

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

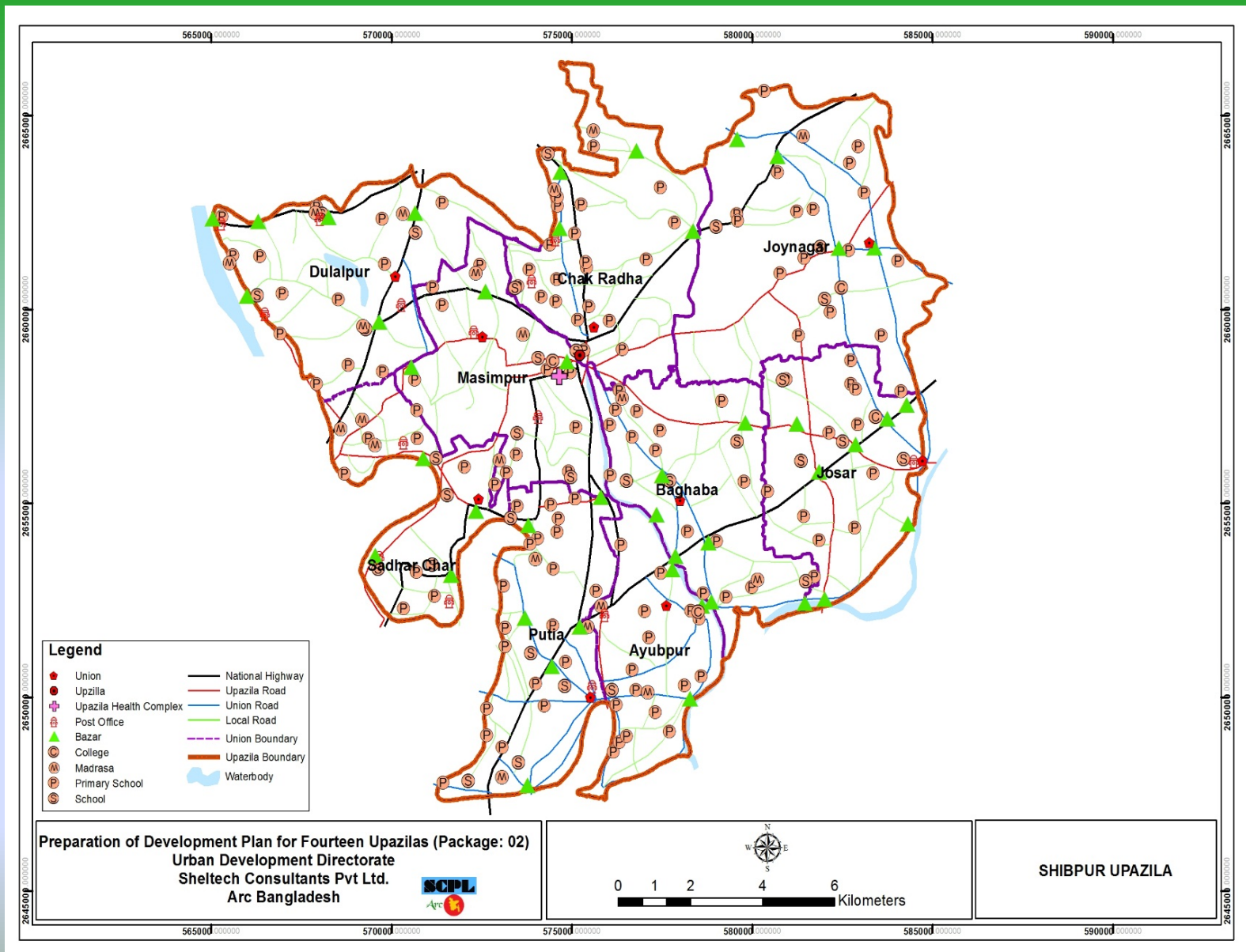
**(ShibpurUpazila,Narsingdi; RaipuraUpazila and ShibpurUpazila, Narsingdi)**

## **Presentation On Agricultural Survey Report of Shibpur Upazila**

**Prepared By**

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

# Location Map of Shibpur Upazila



## At a glance of Shibpur Upazila

- **Location:** Narsingdi District(24.3750°N and 90.7375°E)
- **Area:** 206.89 km<sup>2</sup>
- **Population:** 3,03,813
- **Number of Municipality & Union:** 1 Municipality and 9 Unions
- **Land Type:** Flood Plains of Young Brahmaputra and Yamuna Floodplain, Old Brahmaputra Floodplain
- **Agro-ecological zones**

# Objectives and Methodology

## Objectives

- Assess present cropping pattern and cropping intensity
- Identify agricultural 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



Dhaincha Field (Green Manuring)



Plate2. Lemon Garden



Kakrul Vegetables Field



HYV Brinjal DAE Demonstration

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

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%)	Soil P <sup>H</sup>	Soil Texture	Present land Used (%)	Identified Land Zoning
Ayubpur	2588	1211	HL=20 MHL=29 MLL=34 LL =16 VLL =1	5.5-6.0	Loam clay	<b>Agriculture =62.24</b> <b>Industrial Area=0.04</b> <b>Road = 1.31</b> Rural Settlement & HV = 33.56 Water bodies=2 .86	Agriculture Zone
Baghaba	4065	1850	HL=32 MHL=39 MLL=24 LL = 5	5.5-6.5	Clay Loam/ Clay	<b>Agriculture=50.91</b> <b>Forest =15.25</b> <b>Industrial Area=0.05</b> <b>Fruit garden=1.11</b> Road= 0.78 Rural Settlement &HV = 29.67 Urban Built-up Area =0.05 Water bodies=2.18	Agro-Forest& Fruit Garden Zone
Chakradha	4855	2325	HL=29 MHL=28 MLL=22 LL=21	4.0-6.0	Loam / clay loam	<b>Agriculture=58.53</b> <b>Road=0.86</b> Rural Settlement &HV =36.79 Urban Built-up Area =0.03 Water bodies=3.81	Agriculture Zone
Dulalpur	4535	2195	HL=15 MHL=50 MLL=23 LL=10 VLL=2	5.0-7.0	Clay loam/Clay	<b>Agriculture =59.01</b> <b>Road=1.14</b> Rural Settlement &HV =34.78 Water bodies=5.07	Agro-Fisheries Zone
Josar	2855	1395	HL=37 MHL=63	4.5-6.0	Loam / clay loam	<b>Agriculture=24.34</b> <b>Forest =26.65</b> <b>Industrial Area=0.08</b> <b>Fruit Garden=19.04</b> <b>Road=0.93</b> Rural Settlement & HV =27.30 Water bodies=1.65	Gas Field- Agro-Forest& Fruit Garden Zone

Source: Land Zoning Report December2014 of Shibpur 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 Shibpur Upazila

Name of Union	Total Area (HA)	NCA (ha)	Land Type (%) NCA	Soil P <sup>H</sup>	Soil Texture	Present land Used (%)	Land Zoning
Joynagar	5220	2800	HL=24 MHL=40 MLL=21 LL=15	5.0-7.0	Clay loam/ Clay	<b>Agriculture=40.78</b> <b>Forest =22.40</b> <b>Industrial Area=0.03</b> <b>Fruit Garden=4.84</b> <b>Road=0.43</b> Rural Settlement & HV =29.86 Water bodies=1.66	Agro-Forest& Fruit Garden Zone Zone
Masimpur	2106	1038	HL=17 MHL=67 MLL=11 LL=5	5.5-7.5	Clay loam loam/	<b>Agriculture=59.70</b> Road=1.07 Rural Settlement& HV =36.29 Urban Built-up Area =0.41 Water bodies=2.54	Agriculture Zone
Putia	4239	1968	HL=5 MHL=30 MLL=38 LL=21 VLL=6	5.0-7.5	Loam / clay loam	<b>Agriculture=52.04</b> <b>Industrial Area=1.39</b> <b>Road=1.41</b> Rural Settlement & HV =39.34 Urban Built-up Area =0.35 Water bodies=5.47	Agriculture Zone
Sadhar Char	2630	1210	HL=25 MHL=49 MLL=16 LL=7	5.6-7.3	Loam / clay	<b>Agriculture=60.64</b> <b>Road=1.43</b> Rural Settlement & HV =35.21 Water bodies=2.72	Agro-Fisheries Zone
Shibpur Paurashava		878.54	HL=9 MHL=40 MLL=21 LL=29 VLL=1	5.0-7.0	Clay loam/ Clay	<b>Agriculture=45.27</b> <b>Road=1.85</b> Rural Settlement & HV =42.21 Urban Built-up Area =7.44 Water bodies=3.23	Paurashava area

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

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

# Unions Identified Land Zoning under Shibpur Upazila

Name of Zone	Union	Remarks
<b>1. Agriculture Zone</b>	Ayubpur , Chakradha, Masimpur & Putia	Considering the present agricultural land use, land suitability analysis and as per opinion of local peoples these Unions are identified as agricultural Zone
<b>2. Agro-Fisheries Zone</b>	Dulalpur & Sadhar Char	Some of the area is potential for capture and culture fisheries and high production of fisheries
<b>3. Agro-Forest &amp; Fruits Garden Zone</b>	Baghaba & Joynagar	This Union lies in Agro-Ecological Zone of Modhupur tract and suitable for forest and various fruit garden
<b>4. Narsingdi Gas Field-Agro-Forest and Fruits Garden Zone</b>	Joysar	Narsingdi Gas field is situated in the Upazila adjacent to Dhaka-Sylhet highway
<b>5. Paurashava Area</b>	Shibpur Paurashava	Urban development of plan should be implemented without degrading fertile agricultural land.

*Source: Land Zoning Report December 2014 of Shibpur Upazila under Narsingdi*



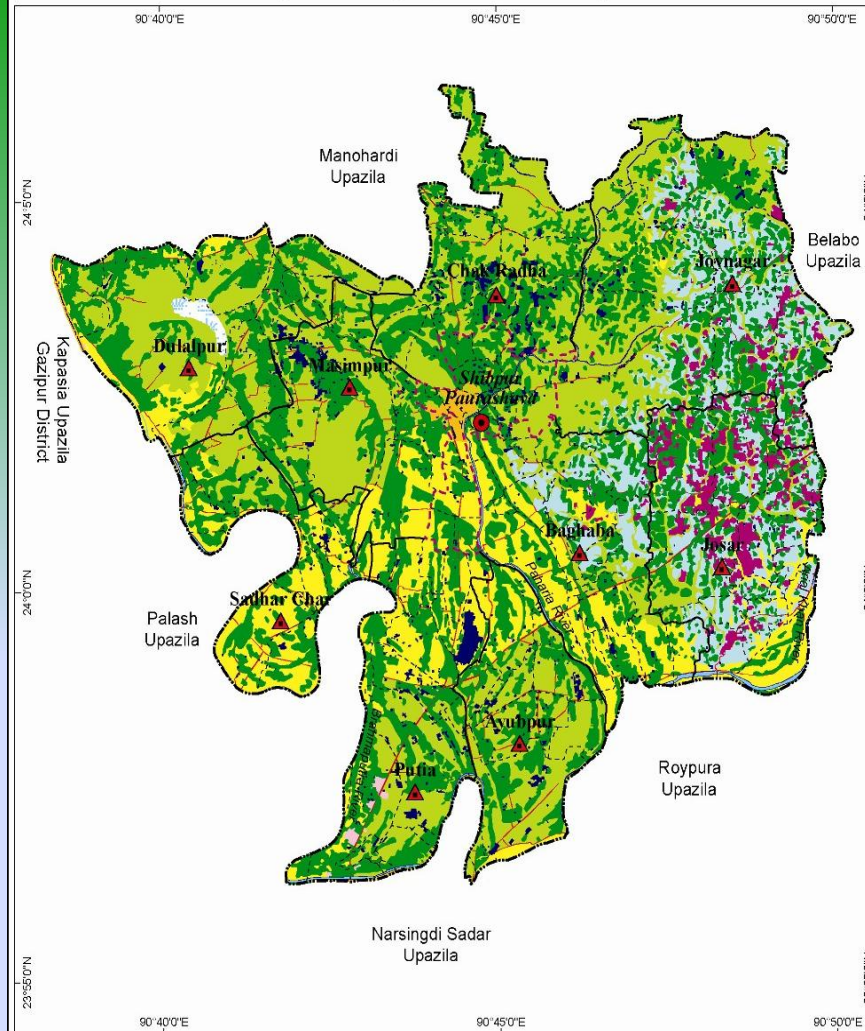
# Present Cropping Pattern under Shibpur Upazila

Major Cropping Pattern			Area (ha)	Contribution %
Rabi	Kharif-1	Khari-2		
Boro (HYV/Hybrid)	Fallow	T. Aman (HYV)	16800	70
Boro (HYV/Hybrid)	Fallow	Fallow	3600	15
Boro(HYV/Hybrid)	T.Aus	T. Aman (HYV/LV)	480	2
Wheat	Jute	T.Aman (HYV/LIV)	240	1
Wheat	T. Aus	T. Aman (HYV/LV)	480	2
Potato/Sweet Potato	Jute	T. Aman (HYV/LV)	480	2
Potato	T.Aus	T. Aman (HYV/LV)	480	2
Mustard	Jute	T. Aman (HYV/LV)	240	1
Mustard	T. Aus	T. Aman (LV)	240	1
Vegetables	Vegetables	Vegetables	480	2
Vegetables + Boro	Fallow	Fallow	240	1
Vegetables	Fallow	T. Aman (HYV/LV)	480	2
<b>Total</b>			<b>24240</b>	<b>100</b>

Source: SAAOs and UAO Shibpur Upazila, DAE 2016

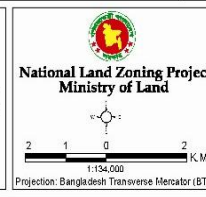
Note: HYV-High Yielding Variety; LIV-Local Improved Variety, LV- Local Variety, T.- Transplanted

# Present Agricultural Land Use Map Upazila-Shibpur, District-Narsingdi



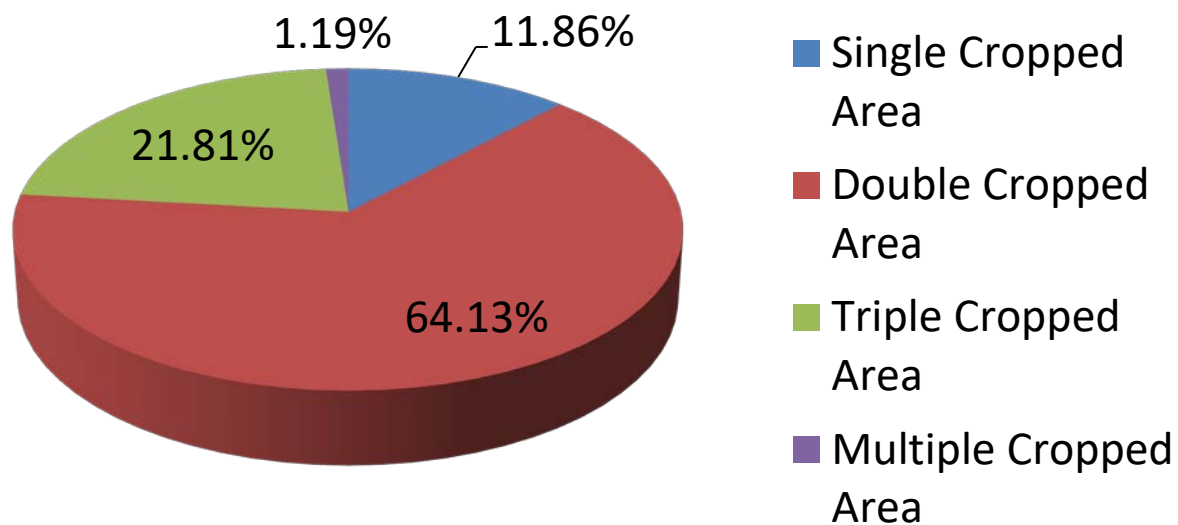
Legend	
<b>Land Use</b>	<b>Scrubby Vegetation</b>
Triple Crop	Mixed Use
Double Crop	Road
HES	Beel
Built-up Area	Pond
Orchard	River/Khal
Upazila HQ	Upazila Boundary
Union HQ	Union Boundary
District Boundary	Pouro Boundary
	Mouza Boundary

Note: HTS Homestead Forest with Settlement



Present Agricultural Land Use Map of Shibpur Upazila

# Agricultural Landuse Pattern of Shibpur Upazila



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

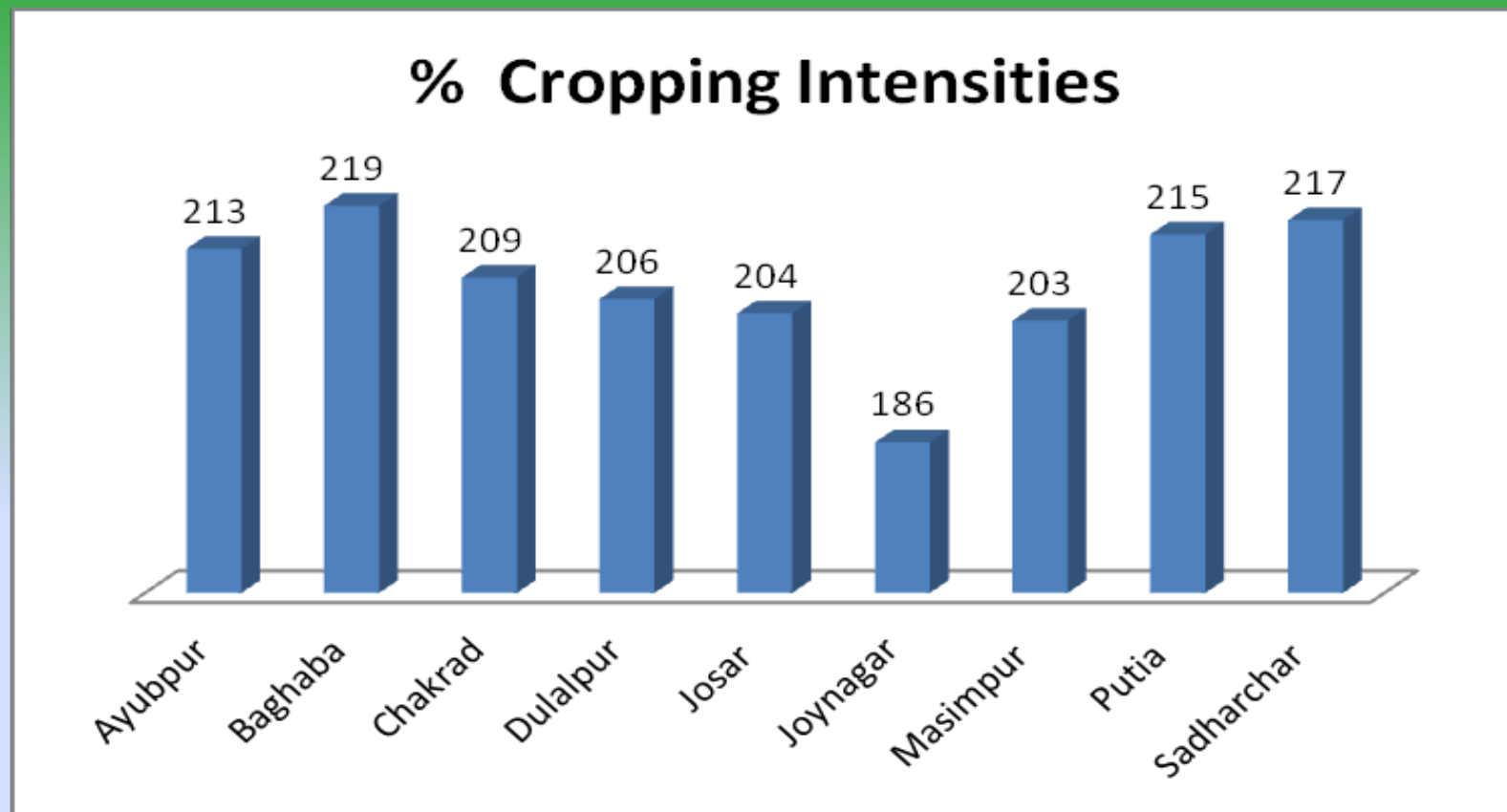
# Present Cropping Patterns of Shibpur

Name	Total Area (ha)	Net Cultivable Area (ha)	Major Cropping Patterns	Cropping Intensity (%)
Shibpur Upazila	21780.97	23204 (82.71%)	Boro(HYV)→Fallow→T.Aman(HYV)	208
			Boro→Fallow-----Fallow	
			Vegetable→Vegetable→Vegetable	
			Mustard→Boro (HYV)→T. Aman	

Source: Compilation of SAOs of Shibpur and Shibpur Upazila 2016

Note: HYV: High Yield Variety, T.- Transplanted

# Cropping Intensity of Shibpur Upazila



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

**Note:** SAAO- Sub-Assistant Agricultural Officer

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

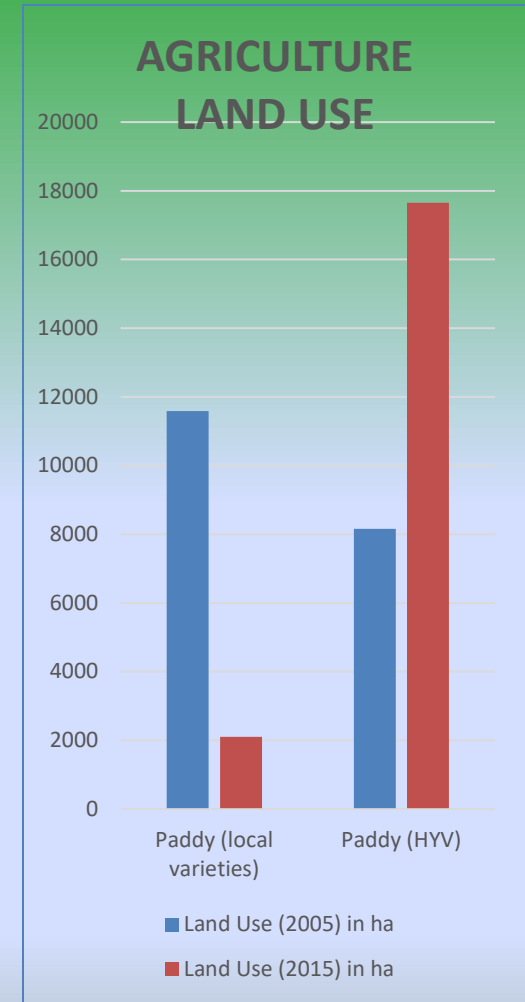
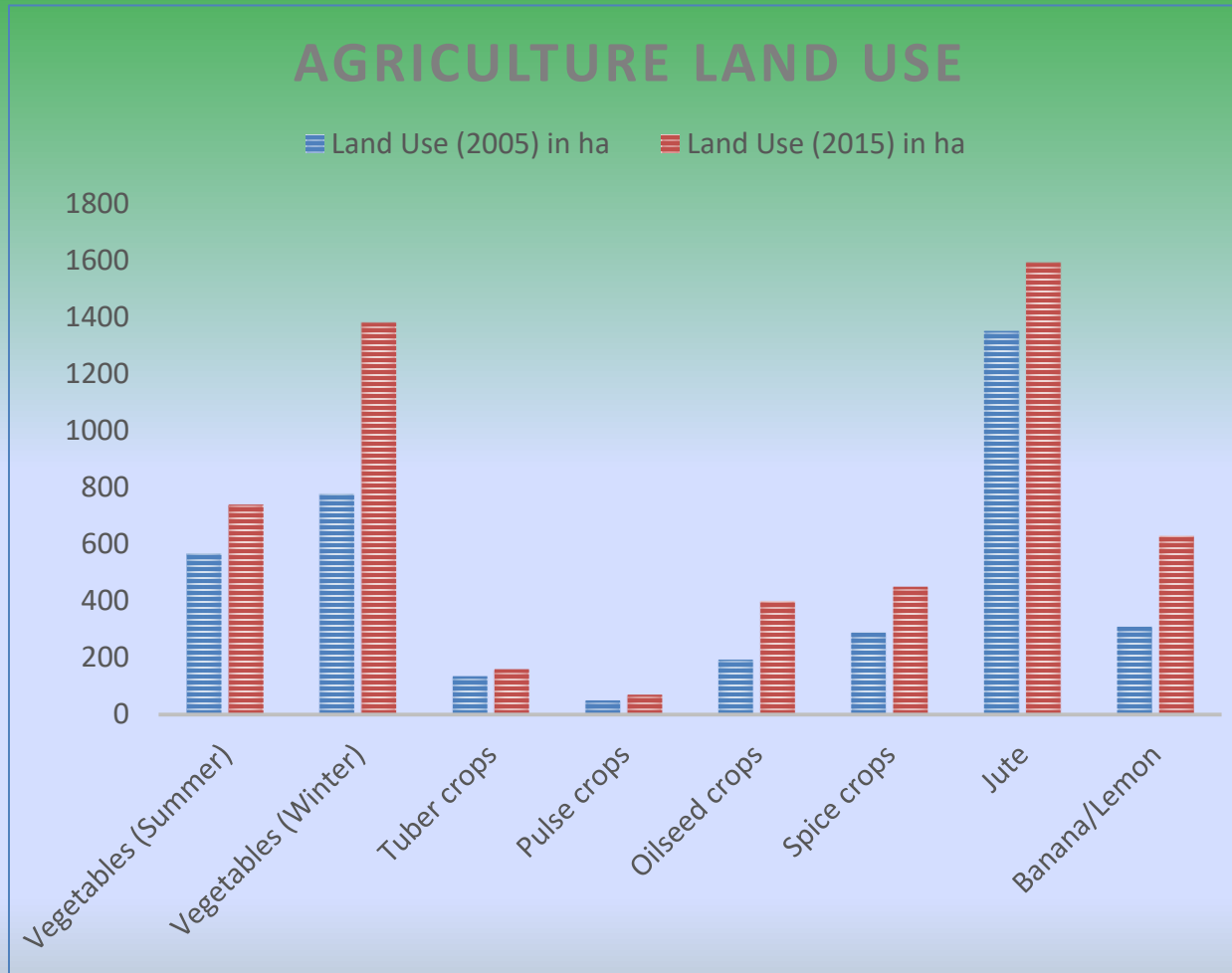
Sl. No.	Agricultural land use	Land Use (2005) in ha	Land Use (2015) in ha	% Change
1	Paddy (local varieties)	11590	2100	-81.88
2	Paddy (HYV)	8160	17650	116.3
3	Vegetables (Summer)	568	740	30.28
4	Vegetables (Winter)	778	1380	77.38
5	Tuber crops	135	160	18.52
6	Pulse crops	50	70	40
7	Oilseed crops	194	400	106.19
8	Spice crops	290	450	55.17
10	Jute	1350	1590	17.78
11	Banana/Lemon	310	630	103.23
12	<b>Other purposes</b>			
	-Brick field	12(#5)	50(#23)	316.67
	-Poultry farm	4.05(#100)	34.1 (#842)	741.98
	-Fish/shrimp culture	834.8	1013.21	21.37
	-Gardening	1174	2180	85.69
	-Housing	1506.48	2700.4	79.25

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

Note: SAAO- Sub-Assistant Agricultural Officer, UAO- Upazila Agricultural Officer, ULO-Upazila Livestock Officer



# Growth or Decline Agriculture Land Use during the Last 10 Year



# Major Agricultural Problems of Shibpur Upazila

- Conversion of agricultural land to non agricultural use
- Bad communications due to many roads are damaged flood or rain.
- About 100% irrigation canals are kutchra which is increase the wastage of irrigation water and crop area is not possible to increase.
- There is no wholesale market and infrastructure for agriculture product under 9 Unions.
- No cold storage and large vegetables selling center or market in Unions
- Produce rice crops market price is less but production cost is high
- Agricultural labor is not available in crop seasons.
- Farmers did not interest to invest recommended doses of inputs (fertilizer and seeds) in crop production.
- Lack of quality crop production inputs (seeds, fertilizers, pesticides, power tiller) and are partly available and price is high.
- Insects, diseases, rodents and weeds are acute problem causes 30% damage every year. Farmers were applied pesticides over and under dose haphazardly for controlled pests due to lack of technological knowledge.
- Farmer's lack of knowledge on modern crop production technology.
- There is no agro processing center and industries under Unions.
- It is creating a growing dependence on imported food products. Fallow and grazing land has been converted into Banana, Papaya, orchard and vegetable cultivation.
- Farmers are facing increasing pressures of infrastructural development that may encumber agricultural practices. Change in land morphology and Negative impact on food security.

## Recommendation for Shibpur Upazila

- Soil and weather conditions are suitable for different vegetables and other high value crops cultivation round the year in Shibpur Upazila.
- There is a need to develop vegetables wholesale market and improvement of communication system different Unions to Upazila.
- Farmers need modern crop production technological training which will be helpful for crop diversification and proper utilization land and increase crop production.
- For improvement of irrigation facilities kutchra drain are to be made lined channel which will reduced irrigation water wastage and increase crop production.
- Integrated pest management need to implement for Banana, Papaya, orchard and vegetable cultivation and reduce the pesticide use.
- Electricity power supply should be ensured during Boro crop season.
- Increase agriculture production through optimum use of land.
- Many high value crop vegetables are grown in this Upazila. There is wide opportunity to lotkon and lemon, vegetables as commercial basis to export.

***Thank You***