



**LIFE**  
Lifestyle for  
Environment



Explore

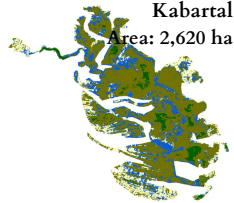
# WETLANDS OF BIHAR

## Calendar 2023

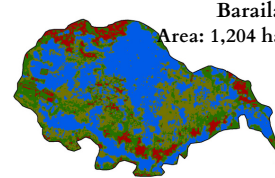
Produced By

**Centre for Studies on Environment and Climate  
Asian Development Research Institute**

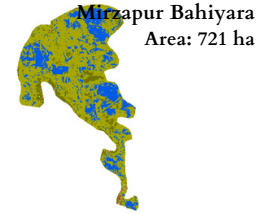
An EIACP Resource Partner on Water Management and Climate Change  
(Under the aegis of the Ministry of Environment, Forest and Climate Change, Government of India)



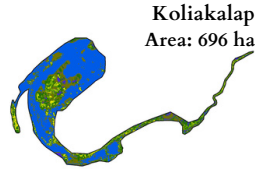
**Kabartal**  
Area: 2,620 ha



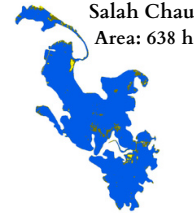
**Baraila**  
Area: 1,204 ha



**Mirzapur Bahiyara**  
Area: 721 ha



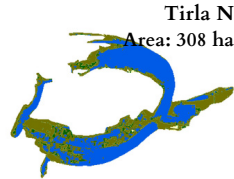
**Koliakalap**  
Area: 696 ha



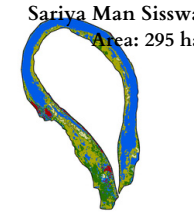
**Salah Chaur**  
Area: 638 ha



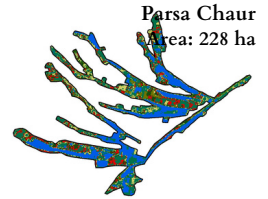
**Baharwar & Charkhi**  
Area: 371 ha



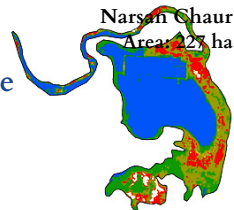
**Tirla N**  
Area: 308 ha



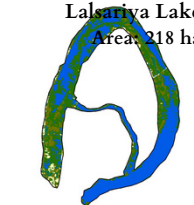
**Sariya Man Sisswa**  
Area: 295 ha



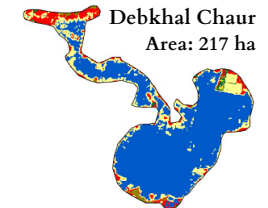
**Parsa Chaur**  
Area: 228 ha



**Narsan Chaur**  
Area: 227 ha

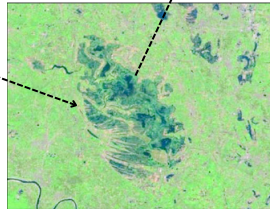
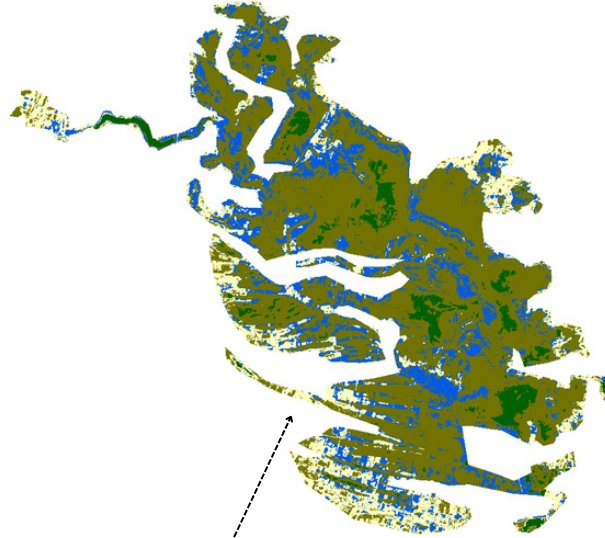
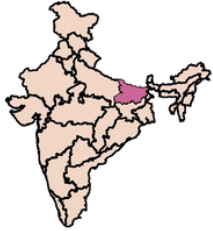


**Lalsariya Lake**  
Area: 218 ha



**Debkhhal Chaur**  
Area: 217 ha

# Kabartal, Begusarai



■ Open Water    ■ Vegetation  
■ Marshes    ■ Fallow Land

**Latitude & Longitude**  
 25.6186 and 86.1397

Area: 2,620 ha

Source: Landsat 8 OLI/TIRS C1  
 Acquisition Date: April 17, 2021

## JANUARY

2023

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# JANUARY

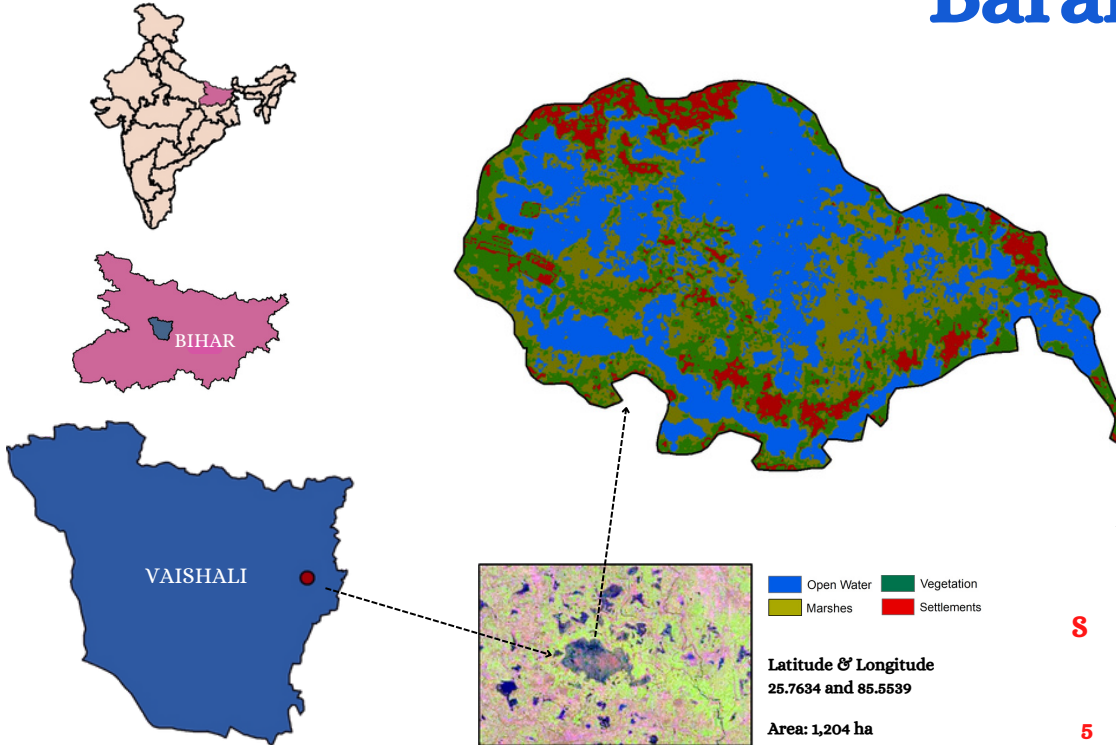
SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30 National Cleanliness day	31				

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Asia's largest ox-bow lake, **Location & Area:** Begusarai (25.61860278 and 86.13974722) & 2,620 ha, **River Basin:** Gangetic flood plain and Burhi Gandak, **Fringe Villages:** Sakra, Kanusi, Basahi, Yakubpur, Manjhau, meghaul, Ekamba, Parora, Narayanipipar, **Village Population & Area:** 1,25,841 (Census 2011) & 7,737 ha, **Common Species: 221 Birds Species** (Migratory Ducks, Coots, Dabchick, Herons, Whistling Ducks, Little Grebe, Greylag Goose, Golden Plover, Common Snipe), **50 Fish Species** (Labeo, Cirrhinus Mrigala, C. Reba, C. Punctatus, Notopterus, and Anabas Testudineus), **165 Plants, 55 Macrophytes** and **394 Animals Species** (Edible mollusc Pila globosa).

# Baraila, Vaishali



- Open Water    ■ Vegetation
- Marshes       ■ Settlements

Latitude & Longitude  
25.7634 and 85.5539

Area: 1,204 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: February 7, 2021

## FEBRUARY

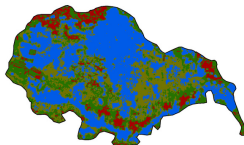
2023

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

# FEBRUARY

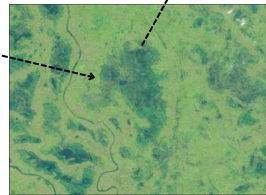
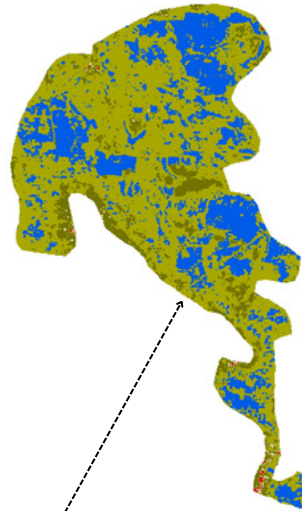
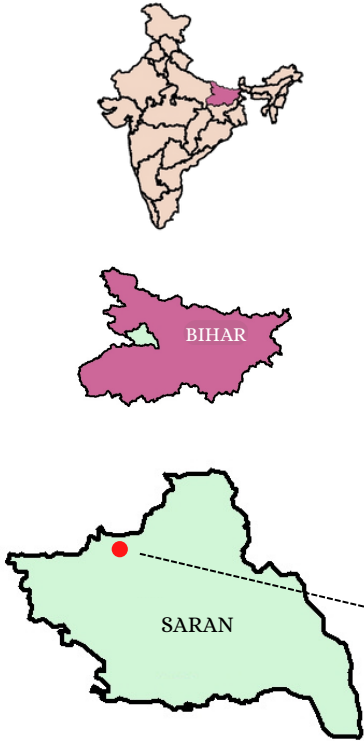
SUN	MON	TUE	WED	THU	FRI	SAT
			1	2 World Wetlands Day	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18 Maha Shivaratri
19	20	21	22	23	24	25
26	27	28				

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural lake (also known as Salim Ali Jubba Sahni Bird Sanctuary), **Location & Area:** Vaishali (25.76344674 and 85.55397493) & 1,204 ha, **River Basin:** Burhi Gandak, **Fringe Villages:** Amthanwa, Dulwar, Loma, Mahthi Dharamchand, **Village Population & Area:** 18,996 (Census 2011) & 1,432 ha, **Common Species: Birds Species** (The Indian Shag, Red Collard Dove, Asian Koel, Small Bee Catcher, Brahmany Starlet, and Tree Pie), **104 Herbaceous, 15 Climbers, 11 Trees** and **04 Shrubs.**

# Mirzapur Bahiyara, Saran



■ Open Water    ■ Vegetation  
■ Marshes    ■ Settlements

Latitude & Longitude  
26.0831 and 84.7046

Area: 721 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: April 25, 2021

## MARCH

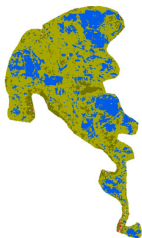
2023

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

# MARCH

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3 World Wildlife Day	4
5	6	7 Holi	8 Holi	9	10	11
12	13	14	15	16	17	18
19	20 World Sparrow Day	21 World Forestry Day	22 World Water Day	23 World Meteorological Day	24	25
26	27	28	29	30 Ram Navami	31	

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Waterlogged, **Location & Area:** Saran (26.08315556 and 84.70468889) & 721 ha, **River Basin:** Gandak, **Fringe Villages:** Dhaurigopal, Barahimpur Chakarpan, Madarpur, Sankauli, Korranw, Barahimpur Gopi, Bahiara, Katsa, Najiba, Bindra Patak, Rampur Khas, Rampur Digar, Sonhani, Manan Patti Mirzapur Bahiyara, **Villages Population & Area:** 25.902 (Census 2011) & 2.322 ha.

# Koliakalap, Buxar



- Open Water
- Vegetation
- Marshes
- Fallow Land

**Latitude & Longitude**  
25.6121 and 84.1412

**Area: 696 ha**

**Source: Landsat 8 OLI/TIRS C1**  
**Acquisition Date: April 25, 2021**

## APRIL

2023

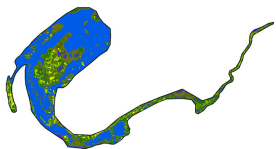
S	M	T	W	T	F	S
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29



# APRIL

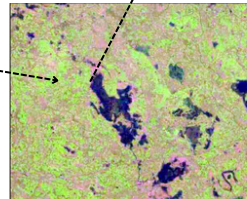
SUN	MON	TUE	WED	THU	FRI	SAT
30						1
2	3	4 Mahavir Jayanti	5	6	7 Good Friday	8
9	10	11	12	13	14 Dr Ambedkar Jayanti	15
16	17	18	19	20	21	22 World Earth Day/ Eid-ul-Fitr/ Ramzan
23	24	25	26	27	28	29

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Ox-Bow Lake, **Location & Area:** Buxar (25.612112 and 84.141266) & 696 ha , **River Basin:** Gangetic flood plain, **Fringe Villages:** Bhojpur Kadim, Bhojpur Jadid, Rampur Mathiya, Chandpali, Koliya, Shikarpur, Basgitiya, Marwatiya, **Villages Population & Area:** 38,987 (Census2011) & 2,007 ha.

# Salah Chaur, Vaishali



- Open Water
- Settlements
- Marshes
- Fallow Land

Latitude & Longitude  
25.7356 and 85.3908

Area: 638 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: October 9, 2021

## MAY

2023

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

# MAY

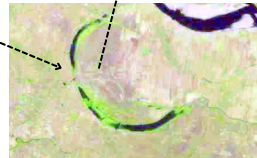
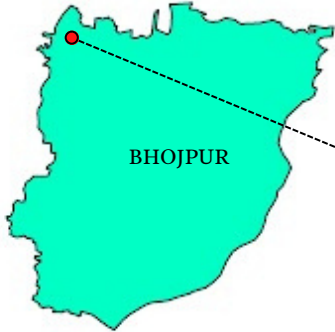
SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5 Buddha Purnima	6
7	8	9	10	11	12	13 World Migratory Bird Day
14	15	16	17	18	19	20
21	22 International Day for Biological Diversity	23 World Turtle Day	24	25	26	27
28	29	30	31			

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Lake, **Location & Area:** Vaishali (25.735661 and 85.390876) & 638 ha, **River Basin:** Burhi Gandak, **Fringe Villages:** Tajpur Raj Urf Bahora, Zahid Chak, Bahsi Saidpur, **Common Species: Fauna Species** (Stork, Cormorant), **Villages Population & Area:** 6,485 (Census 2011) & 756 ha.

# Baharwar & Charkhi, Bhojpur



■ Open Water    ■ Vegetation  
■ Marshes

Latitude & Longitude  
25.6942 and 84.3858

Area: 371 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: October 9, 2021

**JUNE**  
2023

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

# JUNE

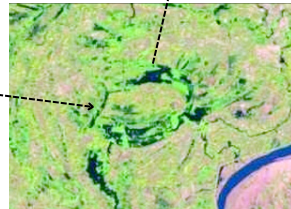
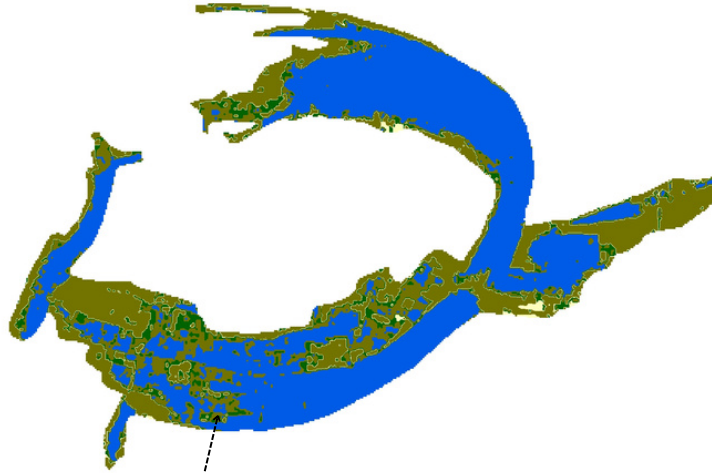
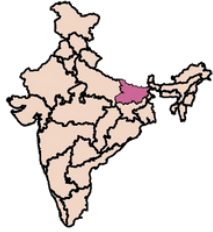
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5 World Environment Day	6	7	8 World Ocean Day	9	10
11	12	13	14	15	16	17 World Day to Combat Desertification & Drought
18	19	20	21	22	23	24
25	26	27	28	29 Eid al-Adha	30	

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Ox Bow Lake/Cut Off Meander, **Location & Area:** Bhojpur (25.694273 and 84.385802) & 371 ha, **River Basin:** Gangetic flood plain, **Fringe Villages:** Suhiya, Ramchandar Semaria, Lilari, Sahjauli, Bahoranpur Dakhinwar, Parsonda, Isharpura, Nathpae, Chamarpur, Sonbarsa, **Villages Population & Area:** 33,898 (Census 2011) & 3,611 ha .

# Tirla N, Katihar



- Open Water
- Marshes
- Vegetation
- Fallow Land

Latitude & Longitude  
25.5169 and 87.7064

Area: 308 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: November 12, 2021

## JULY

2023

S	M	T	W	T	F	S
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

# JULY

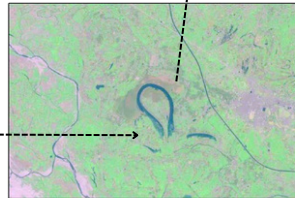
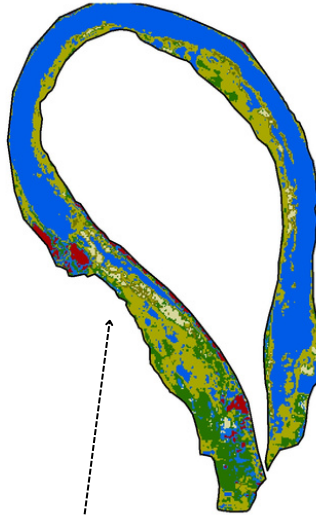
SUN	MON	TUE	WED	THU	FRI	SAT
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28 World Nature Conservation Day	29 International Tiger Day/ Muharram

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Ox Bow Lake, **Location & Area:** Katihar (25.5169 and 87.7064) & 308 ha,  
**River Basin:** Gangetic flood plain, **Fringe Villages:** Dharhan, Rahar, Panki, Pakaria, Harsua, Jaunia,  
**Villages Population & Area:** 11,439 (Census 2011) & 1,527 ha.

# Sariya Man Sisswa, West Champaran



- Open Water
- Vegetation
- Marshes
- Fallow Land
- Settlements

Latitude & Longitude  
26.7892 and 84.4359

Area: 295 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: November 12, 2021

## AUGUST

2023

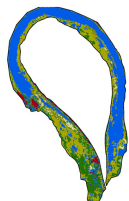
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		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



# AUGUST

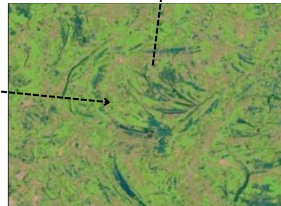
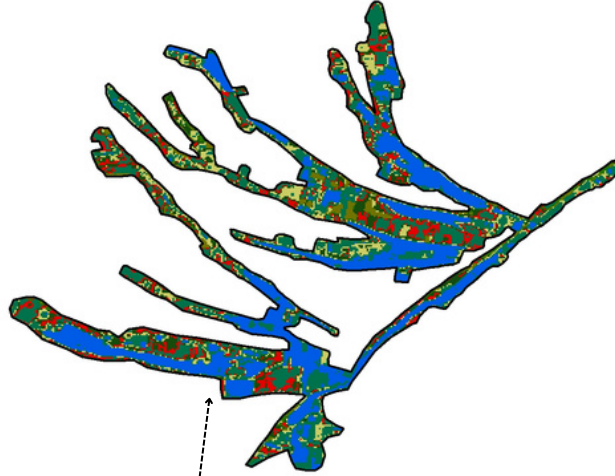
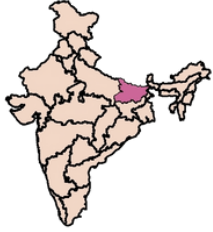
SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10 World Lion Day/ International Biodiesel Day	11	12 World Elephant Day
13	14	15 Independence Day	16	17	18	19
20 Akshay Urja Diwas	21	22	23	24	25	26
27	28	29	30 Raksha Bandhan	31		

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Ox Bow Lake, **Location & Area:** West Champaran (26.789200 and 84.435990) & 295 ha,  
**River Basin:** Burhi Gandak, **Fringe Villages:** Balua Rampur, Majhariya , Tola Tumkaraia, Siswa Sarea, Tola Malahi, **Villages Population & Area:** 23,966 (Census 2011) & 2,548 ha.

# Parsa Chaur, Katihar



- Open Water
- Vegetation
- Marshes
- Fallow Land
- Settlements

Latitude & Longitude  
25.5392 and 87.6606

Area: 228 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: November 12, 2021

## SEPTEMBER

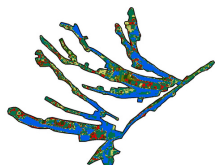
2023

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

# SEPTEMBER

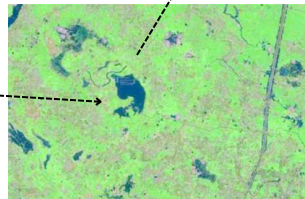
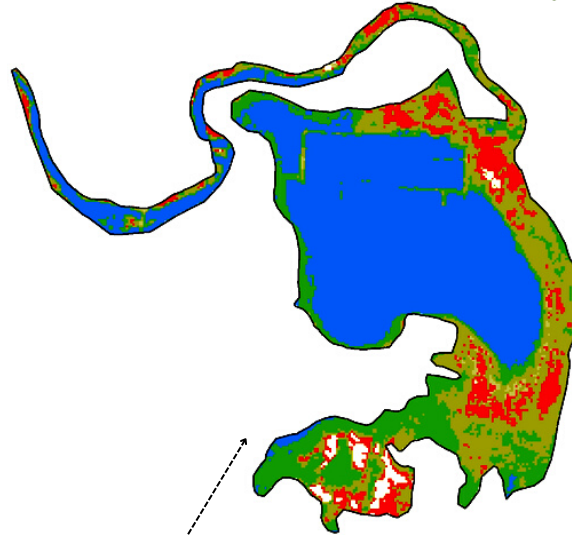
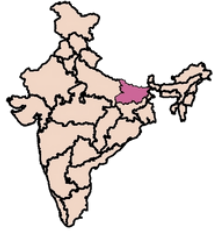
SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4	5	6	7 Janmashtami	8	9
10	11	12	13	14	15	16 World Ozone Day
17	18 International Coastal Clean-up Day	19 Ganesh Chaturthi	20	21	22	23
24 World Rivers Day	25	26	27	28 Green Consumer Day/ Id-e-Milad	29	30

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Lake, **Location & Area:** Katihar (25.5392 and 87.6606) & 228 ha, **River Basin:** Gangetic flood plain, **Fringe Villages:** Mohnipira, Tikaili, Paharpur, Jabra, Harphara, Budhaili, **Villages Population & Area:** 7,567 (Census 2011) & 1,200 ha.

# Narsan Chaur, Muzaffarpur



- Open Water
- Vegetation
- Marshes
- Fallow Land
- Settlements

Latitude & Longitude

26.0383 and 85.2535

Area: 227 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: April 25, 2021

## OCTOBER

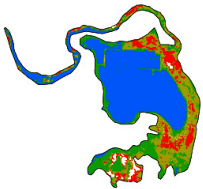
2023

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# OCTOBER

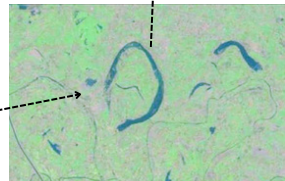
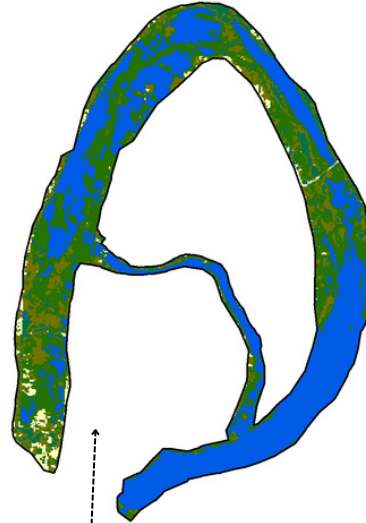
SUN	MON	TUE	WED	THU	FRI	SAT
1 Wildlife Week	2 Wildlife Week/ World Habitat Day/ Mahatma Gandhi Jayanti	3 Wildlife Week	4 Wildlife Week/ World Animal Welfare Day	5 Wildlife Week	6 Wildlife Week	7 Wildlife Week
8	9	10	11	12	13 International Day for Natural Disaster Reduction	14 World Standards Day
15	16	17	18	19	20	21
22	23	24 International Day of Climate Action/ Dussehra	25	26	27	28
29	30	31				

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Lake, **Location & Area:** Muzaffarpur (26.038343 and 85.253565) & 227 ha, **River Basin:** Burhi Gandak, **Fringe villages:** Phanda urf Bishunpur Phanda, Bahilwara bhual, **Village Population & Area:** 10,989 (Census 2011) & 1,111 ha.

# Lalsariya Lakes, West Champaran



■ Open Water    ■ Vegetation  
■ Marshes    ■ Fallow Land

**Latitude & Longitude**  
 26.7327 and 84.6496

Area: 218 ha

Source: Landsat 8 OLI/TIRS C1  
 Acquisition Date: October 7, 2021

## NOVEMBER

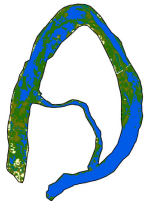
2023

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

# NOVEMBER

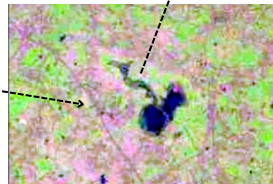
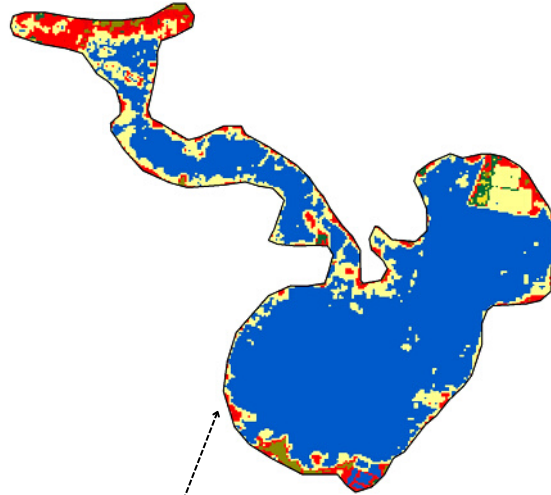
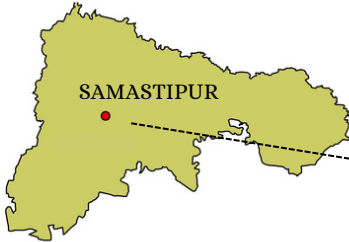
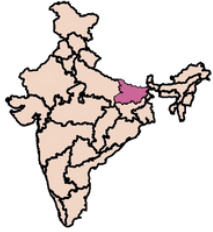
SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6 International Day for Preventing the Exploitation of Environment in War and Armed Conflict	7	8	9	10	11
12 Diwali	13	14	15 International GIS Day	16	17	18
19 Chhath Puja	20	21 World Fisheries Day	22	23	24	25
26	27	28	29	30		

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Ox Bow Lake/Cut Off Meander, **Location & Area:** West Champaran (26.73271389 and 84.64967222) & 218 ha, **River Basin:** Burhi Gandak, **Fringe Villages:** Rajabhar, Lal Saraia, Karamwa, Majharia Shekh, **Villages Population & Area:** 27,939 (Census 2011) & 2,677 ha.

# Debkhal Chaur, Samastipur



- Open Water
- Vegetation
- Marshes
- Settlements
- Fallow Land

Latitude & Longitude  
25.7793 and 85.7802

Area: 217 ha

Source: Landsat 8 OLI/TIRS C1  
Acquisition Date: November 12, 2021

## DECEMBER

2023

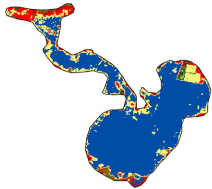
S	M	T	W	T	F	S
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



# DECEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
31					1	2
3	4	5 World Soil Day	6	7	8	9
10	11 International Mountain Day	12	13	14 National Energy Conservation Day	15	16
17	18	19	20	21	22	23
24	25 Christmas	26	27	28	29	30

## WETLAND CHARACTERISTICS AND FEATURES



**Wetland Type:** Natural Lake, **Location & Area:** Samastipur (25.779306 and 85.780258) & 217ha, **River Basin:** Burhi Gandak, **Fringe Villages:** Lakhmipur Maheshpatti Deal, Saidpur Zahid, Raepur, Bhagwanpur Kamla, Dariapur Pataili, Rampur Keshopatti, Rupauli Buzrug, **Villages Population & Area:** 46,083 (Census 2011) & 2,411 ha.

## Wetlands of Bihar: Climate Change Mitigation

The Centre for Studies on Environment and Climate (CSEC) was established in 2017 at the Asian Development Institute (ADRI), Patna. With a vision to protect environment and mitigate climate change, the Centre undertakes research within a multi-disciplinary framework to produce evidence-based policy recommendations in the field of environment and climate change. The CSEC also hosts the thematic centre on Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP) under the aegis of Union Ministry of Environment, Forest and and Climate Change, Government of India. As part of research and advocacy made, the Centre is focusing in particular issues of wetlands and biodiversity conservation, air quality management, environmental sustainability, climate change, vulnerability and mitigation and related issues.

Wetlands carry a very unique ecological characteristics to balance diversity of faunal and floral species. It has also a critical role in climate change mitigation. Unhealthy wetlands can also act as the potential source of GHG emissions in the atmosphere. The wetlands can also act as sequester to atmospheric carbon dioxide in its healthy condition. All sequestered carbon dioxide from the atmosphere gets trapped in sediments through plant photosynthesis. Despite being only about 5–8 percent of the total terrestrial landscape on the earth, wetlands may act as net carbon sinks of about 830 Tg/year, with an average of 118 g-C m<sup>-2</sup> year<sup>-1</sup> of net carbon retention. In this perspective, the Centre envisages a strong consortium of researchers and practitioners to generate adequate information and resources for wetlands conservations in Bihar. Being centrally located in the 'Central Asian Waterbird Flyways', Bihar needs a consolidated mechanism for convergence of implementation of the new and existing management strategies within its overall governance framework.

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