
278	Telco Zone	0.90	0.85		1.40
Ranchi District					
279	AG Office	11.30	3.30	7.35	7.46
280	Angara1	7.65	4.75	5.80	6.81
281	Bajra	4.90	1.40	4.15	4.32
282	Bala	8.60	5.40	5.60	
283	Barwadag	5.30	1.15	3.60	4.55
284	Berro	9.87	5.37	7.07	8.17
285	Bidge Frord Sch	6.85	0.84	4.59	5.72
286	Bijupara Tangar	6.15	2.05	2.90	
287	Bishakhatanga	7.90	2.47	4.92	
288	Bit More	5.80	1.60	4.25	5.47
289	Bundu	8.50	8.80	7.40	9.05
290	Bunti	2.45		1.81	2.30
291	Burmoo	9.45	3.60	6.15	7.55
292	Buti		1.11		
293	Chachgura	11.30	5.75	6.85	8.50
294	Chutupalu	5.30	1.06	6.41	7.69
295	Dumardagga	5.60	3.30	5.10	6.25
296	Gondlipokhar	6.10	1.10	4.45	5.25
297	Harmu	11.35	3.36	6.66	7.54
298	Hatia1	12.10	2.75	7.10	8.30
299	Hombai	8.80		3.40	7.20
300	Hurhuri	7.55	0.91	4.18	5.70
301	Itki NAM	12.10	8.35	8.10	9.46
302	Jaltanda				5.40
303	Jonha	4.23	3.18	3.53	3.91
304	Kanke1	6.35	0.33	1.65	2.09
305	Kantitanr	5.20	1.13	3.08	3.21
306	Kharsidag	6.85	3.40	4.60	5.45
307	Kita	6.00	1.09	2.95	3.75
308	Lalganj	6.40	1.15	4.50	5.13
309	Lowadih	9.70		6.10	6.83
310	Mandar	6.80	1.45	3.55	4.30
311	Morhabadi	8.98	1.10	6.95	8.30
312	Namkom Bz Chowk	3.95	0.79	2.29	3.30

313	Ormanji	6.20		4.15	4.90
314	Patrahatu	2.45	0.72	1.17	1.36
315	Pithoria	4.70	1.74	2.80	3.51
316	Rampur	5.06	1.90	4.25	3.27
317	Rangamati	7.32			5.05
318	Sani Mandir	5.95		1.55	
319	Silli	7.25	2.30	6.25	5.84
320	Siramtoli	6.70	1.60	4.45	4.73
321	Sithipokhartoli			5.70	5.25
322	Sonahatu1	7.65	0.24	2.88	4.95
323	Sonsbazar		2.00	4.20	5.02
324	Taimara	10.96	2.20	4.79	7.39
325	Tamar	11.32	0.80	5.70	7.28
326	Tatilsilwai EEF	6.75		5.20	5.72
327	Ukrid	4.90		3.47	3.62
Khunti District					
328	Kakriya	8.30	6.30	6.00	6.90
329	Kalimati	6.10	4.55	6.15	7.12
330	Karapurti	3.20	3.10	3.80	4.80
331	Karra	9.75			
332	Khunti	8.10	6.55	5.20	6.54
333	Lodma1	4.40	1.90	2.50	3.70
334	Masmano	6.10	2.70	4.25	5.10
335	Seringathu			1.25	1.90
336	Gobidpur	6.65	6.00	6.45	7.10
337	Murhu			2.30	2.60
Sahebganj District					
338	Baramasia	9.06	0.55	4.23	8.83
339	Barhait	5.88	2.75	6.08	6.73
340	Barharwa	9.40	3.66	5.83	7.70
341	Borio	12.00	3.42	4.00	
342	Chota Kadma	9.62	3.21	5.45	6.75
343	Ghat Selumpur	5.33	2.28	4.07	7.19
344	Harinchara Chowk	5.55	3.03	3.68	4.53
345	Kotalpokhar	4.42	3.30	3.61	5.30
346	Mandro	3.00	1.13	2.50	4.76
347	Mangalhat	5.65	2.50	3.87	4.88
348	Maricho	6.60	3.41	3.90	5.64
349	Rajmahal	6.61	3.52	4.45	5.75
350	Ranga	7.55	0.86	3.70	5.73
351	Sahebganj1	8.77	6.59	7.00	7.45
352	Sakrigali	3.90	1.90	3.62	4.79
353	Taljhari	2.67	1.26	2.06	2.86
354	Udvababutala	7.06	3.58	4.47	6.95

ANNEXURE-II

Trend of Water Level for last ten years (2009 to 2018)										
	District	**Bokaro**								
		Pre-Monsoon			**Post-Monsoon**			**Annual**		
Sl No.	**Location**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
1	Nawadih	6		0.2418	9		0.16	32		0.2677
2	Chandankiyari	4			6		0.1947	19		
3	Laghla	1			2			9		
4	Chas	10		0.0064	10		0.4102	39		0.2401
5	Petarbar	10		0.0556	10	0.0049		38	0.0898	
6	Jaina More	10		0.0256	9	0.0219		38	0.0784	
7	Phusro_Bermo	6		0.3824	7	0.2595		24	0.1856	
8	Pachaura Sersadih	1			2			7		
9	Tenughat	9		0.0974	10		0.0003	38		0.0524
10	Chandrapura	8	0.5465		10	0.0212		38	0.1049	
11	Mahuda	6	0.2033		7	0.0731		24	0.2873	
12	Gomia	10	0.6401		10	0.1315		38	0.2924	
	District	**CHATRA**								
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
17	Tandwa	6		0.1711	4			19		
18	Bagra	9		0.261	9	0.1463		37		0.1134
19	Simaria	9		0.2397	8		0.1526	35	0.0799	
20	Itkhori	6		0.046	4			18		
	District	**DEOGHAR**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
21	Sarath	10		0.1219	9		0.1304	39		0.0289
22	Jasidih	10	0.0303		9	0.162		39	0.1453	

23	Madhupur1	8	0.196		9	0.0872		33	0.1081	
24	Palajori	10	0.088		9	0.1906		39	0.2051	
25	Sarawan	10	0.2308		9	0.6477		39	0.2363	
26	Ghormara	10		0.0457	8		0.1715	37		0.0201
27	Deoghar	6		0.1827	4			19		
	District	**DHANBAD**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
28	Govindpur	9		0.8592	9		0.012	33		0.3081
29	Rajganj	10		0.1116	10		0.005	40	0.0297	
30	Topchanchi	9		0.0321	10	0.0332		39	0.0576	
31	Tundi	8		0.116	10		0.0795	37		0.0838
32	Sindri	7		0.0348	4			20		
33	Jharia	7		0.0589	6		0.0193	23		
34	Nirsa ecl l.qtr	10	0.2904		9	0.2195		38	0.0938	
	District	**DUMKA**								
	Location	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
Sl No.		**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
35	Mihijam db ib	6		0.1013	4			16		
36	Kundahit	9		0.2248	8		0.1401	32		0.0822
37	Jamatara	10		0.077	9		0.1071	39		0.0177
38	Raneswar	10		0.1227	9	0.0154		38		0.0144
39	Nala	10		0.036	9		0.3646	37		0.1442
40	Masanjor	10		0.0206	9		0.0289	38		0.0419
41	Masalia	9	0.1369		9		0.0523	36	0.0891	
42	Patabari	10		0.0457	8	0.0276		36	0.0458	
43	Sikaripara	6		0.2147	8		0.1333	27		0.1228
44	Chapuria	2			2			6		
45	Chikania	8		0.087	8	0.0572		36	0.158	
46	Kathikund	10	0.0275		9	0.0591		39	0.1193	
47	Dumka(db ib)	10	0.5992		9	0.4048		36	0.5166	
48	Chapodia	1			3			10		
49	Jama1	10		0.0664	9	0.0857		38	0.19	

50	Jarmundi db.ib	10	0.0612		9	0.0423		38	0.1597	
51	Nunihaat	7		0.0203	9		0.058	36	0.0285	
52	Gopikandar	10	0.1899		9		0.0843	39	0.1252	
53	Gamharia	6		0.1279	5			19		
54	Hansdiha pwdib	9		0.0107	9		0.0479	35	0.0607	
	District		**GARHWA**							
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
55	Garhwa	9		0.9327	8		0.0284	34		0.1095
56	Ramna1	4			5			17		
57	Nagaruntari	8	0.3942		9		0.0212	35	0.1199	
58	Bhawanathpur	8	0.0886		6		0.0095	27	0.133	
	District		**GIRIDIH**							
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
59	Pandri	10		0.3407	9	0.1523		36		0.1725
60	Bagodar	8	0.0389		10		0.0466	38		0.0329
61	Birini	8		0.0207	8	0.2201		30	0.1167	
62	Dhanwar	10		0.5149	10		0.0243	39		0.1833
63	Gandey1	3			5			15		
64	Giridih	10	0.493		10	0.1915		39	0.4194	
65	Dhanidih	10		0.257	10		0.0294	40	0.0395	
66	Bengabad	10		0.044	10	0.0115		40		0.0251
67	Bandhutanr	10		0.0044	9		0.0645	39	0.1241	
68	Jamua pwd ib	10		0.1794	10		0.0566	40		0.0005
69	Dumri	10		0.0918	9	0.1216		39	0.104	
70	Dewri	6		0.3828	7	0.1479		25	0.0645	
71	Khijri	6		0.3861	7	0.3991		25	0.1742	
72	Tisri	6		0.3448	6	0.0491		23		
	District		**GODDA**							
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**

73	Poraiyahaat	6	0.1105		5			25	0.194	
74	Sundar Pahari	10		0.2462	7		0.3245	33		0.1392
75	Godda1	9		0.1163	9		0.0684	38		0.0568
76	Maheshpur2	7		0.0797	5			27		0.3621
77	Pathargama	10		0.0563	9		0.1225	38		0.063
78	Bara borijore	6		0.1175	8	0.0251		27	0.0098	
79	Mahagama1	8		0.1808	9		0.4125	36		0.1993
80	Lalmatia	9		0.0349	9		0.0976	38		0.0694
81	Gobra	2			2			7		
82	Doi	8	0.0187		9		0.0856	36		0.0403
	District		**GUMLA**							
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
83	Bharno bdo	9	0.0187		10		0.186	37		0.0621
84	Ghagra	9		0.0536	10		0.0323	39	0.047	
85	Nagfeni	10		0.0293	10	0.0413		39	0.8467	
86	Thethai Thangar	10	0.0017		10	0.0423		39	0.046	
87	Jaldega	10		0.0111	10	0.0653		39	0.0467	
88	Simdega	9		0.0696	10	0.056		38	0.0353	
89	Lachargarh	9	0.0234		9	0.2758		37	0.2045	
90	Bano	8	0.0951		9	0.2891		35	0.2075	
91	Bishnupur	10	0.2084		10	0.0783		39	0.1756	
92	Kolebira	7	0.1753		10	0.042		36	0.0898	
93	Palkot	10		0.0296	10	0.0157		40	0.0696	
94	Baisia	10	0.0255		10	0.0481		39	0.1306	
95	Raidih	9	0.0023		10		0.0216	39	0.0597	
96	Gumla1	6		0.006	6	0.0849		24	0.1241	
97	Anjam gram	9	0.0325		8	0.0835		33	0.0464	
98	Chainpur1	9		0.0397	9		0.0817	35		0.0436
99	Sisai	9		0.0934	9		0.1987	37		0.0944
	District		**HAZARIBAG**							
	Location	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
Sl No.		**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Point**	**Rise (m/yea**	**Fall (m/y**	**Data Poin**	**Rise (m/ye**	**Fall (m/yea**

					s	r)	ear)	ts	ar)	r)
100	Mandu	9		0.0271	10	0.0828		38	0.0608	
101	Hazaribagh	10		0.0379	8	0.3402		37	0.2699	
102	Barkatha	10	0.0715		6	0.1439		34	0.1562	
103	Barhi	10		0.2629	8		0.0388	38		0.1061
104	Gola	9	0.0784		8	0.0024		36	0.006	
105	Barkakhana	10	0.2553		9		0.0543	37	0.0744	
	District		**KODARMA**							
	Location		**Pre-Monsoon**		**Post-Monsoon**			**Annual**		
Sl No.		**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
106	Chauparan	6	0.0657		3			18		
107	Kodarma	4			6		0.2866	18		
District		**LOHARDAGA**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
108	Bhandara	8	0.0111		9		0.034	37		0.0045
109	Senha Bdo	10	0.047		8	0.1452		38	0.131	
110	Lohardaga(pwd ib	9	0.0519		9		0.0573	38	0.018	
111	Hinjla	10		0.3096	10		0.083	39		0.1536
112	Kuru dispensary	0			0			0		
113	Kuru1	10		0.2023	10	0.2459		40	0.1068	
114	Rudh1	2			5			16		
District		**PAKAUR**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
115	Pakuria	7	0.1196		9		0.0643	35		0.0213
116	Salgapara	8		0.0116	7		0.0881	34		0.0534
117	Maheshpur2	7	0.0312		5			29		0.0861
118	Amrapara	8		0.0127	9	0.2217		36	0.1481	
119	Pakur1	9		0.1614	9	0.0167		38		0.0362
120	Litipara	9		0.0313	8		0.1071	37		0.0403

121	Hiranpur	10	0.0562		9	0.0171		39	0.0541	
District		**PALAMU**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
122	Balumath	9		0.0787	10	0.0804		39	0.1677	
123	Satbarwa	9		0.022	10		0.1371	39		0.028
124	Manika	10	0.1238		10	0.0803		39	0.1278	
125	Barwadih	8	0.0397		6	0.009		28	0.1243	
126	Barjatu	8	0.0534		9	0.1008		36	0.1827	
127	Betla	7		0.4342	7	0.2903		30	0.04	
128	Lesliganj	8	0.5176		9	0.3986		34	0.3623	
129	Panki	6		1.1417	6	0.3257		26	0.0021	
130	Daltenganj	9	0.2122		9	0.3322		37	0.3388	
131	Kajri	9	0.3013		9	0.1748		35	0.2148	
132	Nawadih1	7	0.1011		7	0.4526		24	0.3613	
133	Rajhara	8	0.0296		9		0.0297	35	0.0531	
134	Patan	7	0.0037		6		0.04	25	0.1628	
135	Bishrampur	7		0.0186	10	0.0496		36	0.0384	
136	Hariharganj	7		0.0844	8	0.1061		31	0.0356	
137	Kanda	9	0.0592		10		0.0339	37	0.0983	
138	Chhatarpur	10	0.3672		10	0.1217		40	0.2104	
139	Chandwa	10	0.063		10	0.0269		38	0.1497	
140	Latehar	9		0.0462	9	0.1757		35	0.1259	
141	Mandal	0			0			3		
142	Japla	7	0.3397		4			22		
143	Sandha	7	0.1529		6	0.1166		26	0.1795	
District		**PASHCHIMI SINGHBHUM**								
Sl No.		**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
	Location	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
144	Keshargaria	7	0.3366		7	0.2508		27	0.2969	
145	Jhinkpani	7		0.15	8	0.0005		30		0.1039
146	Kokcho	10		0.1118	10		0.1022	40		0.0569
147	Hesadih	10	0.0123		9	0.1298		39	0.0987	
148	Chaibasa	9		0.8911	10		0.7525	39		0.8103
149	Rajnagar	6		0.0827	5			21		
150	Hata_Tirin	6		0.3067	6	0.2847		23		
151	Pandrasalai	8		0.064	7	0.1512		30		0.0118
152	Chakradharpur	9	0.1325		9	0.52		37	0.3774	
153	Saraikela	10	0.1382		10	0.099		40	0.1352	
154	Kharsawan	10	0.1068		9		0.00	38	0.1016	

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155	Bandgaon	9		0.1116	10	0.0728		39	0.0667	
156	Kereikela	10	0.2758		10	0.0508		39	0.1172	
157	Kandra	10		0.03	9	0.14		37	0.0998	
158	Chandil	10	0.1434		10	0.073		40	0.1239	
District		**PURBI SINGHBHUM**								
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
159	Ghatsila	10		0.0052	10	0.058		40	0.1061	
160	Baharagora	10		0.0247	10	0.0816		39	0.0874	
161	Chakulia	9		0.0505	8	0.0613		36	0.0645	
162	Pithajudi	4			2			15		
163	Dhalbhumgarh	10		0.101	9	0.1025		39	0.0757	
164	Mosabani1	6		0.1507	7		0.122	25	0.0364	
165	Kalikapur	10	0.1983		9		0.0642	39	0.1261	
166	Potka	9		0.1224	10	0.0653		37	0.0432	
167	Galudih	10	0.0511		10		0.0893	39		0.0101
168	Ramgarh1	10		0.1835	8		0.13	33		0.2037
169	Sundarnagar	8	0.0429		6	0.2177		25	0.0856	
District		**RANCHI**								
Sl No.	**Location**	**PreMonsoon**			**PostMonsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
170	Lodma	8	0.3566		7	0.1438		31	0.1879	
171	Kharsidag	3			4			10		
172	Barwadag	10	0.0205		8	0.1526		35	0.0424	
173	Berro	10	0.018		9	0.0167		37	0.0348	
174	Hatia1	7		0.2057	8		0.6865	30		0.2116
175	Ormanji	9		0.1319	7		0.2561	31		0.1614
176	Ranchi1	8	0.1473		7		0.2229	28	0.0051	
177	Kita	4			3			13		
178	Silli	10		0.0617	8	0.0353		34	0.0261	
179	Bunti	9		0.0034	7		0.1035	31		0.0216
180	Mandar	10	0.0387		8	0.0912		34	0.1209	
181	Chutupalu	10	0.0072		7	0.2079		33	0.0032	
182	Burmoo	5			5			21		
183	Torpa	1			0			4		
184	Murhu	9	0.0251		8		0.26	33		0.1852

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185	Khunti	8	0.248		8	0.0997		31	0.1059	
186	Tamar	10	0.2249		9	0.5012		35	0.4476	
187	Karra1	8	0.0923		7	0.2542		29	0.2377	
188	Bundu	10		0.1314	9		0.0344	39	0.0697	
189	Kalimati	7	0.1957		10	0.0554		37	0.0801	
District		**SAHIBGANJ**								
Sl No.	**Location**	**Pre-Monsoon**			**Post-Monsoon**			**Annual**		
		Data Points	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**	**Data Points**	**Rise (m/year)**	**Fall (m/year)**
190	Barharwa	9	0.0563		7		0.0937	25	0.2462	
191	Barhait	9	0.2771		9	0.2679		29	0.1852	
192	Rajmahal	10		0.0183	7		0.1878	34	0.0473	
193	Borio	9		0.5094	9	0.0383		37		0.0861
194	Taljhari1	9	0.7302		7		0.1043	32	0.3664	
195	Mandro	7	0.1015		5			25	0.1911	
196	Sahebganj1	10		0.0404	8	0.228		36	0.1772	
197	Sakrigali	9		0.0214	7	0.1273		31	0.1237	

ANNEXURE-III

Chemical Quality of Ground Water during May, 2017

Sl. No	Location	Block	Dist	E.C micro Siemens/cm at 250 C	TDS	pH	CO32-	HCO3-	Cl-	F-	N03-	SO42-	TH	Ca2+	Mg2+	Na	K	Si02	P04
													as CaCO3						
					mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	Radhagram	Chas	Bokaro	1303	846.95	7.88	0	252.15	216	0.362	118	78.27	550	110	66.82	76.16	6.72	NA	0
2	Jaina More	Chas	Bokaro	1329	863.85	7.78	0	270.6	214	0.35	135	77.33	605	116	76.545	78.52	6.78	NA	0
3	Pindrajora	Chas	Bokaro	366	237.9	8.19	0	190.65	7.02	0.928	3.02	16.22	170	40	17.131	9.73	5.57	NA	0
4	Pupunki	Chas	Bokaro	730	474.5	7.93	0	196.8	63.81	0.813	164	72.92	345	110	24.3	23.51	7.21	NA	0
5	Chandankiyari	Chandankiyari	Bokaro	781	507.65	8	0	190.65	93.4	0.657	70.9	65.95	225	80	6.075	83.92	7.28	NA	0
6	Laghla	Chandankiyari	Bokaro	1237	804.05	7.78	0	202.95	211	0.903	201	75.16	505	182	12.15	56.87	8.03	NA	0
7	Nutandih	Chandankiyari	Bokaro	2450	1592.5	7.56	0	246	714	0.293	58.2	85.09	1110	286	95.985	45.28	9.84	NA	0
8	Baramasia	Chandankiyari	Bokaro	494	321.1	7.79	0	122	71.24	0.174	96.4	36.16	130	36	9.72	54.46	19.56	NA	0
9	Chandra	Chandankiyari	Bokaro	2115	1374.8	7.63	0	492.4	365	1.52	134	106.5	320	106	13.365	374.94	27.94	NA	0.12
10	Chandrapura	Petarbar	Bokaro	335	217.75	7.9	0	86.1	25	1.12	1.98	76.76	135	38	9.72	4.86	17.97	NA	0.3
11	Gomia	Gomia	Bokaro	1206	783.9	8.01	0	460.02	157	1.01	8.52	52.76	200	70	6.075	158.41	8.61	NA	0
12	Nawadih	Nawadih	Bokaro	997	648.05	8.25	0	276.75	156	0.599	68.8	73.51	375	120	18.225	62	5.18	NA	0

13	Petarbar	Petarbar	Bokaro	776	504.4	7.63	0	178.49	101	0.246	104	64.02	350	60	48.6	33.5	6.76	NA	0
14	Bermo/Phusro	Bermo	Bokaro	1218	791.7	7.78	0	455.1	123	0.439	8.76	72.11	425	84	52.245	58.2	5.13	NA	0
15	Deoghar	Deoghar	Deoghar	683	443.95	8.22	0	295.2	24.7	0.683	35.6	36.67	315	80	27.945	23.98	7.19	NA	0
16	Ghormara	Mohanpur	Deoghar	903	586.95	8.24	0	319.8	62.1	0.795	146	59.72	325	90	24.3	77.13	5.05	NA	0
17	Jasidih	Deoghar	Deoghar	1095	711.75	7.95	0	319.8	120	0.43	139	66.89	420	102	40.095	74.07	6.35	NA	0
18	Madhupur	Madhupur	Deoghar	1170	760.5	7.8	0	473.5	70.9	0.691	86	67.91	265	66	24.3	137.06	5.23	NA	0
19	Palajori	Palajori	Deoghar	841	546.65	8.05	0	301.35	67.5	0.547	47.5	45.22	290	74	25.515	77.53	6.76	NA	0
20	Sarath	Sarath	Deoghar	551	358.15	8.24	0	196.8	40.6	0.473	22	36.19	250	60	24.3	15.89	5.72	NA	0
21	Sarawan	Sarwan	Deoghar	680	442	8.12	0	221.4	104	0.512	47.5	43.88	290	100	9.72	28.47	6.69	NA	0.54
22	Khamarbad(New)	Palajori	Deoghar	1025	666.25	7.88	0	258.3	130	1.16	182	68.67	350	78	37.665	97.62	5.31	NA	0
23	Matiyara(New)	Sarath	Deoghar	379	246.35	7.93	0	135.3	51.3	1.02	51.2	20.33	120	40	4.86	37.24	6.18	NA	0
24	BadaNawada(New)	Sarath	Deoghar	462	300.3	8.26	0	239.85	6.95	1.17	1.04	23.5	170	32	21.87	15.01	8.96	NA	0
25	Baghmara	Baghmara	Dhanbad	1121	728.65	7.73	0	369	110	0.74	8.72	88.16	435	72	61.965	72.08	5.35	NA	0
26	Basudeopur	Dhanbad	Dhanbad	1160	754	7.91	0	399.75	69.9	0.731	15.2	97.97	375	96	32.71	62.36	100	NA	0
27	Dhaiya Ism	Dhanbad	Dhanbad	532	345.8	8.05	0	147.6	44.4	0.828	8.29	75.35	180	44	17.01	31.09	30.63	NA	0
28	Dhanbad(New)	Dhanbad	Dhanbad	714	464.1	8.11	0	190.65	105	0.539	8.08	39.65	305	46	46.17	35.88	4.63	NA	0
29	Dhansar MRS	Jharia	Dhanbad	654	425.1	7.9	27	104.55	67	0.394	121	71.62	245	78	12.15	46.24	4.75	NA	0

30	Godhar Basti	Dhanbad	Dhanbad	589	382.85	8.02	0	270.6	7.9	1.67	54.5	49.8	185	32	25.515	62	5.57	NA	0
31	Gobindpur	Govindpur	Dhanbad	720	468	8.09	0	270.6	58.3	1.83	56.4	50	215	24	37.665	81.84	5.57	NA	0
32	Jharia	Jharia	Dhanbad	678	440.7	8.06	0	270.6	47.3	0.928	10.3	71.82	200	48	19.44	42.37	32.37	NA	0
33	Kandra Mandal Basti	Jharia	Dhanbad	1079	701.35	8.05	0	375.15	85	0.578	37.1	96.25	255	40	37.66	147.27	9.99	NA	0
34	Mahuda	BAGHMARA	Dhanbad	1966	1277.9	8	24	282.9	177	0.495	353	91.4	600	100	85.05	206.96	6.91	NA	0
35	Matkuria	DHANBAD	Dhanbad	662	430.3	8.27	0	295.2	30.8	0.777	4.06	40.42	235	22	43.74	51.3	6.72	NA	0
36	Nirsa	NIRSA	Dhanbad	270	175.5	8.25	0	147.6	5.85	1.86	1.17	10.91	110	22	13.365	5.14	5.48	NA	0
37	Pkroy College	DHANBAD	Dhanbad	1968	1279.2	8.1	0	295.2	186	0.566	365	92.34	565	106	72.9	238.76	6.99	NA	0
38	Purandih Jorapokhar	DHANBAD	Dhanbad	1733	1126.5	8.1	0	319.8	169	0.544	262	94.1	390	54	61.96	255.52	8.43	NA	0
39	Rajganj	RAJGANJ	Dhanbad	1153	749.45	8.03	0	270.6	169	0.44	75.3	75.82	326	56	45.198	91.28	5.44	NA	0
40	Sindri Gosala More	JHARIA	Dhanbad	734	477.1	8.02	0	190.65	80.6	0.755	5.79	62.72	300	70	30.375	44.33	7.28	NA	0
41	Topchanchi	TOPCHANCHI	Dhanbad	1685	1095.3	8.14	0	442.5	198	0.51	39.4	96.05	459	84	60.57	202.14	6.95	NA	0
42	Tundi	TUNDI	Dhanbad	765	497.25	8.25	0	196.8	104	0.388	20.7	68.99	295	86	19.44	45.55	5.69	NA	0
43	Bagodar	BAGODAR	Giridih	737	479.05	8.31	6	221.4	92	0.831	87.3	65.96	300	56	38.86	46.04	6.08	NA	0
44	Bandhatanr	GIRIDIH	Giridih	906	588.9	8.28	0	172.2	156	0.351	0.82	51.74	255	68	20.655	99.29	5.44	NA	0
45	Bengabad	BENGABAD	Giridih	324	210.6	8.5	12	104.55	33.6	0.306	4.73	24.19	100	16	14.58	27.1	6.7	NA	0
46	Birin	BIRNI	Giridih	725	471.	8.1	0	196.	10	0.6	76.	62.	28	52	37.6	44.	5.0	N	0

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47	Dewri	DEWRI	Giridih	486	315.9	8.44	12	264.45	1.6	1.04	0.81	24.87	190	30	27.945	13.09	9	NA	0
48	Dhanayadih	GIRIDIH	Giridih	556	361.4	8.18	21	116.85	90.7	0.74	63.3	42.95	160	46	10.935	58.36	7.23	NA	0
49	Dumri	DUMRI	Giridih	1142	742.3	8.47	15	338.25	110	0.544	108	74.27	430	84	53.46	43.22	6.1	NA	0
50	Gandey	GANDEY	Giridih	305	198.25	8.6	18	129.15	15.7	0.708	9.08	6.17	135	46	4.86	9.05	4.37	NA	0
51	Giridih	GIRIDIH	Giridih	918	596.7	8.12	0	153.75	149	0.211	72.4	77.79	310	28	58.32	80.81	7.08	NA	0
52	Jamua	JAMUA	Giridih	429	278.85	8.36	12	166.05	34	1.12	24.2	23.61	135	44	6.05	42.65	4.89	NA	0
53	Khijri	JAMUA	Giridih	1620	1053	8.03	0	319.8	271	1.56	58	82.7	305	70	31.59	265.1	14.44	NA	0
54	Maheshmunda	GANDEY	Giridih	222	144.3	8.27	0	141.45	1.39	0.988	1.17	4.79	75	18	7.29	16.32	4.18	NA	0
55	Pandri	GANDEY	Giridih	477	310.05	8.1	0	104.55	40.7	0.575	91.1	30.33	205	64	10.935	23.51	4.42	NA	0
56	Saraiya	SARIYA	Giridih	594	386.1	8.19	0	215.25	91.8	0.542	10.1	34.57	215	58	17.01	35.6	4.62	NA	0
57	Tisri	TISRI	Giridih	477	310.05	8.29	0	227.55	35.1	2.66	0.84	21.58	140	40	9.72	39.2	4.92	NA	0
58	Dhanawar	Dhawar	Giridih	512	332.8	8.2	0	202.95	41.1	0.392	1	56.64	130	38	8.505	61.92	5.71	NA	0
59	Chirki(Pirtand)	Chirki(Pirtand)	Giridih	1202	781.3	7.95	0	215.25	206	0.699	161	85.94	420	96	43.74	100.41	5.96	NA	0
60	dorma	Torpa	Khunti	258	167.7	7.8	0	104.55	13.9	0.47	3.55	17.27	65	24	1.215	29.1	2.22	NA	0
61	Kakariya	Lapung	Khunti	488	317.2	7.9	0	178.35	37.7	0.167	39.3	27.52	190	36	24.3	31.87	7.29	NA	0.35
62	Kalamati	Khunti	Khunti	145.7	94.705	7.48	0	55.35	10.4	0.185	5.38	11.39	50	10	6.075	10.93	2.52	NA	0
63	Nawa toli	Karra	Khunti	241	156.65	7.6	0	92.25	29.3	0.337	6.85	4.53	80	14	10.935	23.62	1.19	NA	0
64	Pokta	Karra	Khunti	204.6	132.99	7.77	0	110.7	5.36	0.396	3.4	9.93	75	10	12.15	14.78	0.61	NA	0
65	Barwadag	Karra	Khunti	420	273	7.87	0	98.4	50.9	0.203	49.4	15	160	24	24.3	21.03	3.68	NA	0
66	Govindpur	Karra	Khunti	302	196.3	8.27	0	166.05	10	0.782	1.02	12.37	110	16	17.01	22.8	2.04	NA	0
67	Jariy	Karra	Khunti	129	83.8	7.7	0	61.5	3.5	0.2	4.5	7.1	50	6	8.50	8.9	1.4	N	0

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68	Raloguta	Karra	Khunti	142.4	92.56	7.77	0	67.65	7.36	0.334	6.32	4.82	45	6	7.29	13.18	1.19	NA	0
69	Malgo	Karra	Khunti	139	90.35	7.14	0	67.65	1.9	0.107	12.3	6.97	50	8	7.29	7.14	2.78	NA	0.3
70	Masamano	Karra	Khunti	400	260	7.43	0	129.19	68.5	0.118	9.28	4.16	120	20	17.01	38.49	3.87	NA	0
71	Kasir	Karra	Khunti	325	211.25	7.68	0	86.1	38.9	0.128	26	20.17	95	16	13.365	32.96	2.13	NA	0
72	Jobra	Karra	Khunti	475	308.75	7.77	0	166.05	50.3	0.55	20	26.8	190	28	29.16	22	2.07	NA	0
73	satiya	Karra	Khunti	186	120.9	7.81	0	92.25	5.75	0.347	9.33	8.02	70	8	12.15	12.3	1.09	NA	0
74	Bala	Torpa	Khunti	251	163.15	7.67	0	135.3	11.8	0.694	6.41	4.24	100	12	17.01	9.36	12.11	NA	0
75	Kudri	Karra	Khunti	84.2	54.73	7.52	0	24.6	1.95	0	12.3	8.89	40	4	7.29	0.88	2.83	NA	0
76	Jumu	Torpa	Khunti	576	374.4	7.63	0	196.8	70.9	0.301	19.4	37.68	240	38	35.235	21.48	2.06	NA	0
77	Lodhma	Karra	Khunti	276	179.4	7.92	0	129.15	12.6	0.305	12.9	11.2	110	20	14.58	12.25	3.02	NA	0
78	Sirka	Karra	Khunti	232	150.8	7.8	0	86.1	23.9	0.654	9.01	7.6	85	12	13.365	15.14	2.21	NA	0
79	Bingaou	Karra	Khunti	189.3	123.05	7.86	0	79.95	16.6	0.245	5.76	9.51	85	16	10.94	5.084	4.42	NA	0
80	Ghunsuli	Karra	Khunti	881	572.65	8.21	0	209.1	148	0.172	53.6	47.98	255	34	41.31	41.28	75.39	NA	0
81	Guitjora	Khunti	Khunti	1033	671.45	7.74	0	362.85	19.7	0.194	90.5	72.29	260	56	29.16	61.45	85.36	NA	0
82	Jaltanda	Khunti	Khunti	169.7	110.31	8.07	0	49.2	24.2	0	8.91	4.75	65	8	10.94	11.21	1.91	NA	0
83	dumardaga	Khunti	Khunti	131.5	85.475	7.69	0	36.9	3.4	0.138	27.2	7.26	20	6	1.215	17.41	3.73	NA	0
84	Rewa	Khunti	Khunti	118	76.7	7.38	0	36.9	6.99	0.294	19.8	3.92	49	16	2.3	0.59	3.65	NA	0
85	Amjora	Khunti	Khunti	213.9	139.04	7.6	0	92.25	12.4	0.532	7.2	12.46	85	8	15.795	8.58	2.7	NA	0
86	Jara Toli	Karra	Khunti	116.1	75.465	7.84	0	49.2	5.45	0.172	7.87	3.45	35	6	4.86	12.29	0.71	NA	0
87	Kunjala	Khunti	Khunti	280	182	7.47	0	61.5	53.2	0.186	12.1	14.66	95	16	13.365	19.5	3.8	NA	0
88	Pelaul	Khunti	Khunti	322	209.3	7.61	0	67.65	75.3	0.18	10.6	4.37	130	38	8.505	12.28	2.5	NA	0
89	Serenghatu	Arki	Khunti	353	229.45	7.83	0	172.2	15.3	0.362	4.53	21.35	130	22	18.225	18.02	1.9	NA	0
90	Kurapurti	Murhu	Khunti	1209	785.85	7.9	0	418.2	147	0.225	75.4	22.75	500	70	78.975	32.62	3.43	NA	0

91	Khunti	Khunti	Khunti	1489	967.85	8	0	381.3	289	0.825	37.6	69.67	505	82	72.9	110.4	3.61	NA	0
92	Murhu	Murhu	Khunti	458	297.7	8	0	147.6	50.3	0.544	23.5	37.85	130	38	8.505	35.12	17.5	NA	0
93	Barwa toli Chowk	Lohardaga	Lohardaga	488	317.2	8.18	0	166.05	53.2	0.703	20.4	36.08	180	34	23.085	26.67	3.9	NA	0
94	Bhandra	Bhandra	Lohardaga	270	175.5	7.62	0	49.2	61.9	0.227	18.8	5.6	90	16	12.15	21.5	1.63	NA	0
95	Hesal	Lohardaga	Lohardaga	369	239.85	7.91	0	116.85	51.1	0.307	19.3	13.64	135	32	13.365	20.16	1.89	NA	0
96	Hinjila	Kuru	Lohardaga	178.5	116.03	6.2	0	49.2	14	0.171	31.6	9.15	65	10	9.72	10.06	2.88	NA	0
97	Irgaon	Lohardaga	Lohardaga	221	143.65	7.5	0	79.95	16.2	0.103	15.9	14.43	70	12	9.72	18.12	1.21	NA	0
98	Kisko 1	Kisko	Lohardaga	260	169	7.4	0	61.5	51.9	0.14	18	2.85	85	14	12.15	16.52	2.64	NA	0
99	Kuru 1	Kuru	Lohardaga	524	340.6	7.5	0	135.3	96.2	0.195	34.9	12.69	205	38	26.73	17.94	2.48	NA	0
100	Patra Toli	Lohardaga	Lohardaga	590	383.5	7.7	0	116.85	105	0.23	52.7	26.58	200	32	29.16	40.09	2.44	NA	0
101	Lohardaga (pwdib)	Lohardaga	Lohardaga	220	143	7.73	0	116.85	4.8	0.445	6.37	9.39	80	10	13.365	13.32	0.27	NA	0
102	Rudh 1	Kuru	Lohardaga	272	176.8	7.31	0	36.9	37	0.174	75.1	3.54	80	16	9.72	21.45	5.47	NA	0
103	Senha	Senha	Lohardaga	559	363.35	7.61	0	135.3	85.9	0.145	54.4	22.5	180	38	20.655	38.83	1.43	NA	0
104	Adar	Ghaghara	Gulma	485	315.25	7.83	0	196.8	43.6	0.569	20	26.69	190	32	26.73	25.59	1.86	NA	0
105	Anjan Gram	Gumla	Gulma	192	124.8	7.7	0	92.25	13.3	0.536	2.9	5.3	65	16	6.075	14.54	1.41	NA	0
106	Bagham	Palkot	Gulma	887	576.55	8.01	0	172.2	144	0.32	98	39.06	305	60	37.665	58.46	2.45	NA	0
107	Basia	Basia	Gulma	1086	705.9	8.05	0	387.45	107	0.327	67.3	49.51	285	70	26.73	76.5	88.33	NA	0
108	Bano	Bano	Simdega	229	148.85	7.75	0	98.4	16.3	0.171	11.3	10.63	80	20	7.29	15.82	0.81	NA	0
109	Bharno bdo	Bharno bdo	Gulma	101	65.65	7.57	0	55.35	2.11	0.177	2.92	3.92	35	8	3.645	7.85	0.74	NA	0
110	Biru	Simdega	Simdega	415	269.75	8.14	0	209.1	20.3	0.237	2.82	16.71	85	24	6.075	11.89	91.49	NA	0
111	Bishunpu	Bishunpur	Gulma	797	518.05	8.18	0	202.95	109	0.219	9.8	44.9	272	92	10.225	42.65	1.95	NA	0

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112	Chainpur 1	Chainpur 1	Gulma	269	174.85	7.9	0	67.65	33.9	0.435	23.4	16.49	85	24	6.075	19.64	1.64	NA	0
113	Ghaghra	Ghaghra	Gulma	214.3	139.3	7.66	0	79.95	14.7	0.249	19.1	9.84	80	20	7.29	11.39	1.37	NA	0
114	gumla	gumla	Gulma	1218	791.7	7.98	0	362.85	179	0.223	66.7	62.61	364	110	21.87	110.8	4.9	NA	0
115	Jaldega	Jaldega	Simdega	459	298.35	7.93	0	153.75	47.2	0.359	46.3	17.26	175	42	17.01	21.54	2.72	NA	0.14
116	Kasir	Raidih	Gulma	568	369.2	7.92	0	178.35	77.3	0.306	35.4	25.46	220	56	19.44	27.56	3.01	NA	0
117	Kharke	Gumla	Gulma	142	92.3	7.58	0	43.05	11.9	0.113	19.5	8.4	40	10	3.645	12.55	1.98	NA	0
118	Kolebira	Kolebira	Simdega	321	208.65	7.92	0	153.75	21.3	3.12	11.1	3.46	80	24	4.86	38.25	0.75	NA	0
119	Lachragarh	Lachragarh	Simdega	847	550.55	7.96	0	215.25	149	0.265	43.2	43.23	285	72	25.515	55.04	2.36	NA	0
120	Nagfeni	Bharno	Gulma	481	312.65	7.82	0	135.3	71.9	0.339	37.8	18.53	150	52	4.86	40.29	2.83	NA	0
121	Palkot	Palkot	Gulma	1282	833.3	7.25	0	246	2304	0.817	55	55.48	494	144	32.805	48.01	3.8	NA	0
122	Puthri Toli	Kolebira	Simdega	203	131.95	7.58	0	55.35	23.7	0.31	28.7	5.21	60	16	4.86	19	0.76	NA	0
123	Raidih	Raidih	Gulma	526	341.9	7.79	0	209.1	46.9	0.142	4.37	17.43	200	46	20.655	28.03	9.68	NA	0
124	Simdega	Simdega	Simdega	196.1	127.47	7.65	0	55.03	30.9	0.135	11.8	5.84	55	16	3.645	21.01	2.67	NA	0
125	Sisai	Sisai	Gulma	303	196.95	7.37	0	55.35	38.4	0.174	36.3	21.32	70	18	6.075	37.08	0.77	NA	0
126	Tengara Tukuu	Jaldega	Simdega	378	245.7	7.7	0	141.45	47.2	0.264	5.11	19.37	120	32	9.72	31.34	2.72	NA	0
127	Thethai Tangar	Thethai Tangar	Simdega	401	260.65	7.77	0	116.85	35.45	1.81	3.08	66.05	115	34	7.29	36.09	2.05	NA	0
128	Bari Biringa	Jaldega	Simdega	293	190.45	7.57	0	86.1	38.8	0.203	20.6	22.65	95	28	6.075	19.35	3.6	NA	0
129	Lomboi	Jaldega	Simdega	240	156	7.68	0	110.7	22	0.211	4.17	5.82	70	22	3.645	24.11	1.24	NA	0
130	Bolba	**Bolba**	Simdega	448	291.2	7.71	0	172.2	47.3	0.703	6.79	31.09	145	44	8.505	35.53	1.54	NA	0
131	Kerio	Kerio	Simdega	280	182	7.72	0	116.85	23.7	0.577	11	10.92	70	20	4.86	34.03	3.36	NA	0
13	Pard	Jugsal	E.	748	486.	7.7	0	289.	41.	0.1	5.4	41.	30	90	19.4	28.	0.4	N	0

2	hi	ai	Singhbhum		2	1		05	7	98	5	69	5		4	09	6	A	
133	Bagnunagar	Jugsalai	E. Singhbhum	868	564.2	7.44	0	209.1	57.2	0.324	84.4	79.43	275	88	13.365	75.31	2.25	NA	0
134	Baharagora	Jugsalai	E. Singhbhum	375	243.75	7.58	0	215.25	1.22	0.361	3.66	3.87	160	46	10.935	17.66	1.91	NA	0
135	Baridih	Jugsalai	E. Singhbhum	314	204.1	7.68	0	141.45	14	0.167	13.5	9.05	145	36	13.365	9.79	1.66	NA	0
136	Barmamines Thana	Jugsalai	E. Singhbhum	590	383.5	7.65	0	196.8	21.2	0.31	53.6	44.63	220	62	15.795	35.65	8.72	NA	0
137	Chakulia	Chakulia	E. Singhbhum	236	153.4	6.31	0	24.6	26.7	0	56.8	5.51	60	12	7.29	25.3	3.54	NA	0
138	Telco	Jugsalai	E. Singhbhum	710	461.5	7.61	0	350.55	10.4	0.903	17.8	7.67	265	66	24.3	41.15	1.59	NA	0
139	Dhalbhumgarh	Dalbhumgarh	E. Singhbhum	355	230.75	7.06	0	110.7	33.4	0	45.7	5.53	125	30	12.15	30.22	1.42	NA	0
140	Galudih	Ghatsila	E. Singhbhum	412	267.8	7.69	0	153.75	35.7	0	8.52	5.25	115	44	1.215	35.62	13.1	NA	0
141	Garhabasa	Jugsalai	E. Singhbhum	865	562.25	8.02	0	319.8	49.7	0.365	73.1	4.27	295	82	21.87	62.49	1.62	NA	0
142	Ghatsila	Ghatsila	E. Singhbhum	812	527.8	7.49	0	282.9	88.5	0.437	8.88	4.74	305	72	30.375	41.69	2	NA	0
143	golmuri	Jugsalai	E. Singhbhum	767	498.55	8.06	0	362.85	16	0.398	33.5	5.01	270	80	17.01	32.23	40.6	NA	0
144	Hata-tiring	Potka	E. Singhbhum	1238	804.7	7.5	0	399.75	136	0.501	61.9	5.44	389	126	18.225	78.73	4.47	NA	0
145	Jugsalai Thana	Jugsalai	E. Singhbhum	894	581.1	7.9	0	350.55	67.35	0.848	26	4.38	285	54	36.45	78.83	11.67	NA	0
146	Kala Pathar	Chakulia	E. Singhbhum	490	318.5	7.4	0	141.45	44.9	0.113	46.7	6.27	115	36	6.075	35.86	40.27	NA	0
14	Mos	Mosab	E.	580	377	7.9	0	215.	35.	0.3	13.	24.	21	42	26.7	32.	22.	N	0

7	abani	ani	Singhbhum			5		45	45	11	7	67	5		3	74	03	A	
148	Pithajudi	Chakulia	E. Singhbhum	331	215.15	7.8	0	129.15	14.2	0.213	52.2	4.69	100	32	4.86	22.84	2.3	NA	0
149	Potka	Potka	E. Singhbhum	828	538.2	7.87	0	350.55	50.6	0.254	18	3.32	375	76	44.955	17.5	0.3	NA	0
150	Rankini Mandir Jadugo	Potka	E. Singhbhum	258	167.7	7.91	0	123	17.72	0.352	6.2	3.77	100	24	9.72	16.75	2.72	NA	0.13
151	shitla Mandir Sakchi	Jugsalai	E. Singhbhum	560	364	7.72	0	221.4	48.3	0.287	5.82	3.67	190	42	20.655	29.69	2.14	NA	0
152	Baramamines	Jugsalai	E. Singhbhum	1354	880.1	7.67	0	448.95	145.3	0.539	49.8	4.54	305	80	25.51	163.05	3.09	NA	0
153	Sundamagar 1	Jamshedpur	E. Singhbhum	1143	742.95	7.97	0	356.7	134.7	0.598	43	3.44	369	122	12.15	80.3	24.1	NA	0
154	Piplia	Jamshedpur	E. Singhbhum	1238	804.7	7.98	0	553.5	64.8	2.21	24.7	3.06	180	42	18.225	204.65	1.24	NA	0
155	Andharia	Chakulia	E. Singhbhum	290	188.5	7.87	0	104.55	12.6	0.165	30.3	5.73	110	22	13.365	13.54	4.78	NA	0
156	Jabirdiha	Chakulia	E. Singhbhum	358	232.7	7.65	0	153.75	37	0	16.7	4.61	95	30	4.86	40.56	1.97	NA	0
157	Kendadih	Ghatsila	E. Singhbhum	198	128.7	7.31	0	49.2	19.5	0	21.5	4.66	55	14	4.86	9.68	15.76	NA	0
158	Matigora	Potka	E. Singhbhum	788	512.2	7.25	0	252.15	96.2	0.263	10.8	5.04	305	84	23.085	33.89	1.39	NA	0
159	Gitilata	Hata	E. Singhbhum	810	526.5	8.01	0	264.45	98.8	0.353	32.8	4.26	320	78	30.375	42.15	1.9	NA	0
160	Birsa Nagar Zone 11	Jamshedpur	E. Singhbhum	641	416.65	7.94	0	307.5	21.2	0.739	8.17	4.78	227	49	25.51	32.09	0.62	NA	0
16	Mari	Jamsh	E.	788	512.	7.9	0	350.	44.	0.4	7.7	4.3	26	84	13.3	56.	0.9	N	0

1	yama temple Nildih	edpur	Singhbhum		2	5		55	1	41	7	3	5		65	83	5	A	
162	Lodhlisoll	Chakulia	E. Singhbhum	266	172.9	6.57	0	18.45	34.1	0	74.7	2.06	90	28	4.86	10.23	8.16	NA	0
163	Bhandgaon	Noamundi	W. Singhbhum	251	163.15	7.55	0	86.1	8.77	0	48.6	3.39	115	28	10.935	9.84	1.9	NA	0
164	Bandgaon	Bandgaon	W. Singhbhum	1001	650.65	7.47	0	98.4	222	0	82	1.71	295	68	30.375	94.15	5.76	NA	0
165	Barajamda	Noamundi	W. Singhbhum	445	289.25	7.94	0	190.65	21.7	0.162	18.2	3.28	135	34	12.15	28.34	4.83	NA	0
166	Chaibasa	Chaibasa	W. Singhbhum	1009	655.85	7.35	0	202.95	120	0.382	128	1.18	325	86	26.73	79.76	0.29	NA	0
167	CKP (ulidih)	Chakradharpur	W. Singhbhum	835	542.75	7.87	0	381.3	38.4	0.409	6.64	7.8	230	68	14.58	83.06	1.44	NA	0
168	Hat Gamhariya	Hatgamhariya	W. Singhbhum	850	552.5	7.78	0	196.8	111	0.517	81.9	2.56	280	76	21.87	66.06	1.03	NA	0
169	Hesadih	Bandgaon	W. Singhbhum	598	388.7	7.61	0	178.35	77.8	0.402	15.8	2.55	195	58	12.15	56.37	1	NA	0
170	Jagannathpur	Jagnnathpur	W. Singhbhum	814	529.1	7.89	0	227.55	89.9	0.408	70.2	1.41	330	60	43.74	35.33	0.59	NA	0
171	Jaitgarh	Jagnnathpur	W. Singhbhum	352	228.8	8.26	0	172.2	17.2	0.205	6.07	1.92	115	32	8.505	21.82	1.14	NA	0
172	Jhinkpani	Jhinkpani	W. Singhbhum	1910	1241.5	8.08	0	448.95	283.6	0.256	98.4	25.51	394	96	37.665	206.65	25	NA	0
173	kereikela	Kereikala	W. Singhbhum	944	613.6	8.05	0	313.65	97.1	0.367	32.2	22.57	350	88	31.59	49.32	4.59	NA	0
174	Khuntapani	Khuntpani	W. Singhbhum	934	607.1	8.07	0	325.95	59.9	0.309	90	18.57	385	84	42.525	41.93	0.61	NA	0
175	Noamundi	Noamundi	W. Singhbhum	811	527.15	8.42	9	221.4	78.9	0.778	28.2	38.81	275	72	23.085	56.46	6.05	NA	0
176	Kokcho	Tantnagar	W. Singhb	521	338.65	8.03	0	246	3.61	0.342	11.4	37.14	170	62	3.645	28.63	5.98	NA	0

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177	Putida	Chaibasa	W. Singhbhum	115.1	74.815	7.49	0	36.9	4.56	0.247	18.6	2.31	30	10	1.21	10.41	0.12	NA	0
178	Baranand a	Jagnnathpur	W. Singhbhum	178	115.7	7.7	0	43.05	19.7	0.14	21.4	3.09	72	12	10.206	7.99	0.89	NA	0
179	Toretopa	Noamundi	W. Singhbhum	460	299	7.95	0	215.25	19.26	0.12	5.76	1.9	180	32	24.3	21.72	2.47	NA	1.24
180	Talaburu	Hatgamhariya	W. Singhbhum	309	200.85	8.25	0	184.5	1.26	0.24	4.09	1.03	145	26	19.44	11.77	-0.09	NA	0
181	Kandra	Gamharia / adityapur	Saraikela	780	507	7.84	0	221.4	56.6	0.372	113	1.81	310	82	25.51	35.67	1.34	NA	0
182	Kharsawan	Kharsawan	Saraikela	850	552.5	8.22	0	344.4	64	0.393	15.3	1.65	210	54	18.225	69.82	38	NA	0
183	jamdih	Nimdih	Saraikela	861	559.65	8.04	0	301.35	92.4	0.374	14.2	3.18	275	66	26.73	78.37	1.69	NA	0
184	Saraikela	Saraikela	Saraikela	1770	1150.5	7.66	0	405.9	310	0.394	14	22.98	450	68	68.04	161.9	13.19	NA	0
185	Lupungdih	Nimdih	Saraikela	524	340.6	8.07	0	153.75	46.9	0.317	33.5	19.51	170	48	12.15	41.5	3.76	NA	0
186	bhaludih	Chandil	Saraikela	983	638.95	8.26	0	332.1	77.4	0.3	10.5	15.51	349	62	47.19	39.83	2.27	NA	0
187	Kesharagaria	Rajnagar	Saraikela	773	502.45	8.28	0	276.75	55.5	0.271	52.1	6.37	295	60	35.235	51.25	4.3	NA	0
188	Bagra Sai	Rajnagar	Saraikela	377	245.05	8.39	6	190.65	4.98	0.614	4.69	4.35	140	32	14.58	27.78	0.68	NA	0
189	Dugni	Saraikela	Saraikela	431	280.15	8.14	0	178.35	30.6	0.312	6.99	2	160	44	12.15	21.6	1.86	NA	0
190	Nabibera	Rajnagar	Saraikela	654	425.1	7.96	0	178.35	78.7	0.274	33.5	12.29	235	66	17.01	31.29	0.64	NA	0
191	Jonha	Angara	Ranchi	258	167.7	8.11	0	209.1	7.08	0.541	6.39	11.41	135	32	13.365	21	3.33	25	0
192	Hinoo	Namkum	Ranchi	338	219.7	8.12	0	147.6	20.9	1.43	7.04	27.95	110	30	8.505	28.32	4.17	7	0
193	Bajra	Ratu	Ranchi	544	353.6	7.84	0	98.4	68.4	0.327	58.6	45.23	195	46	19.44	36.1	1.19	15	0
194	Bandhea	Nagri	Ranchi	547	355.55	7.97	0	196.8	41.9	0.505	4.14	35.56	220	44	26.73	38	0.3	6	0
195	Barwadag	Angara	Ranchi	589	382.85	8.19	0	172.2	37.7	0.903	26.3	61.24	250	40	36.45	24.39	1.82	23	0
19	Berr	Berro	Ranchi	284	184.	8.0	0	141.	8.7	0.5	18	26.	12	28	13.3	17	1.6	27	1.

6	o				6	5		45	6	43		05	5		65		7		07
197	Chanho	Bijupara Tangar	Ranchi	649	421.85	7.9	0	147.6	77.6	0.535	46.8	32.27	165	40	15.795	59	2.65	22	0
198	Bishakahatanga	Mandar	Ranchi	215	139.75	7.83	0	104.55	7.05	0.454	33.8	9.92	120	18	18.225	12	1.7	17	0
199	BITmore	Kanke	Ranchi	352	228.8	7.77	0	98.4	53.17	0.245	15.2	22.07	90	20	9.72	44	0.8	15	0
200	Boreya ,phed	Kanke	Ranchi	344	223.6	8.17	0	94.09	31.9	1.03	5.09	40.13	90	18	10.935	30	1.38	11	0
201	Brambey	Ratu	Ranchi	112.6	73.19	7.84	0	55.35	3.1	0.516	6.77	9.25	55	8	8.505	6	0.7	10	0
202	Bukru	Kanke	Ranchi	373	242.45	7.64	0	75.64	50.5	0.253	50.2	12.58	130	32	12.15	18	0.9	10.4	0
203	Bundu	Bundu	Ranchi	611	397.15	7.97	0	166.05	45.6	0.497	17.7	75.6	240	46	30.375	35	0.81	22.9	0
204	Buti	Kanke	Ranchi	563	365.95	8.05	0	129.15	75.5	0.343	22.5	57.84	195	36	25.515	41.4	1.12	25	0
205	Burmoo	Burmoo	Ranchi	155.5	101.08	7.9	0	67.65	0.592	0.375	21.1	8.85	55	14	4.86	9	1.3	13	0
206	Itki	Chhahgura	Ranchi	283	183.95	7.16	0	55.35	49.63	0.32	31.5	10.37	90	18	10.935	27	0.46	29	0
207	Chutupalu	Ormanjhi	Ranchi	924	600.6	8.23	0	178.35	128	0.606	64	66.38	325	80	30.375	49	1.2	22	0
208	Gondipokhar	Angarha	Ranchi	253	164.45	7.9	0	73.8	32.9	0.724	12.5	11.42	90	24	7.29	17	2.24	18.1	0
209	Itki	Itki	Ranchi	136.4	88.66	7.69	0	49.2	10.63	0.291	1.46	8.6	50	14	3.64	6	0.3	15.3	0
210	Jonha	Angarha	Ranchi	276	179.4	8.1	0	135.3	8.49	0.597	15.2	10.36	80	22	6.07	24.2	1.8	21.4	0
211	Kanka1	Kanka	Ranchi	489	317.85	8.1	0	98.4	75	0.392	12.2	41.97	170	40	17.01	33.45	1.36	27.3	0
212	Khatitanr	Ratu	Ranchi	457	297.05	8.05	0	110.7	54	0.474	42.7	23.23	180	48	14.58	24.5	0.62	22.9	0
213	Kharsidag	Namkum	Ranchi	201	130.65	7.78	0	55.35	19.3	0.461	22.9	17	75	28	1.215	17.28	0.95	18.5	0
214	Silli	Kita	Ranchi	302	196.3	8.04	0	129.15	23.6	0.621	4.76	25.02	130	28	14.58	12	3.8	22	0
215	Kurgi	Itki	Ranchi	265	172.25	7.77	0	116.85	7.44	0.431	5.3	14.85	90	22	8.5	19.2	0.46	13.7	0
216	Lowadih	Namkom	Ranchi	1124	730.6	7.84	0	258.3	156	0.329	68.2	71.69	285	68	27.945	116.6	8.82	34.2	0

217	Mahilong Forest Nursery	Namkom	Ranchi	294	191.1	7.94	0	73.8	35.45	0.962	42.7	10.05	75	18	7.29	33.6	2.85	14.6	0
218	Mandar	Mandar	Ranchi	772	501.8	7.84	0	184.5	107	0.469	51.1	54.92	210	28	34.02	72	2.89	7.15	0
219	Military Farm Namkom	Namkom	Ranchi	512	332.8	7.15	0	135.3	49.63	2.35	1.34	57.25	185	42	19.44	31.8	3.84	17.3	0
220	Namkom Bz Chowk	Namkom	Ranchi	918	596.7	8.38	9	227.55	110	0.461	41.2	77.29	225	60	18.225	94.82	11.82	14.3	0
221	Hatia	Namkom	Ranchi	344	223.6	7.15	0	86.1	32.5	1.44	1.3	24.96	130	26	15.79	13	3.3	15.2	0
222	Ormanjhi	Ormanjhi	Ranchi	454	295.1	7.9	0	116.85	53	0.685	28.2	36.93	165	30	21.87	28.8	0.83	24.4	0
223	Patarhatu	Silli	Ranchi	432	280.8	8	0	115.05	56.8	0.419	14.5	27.54	175	38	19.44	21.6	0.65	21.8	0
224	Pithauria	Kanke	Ranchi	951	618.15	8.34	6	239.85	124	0.485	40.9	71.39	275	80	18.225	110.2	1.97	18.9	0
225	Rampur	Namkom	Ranchi	1073	697.45	7.78	0	393.6	81.53	0.34	20.8	30.86	295	84	20.655	103.2	3.28	21.5	0
226	Ranchi college	Ranchi	Ranchi	488	317.2	7.69	0	221.4	30.4	0.242	3.03	9.5	55	6	9.72	74.8	4.2	30	0
227	Silli	Silli	Ranchi	492	319.8	7.18	0	159.9	42.3	1.48	1.93	49.72	185	46	17.01	28.6	3.4	24.7	0
228	Sithipokharatoli	Silli	Ranchi	264	171.6	7.93	0	129.15	0.244	0.264	6.01	8.73	55	6	9.72	30.8	4.23	17	0
229	Sonahatu	Sonahatu	Ranchi	356	231.4	8.14	0	178.35	35.45	0.328	1.88	10.64	115	38	4.86	36	2.95	6	0
230	Sons Bazar	Sonahatu	Ranchi	203	131.95	7.09	0	166.05	19.8	0.352	15	8.9	75	18	7.29	45	2.97	10	0
231	Taimara	Sonahatu	Ranchi	278	180.7	7.12	0	178.35	19.8	0.438	6.15	21.27	120	34	8.505	29.78	0.5	14.3	0
232	Ukrid	Ormanjhi	Ranchi	201	130.65	7.28	0	92.25	3.8	0.639	2.56	14.61	80	26	3.64	9.6	1.3	9.14	0
233	Ramkrishna	Kanke	Ranchi	793	515.45	7.34	0	215.25	74.44	0.45	6.11	44.57	225	56	20.655	58.7	1.79	26.8	0

	Morabadi																	
234	Sukruhutu	Kanke	Ranchi	819	532.35	7.11	0	178.35	118	0.948	17.4	74.86	295	86	19.44	53.76	2.7	24.5	0
235	Pindarcom	Namkom	Ranchi	345	224.25	8.2	0	55.35	74.44	0.319	18.2	37.18	160	34	18.22	14.65	1.8	24.9	0
236	Kharsidog	Namkoom	Ranchi	426	276.9	8.27	0	166.05	31.9	0.257	14.6	18.3	90	18	10.935	55.2	3.09	27	0
237	Bridgefordschool	Namkoom	Ranchi	423	274.95	7.74	0	110.7	28.3	0.389	28.8	59.91	110	24	12.15	48.3	1.97	22.5	0
238	Kanka School	Kanke	Ranchi	155	100.75	7.21	0	79.95	3.53	0.243	1.21	11.91	45	16	1.21	15.2	1.2	8.94	0
239	Chapodia	Jama	Dumka	584	379.6	8.17		258.3	51.8	0.676	10	12.25	250	20	48.6	31.05	0.09	NA	0
240	Chikania	Jama	Dumka	1027	667.55	8.01		190.65	157	0.505	71.5	57.24	420	50	71.685	37.77	0.29	NA	0
241	Dumka	Dumka	Dumka	778	505.7	8.21		264.45	66.2	0.76	51.4	71.72	230	30	37.665	66.2	5.33	NA	0
242	Gamharia	Ramgarh	Dumka	636	413.4	8.21		233.7	82.2	0.72	23.2	6.97	240	40	34.02	33.56	0.45	NA	0
243	Gopikandar	Gopikandar	Dumka	219	142.35	7.9		67.65	30.3	0	12	10.35	70	8	12.15	16.93	3.17	NA	0
244	Hansdiha	Saraihat	Dumka	248	161.2	7.92		141.45	3.54	0.404	12.5	5.3	95	18	12.15	14.66	0.13	NA	0
245	Jama	Jama	Dumka	729	473.85	8.15		227.55	78.7	0.218	64	52.13	270	24	51.03	39.61	0.27	NA	0
246	Jarmundi	Jarmundi	Dumka	887	576.55	8.1		184.5	138	0.418	63	71.79	350	46	57.105	44.32	0.22	NA	0
247	Kathikund	Kathikund	Dumka	871	566.15	8.31	3	325.95	73	0.342	44.1	68.18	325	42	53.46	51.98	0.8	NA	0
248	Masalia	Masalia	Dumka	702	456.3	8.34	3	258.3	78.8	0.446	4.68	46.99	245	30	41.31	50.24	0.16	NA	0
249	Masanjor	Raneshwar	Dumka	259	168.35	8.09		135.3	8.78	0.32	7.72	10.74	100	8	19.44	13.03	0.49	NA	0
250	Nonihat	Jarmundi	Dumka	1203	781.95	8.13		227.55	258	0	51.2	45.59	440	78	59.535	52.55	0.36	NA	0
251	Barapalashi	Jama	Dumka	1585	1030.3	7.96		387.45	282	0.453	13.6	80.33	694	108	103.28	85.35	0.3	NA	0

252	Patabari	Sikaripara	Dumka	828	538.2	8.17		227.55	89.5	0.562	73.2	81.35	350	26	69.255	37.24	0.25	NA	0
253	Raneshwar	Raneshwar	Dumka	634	412.1	7.85		104.55	106	0.235	51.4	67.55	205	16	40.095	50.85	0.12	NA	0
254	Sikaripara	Sikaripara	Dumka	551	358.15	8.1		153.75	69.8	0.449	45.8	38.63	210	26	35.235	32.06	0.17	NA	0
255	Jamtara	Jamtara	Jamtara	917	596.05	8		202.95	136	0.332	69.2	81.16	395	46	68.04	35.95	0.42	NA	0
256	Nala	Nala	Jamtara	1187	771.55	7.99		215.25	247	1.25	36	80.53	295	34	51.03	146.5	1.02	NA	0
257	Mihijam	Mihijam	Jamtara	529	343.85	8.18		166.05	42.6	0.469	35.5	63.57	190	24	31.59	25.94	0.1	NA	0
258	Kundahit	Kundahit	Jamtara	317	206.05	8.18		147.6	18.6	0	2.78	20.42	110	16	17.01	24.7	0.26	NA	0
259	Dhootala	Fatehpur	Jamtara	791	514.15	8.19		178.35	106	0.526	77.1	69.02	300	42	47.385	46.28	0.3	NA	0
260	Jasaydih	Karmatarn	Jamtara	712	462.8	8.2		178.35	92.3	1.45	46.8	68.61	280	28	51.03	33.41	0.12	NA	0
261	Basti Palajori	Fatehpur	Jamtara	345	224.25	8.11		123	12.28	0.285	21.8	40.18	145	18	24.3	14.91	0.32	NA	0
262	Mohanpur	Narayanpur	Jamtara	938	609.7	8.14		196.8	146	0.55	66.5	74.59	405	44	71.68	41.16	0.05	NA	0
263	Fatehpur	Fatehpur	Jamtara	324	210.6	8.15		153.75	14	0.633	7.93	17.03	110	20	14.58	21.71	0.2	NA	0
264	Boarijor	Boarijor	Godda	537	349.05	8.42	6	258.3	43.5	0.482	0	8.7	175	20	30.375	37.48	0.63	NA	0
265	Doi	Mahagama	Godda	1981	1287.7	8.02		319.8	362	0.53	33	99.21	510	42	98.41	208	4.77	NA	0
266	Godda	Godda	Godda	1416	920.4	8.26		319.8	209	1.88	13.1	69.36	245	28	42.52	208.9	0.02	NA	0
267	Jaminipaharpur	Sunsderpahari	Godda	1175	763.75	8.01		350.55	131	0.915	64.4	81.96	200	22	35.235	171.8	0.33	NA	0
268	Lalmatia	Mahagama	Godda	1023	664.95	8.27		264.45	121	0.564	45.9	88.67	305	16	64.395	99.5	1.06	NA	0
269	Mahagama	Mahagama	Godda	1296	842.4	8.37	3	639.6	117	0.794	1.55	20.15	230	30	37.665	203.2	0.36	NA	0
270	Maheshpur	Maheshpur	Godda	1081	702.65	7.93		209.1	206	2.02	51	88.04	260	28	46.17	132.25	0.29	NA	0
271	Pathergama	Pathergama	Godda	1130	734.5	7.91		233.7	204	0.541	20.2	75.15	280	26	52.245	111.7	0.36	NA	0.06

272	Sunsderpahari	Sunsderpahari	Godda	531	345.15	8.34	3	190.65	49.63	0.527	6.38	42.77	185	38	21.87	47.19	0.94	NA	0
273	Chamudih	Poreyahaat	Godda	624	405.6	8.4	6	307.5	44.6	1.78	2.03	9.87	210	34	30.375	45.96	0.6	NA	0
274	Siktia	Gooddа	Godda	1347	875.55	8.15		246	244	1.32	46.5	89.85	170	34	20.655	208.27	1.78	NA	0
275	Raghunathpur	poreyahaat	Godda	876	569.4	8.22		276.75	134	0.475	24.7	43.79	165	32	20.655	123.05	4.77	NA	0
276	Bisaha	Pathergama	Godda	630	409.5	8.3		350.55	29.6	1.36	1.03	11.69	140	16	24.3	81.36	0.06	NA	0
277	Kumardih	Gooddа	Godda	675	438.75	8.33	3	270.6	75.3	0.927	10.7	27.96	185	22	31.59	70.52	0.54	NA	0
278	Bargacha Hariyari	Poreyahaat	Godda	516	335.4	8.36	3	258.3	7.09	1.75	0	14.74	150	30	18.225	42.84	0.11	NA	0
279	Gobra	Mahagama	Godda	688	447.2	8.29		313.65	48.8	0.361	12	14.89	185	18	34.02	61.77	0.17	NA	0
280	Amrapara	Amrapara	Pakur	851	553.15	8.28		301.35	63.81	0.181	17	73.98	250	42	35.23	62.86	3.36	NA	0
281	Hiranpur	Hiranpur	Pakur	1094	711.1	8.08		202.95	229	0	17.1	53.56	230	32	36.454	128.1	5.06	NA	0
282	Litipara	Litipara	Pakur	1093	710.45	8.03		190.65	210	0	59	66.58	343	68	42.25	67.48	5.18	NA	0
283	Maheshpur	Maheshpur	Pakur	453	294.45	8.12		233.7	20.7	0.327	3.47	10.74	120	28	12.15	46.88	0.45	NA	0
284	Pakur	Pakur	Pakur	411	267.15	8.15		147.6	42.54	0.11	9.04	24.88	135	20	20.655	31.73	0.13	NA	0
285	Pakuria	Pakuria	Pakur	2031	1320.2	7.89		375.15	386	0	32.8	96.7	395	78	48.6	232.95	18.44	NA	0
286	Salgapara	Maheshpur	Pakur	643	417.95	8.22		246	56.8	0	21	26.81	315	28	59.53	18.88	0.51	NA	0
287	Rtorai	Hiranpur	Pakur	1339	870.35	8.27		301.35	206	0	31	91.5	360	74	42.525	117.54	3.6	NA	0
288	Sahargram	Maheshpur	Pakur	414	269.1	8.27		172.2	30.6	0.193	2.1	18.63	65	6	12.15	69.67	0.53	NA	0
289	Litipara 2	Litipara	Pakur	526	341.9	8.29		295.2	9.2	0.182	15.1	10.21	165	24	25.515	38.02	0.15	NA	0
290	Kariodih	Litipara	Pakur	770	500.5	8.27		289.05	77.99	0.147	27	35.24	270	32	46.17	48.22	0.28	NA	0

291	Vikrampur	Pakur	Pakur	486	315.9	8.28		184.5	64.5	0	12.1	16.37	165	24	25.515	33.41	7.01	NA	0
292	Pachathol	Amrapara	Pakur	287	186.55	8.26		147.6	7.09	0.2	9.88	10.85	125	18	19.44	11.08	0.61	NA	0
293	Berhait	Berhait	Sahebganj	274	178.1	8.26		98.4	20.7	0.7	5.1	25.92	105	14	17.01	17.59	2.33	NA	0
294	Barharwa	Barharwa	Sahebganj	650	422.5	8.15		233.7	67.35	0.8	8.4	43.2	160	42	13.365	59.12	6.48	NA	0
295	Borio	Borio	Sahebganj	735	477.75	8.1		190.65	127.6	0.14	28.3	25.46	165	30	21.87	79.22	1.04	NA	0.21
296	Ghatselampur	Rajmahal	Sahebganj	1044	678.6	8.06		332.1	120.5	0.209	2.3	71.18	260	52	31.59	92.66	11.7	NA	0
297	Mandro	Mandro	Sahebganj	1523	989.95	8.29		430.5	241.1	0.6	46	93.63	335	64	42.525	147.6	81.47	NA	0
298	Rajmahal	Rajmahal	Sahebganj	1101	715.65	8.16		190.65	208	0.174	28	65.25	180	28	26.73	110.25	54.63	NA	0
299	Ranga	Pathna	Sahebganj	1017	661.05	8.29		313.65	127.6	0.157	23.8	59.83	300	56	38.88	76.54	0.03	NA	0
300	Sahebganj	Sahebganj	Sahebganj	983	638.95	8.18		282.9	85.08	0.531	69.9	82.47	260	44	36.45	104.11	0.49	NA	0
301	Sakrigali	Sahebganj	Sahebganj	1145	744.25	7.93		233.7	209.2	0.492	52.7	67.68	315	58	41.31	84.84	17	NA	0
302	Talijhari	Talijhari	Sahebganj	684	444.6	8.15		252.15	71.8	0.437	16.3	47.14	195	34	26.73	56.71	17.1	NA	0
303	Udhwa	Udhwa	Sahebganj	1553	1009.5	8.05		246	280.1	1.02	96.2	82.1	579	106	76.545	58.42	1.58	NA	0
304	Hazipur	Sahebganj	Sahebganj	842	547.3	8.16		344.4	14	0.216	33.6	62.28	250	38	37.665	68.79	4.5	NA	0
305	Dihari	Sahebganj	Sahebganj	1379	896.35	8.03		344.4	177.3	0.187	47.8	81.7	369	102	27.945	131.4	11.57	NA	0.16
306	Harinchara Chowk	Borio	Sahebganj	852	553.8	8.13		332.1	128	0.247	4.82	13.52	225	52	23.085	94.3	0.333	NA	0
307	Maricho	Borio	Sahebganj	409	265.85	8.33	3	196.8	27.4	0.23	1.49	14.46	145	34	14.58	28.47	0.14	NA	0
308	Chota Kadma	Berhait	Sahebganj	1014	659.1	8.17		215.25	152	0.18	43.1	77.92	285	68	27.945	76.97	9.46	NA	0
309	Mangalhat	Rajmahal	Sahebganj	865	562.25	8.23		246	107	0.209	49.3	78.87	150	26	20.655	78.11	87.7	NA	0
310	Baramasi	Berhait	Sahebganj	463	300.95	8.36	6	190.65	24.82	0.106	29.1	24.8	135	20	20.655	42.63	0.13	NA	0

	a																		
311	Kotalpokhar	Barharwa	Sahebganj	159	103.35	8.28		73.8	7.09	0.245	6.4	10.57	60	6	10.935	9.66	0.43	NA	0
312	Kathalwadi	Udhwa	Sahebganj	721	468.65	7.82		270.6	56.72	0.321	2.44	38.53	175	36	20.655	63.02	0.58	NA	0
313	Fudkipur	Udhwa	Sahebganj	1433	931.45	8.07		424.35	205	0.477	22.3	84.24	295	32	52.245	181.7	1.3	NA	0
314	Ramnagar	Barharwa	Sahebganj	275	178.75	8.39	6	141.45	7.36	0.26	1.6	8.15	95	22	9.72	17.16	0.58	NA	0
315	Brindavan	Talijhari	Sahebganj	478	310.7	8.24		258.3	12.7	0.369	3.4	15.83	120	32	9.72	49.01	0.08	NA	0
316	Belbhadri	Mandro	Sahebganj	529	343.85	8.19		233.7	49.63	0.253	11.9	13.52	185	30	26.73	35.04	0.01	NA	0
317	Taljhari2	Pathna	Sahebganj	691	449.15	8.38	6	350.55	10.63	0.27	8	60.85	190	38	23.08	66.89	11.27	NA	0
318	Chandwa	Chandwa	Latehar	761	494.65	8.37	9	258.3	99.26	0.35	12.7	43	305	38	51.03	29	8.5	NA	0
319	Latehar	Latehar	Latehar	534	347.1	8.17		178.35	63.81	0.14	34.6	25	210	34	30.37	24	4.2	NA	0
320	Manika	Manika	Latehar	1197	778.05	7.44		436.65	92.17	0.76	33.9	72	425	64	64.39	54	10.8	NA	0
321	Balumath	Balumath	Latehar	915	594.75	8.21		336	96	0.43	22.9	45	401	32	78	26	11.8	NA	0
322	Barwadih	Barwadih	latehar	824	535.6	8.19		301.35	74.44	0.58	5.2	63	258	60	26.25	56.54	8.9	NA	0
323	Bariatu	Balumath	latehar	750	487.5	7.74		276.75	95.71	0.54	1.45	28.4	315	64	37.66	29.1	4.3	NA	0
324	Garu	Garu	latehar	393	255.45	8.29		159.9	42.54	2.34	9.7	18.3	145	24	20.65	23.44	8.35	NA	0
325	Mahundar	Mahundar	latehar	412	267.8	8.36	9	55.35	77.99	0.08	23.7	8.24	105	14	17.01	38.26	17.65	NA	0
326	Akasi	Mahundar	Latehar	877	570.05	8.14		372	35.45	0.33	26.1	52	375	70	48.6	17	24.32	NA	0
327	Baraw	Panki	Palamu	1606	1043.9	8.36	9	110.7	421.9	2.09	15.8	11.87	445	64	69.25	141.28	4.92	NA	0
328	Bishrampur	Bishrampur	Plamu	579	376.35	8.34	6	153.75	74.44	0.87	10	13.25	256	40	38	12.7	0.2	NA	0
329	Daltenganj	Daltenganj	Plamu	1581	1027.7	7.26		615	138.3	1.14	9.2	84	640	76	109.35	37.22	12.4	NA	0

330	Haider Nagar	Japla	Plamu	1010	656.5	8		375.15	85.08	0.77	24.9	47	343	60	47	63.77	24.5	NA	0
331	Hariharg ang	Harihargang	Plamu	1258	817.7	8.49	15	387.45	152.4	0.61	14.2	4.15	230	30	37.621	156.41	41.3	NA	0
332	Japla	Husainbad	Palamu	480	312	8.27		190.65	38.99	1.24	4.2	3.26	135	34	12.15	34.4	19.65	NA	0
333	Kajri	Bishrampur	Palamu	566	367.9	8.33	6	202.95	42.54	1.37	21.4	3.26	195	34	26.699	36.52	1.2	NA	0
334	Kanda	Patan	Palamu	1071	696.15	8.14		276.75	201.9	0.2	12.6	10	310	62	37.66	71.32	15.34	NA	0
335	Leslig anj	Leslig anj	Palamu	1331	865.15	8.18		301.35	241.2	2.29	11	4.77	379	96	33.981	117.36	5.68	NA	0
336	Nawadiha	Patan	Palamu	594	386.1	8.25		190.7	67.35	0.85	14	9.66	185	40	20.65	51.28	3.68	NA	0
337	Panki	Panki	Palamu	1244	808.6	8.04		141.45	319.1	1.03	1.4	13.35	479	112	48.544	41.69	1.28	NA	0
338	Patan	Patan	Palamu	674	438.1	8.44	15	184.5	70.9	0.29	18.5	15	250	60	24.3	29.38	2.78	NA	0
339	Rajaura	Bishrampur	Palamu	1201	780.65	8.41	15	313.65	170.2	2.16	4.5	14.3	255	44	35.23	139.6	1.08	NA	0
340	Sagalim Govt. Well	Panki	Palamu	499	324.35	8.2		221.4	31.9	0.17	12.7	13.09	125	24	15.79	59.28	13.67	NA	0
341	Sanda	Chhatarpur	Palamu	455	295.75	7.76		196.8	35.45	1.13	4.6	10	125	30	12.15	31.2	34.6	NA	0
342	Satbarwa	Satabarwa	Palamu	1031	670.15	7.91		135.3	240	0.17	13.1	9.21	334	50	50.971	82.3	1.5	NA	0
343	chandwara	Koderma	Koderma	971	631.15	7.46		264.45	134.7	0.4	23	21	200	40	24.3	134.31	2.3	NA	0
344	Jhumritilaiya	Domchanch	Koderma	1322	859.3	8.32	3	255	231.2	1.52	52.8	51.5	430	60	68.04	106	4.56	NA	0
345	Koderma	KODERMA	Koderma	454	295.1	8.39	6	123	70.9	0.09	9.27	29.25	180	34	23.08	23.55	1.24	NA	0
346	Domchanch	Jainagar	Koderma	405	263.25	8.28		92.25	56.72	0.28	47	25.04	150	24	21.87	20.8	1.78	NA	0
347	Jainagar	Koderma	Koderma	604	392.6	7.99		135.3	95.72	1.18	29.1	2.21	210	28	34.02	41.2	2.2	NA	0
348	Patahaldiha	Koderma	Koderma	858	557.7	8.34	3	332.1	63.81	0.07	23.5	15	295	44	44.95	55	3.04	NA	0

349	Kanobigha	Koderma	Koderma	312	202.8	7.21		110.7	31.9	0.31	10	0	140	24	19.44	5.32	3	NA	0
350	Bagra	Bagra	Chatra	644	418.6	8.47	15	239.8	60.26	1.53	1.9	17.2	160	16	29.16	69.21	32.89	NA	0
351	Birhu	Simaria	Chatra	739	480.35	7.27		282.9	70.9	0.22	23.3	18.1	230	52	24.3	53.4	2.7	NA	0
352	Chatra	Chatra	Chatra	1888	1227.2	7.25		756	104.6	0.66	31.4	70.2	565	60	100.84	117.3	41.6	NA	0
353	Itkhori	Itkhori	Chatra	492	319.8	8.22		189	35.45	0.55	7.3	7.24	179	42	18	14.53	14.8	NA	0
354	Pitji	Itkhori		811	527.15	8.37	6	264.45	99.26	0.73	0.2	9.37	107	36	4.28	118.87	32.3	NA	0
355	Simariya	Simariya	Chatra	550	357.5	8.13		98.4	63.81	0.67	25.9	71	195	46	19.44	29.63	14.8	NA	0
356	Tundwa	Tandwa	Chatra	893	580.45	8.34	3	436.65	63.81	1.32	0	34.6	311	58	40.48	59.54	20.68	NA	0
357	Tutilawa	Simaria	Chatra	1334	867.1	8.12		537	96	0.53	23	67	536	88	77	37	23.4	NA	0
358	Bhawnathpur	Bhawnathpur	Garhwa	1166	757.9	8.01		372	145	1.25	22	60	535	18	119	10	13.1	NA	0
359	Garhwa	Garhwa	Garhwa	786	510.9	8.11		227.55	92.17	1.4	26.4	41.8	255	60	25.51	44.7	4.33	NA	0
360	Manjhian	Manjhian	Garhwa	792	514.8	7.88		221.4	113.4	0.27	8.1	21	240	56	24.3	57.2	31.3	NA	0
361	Nagar Utari	Nagar Utari	Garhwa	851	553.15	8.22		252.15	85.08	0.17	24.7	39.5	145	24	20.65	91.8	63.7	NA	0
362	Ramna	Ramna	Garhwa	987	641.55	7.93		369	77.99	1.32	25.6	55.1	315	30	58.32	67.5	17.6	NA	0
363	Ranka	Ranka	Garhwa	730	474.5	8.37	6	172.2	109.9	1.53	2.88	36.3	305	78	26.73	29.31	1.4	NA	0
364	Meral	Meral	Garhwa	532	345.8	8.39	9	252.21	31.9	2.74	12.7	6.82	100	36	2.43	67.24	14.39	NA	0
365	Amritnagar	Hazaribag	Hazaribag	1191	774.15	8.14	0	189	340.3	1.86	5.3	6.598	405	40	74.11	91.37	33.22	NA	0
366	Barkagaon	Barkgaon	Hazaribag	1214	789.1	8.34	6	301.35	169.1	0.44	31.9	31.14	315	80	27.94	127.12	11.17	NA	0
367	Barkatha	Barkatha	Hazaribag	411	267.15	8.21	0	135	42.54	0.43	0	14.89	165	46	12.15	14.3	5.04	NA	0
368	Bottambajar	Hazaribag	Hazaribag	435	282.75	8.4	15	92.25	70.9	0.29	0	14.03	160	44	12.15	34.83	2.47	NA	0
369	College More	Hazaribag	Hazaribag	690	448.5	8.32	3	135.3	102.8	0.72	33.9	25.5	305	58	38.88	10.89	3.5	NA	0

370	Dari	Churchu	Hazaribag	639	415.35	8.16	0	190.65	81.53	0.8	1.3	21.47	185	42	19.44	48.7	1.45	NA	0
371	Daru	Daru	Hazaribag	649	421.85	7.81	0	172.2	77.99	1.27	24.3	21.2	205	52	18.22	54.27	0.7	NA	0
372	Garrikalan	Keredari	Hazaribag	1152	748.8	8.38	12	282.9	145	0.51	39.7	36.21	365	82	38.88	69.63	14.97	NA	0
373	Habibnagar	Hazaribag	Hazaribag	453	294.45	8.27	0	104.55	63.8	0.85	15.3	17.08	175	50	12.15	21.04	1.94	NA	0
374	Hatyari	Hazaribag	Hazaribag	568	369.2	8.21	0	116.85	113.4	0.24	8.7	20.2	265	52	32.805	21.4	0.87	NA	0
375	Hazaribagh	Hazaribag	Hazaribag	512	332.8	8.44	18	110.7	81.53	0.89	14	15	210	60	14.58	17.47	0.77	NA	0
376	Haribag	Hazaribag	Hazaribag	606	393.9	8.32	3	135	81.52	0.17	24.3	24.21	255	58	26.73	22	1.14	NA	0
377	Ichak More	Ichak	Hazaribag	280	182	8.11	0	79.95	35.45	1.58	0	7.41	95	30	4.8544	19.01	1.16	NA	0
378	Kanhari Road	Hazaribag	Hazaribag	522	339.3	8.23	0	178.4	56.72	0.4	8.28	9.1	151	56	2.699	38.21	3.22	NA	0
379	Keredari	Keredari	Hazaribag	734	477.1	8.47	15	227.55	81.5	1.35	9.7	8.67	220	64	14.563	48.87	6.34	NA	0
380	Korrah Chowk	Hazaribag Sadar	Hazaribag	487	316.55	8.35	6	147.6	56.72	0.14	7.29	5.3	185	52	13.48	25.44	0.12	NA	0
381	Kudashram	Hazaribag Sadar	Hazaribag	902	586.3	8.06	0	239.85	148.9	0.32	10.4	15.31	270	84	14.58	65.23	0.71	NA	0
382	Meru (Silver)	Hazaribag	Hazaribag	889	577.85	7.29	0	270.6	145	0.12	0	21.17	300	80	24.3	68.27	2.2	NA	0
383	Fasiwell (near old bus stand)	Hazaribag Sadar	Hazaribag	1021	663.65	8.44	12	270.6	138.3	0.48	14	16.97	340	92	26.73	74.28	5.13	NA	0
384	Padma	Padma	Hazaribag	381	247.65	8.16	0	129	28.36	0.5	19.4	13.66	145	38	12.15	22.11	0.78	NA	0
385	Sakrej	Barkatha	Hazaribag	408	265.2	7.82	0	110.7	63.81	0.4	0	9.37	170	48	12.15	16.4	2.71	NA	0
386	Simra	Hazaribag	Hazaribag	698	453.7	8.39	12	135	109.9	0.72	15	19.43	235	70	14.56	54.11	0.2	NA	0

	rest house	Sadar																	
387	Sindur	Hazaribag Sadar	Hazaribag	818	531.7	8.47	18	147.6	124.1	0.57	24.9	25.48	300	80	24.3	48.1	0.78	NA	0
388	Tatijhariya	Bishnugarh	Hazaribag	533	346.45	7.95	0	150.6	70.9	0.8	8.58	11.33	170	46	13.36	44.07	0.27	NA	0
389	Urimari	Barkagaon	Hazaribag	605	393.25	8.38	9	135	77.99	1.53	18.7	21.46	200	52	17.01	46.08	0.77	NA	0
390	Choupar an	Choupar an	Hazaribag	403	261.95	7.93	0	172.2	21	0.3	5.2	7.5	155	52	6.068	18.09	3.2	NA	0