DEPARTMENT OF URBAN AND
REGIONAL PLANNING, BUET

Exploring the Factors Influencing Catchment Area of the Districts of Bangladesh: A Study on Chapai Nawabganj and Meherpur District

Course No.- PLAN-434
Course Title: Regional Planning Studio

Submitted by-

Group: 2

Student Id: 1815002, 1815028, 1815029

Level-4/Term-1

Submitted to

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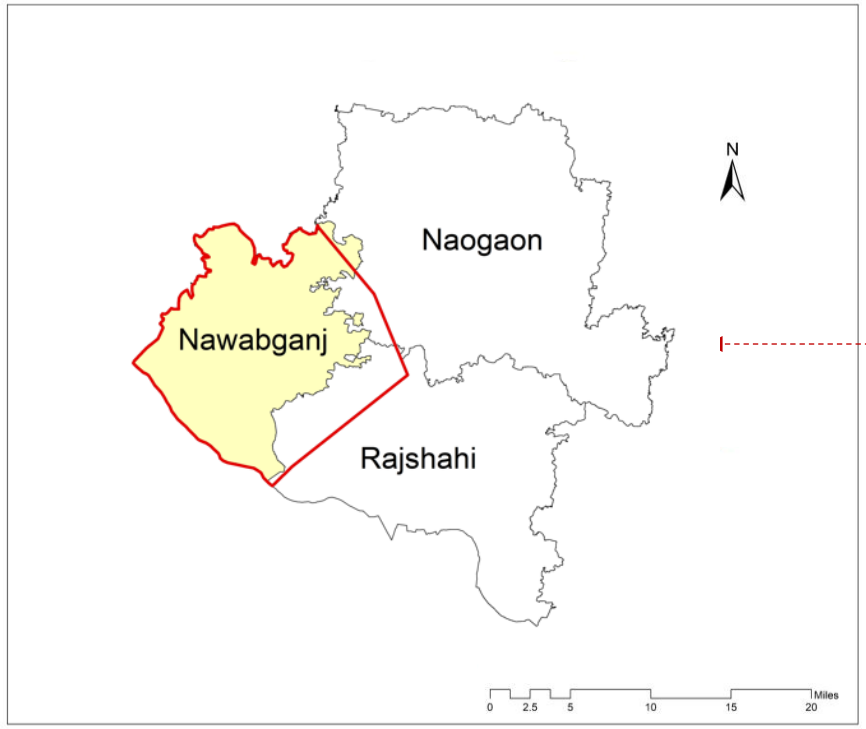
Meher Afjun Faria, Lecturer

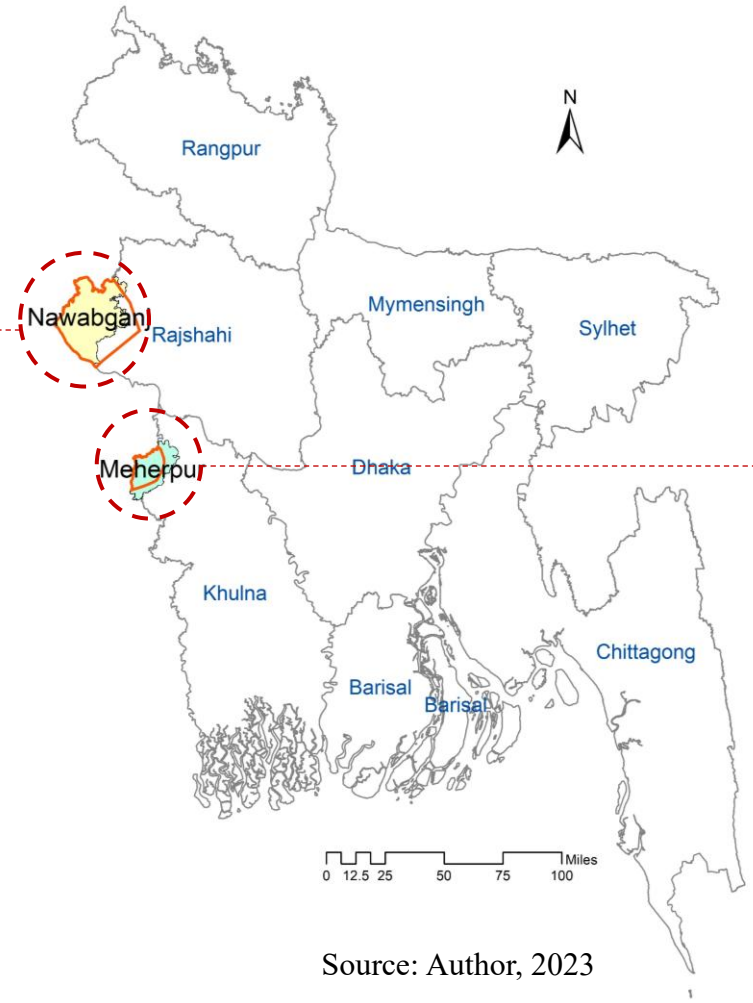
Date of Submission: 11/07/2023

Study Area Map

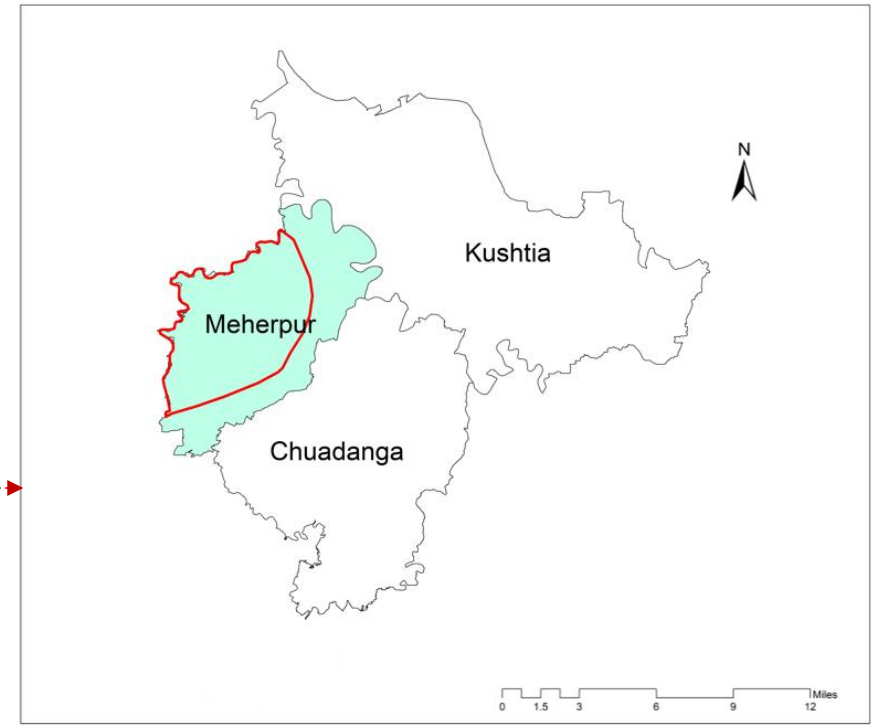


Source: Author, 2023

Population: 1835527 (BBS, 2022)
Population Density: 1078 (BBS,2022)
Area:1702.55 sq. km. (BBS, 2011)
Catchment Area: 2140.93 sq km
Urbanization rate: 25.24% (BBS,2022)
Location: Western part of Bangladesh



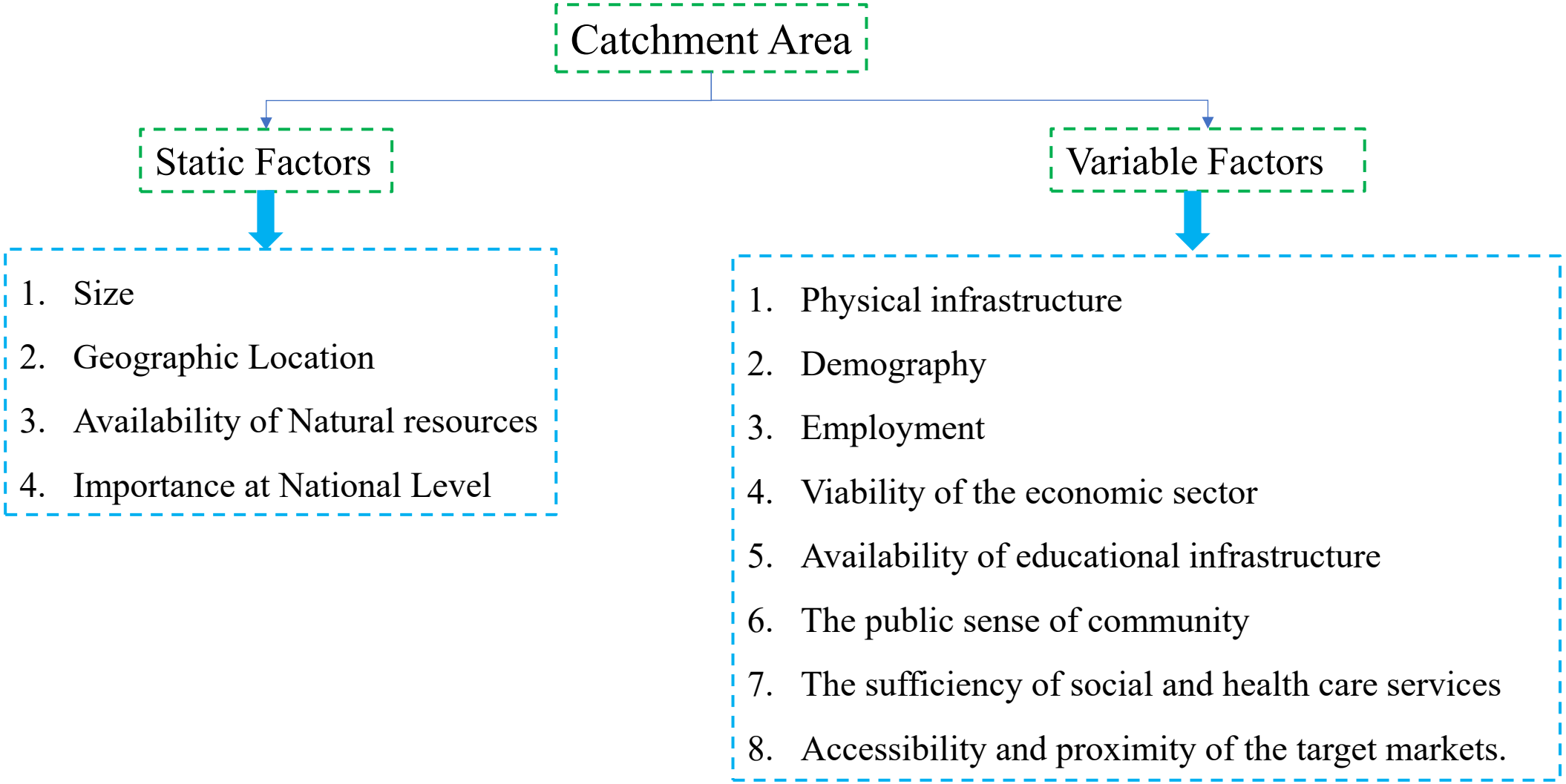
Source: Author, 2023



Source: Author, 2023

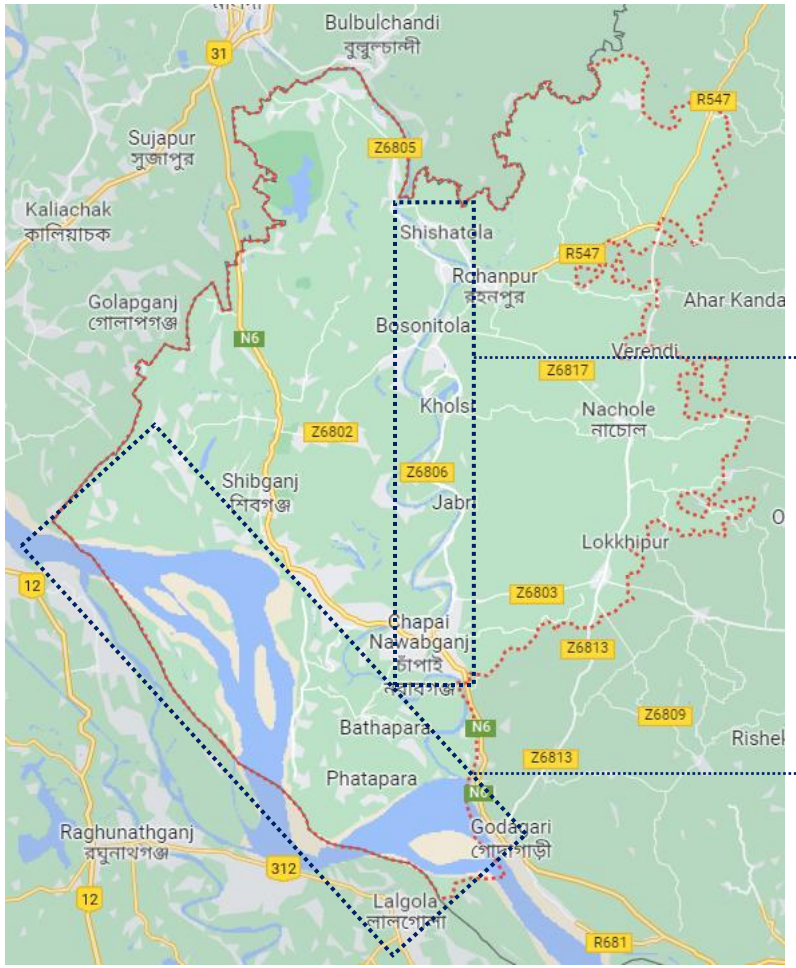
Population: 705356 (BBS,2022)
Population Density: 951 (BBS,2022)
Area: 716.08 sq. km. (BBS, 2011)
Catchment Area: 415.37 sq km
Urbanization rate: 22.02% (BBS,2022)
Location: Western part of Bangladesh

Factors Influencing Catchment Area of a Region



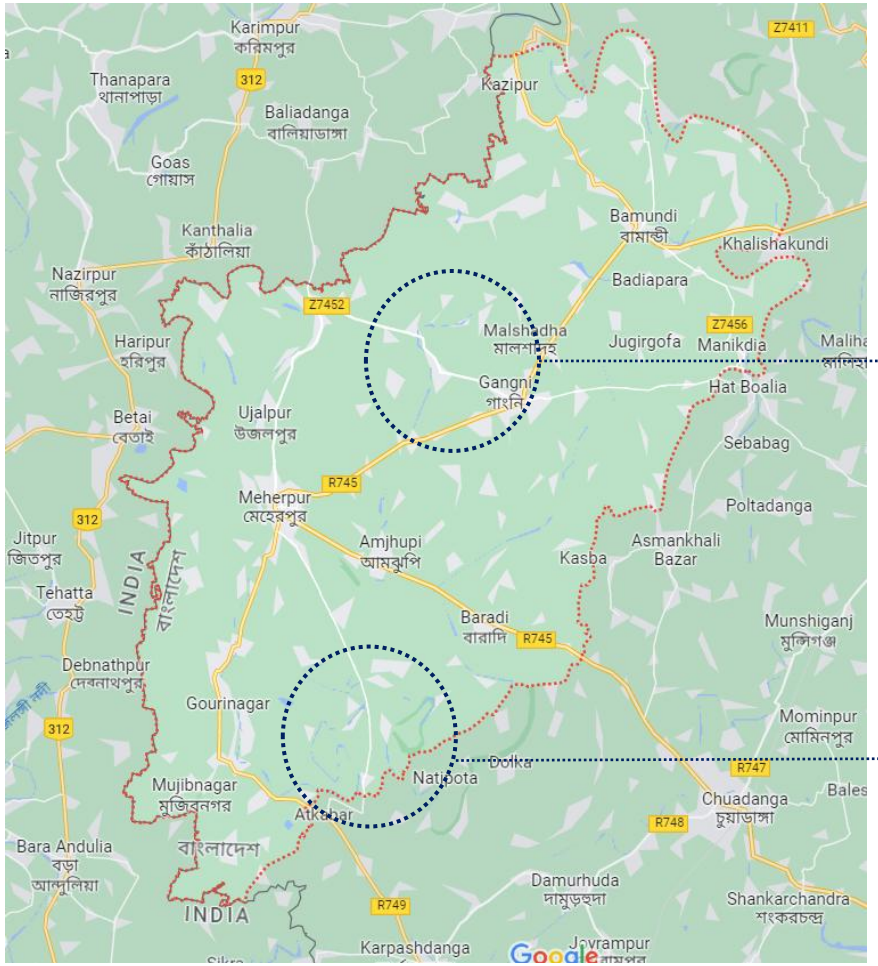
(Snieska & Zykiene, 2015)

Geographical Location

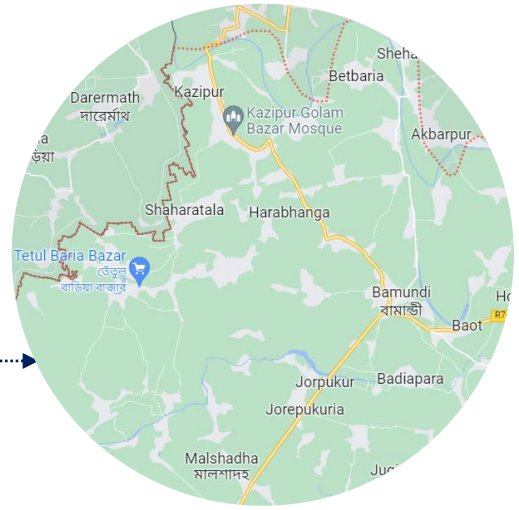


Source: Google map, 2023

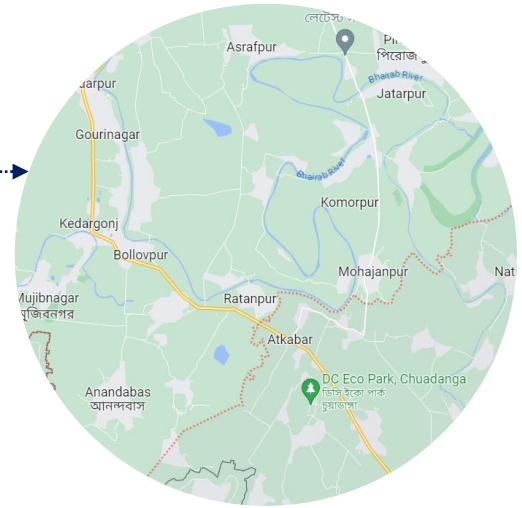
- **Mahananda** river facilitates different commercial activities, trade and connect with mighty **Padma** river.



Source: Google map, 2023



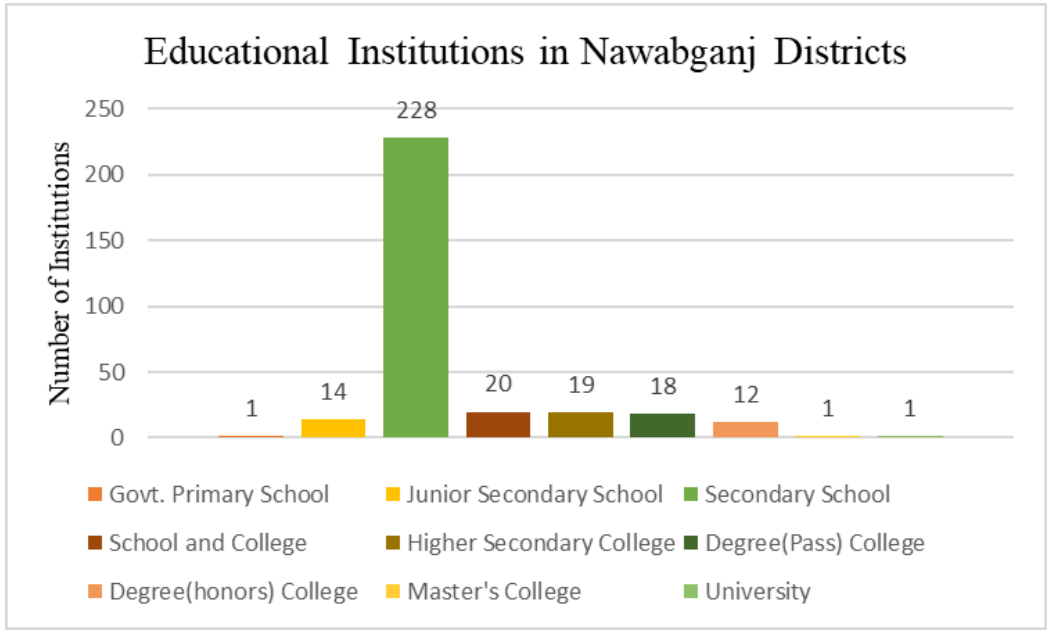
Kajla River



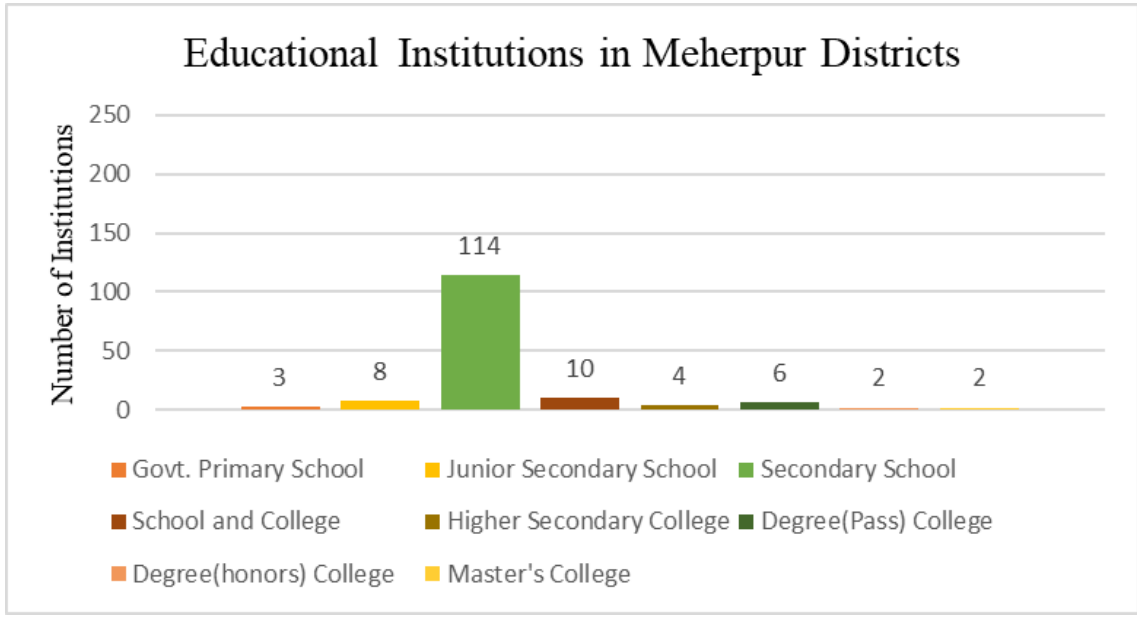
Bhairab River

- Both **kajla** and **Bhairab** rivers are **dying** in **Meherpur.**

Number of Educational Institutions in Study Areas



Source: BANBEIS,2022

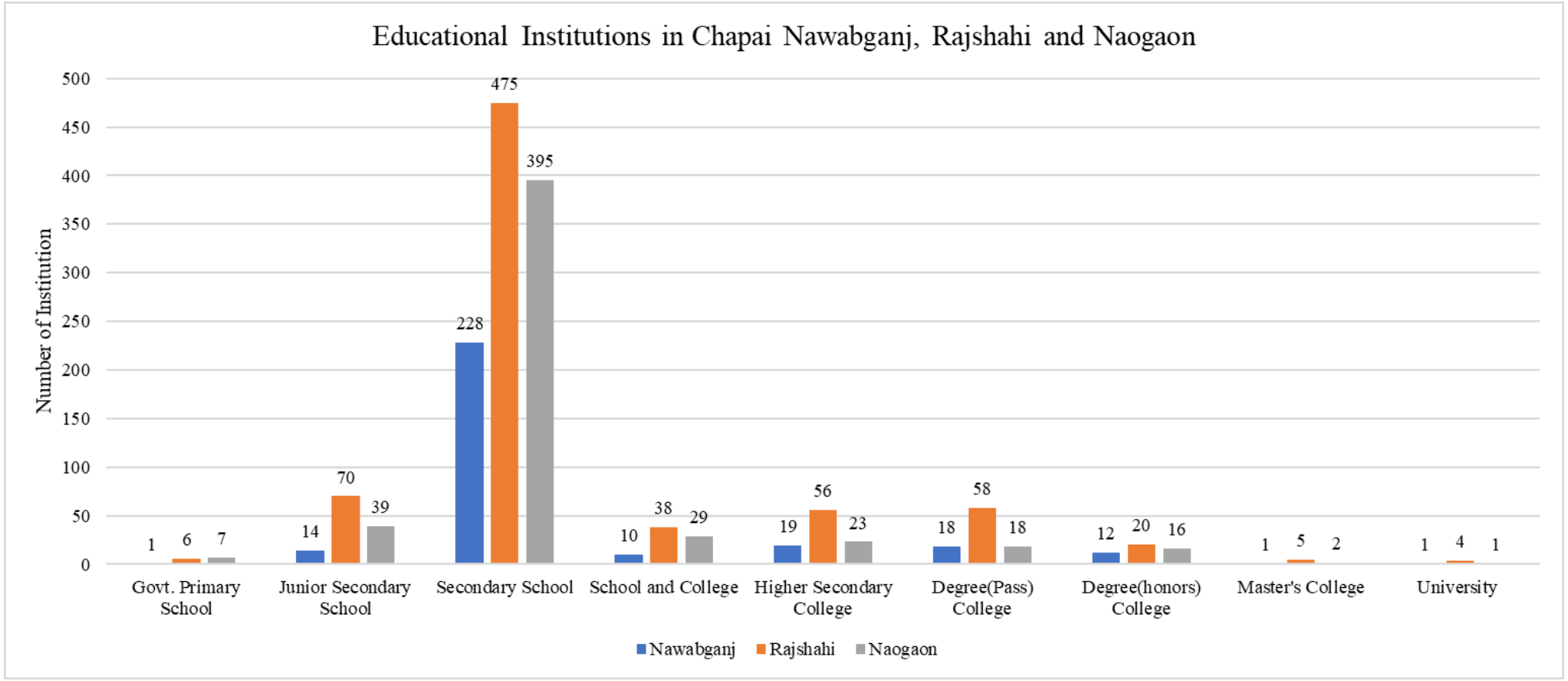


Source: BANBEIS,2022

Findings:

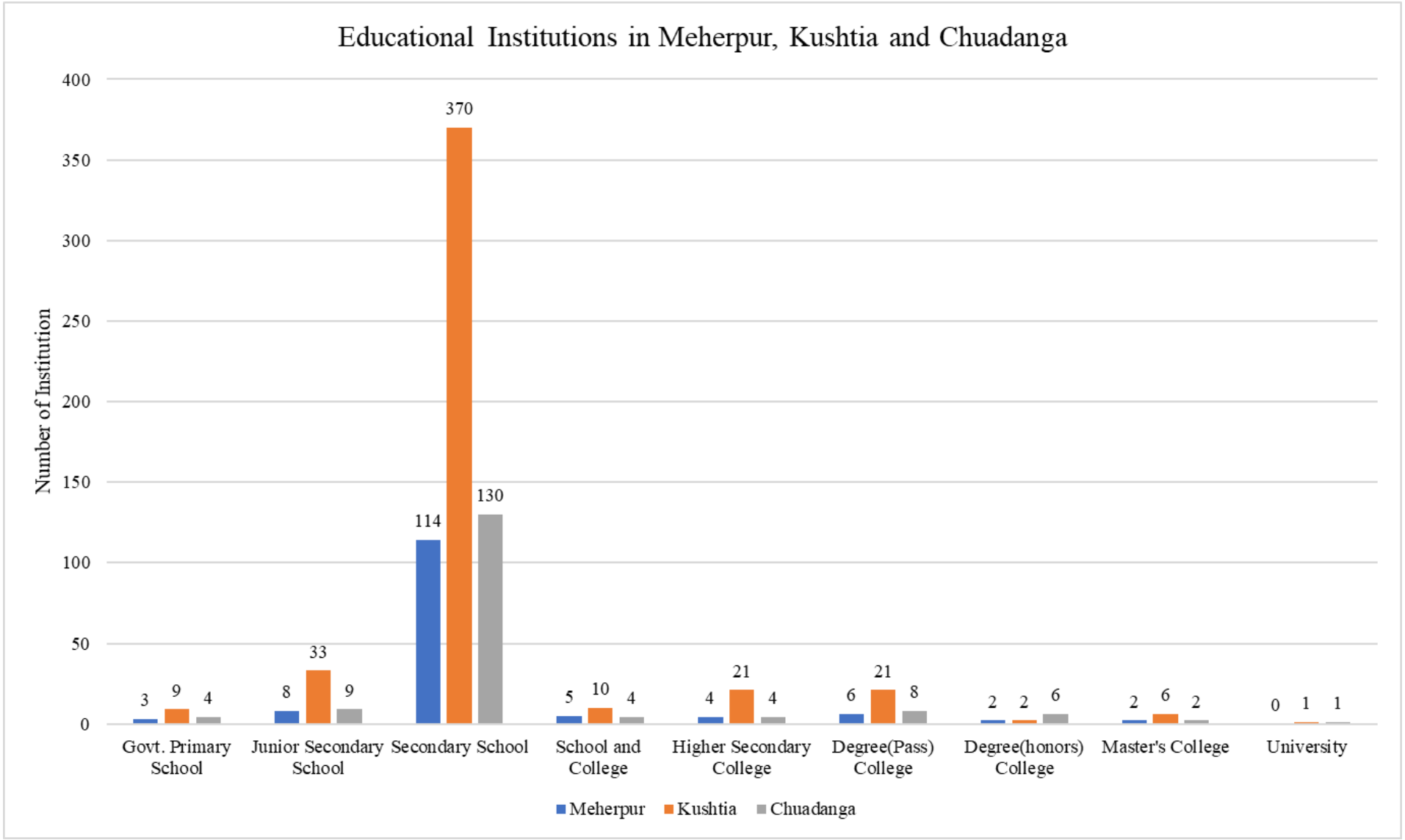
- Number of **secondary school** is two times higher in **Nawabganj than Meherpur.**
- A university named "**Exim Bank Agricultural University in Bangladesh**" is situated in **Nawabganj**.

Number of Educational Institutions in Study Areas



Source: BANBEIS,2022

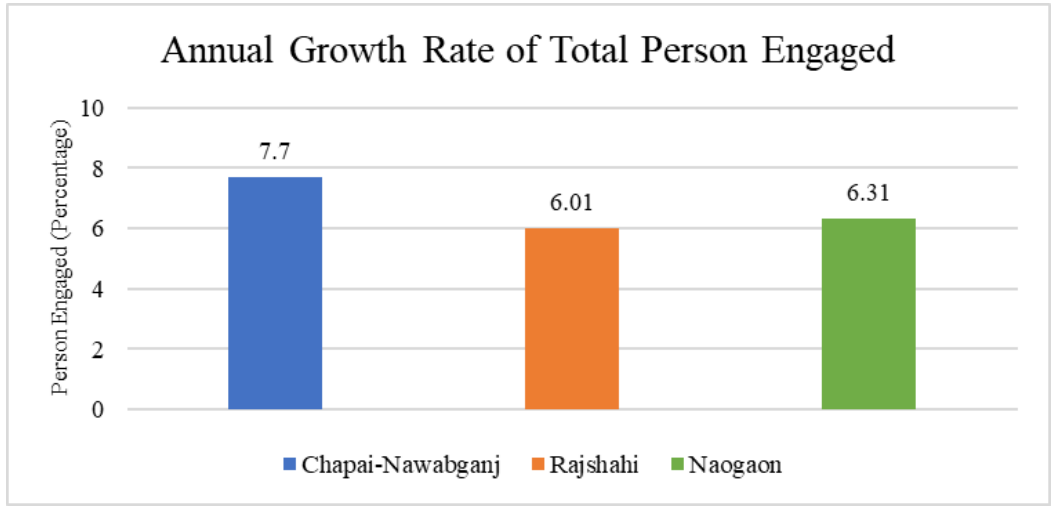
Number of Educational Institutions in Study Areas



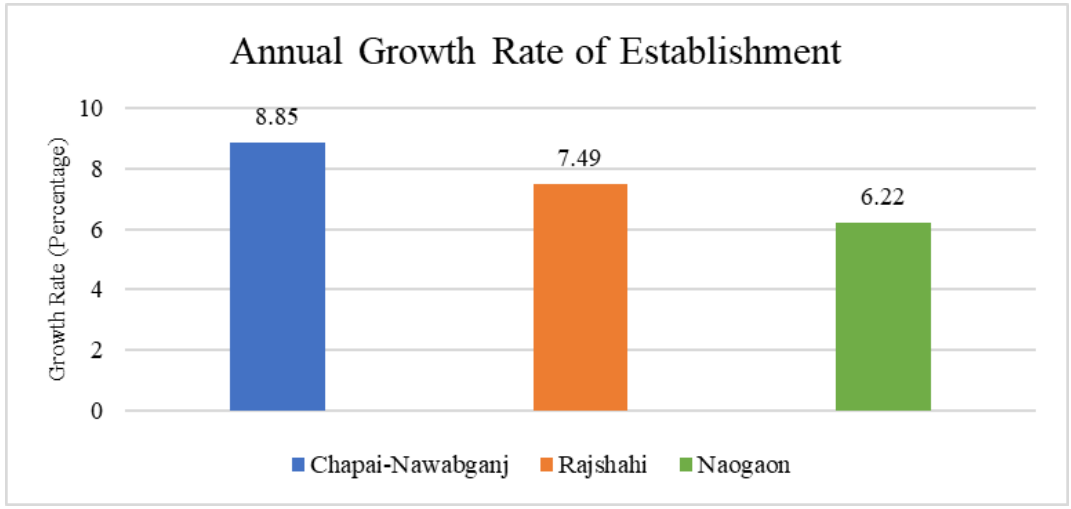
Source: BANBEIS,2022

Economic Situations

Chapainawabganj

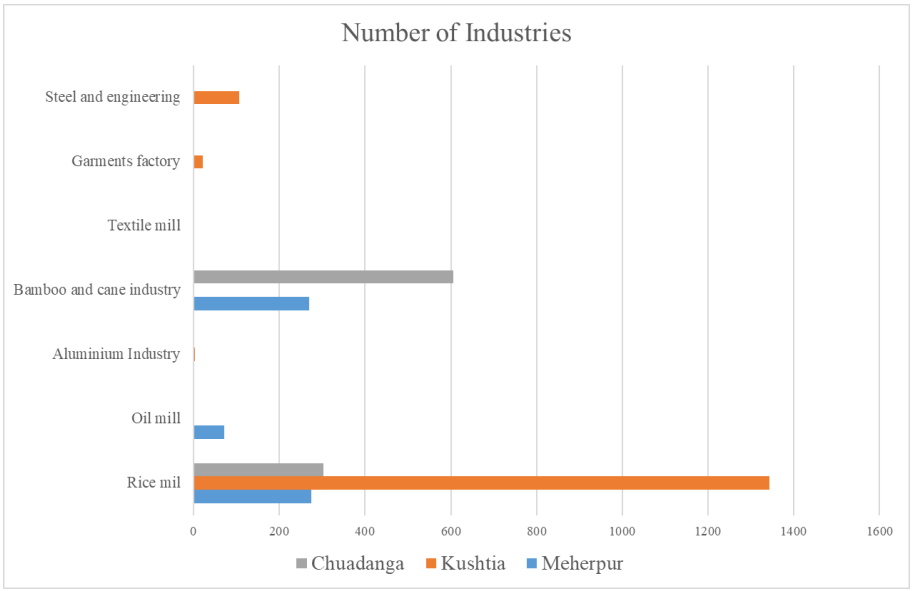


Source: BBS,2013

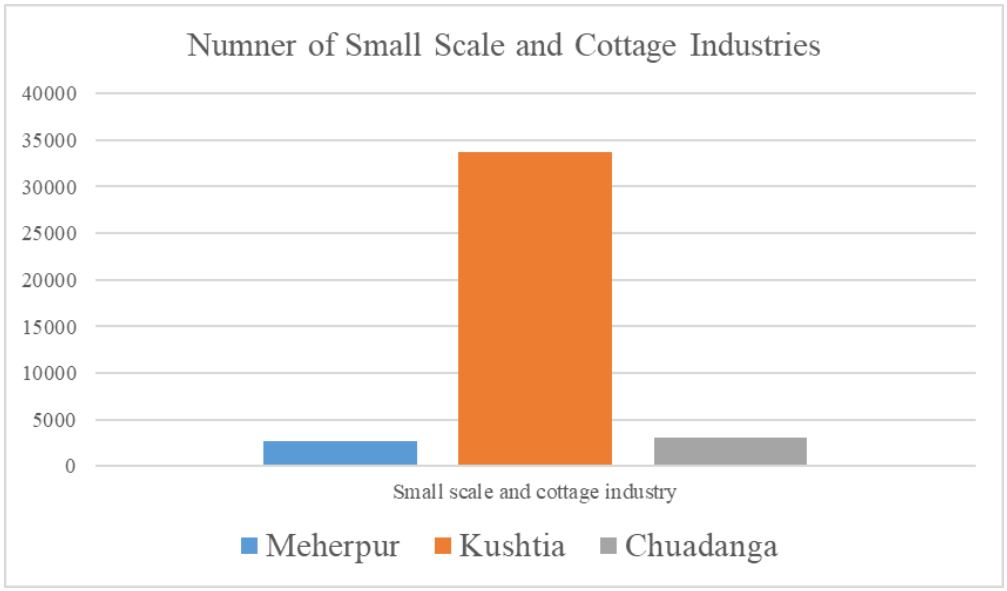


Source: BBS,2013

Meherpur

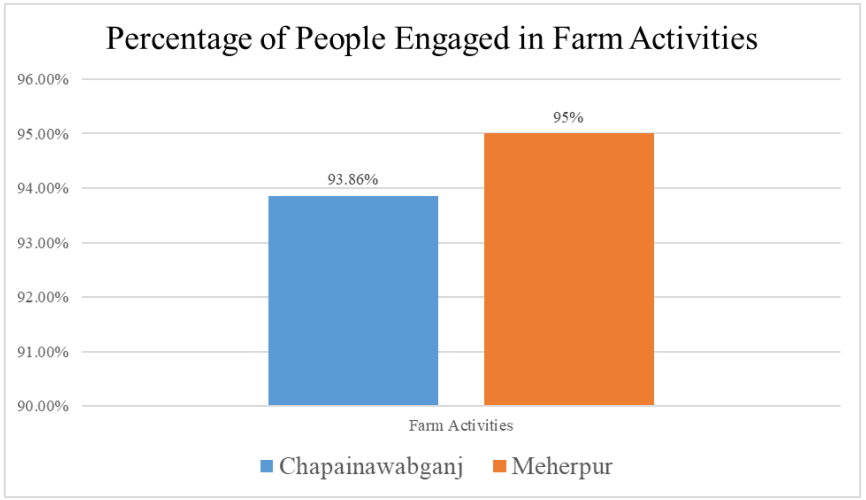


Source: BBS,2011

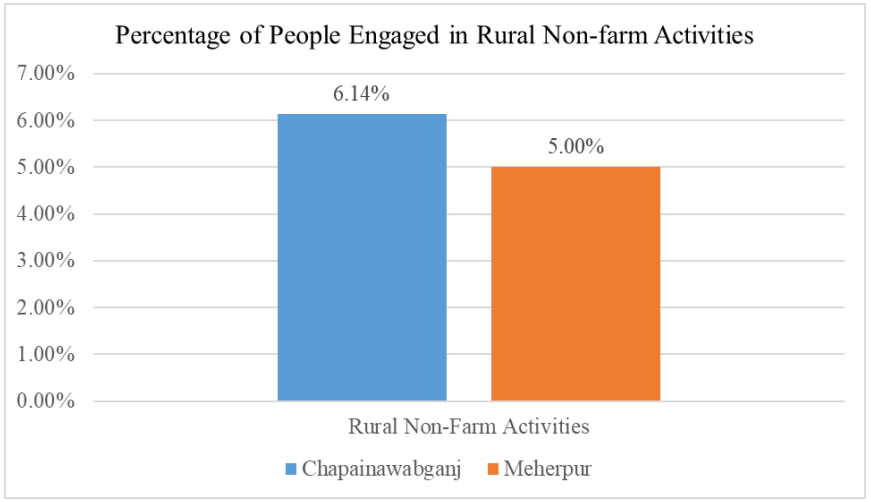


Source: BBS,2011

Economic Situations



Source: BBS,2011



Source: BBS,2011

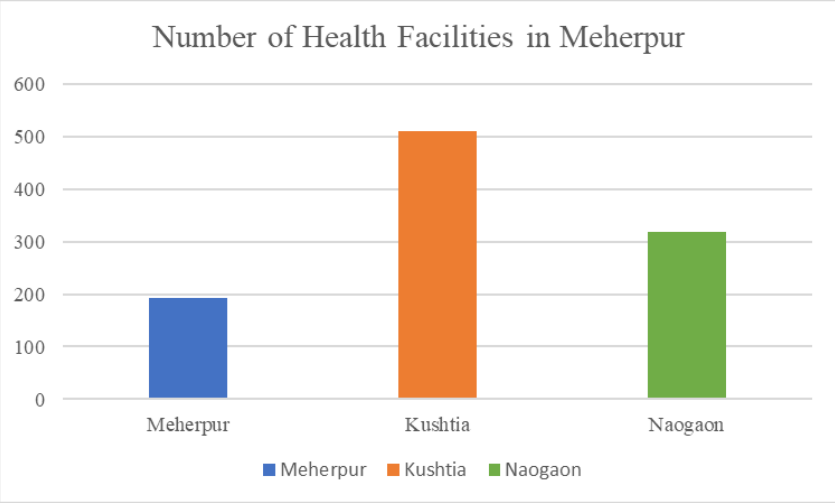
Non Farm Activities:

- Manufacturing
- Electricity,gas,water supply
- Construction
- Wholesale & retail trade
- Hotel and Restaurants
- Transport, storage and communication
- Bank
- Real estate
- Education
- Health

- **Mango**, main **cash crop** in Chapainawabganj
- According to the district's Department of Agriculture Extension, there are **37,588 hectares** of mango orchards and the government has set a target to produce **440,956 tons of mango** this year (Source: Dhaka Tribune, May 18, 2023)
- '**Mango special train'** on Chapainawabganj-Dhaka route launched new age Bangladesh, 2023.

Source: Dhaka Tribune, May 18, 2023

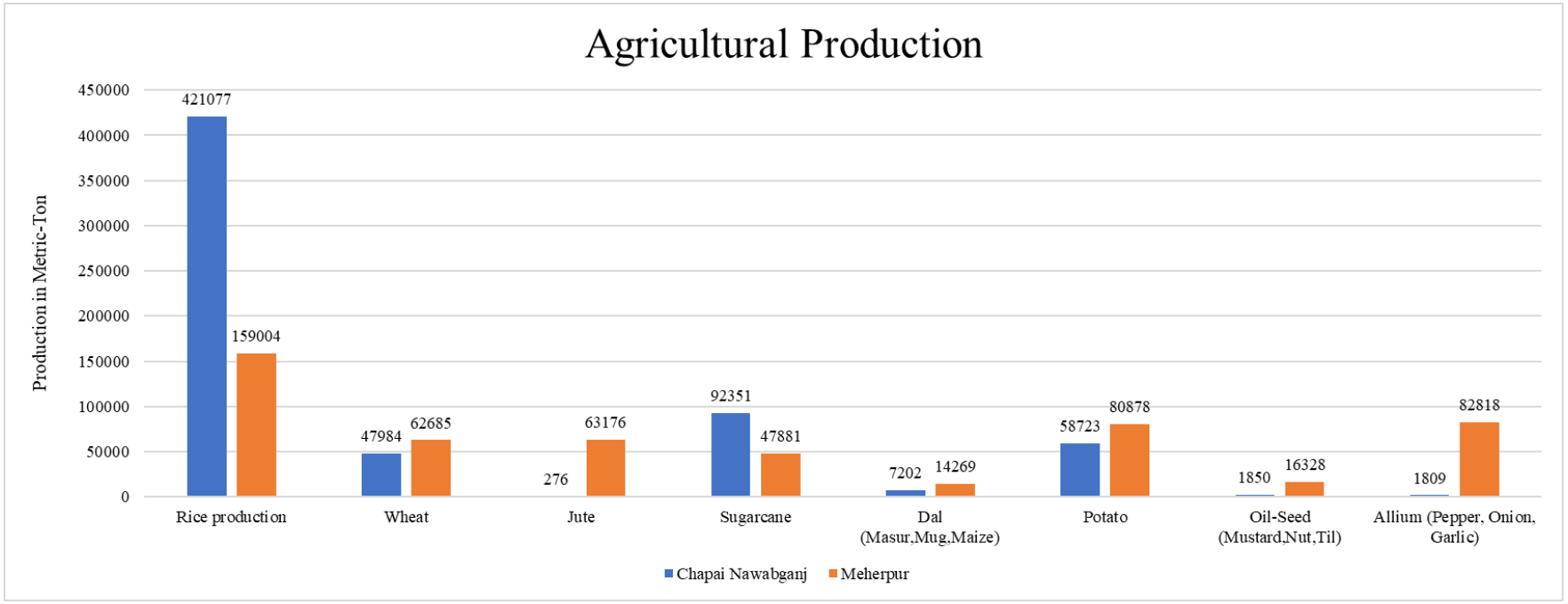
Number of Healthcare facilities



Source: Ministry of Health and Family Welfare,2022

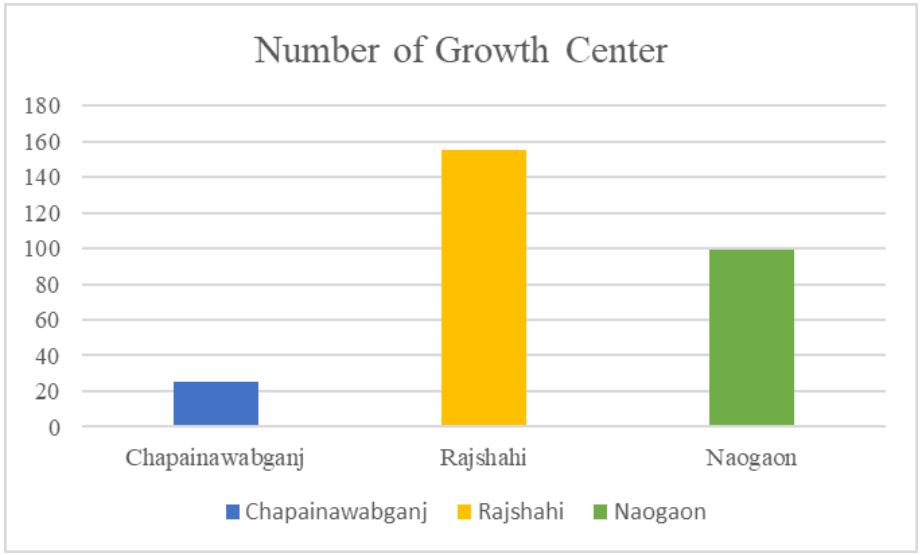
1.Blood Bank
2.Chest Disease Clinic
3.Chest Disease Hospital
4.Community Clinic
5.Consultancy & Diagnostic Center
6.District/General Hospital
7.Family Planning Clinic
8. Maternal & Child Health Unit (MCH Unit),
9.Maternal & Child Welfare Centre (MCWC),
10.NGO for Government Health Service support
11.NGO Hospital/Clinic,
12.Private Hospital / Clinic,
13.Special Purpose Hospital
14.Specialized Health Center
15. Upazila Health Complex

Agriculture

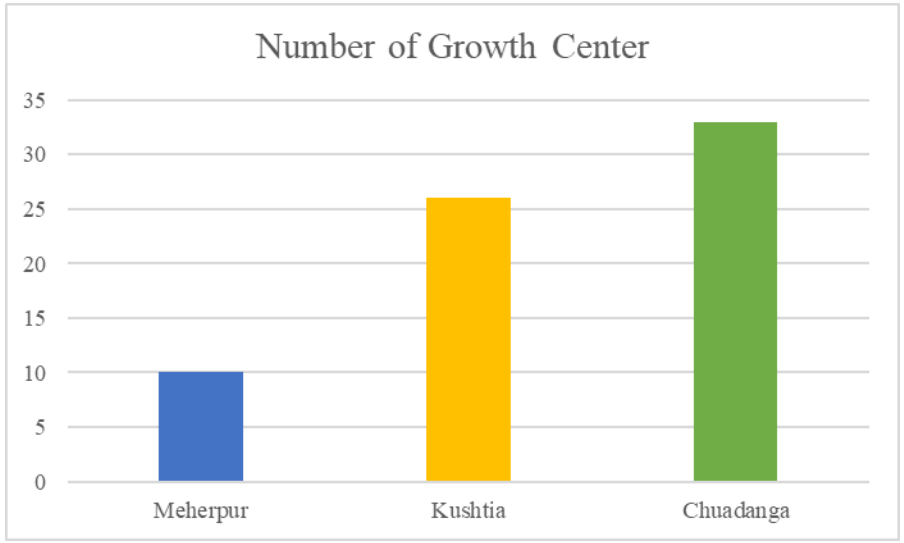


Source: BBS,2011

Growth Centers and Hat/ Bazar

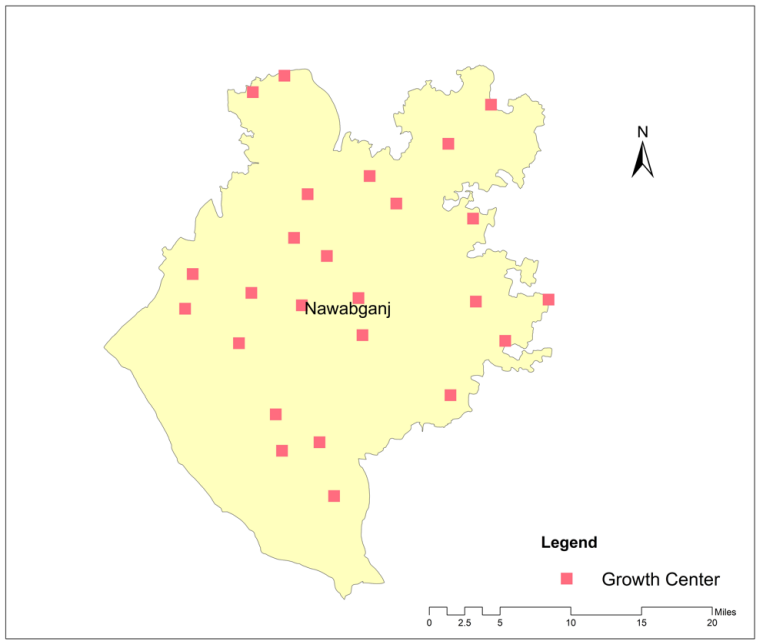


Source: BBS, 2011



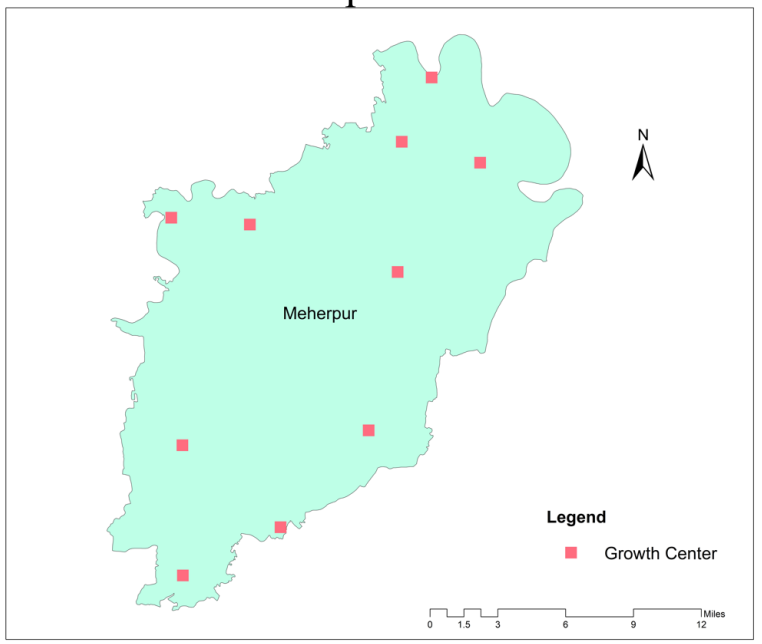
Source: BBS, 2011

Well distributed



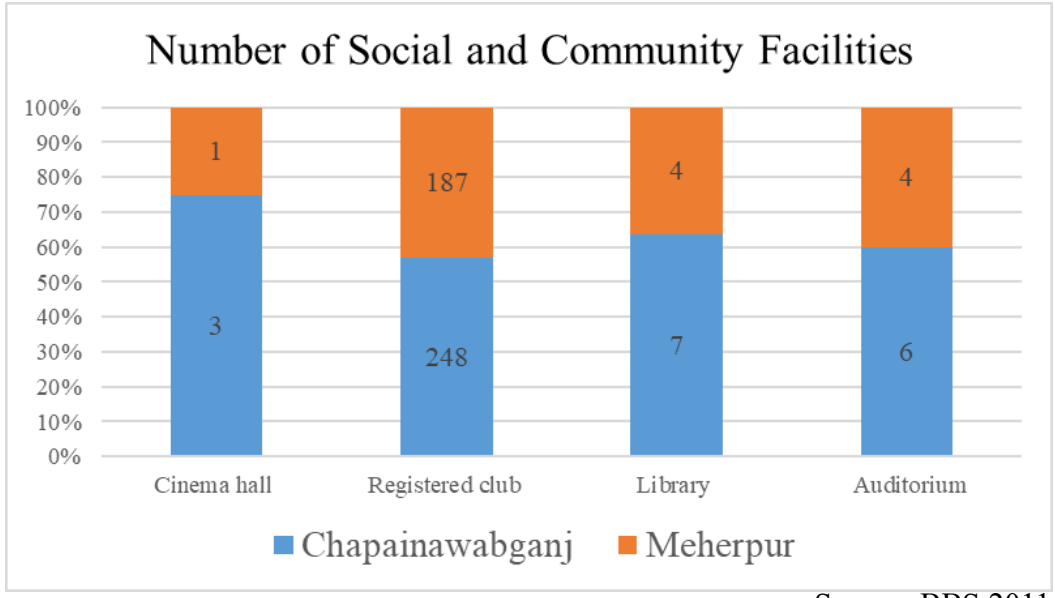
Source: BBS, 2011 Prepared by Author,2023

Dispersed



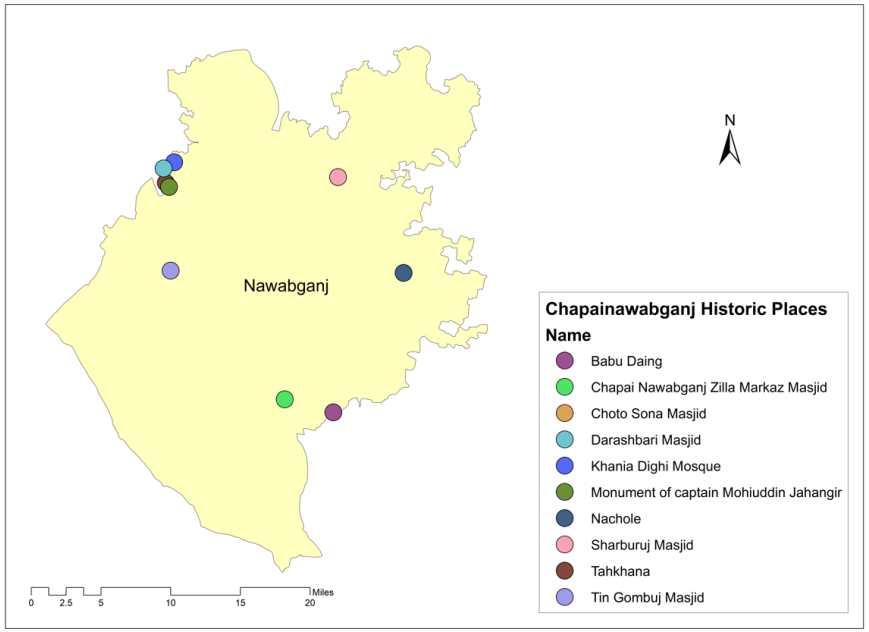
Source: BBS, 2011 Prepared by Author,2023

Social and community infrastructure

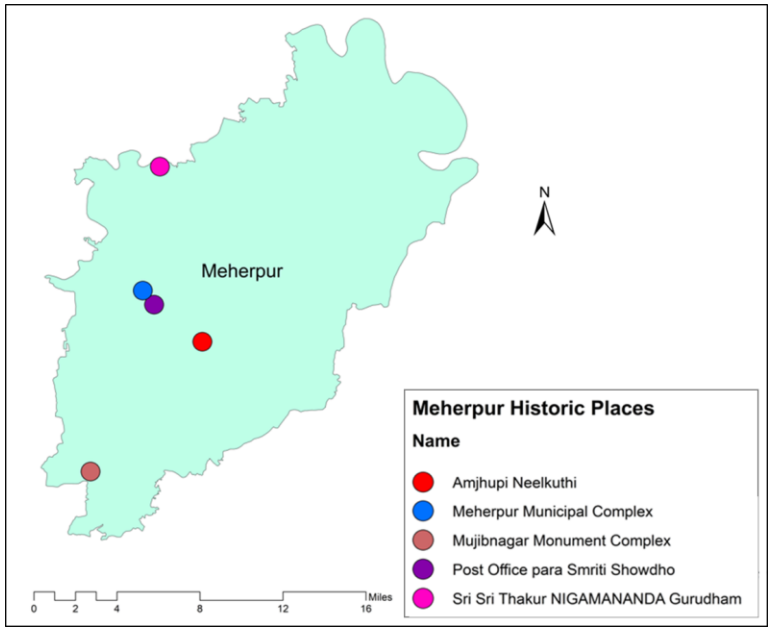


Source: BBS,2011

Map of Historical sites of Study Areas



Source:Author,2023

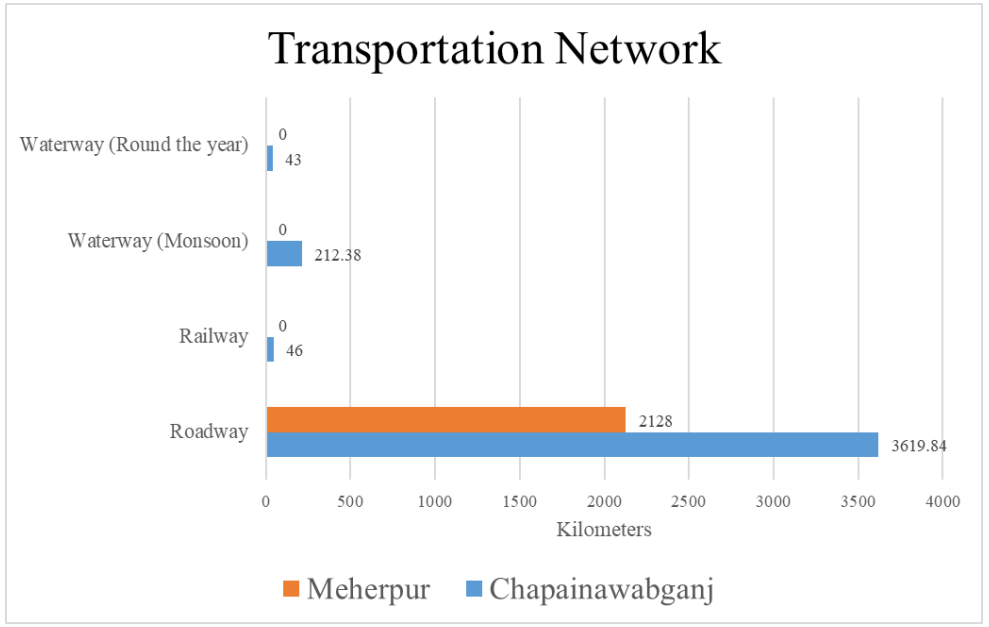


Source:Author,2023

*Number of historical and archaeological sites are higher in Chapainawabganj

	Chapai Nawabganj	Meherpur
NGO activities	1. BRAC * 2. Proshika * 3. ASA* 4. Nijera Kari* 5.IDE 6.Dasco 7. CARE 8.Thengamara Mahila Sabuj Sangha (TMSS) 9.Trinamul 10.Vision 11.Proyash 12.Manobic Unnayan Society 13.Swanirvar Artha-Samajik Unnayan Sangstha 14.Kolyani Mohila Sangsad 15.Amnura Santal Mission 16.BIKE 17.BISE 18.BIDOS 19.BARIO *Common NGOs	1.BRAC * 2.Proshika * 3.ASA* 4.Nijera Kari* 5.Palasheepara Samity 6.Kumaridanga Palli Unnayan Sangstha 7.Child and Mother Welfare Foundation and Sandhani. Source: BBS,2011
Research Centers	1. Mango Research Institute 2. Regional Horticulture Research Center 3. Horticulture Center, Kallyanpur, Chapainawabganj	No research center

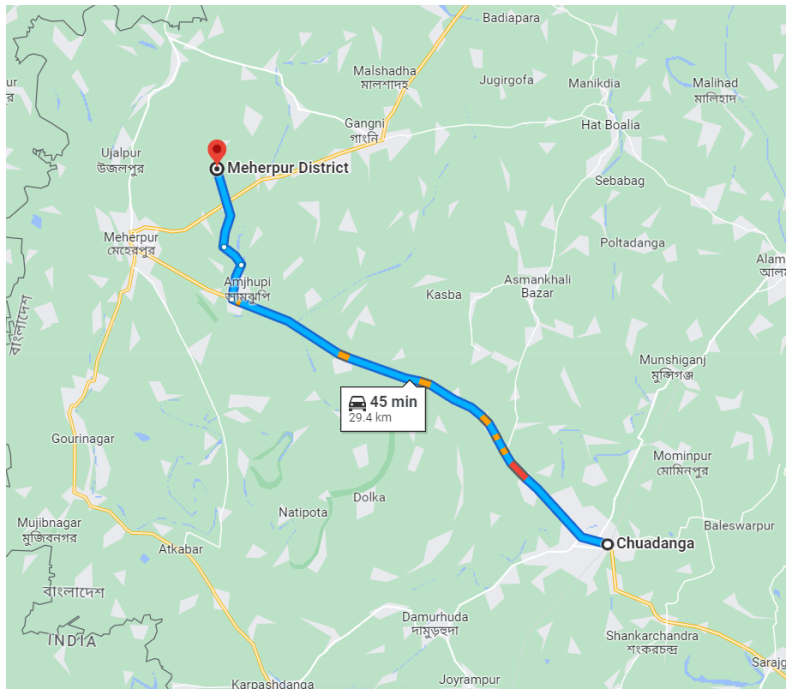
Social and community infrastructure



Source: BBS,2011

* No **rail connectivity** and **waterways** exists in Meherpur.

Nearest Rail Station for Meherpur District

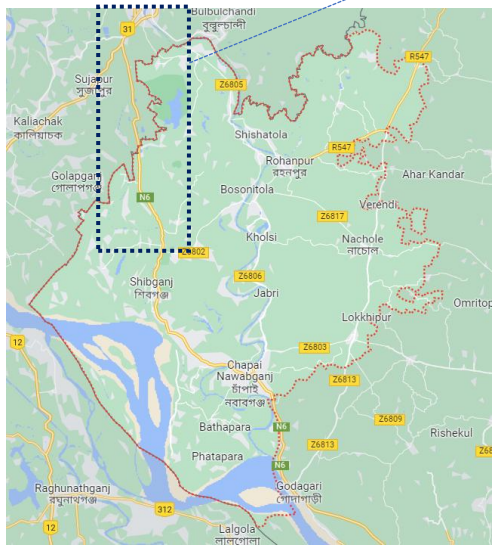


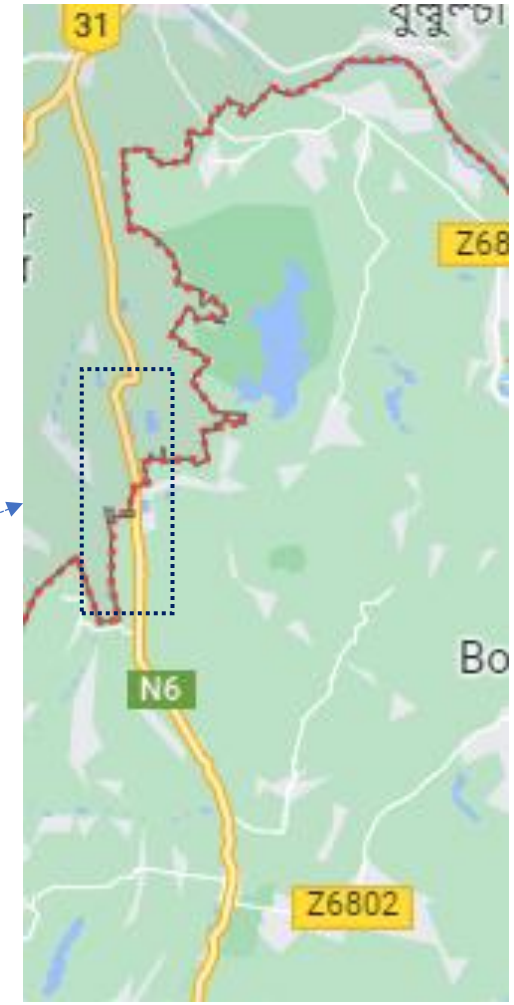
Source: Google map, 2023

*The distance between nearest **Chuadanga railway** station and Meherpur district is **30km**

Connectivity with India

Chapai Nawabganj

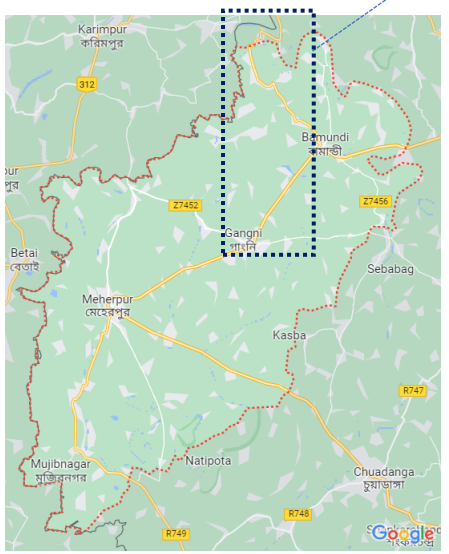




- Bangladesh and India are connected by **National Highway** at border in Chapainawabganj

Source: Google map, 2023

Meherpur



- No international connectivity through national highway.

Source: Google map, 2023

References:

- Snieska, V., & Zykiene, I. (2015). City Attractiveness for Investment: Characteristics and Underlying Factors. *Procedia - Social and Behavioral Sciences*, *213*, 48–54. https://doi.org/10.1016/j.sbspro.2015.11.402
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N
Mymensingh
Tangail
Kishoreganj
Gazipur
Pabna
Narsingdi
Kushtia
Manikganj
Dhaka
Rajbari
Narayanganj
Munshiganj
Jhenaidah
Magura
Faridpur
Chandpur
Shariatpur
Madaripur
Narail
Gopalganj
Barisal
Barisal
Barisal
Barisal
Pirojpur
Barisal
Bagerhat
Bagerhat
Bagerhat
Legend
Break_Point
District_HQ
Shortest_Route
Catchment Area
0 5 10 20 30 40
Miles

District	Population		Distance	Point of Indifference
Dhaka	14,734,025	Dhaka to Adjacent Districts		
Gazipur	5,263,474		37	23.15844397
Tangail	4,037,608		96.3	63.21048021
Manikganj	1,558,024		52.5	39.6172026
Faridpur	2,162,876		105	75.91433965
Munshiganj	1,625,418		27.7	20.79360252
Narayanganj	3,909,138		18.8	12.40853602

District	Population		Distance	Point of Indifference
Gazipur	5,263,474	Gazipur to Adjacent Districts		
Dhaka	14,734,025		37	13.84155603
Tangail	4,037,608		68	36.25038519
Mymensingh	5,899,052		95	46.14661172
Kishoreganj	3,267,630		72	40.27033697
Narsingdi	2,584,452		43	25.28332588
Narayanganj	3,909,138		53	28.46714252

District	Population		Distance	Point of Indifference
Faridpur	2,162,876	faridour to Adjacent Districts		
Dhaka	14,734,025		105	29.08566035
Rajbari	1,189,821		31	17.91359028
Madaripur	1,293,027		74	41.84541367
Gopalganj	1,295,053		94	52.71173292
Manikganj	1,558,024		62	33.53647536
Munshiganj	1,625,418		106	56.77875545
Magura	1,033,115		53	31.34002764
Narail	788,673		92	57.61119258

District	Population		Distance	Point of Indifference
Rajbari	1,189,821	rajbari to Adjacent Districts		
Faridpur	2,162,876		31.2	13.28640972
Magura	1,033,115		49	25.36464
jhenaidah	2,005,849		79	34.37174596
kushtia	2,149,692		64	27.30202267
Manikganj	1,558,024		61	28.44728973
pabna	2,909,622		69	26.91331704

District	Population		Distance	Point of Indifference
Gopalganj	1,295,053	gopalganj to Adjacent Districts		
Faridpur	2,162,876		93.5	40.78826708
Madaripur	1,293,027		69.3	34.66356235
Narail	788,673		58	32.57736148
bagerhat	1,613,079		56	26.4643903
piroj	1,198,193		58	29.56352254
barisal	2,570,450		82	34.04132092

District	Population		Distance	Point of Indifference
Madaripur	1,293,027	Madaripur to Adjacent Districts		
Faridpur	2,162,876		74	32.35458633
Gopalganj	1,295,053		61	30.63800329
Shariatpur	1,294,561		19	9.247258161
Munshiganj	1,625,418		114	53.743449
barisal	2,570,450		62	25.72677632

District	Population		Distance	Point of Indifference
Shariatpur	1,294,561			
Madaripur	1,293,027		18.5	9.252741839
barisal	2,570,450		74	30.71680293
chad	2,635,748	Madaripur to Adjacent Districts	50	20.60249423
Munshiganj	1,625,418		74	34.89703022