

Preparation of Development Plan for Fourteen *Upazila* Package-02

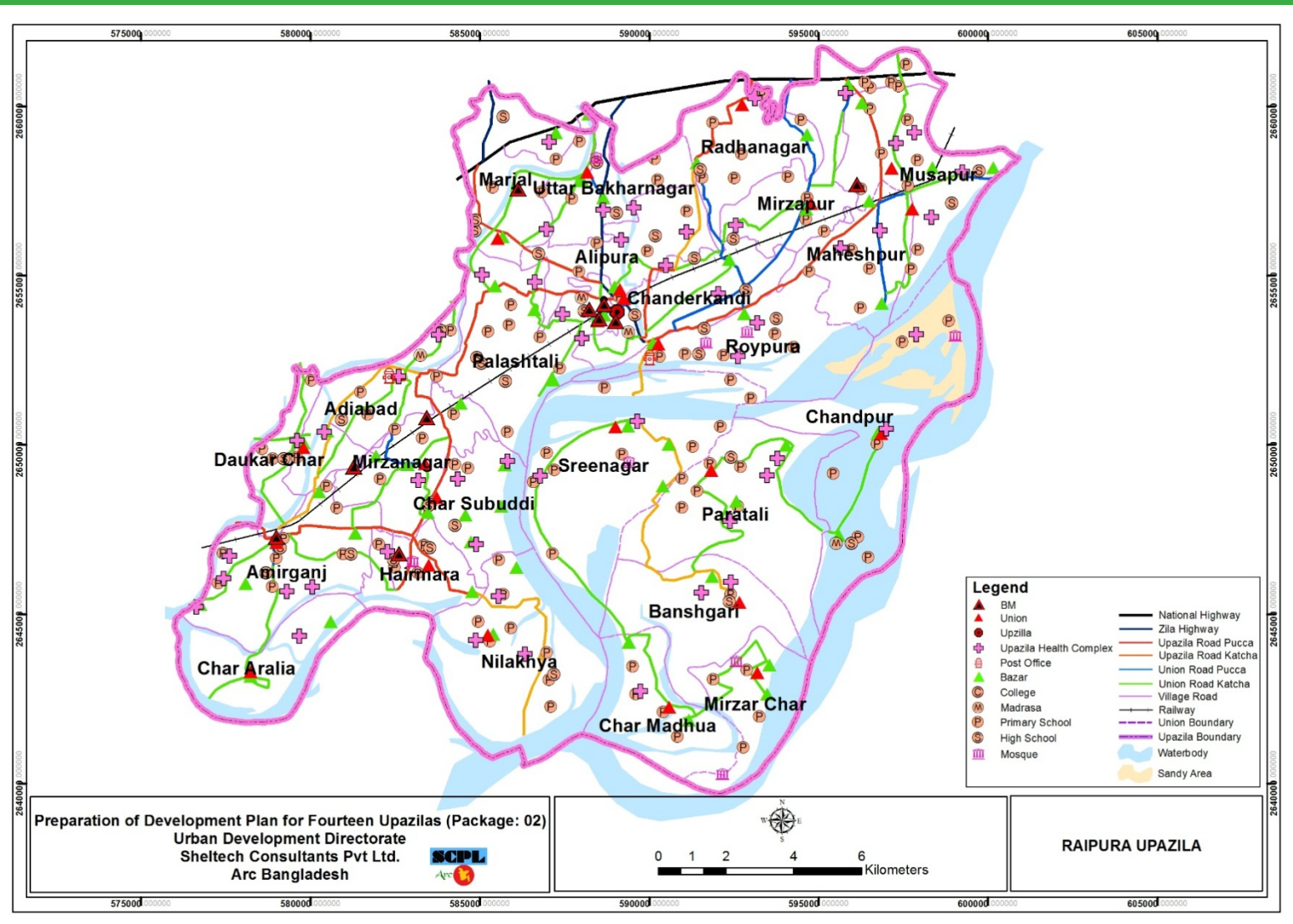
(Ishwarganj Upazila, Mymensingh; Raipura Upazila and Shibpur Upazila, Narsingdi)

Presentation On Agricultural Survey Report of Raipura Upazila

Prepared By

**Joint Venture
of
Sheltech Consultants Pvt. Ltd
and
ARC Bangladesh Ltd**

Location Map of Raipura Upazila



At a glance of Raipura Upazila

- **Location:** Narsingdi District(24.3750°N and 90.7375°E)
- **Area:** 319.155 km²
- **Population:** 535796
- **Number of Municipality & Union:** 1 Municipality and 24 Unions
- **Land Type:** Flood Plains of Young Brahmaputra and Yamuna Floodplain, Old Brahmaputra Floodplain
- **Agro-ecological zones:** Young Brahmaputra Floodplain (AEZ-8), Middle Meghna River Floodplain (AEZ-16) and Madhupur tract (AEZ-28)

Objectives and Methodology

Objectives

- Assess present cropping pattern and cropping intensity
- Identify landuse pattern
- Projection of future agricultural pattern and its changes
- Sustainable development in agricultural sector

Methodology

Primary Data

- KII (Key Informant Interview)
- Field Visit

Secondary Data

- DAE Union and Upazila Office documents

Field Level Data Collection



Meeting with Upazila Agricultural Officer



Agricultural Land in Raipura Upazila

Union-wise Present Agriculture Land Use Information and Identified land of Raipura Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%)	Soil P ^H	Soil Texture	Present land Used (%)	Identified Land Zoning
Amirganj	2230	1170	HL=6 MHL=52 MLL=27 LL =15	5.1-5.6	Loam & silt loam	Agriculture =62.24 Industrial Area=0.04 Road = 1.31 Rural Settlement & HV = 33.56 Water bodies=2 .86	Agriculture Zone
Adiabab	1665	780	HL=17 MHL=45 MLL=30 LL = 8	0.5-1	Loam & clay loam	Agriculture=50.91 Forest =15.25 Industrial Area=0.05 Fruit garden=1.11 Road= 0.78 Rural Settlement &HV = 29.67 Urban Built-up Area =0.05 Water bodies=2.18	Agriculture & Fruit Garden Zone
Alipura	1548	729	HL=29 MHL=28 MLL=22 LL=21	4.0-6.0	Loam & clay Loam	Agriculture=58.53 Road=0.86 Rural Settlement &HV =36.79 Urban Built-up Area =0.03 Water bodies=3.81	Agriculture Zone
Banshgari	1855	1147	HL=3 MHL=34 MLL=34 LL=18 VLL=11	5.5-5.9	Clay & Clay loam	Agriculture =59.01 Road=1.14 Rural Settlement &HV =34.78 Water bodies=5.07	Agriculture Zone
Chanderkandi	1535	765	HL=14 MHL=44 MLH=33 LL=44	5.2-5.9	Clay & Clay loam	Agriculture=24.34 Forest =26.65 Industrial Area=0.08 Fruit Garden=19.04 Road=0.93 Rural Settlement & HV =27.30 Water bodies=1.65	Agriculture & Fruit Garden Zone

Source: Land Zoning Report December2014 of Raipura Upazila under Narsingdi

Note: HL-High Land; MHL-Medium High Land; LL- Low Land; VLL- Very Low Land

Union-wise Present Agriculture Land Use Information and Identified land of Raipura Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%) NCA	Soil P ^H	Soil Texture	Present land Used (%)	Land Zoning
Chandpur	2075	1565	HL=8 MHL=27 MLL=29 LL=31 VLL=5	5.4-6.5	Clay & Clay loam	Agriculture=40.78 Forest =22.40 Industrial Area=0.03 Fruit Garden=4.84 Road=0.43 Rural Settlement & HV =29.86 Water bodies=1.66	Agriculture & Fruit Garden Zone
Char Aralia	1030	660	HL=6 MHL=39 MLL=35 LL=20	5.0-7.0	Loam & Silt loam	Agriculture=59.70 Road=1.07 Rural Settlement & HV =36.29 Urban Built-up Area =0.41 Water bodies=2.54	Agriculture & Fruit Garden Zone
Char Madhua	1091	747	HL=12 MHL=25 MLL=63	5.5-5.6	Clay loam & clay	Agriculture=52.04 Industrial Area=1.39 Road=1.41 Rural Settlement & HV =39.34 Urban Built-up Area =0.35 Water bodies=5.47	Agriculture Zone
Char Subuddi	1255	655	HL=4 MHL=9 MLL=64	5.5-5.6	Loam & silt clay	Agriculture=60.64 Road=1.43 Rural Settlement & HV =35.21 Water bodies=2.72	Agro-Fisheries Zone
Dukar Char	938	396	HL=17 MHL=26 MLL=23 LL=20 VLL=14	5.5-5.6	Loam & Clay Loam	Agriculture=45.27 Road=1.85 Rural Settlement & HV =42.21 Urban Built-up Area =7.44 Water bodies=3.23	Paurashava area

Source: Land Zoning Report December 2014 of Raipura Upazila under Narsingdi

Note: HL-High Land; MHL-Medium High Land; LL- Low Land; VLL- Very Low Land

Union-wise Present Agriculture Land Use Information and Identified land of Raipura Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%) NCA	Soil P ^H	Soil Texture	Present land Used (%)	Land Zoning
Hairmara	805	435	HL=4 MHL=58 MLL=27 LL=11	5.5	Silt loam & loam	Agriculture=40.78 Forest =22.40 Industrial Area=0.03 Fruit Garden=4.84 Road=0.43 Rural Settlement & HV =29.86 Water bodies=1.66	Agriculture & Fruit Garden Zone
Maheshpur	895	183	HL=19 MHL=36 MLL=22 LL=20 VLL=3	5.1-5.6	Loam & Siandy loam	Agriculture=59.70 Road=1.07 Rural Settlement & HV =36.29 Urban Built-up Area =0.41 Water bodies=2.54	Agriculture & Fruit Garden Zone
Marjal	1690	850	HL=30 MHL=40 MLL=21 LL=8 VLL=1	4.8.1-6.3	loam & clay loam	Agriculture=52.04 Industrial Area=1.39 Road=1.41 Rural Settlement & HV =39.34 Urban Built-up Area =0.35 Water bodies=5.47	Agriculture Zone
Char Subuddi	1255	655	HL=4 MHL=9 MLL=64	5.5-5.6	Loam & silt clay	Agriculture=60.64 Road=1.43 Rural Settlement & HV =35.21 Water bodies=2.72	Agro-Fisheries Zone
Mirzanagar	700	162	HL=36 MHL=43 MLL=11 LL=10	5.1-5.6	Loam & silt Loam	Agriculture=45.27 Road=1.85 Rural Settlement & HV =42.21 Urban Built-up Area =7.44 Water bodies=3.23	Paurashava area

Source: Land Zoning Report December 2014 of Raipura Upazila under Narsingdi

Note: HL-High Land; MHL-Medium High Land; LL- Low Land; VLL- Very Low Land

Union-wise Present Agriculture Land Use Information and Identified land of Raipura Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%) NCA	Soil P ^H	Soil Texture	Present land Used (%)	Land Zoning
Mirzapur	2146	1141	HL=9 MHL=45 MLL=27 LL=9 VLL=10	5.8	loam & clay soil	Agriculture=40.78 Forest =22.40 Industrial Area=0.03 Fruit Garden=4.84 Road=0.43 Rural Settlement & HV =29.86 Water bodies=1.66	Agriculture & Fruit Garden Zone
Mirzarchar	1407	687	HL=15 MHL=56 MLL=17 LL=12	5.5-5.6	Clay Loam & loam soil	Agriculture=59.70 Road=1.07 Rural Settlement & HV =36.29 Urban Built-up Area =0.41 Water bodies=2.54	Agriculture & Fruit Garden Zone
Musapur	1815	915	HL=10 MHL=51 MLL=24 LL=15	5.1-6.5	loam & clay soil	Agriculture=52.04 Industrial Area=1.39 Road=1.41 Rural Settlement & HV =39.34 Urban Built-up Area =0.35 Water bodies=5.47	Agriculture Zone
Nilakhya	2020	1202	HL=15 MHL=23 MLL=30 LL=19 VLL=13	5.5-5.6	Loam & clay soil	Agriculture=60.64 Road=1.43 Rural Settlement & HV =35.21 Water bodies=2.72	Agro-Fisheries Zone
Palashtali	2870	1400	HL=13 MHL=45 MLL=12 LL=29 VLL=1	5.5-5.6	Loam & clay soil	Agriculture=45.27 Road=1.85 Rural Settlement & HV =42.21 Urban Built-up Area =7.44 Water bodies=3.23	Paurashava area

Source: Land Zoning Report December 2014 of Raipura Upazila under Narsingdi

Note: HL-High Land; MHL-Medium High Land; LL- Low Land; VLL- Very Low Land

Union-wise Present Agriculture Land Use Information and Identified land of Raipura Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%) NCA	Soil P ^H	Soil Texture	Present land Used (%)	Land Zoning
Paratali	2920	1910	HL=9 MHL=25 MLL=50 LL=16	5.5-6.5	loam & clay soil	Agriculture=40.78 Forest =22.40 Industrial Area=0.03 Fruit Garden=4.84 Road=0.43 Rural Settlement & HV =29.86 Water bodies=1.66	Agriculture & Fruit Garden Zone
Radhanagar	815	184	HL=28 MHL=49 MLL=19 LL=4	5.0-7.0	Loam & sandy loam	Agriculture=59.70 Road=1.07 Rural Settlement & HV =36.29 Urban Built-up Area =0.41 Water bodies=2.54	Agriculture & Fruit Garden Zone
Raipura	820	450	HL=10 MHL=40 MLL=36 LL=10 VLL=4	5.1-5.6	Clay loam & clay soil	Agriculture=52.04 Industrial Area=1.39 Road=1.41 Rural Settlement & HV =39.34 Urban Built-up Area =0.35 Water bodies=5.47	Agriculture Zone
Sreenagar	2457	1529	HL=4 MHL=27 MLL=33 LL=12 VLL=4	5.5	Loam & clay loam soil	Agriculture=60.64 Road=1.43 Rural Settlement & HV =35.21 Water bodies=2.72	Agro-Fisheries Zone
Uttar Bakharnagar	1785	850	HL=24 MHL=45 MLL=12 LL=29 VLL=1	5.1-5.8	Loam & clay soil	Agriculture=45.27 Road=1.85 Rural Settlement & HV =42.21 Urban Built-up Area =7.44 Water bodies=3.23	Paurashava area

Source: Land Zoning Report December 2014 of Raipura Upazila under Narsingdi

Note: HL-High Land; MHL-Medium High Land; LL- Low Land; VLL- Very Low Land

Unions Identified Land Zoning under Raipura Upazila

Name of Zone	Union	Remarks
1. Agriculture Zone	Adiabab, Alipura, Amirganj, Daukar Char, Mirzanagar, Mirzapur, Palashtali Maheshpur and Uttar Bakharnagar	Considering present Agriculture land use, land suitability analysis and as per opinion of local people these unions are identified as agriculture zone
2. Agro-Fisheries Zone	Radhanagar	Some of the area is potential for capture and culture fisheries and high production of fisheries.
3. Agro-Fisheries Zone (Char Land)	Banshgari, Chandpur, Char Aralia, Char Madhua, Char Subuddi, Hairmara, Mirzar Char, Musapur, Nilakhya, Paratali, Chanderkandi, Roypura and Sreenagar	This area is stable char land of Meghna River and is potential for agriculture and capture and culture fisheries.
4. Agro- Forest- Fruits Garden Zone	Marjal	This union lies in agro -ecological zone of Modhupur tract and suitable for forest and various fruit garden.
5. Paurashava Area	Roypura Paurashava	Urban development plan should be implemented without degrading fertile agricultural land

Source: Land Zoning Report December 2014 of Raipura Upazila under Narsingdi

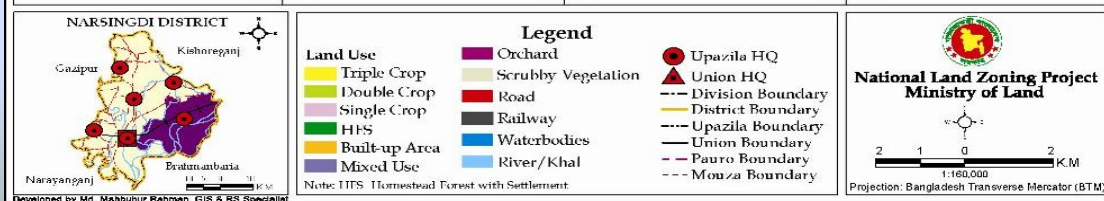
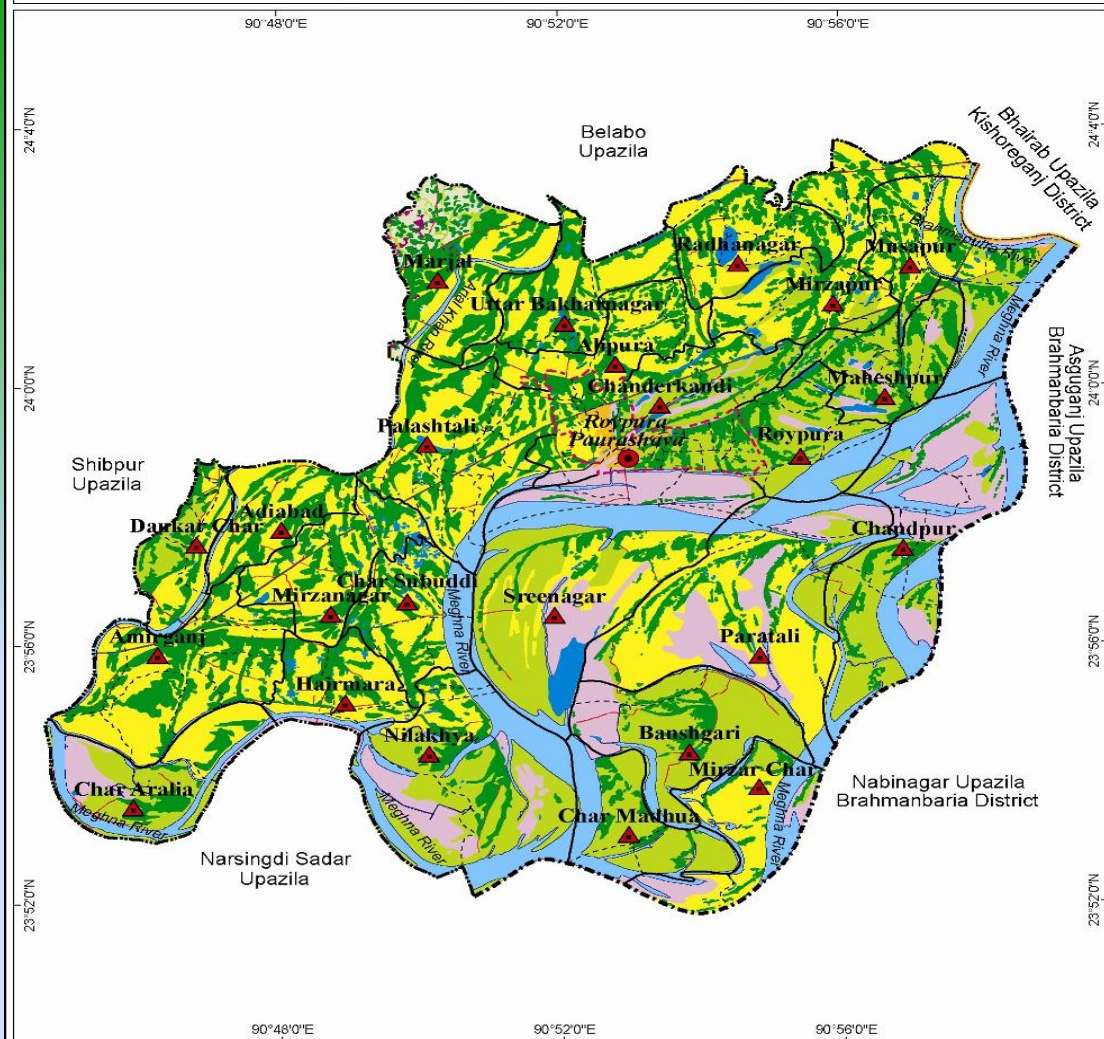
Present Cropping Pattern under Raipura Upazila

Major Cropping Pattern			Area (ha)	Contribution %
Rabi	Kharif-1	Khari-2		
Boro (HYV/Hybrid)	Fallow	T. Aman (HYV)	6747	28.49
Boro (HYV/Hybrid)	Fallow	Fallow	8652	36.53
Vegetables	Vegetables	Vegetables	2854	12.05
Mustard	Boro (HYV/Hybrid)	T. Aman (HYV/LIV)	1320	5.57
Boro (HYV/Hybrid)	B. Aman	B. Aman	550	2.32
Wheat	Jute/Aus	T. Aman (HYV/LV)	110	0.46
Chili	Jute	Fallow	258	1.09
Sweet Potato	Fallow	Fallow	536	2.26
Potato	Til	Fallow	907	3.83
Pulses	Fallow	T. Aman	271	1.14
Spices	Jute	Fallow	947	4.00
Fruits Garden	Fruits Garden	Fruits Garden	533	2.25
Total			23685	100

Source: SAAOs and UAO Raipura Upazila, DAE 2016

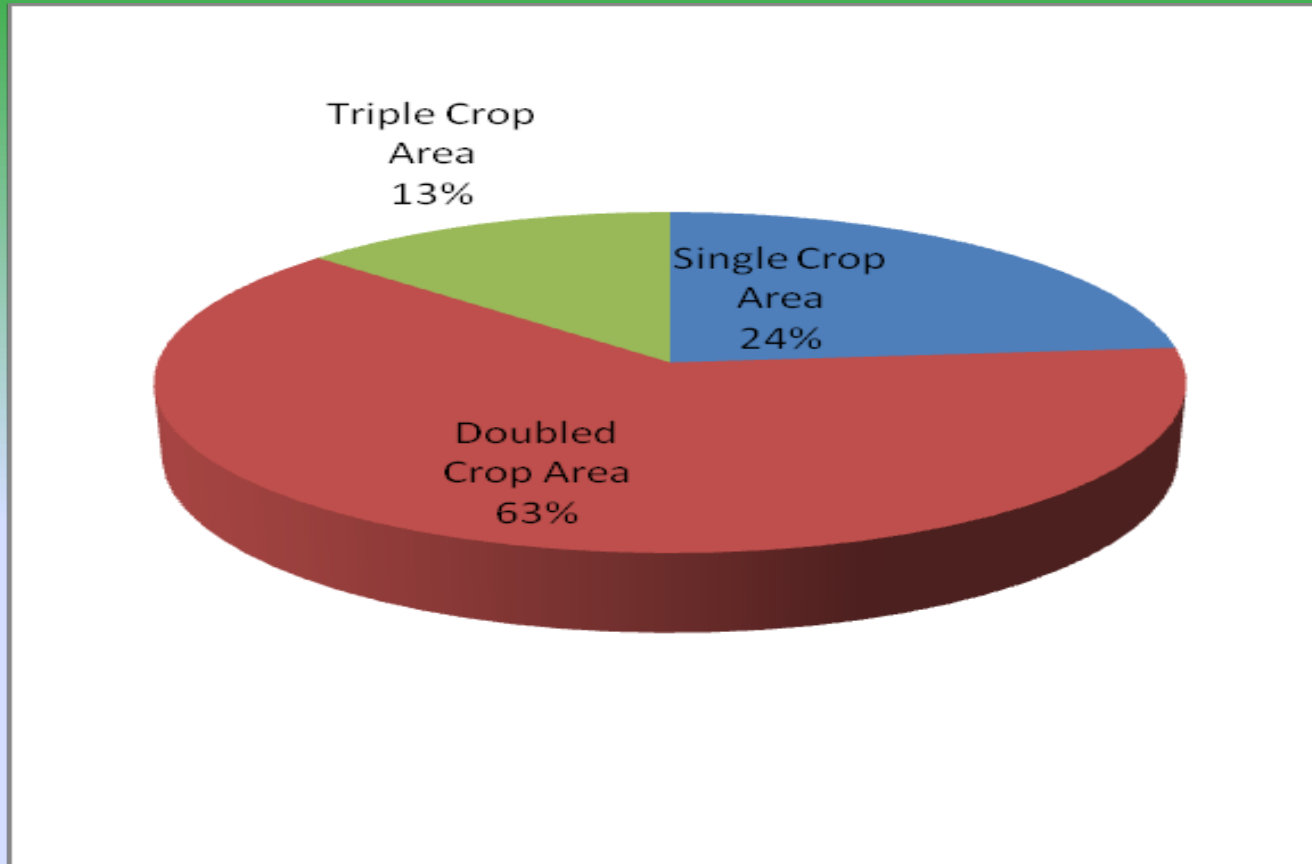
Note: HYV-High Yielding Variety; LIV-Local Improved Variety

Present Agricultural Land Use Map Upazila-Royapura, District-Narsingdi



Present Agricultural Land Use Map of Royapura Upazila

Agricultural Landuse Pattern of Raipura Upazila



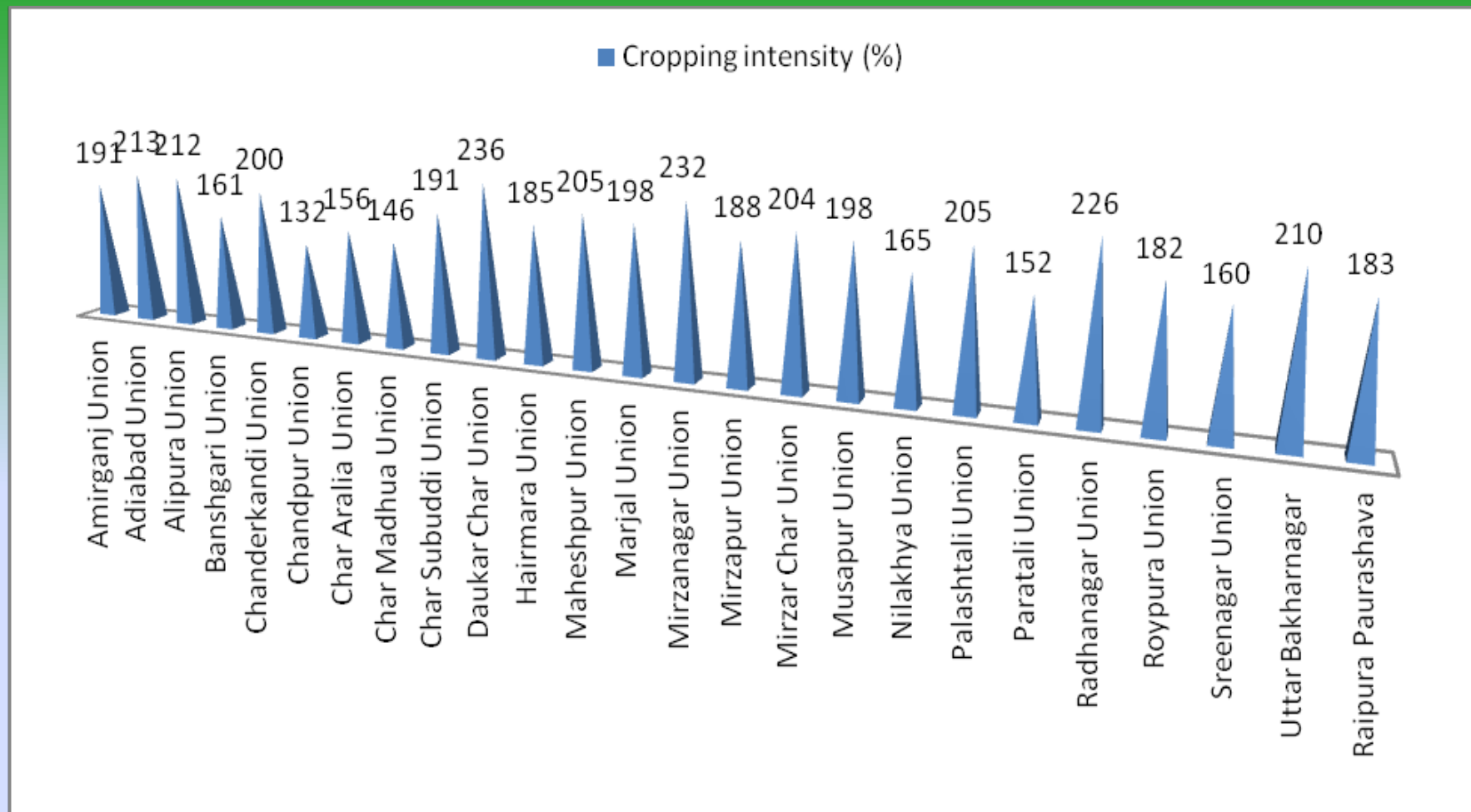
Percentage of single, double, triple and four cropped area under Raipura Upazila

Present Cropping Patterns of Raipura

Name of Union	Net Cultivable Area (ha)	Major Cropping Patterns	Croping Intensity (%)	Area (ha)	% of NCA
Raipura Paurashava	845	Boro HYV/LV)→ Fallow→ T.Aman(HYV)	183	380	44.97
		Mustard→Boro(HYV)-→ T.Aman		60	7.10
		Boro(HYV/LV)→ Fallow→ Fallow		250	29.59
		Fallow→Jute→ T.Aman (HYV/LV)		20	2.37
		S. Potato→Til→ Fallow		40	4.73
		Potato→Boro—T.Aman		25	2.96
		Vegetable→Vegetable→Vegetables		70	8.28
		Total		845	100

Source: Compilation of SAAOs of Raipura and Raipura Upazila 2016

Cropping Intensity of Raipura Upazila



Source: SAAOs of 9 Unions and 1 Municipality under Raipura Upazila, DAE 2016

Table 34: Union wise Irrigation and Groun& Surface Water Used under Raipura Upazila

Union	Irrigated Area (%)	Non Irrigated Area (%)	Irrigated Area				Availability of Surface Water	Drought Prone Area (in ha)	Char Land (in ha)	Waterlogged Area (in ha)	Remarks
			Surface Water		Ground Water						
			LLP		STW						
			No	Area (%)	No	Area (%)					
Amirganj	100	0	5	4	331	96	√	0	0	0	-Rain fed crops need Supplemental Irrigation -Sudden Flood -Char Land Agriculture
Adiabab	100	0	0	0	187	100	-	0	0	0	
Alipura	100	0	0	0	270	100	-	2	0	5	
Bansgari	100	0	49	53	92	47	√	0	0	0	
Chander Kandi	82	18	1	1	325	99	√	0	0	10	
Chandpur	81	19	38	28	156	71	√	50	70	392	
Char Aralia	77	23	21	56	60	44	√	0	150	140	
Char Madhua	94	6	27	31	31	69	√	0	0	0	
Char Subuddhi	100	0	1	1	236	99	√	0	0	0	
Daukar Char	75	25	8	35	109	65	√	0	0	0	
Hairmara	100	0	0	0	133	100	-	0	0	0	
Maheshpur	87	13	3	1	287	99	√	200	0	6	
Marjal	100	0	0	0	330	100	-	0	0	790	
Mirzanagar	69	31	0	0	249	100	√	0	0	270	
Mirzapur	91	9	0	0	312	100	-	0	0	20	
Mirzarchar	73	27	17	25	42	75	√	0	0	0	
Musapur	97	3	3	8	170	92	√	0	0	13	
Nilakhya	89	11	15	39	107	61	√	0	40	0	
Palashtali	98	2	0	0	424	100	-	0	0	13	
Paratali	82	18	37	10	168	90	√	0	270	12	
Radhanagar	90	10	1	2	162	98	√	110	0	30	
Roypura	81	19	5	12	236	88	√	0	0	0	
Sreenagar	57	43	11	7	252	93	√	0	30	0	
Uttar Bakharnagar	100	0	0	0	302	100	-	0	0	15	
Roypura Paurashava	70	30	01	3	122	97	√	0	0	0	

Source: National Land Zoning project Report January 2015

Table: Cost of Rice Production (2014-15)

Name of Rice	Average per kg rice production cost (TK)	Crop season
Boro	18.65	Rabi
Aus	18.64	Kharif-1
Aman	17.61	Kharif-11

Source: Agriculture Economic Division, BRRI 2016

Name of Rice	Average per kg rice production cost (TK)	Crop season
Boro	18.08	Rabi
Wheat	23.50	Kharif-1
Aman	18.20	Kharif-11

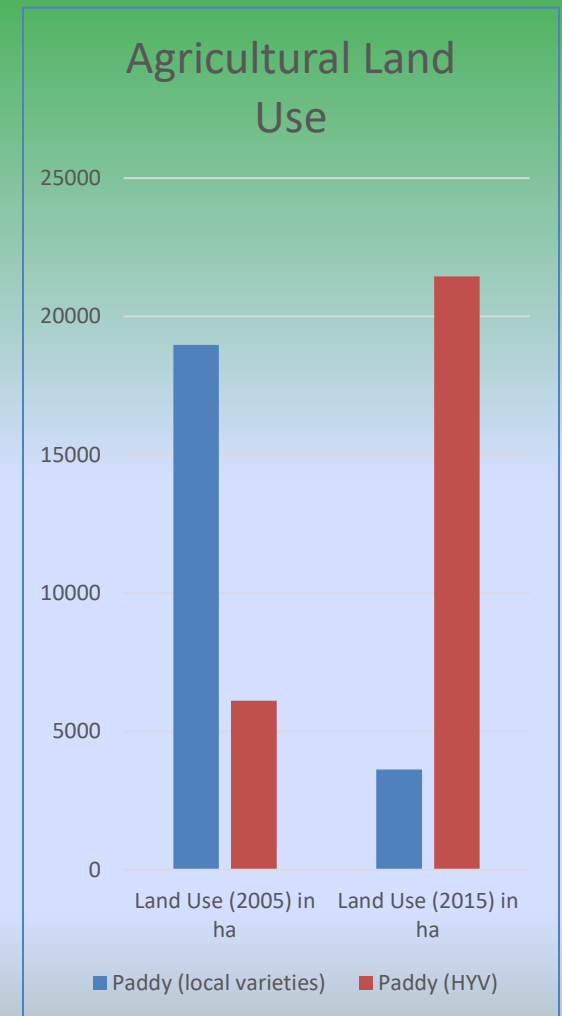
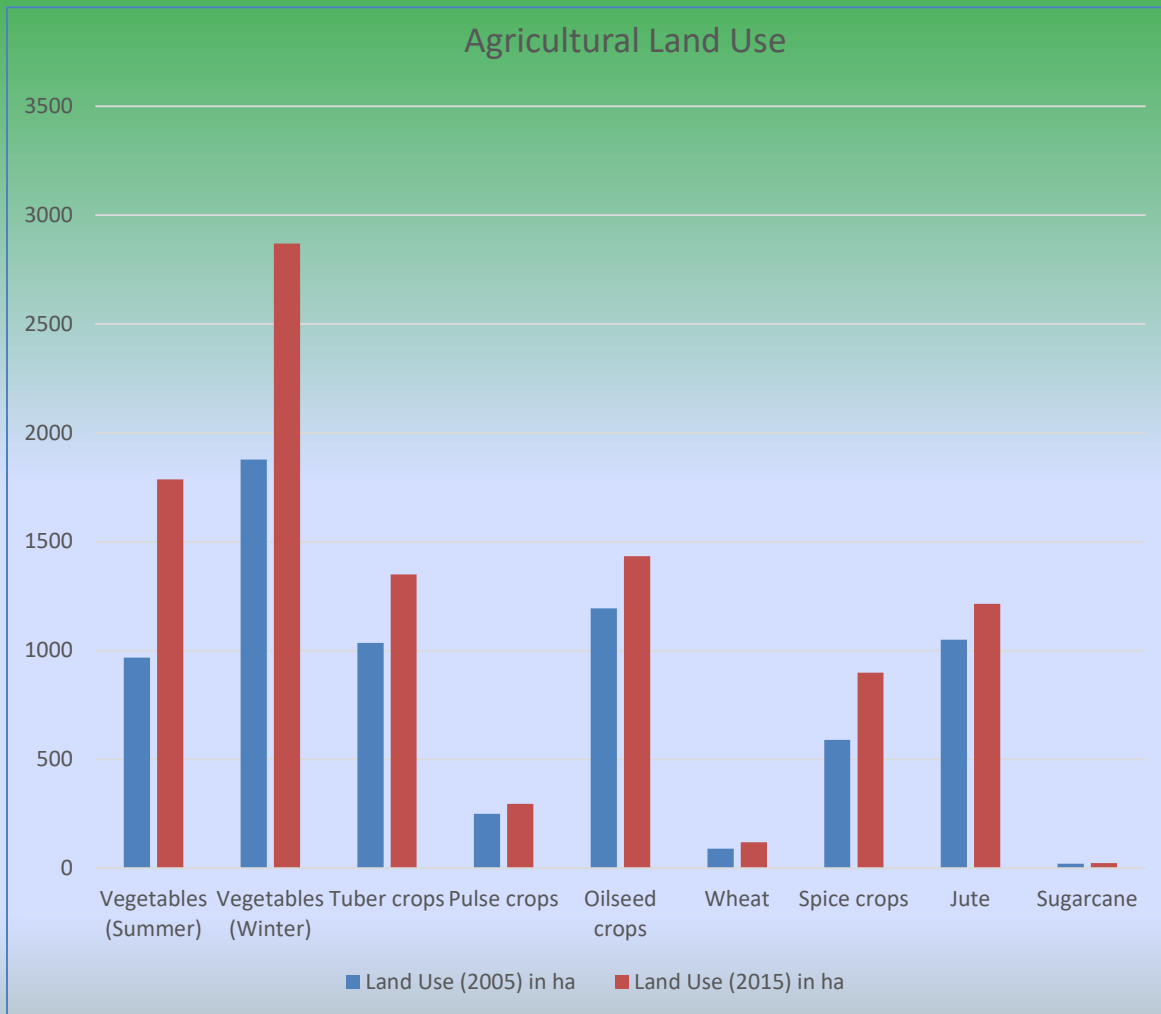
Source: Department of Agriculture Marketing, 2016

Growth or Decline Agriculture Land Use during the Last 10 Year under Raipura Upazila

Sl. No.	Agricultural land use	Land Use (2005) in ha	Land Use (2015) in ha	% Change
1	Paddy (local varieties)	18970	3628	-81
2	Paddy (HYV)	6110	21452	+251
3	Vegetables (Summer)	968	1786	+84
4	Vegetables (Winter)	1878	2870	+102
5	Tuber crops	1035	1350	+30
6	Pulse crops	250	295	+18
7	Oilseed crops	1194	1433	+20
	Wheat	90	120	+33
8	Spice crops	590	898	+52
10	Jute	1050	1215	+15
11	Sugarcane	21	23	+10
12	Other purposes			
	-Brick field	2.0(#2)	4.05(#6)	+102
	-Poultry farm	2.05(#100)	6.26(#515)	+205
	-Fish/shrimp culture	2534.8	2801	+11
	Forest	376	328	-15
	-Gardening	274	533	+69
	-Housing	1806	2841	57

Source: SAAOs, UAO, ULO, UFO and Upazila Statistic Office of Raipura Upazila

Growth or Decline Agriculture Land Use during the Last 10 Year



Major Agricultural Problems of Raipura Upazila

- Lack of quality good quality seeds
- Drought & heavy rain fall, & water logging
- Shortage of modern agricultural equipments
- Lack of improve irrigation facilities
- No cold storage for preservation of vegetables and fruits
- Transport and marketing and infrastructure
- Increase insect and pest infestation
- Lack of disease resistance variety crop seeds
- Inadequate drainage facilities and 100% irrigation canals are kutchha which is increase the wastage of irrigation water and crop area is not possible to increase
- Lack of food storage facilities
- Lack of soil testing machine
- Agricultural land converted into brickfield (non-agriculture purposes)
- Lack of farmers modern technological knowledge
- Problems of getting agricultural loan
- Electricity power failure during Boro crop season
- There is no agro processing center and industries under Unions.
- Siltation of canals and river
- Lack of labor during harvesting time
- Produced crops market price (specially Rice) is less and production cost is high

Recommendation for Raipura Upazila

- Adaptation with modern technologies in farming
- Practice with high yielding, drought tolerant and cold susceptible varieties of crops
- Minimum use of chemical fertilizers and insecticides
- Increase the use of natural fertilizers and insecticides
- Availability of good quality seeds
- Reduce the use of ground water
- Improve irrigation and drainage system
- Jute-retting facilities
- Grow one leguminous crop (Dhaincha / Pulses/Fodder etc.) between two cereal crops.
- Re-excavation of canals
- Reconstruction of damaged water management infrastructures
- Develop market infrastructures and road communication system at local level
- Uninterrupted power supply
- Construction of new cold storage and food godown
- Arrange and allocate sufficient credit for agricultural activities



Meeting with block supervisors of Raipura
Agriculture Office

Thank You