Mymensingh Strategic Development Plan (MSDP), 2011-2031

Survey Methodology

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MSDP, 2011-2031 Project

SURVEY WORK OBJECTIVE:

1. Database.
2. Mapping.
3. Analysis.
4. On Table Discussion and
5. Other etc.

General Survey Work Methodology

1. Collection of Image.
2. Collection of Reference Point SoB, B M Pillar xyz value.
3. Reconnaissance Survey.
4. RTK/DGPS Machine use TBM Point of the Project area.
5. Geo-Referencing
6. Digitization.
7. Checking & Editing.
8. Gerund Shooting Survey.
9. Checking & Editing.
10. Final layout and Printing.

MSDP, 2011-2031 Project Survey Work Methodology

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10. Final layout and Printing.
11. Total Station Using for Road Networking.
12. **Checking Data Up-gradation & Editing.**

Collection of 3-D Image

Geo-Referencing Point(xyz)

Rupchadpur DGPS Station

In Side of DGPS Station.

RTK Geo- Referencing Image

RTK Machine Setting & Point

GEO-REFERENCING POINT

Survey of Bangladesh
Z value B M Pillar.
Pillar no- 6117
Location: Samvu gonj U C high School
Sadar upzila,
Mymensingh.

UDD BM PILLAR GEO-REFERENCING

সম্ভাব্য ও ঝুঁকির মানচিত্র
Trimble
new balance

বড়া নিধন পরিষদ কমপ্লেক্স ভবন

UDD Personal Staff Map Checking

UDD Personal Staff Field Map Checking

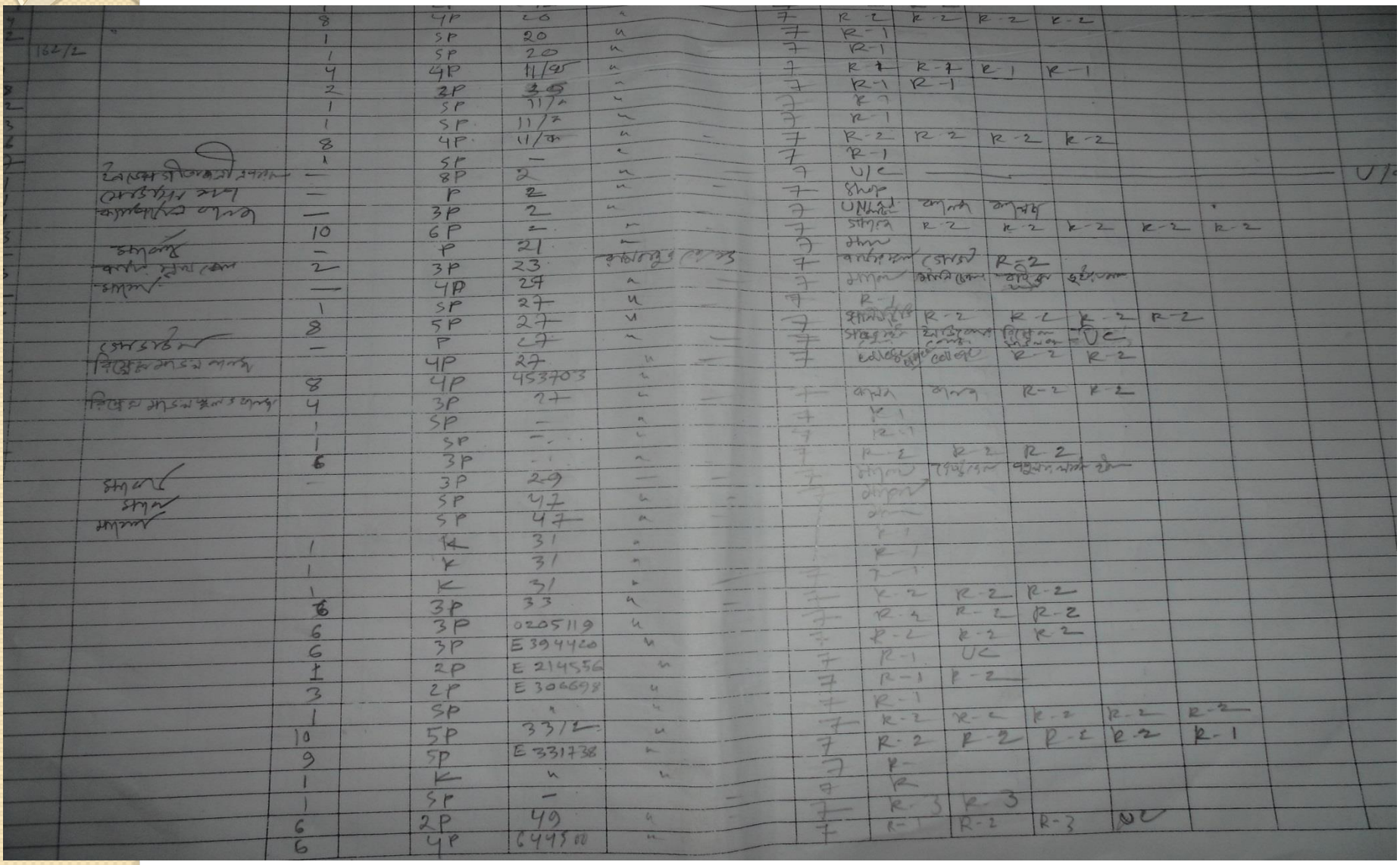
UDD Personal Staff Field Map Checking

Group-A	Group-B

UDD Personal Stuff Field Map Checking

Group-C	Group-D

UDD Personal Staff Field Map Checking & Data Entry



Field Data entry

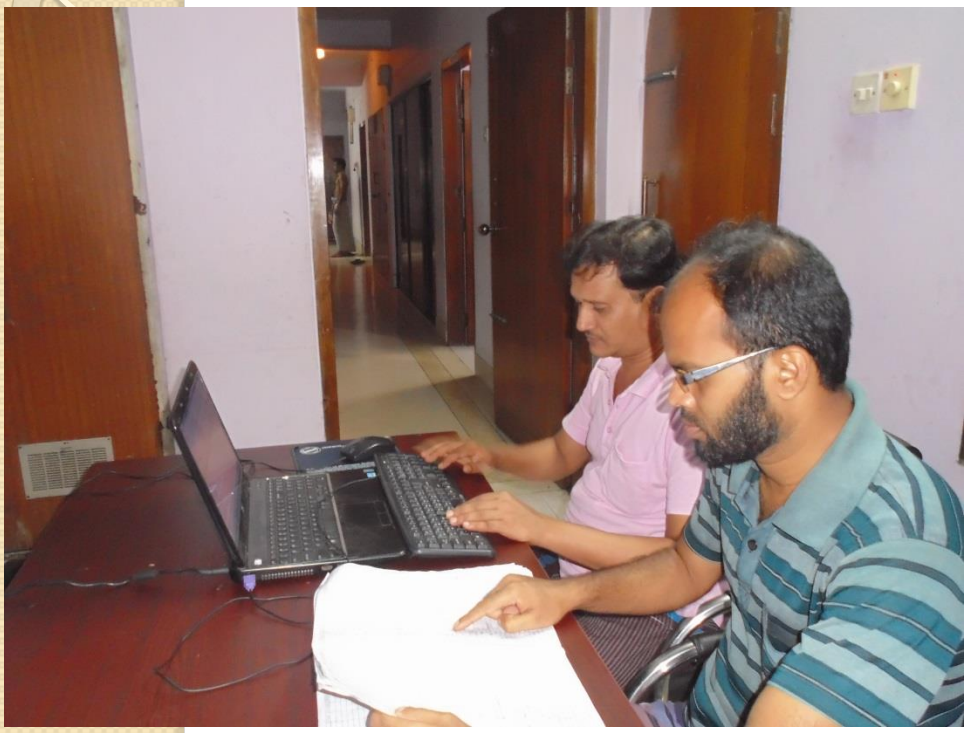
ADPC_ID	UDD_ID	NAME	Construction_Year	H.H	Floor_Hight	STRUCTYPE	Holding_No	Para__Mohalla	Ward no	G_Floor	1st_F_Use	2nd_F_Use	3rd_F_Use	4th_F_Use	5th_F_Use	6_th_F_Use	7th_F_Use	8th_FtoUp_
30783		Halim Loz		1	1	Semi Pucca	116/ka Bagmara Road	Bagmara	17	Residence								
30782		Halim Loz		1	1	Pucca	116/ka Bagmara Road	Bagmara	17	Residence								
30777		Sapil, Abdus Salam		7	3	Pucca	44/8, Bagmara Road	Bagmara	17	Residence	Residence	Residence	Residence					
30802		MD. Mokles ur Rahman			1	Semi Pucca	116/B, Bagmara Road	Bagmara	17	Residence								
30786		Abdul Mazid			1	Semi Pucca	116/B, Bagmara Road	Bagmara	17	Residence								
30784		Abdur Rajjak		2	1	Pucca	116/B, Bagmara Road	Bagmara	17	Residence								

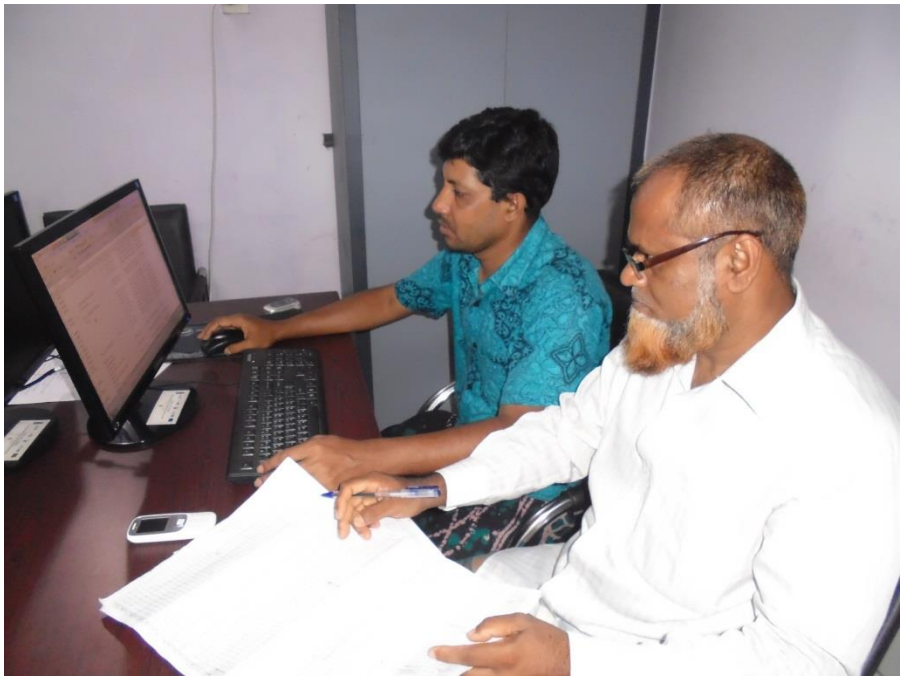
UDD Personal Staff Computer Data Entry

Computer Data entry

Computer Data entry

UDD Personal Staff Computer Data Entry





Bore hole Test

Out Put Work

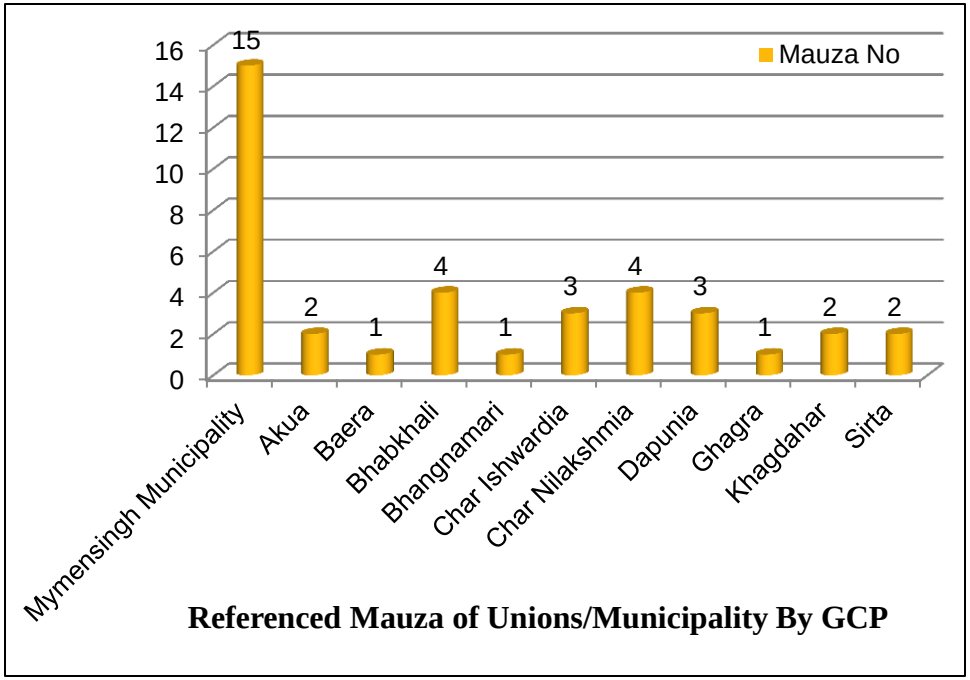
1. ANALYSIS.

2. DIFFERENT TYPES OF MAPPING

- **A) 3-D GIS MAPPING**
- **B) ON SURFACE MAPPING**
- **C) SUB-SURFACE MAPPING**
- **D) FUTURE PLAN OF MYMENSINGH.**

Summery List of Referenced Mauza Sheet for MSDP Area

Union/Municipality	Mauza	JL	Sheet
Mymensingh Municipality	15	15	102
Akua	2	2	30
Baera	1	1	1
Bhabkhali	4	4	6
Bhangnamari	1	4	4
Char Ishwardia	3	3	5
Char Nilakshmia	4	4	7
Dapunia	3	3	4
Ghagra	1	1	1
Khagdahar	2	2	4
Sirta	2	2	3
Total	38	41	167



Steps of Work

- Step – 1 : Mauza Map Collection & Scanning
- Step – 2 : Mauza Map Georeferencing
- Step – 3 : Mauza map Digitizing
- Step – 4 : Base Map Preparation
- Step -5 : Draft Print Received
- Step -6 : Mauza Map Check (Light Table)
- Step -7 : Georeferencing Check
- Step -8 : Finalization of Mauza/ Base Map Preparation

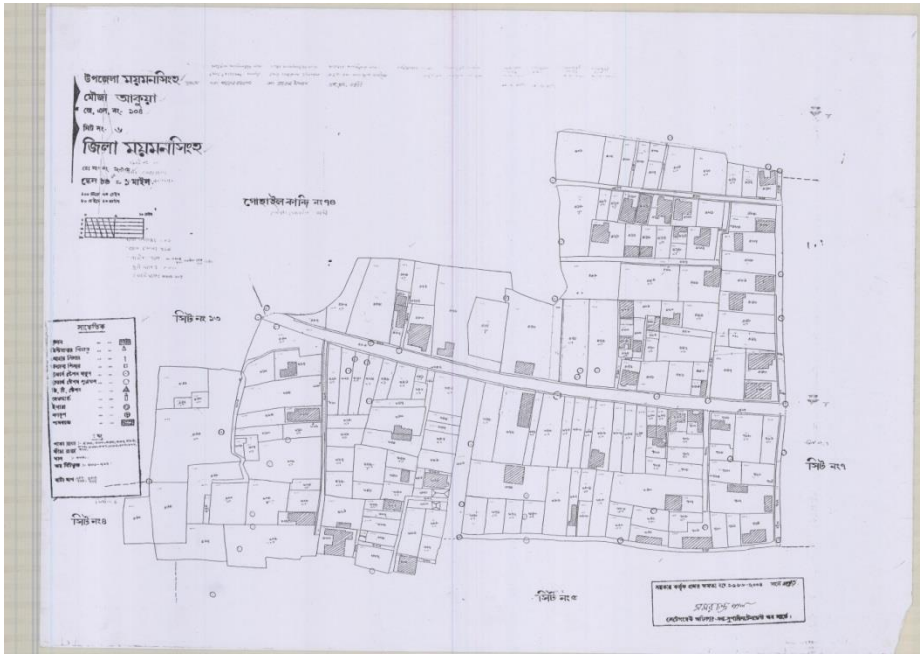
Summary

District	01. Mymensingh
Upzila	02. Mymensingh Sadar(9 Union) & Gouripur (1 Union)
Union	10 Nos.
Mouza -RS	116 Nos.
Mouza Sheet (Supplied by UDD)	417 Nos.
Out of Project Area	58 Nos.
New Collected Mouza Sheet (GEOMARK)	131 Nos.
Total Mouza Sheet	554 (548+6) Nos.

Step – 1 : Mauza Map Collection & Scanning

The mauza maps have been collected and Scanned with five Hundred pixel per inch

Map Scanning with Drum Scanner



Copy of Scanned Map

Step – 2 : Mauza Map Geo-referencing

Mouza Maps are geo-referenced by some Sequential Steps. These are :

- Selection/Identification of GCP Location
- Collection of Coordinates of GCP by GPS Survey
- Updating Raster Image by GCP value to real world Coordinate

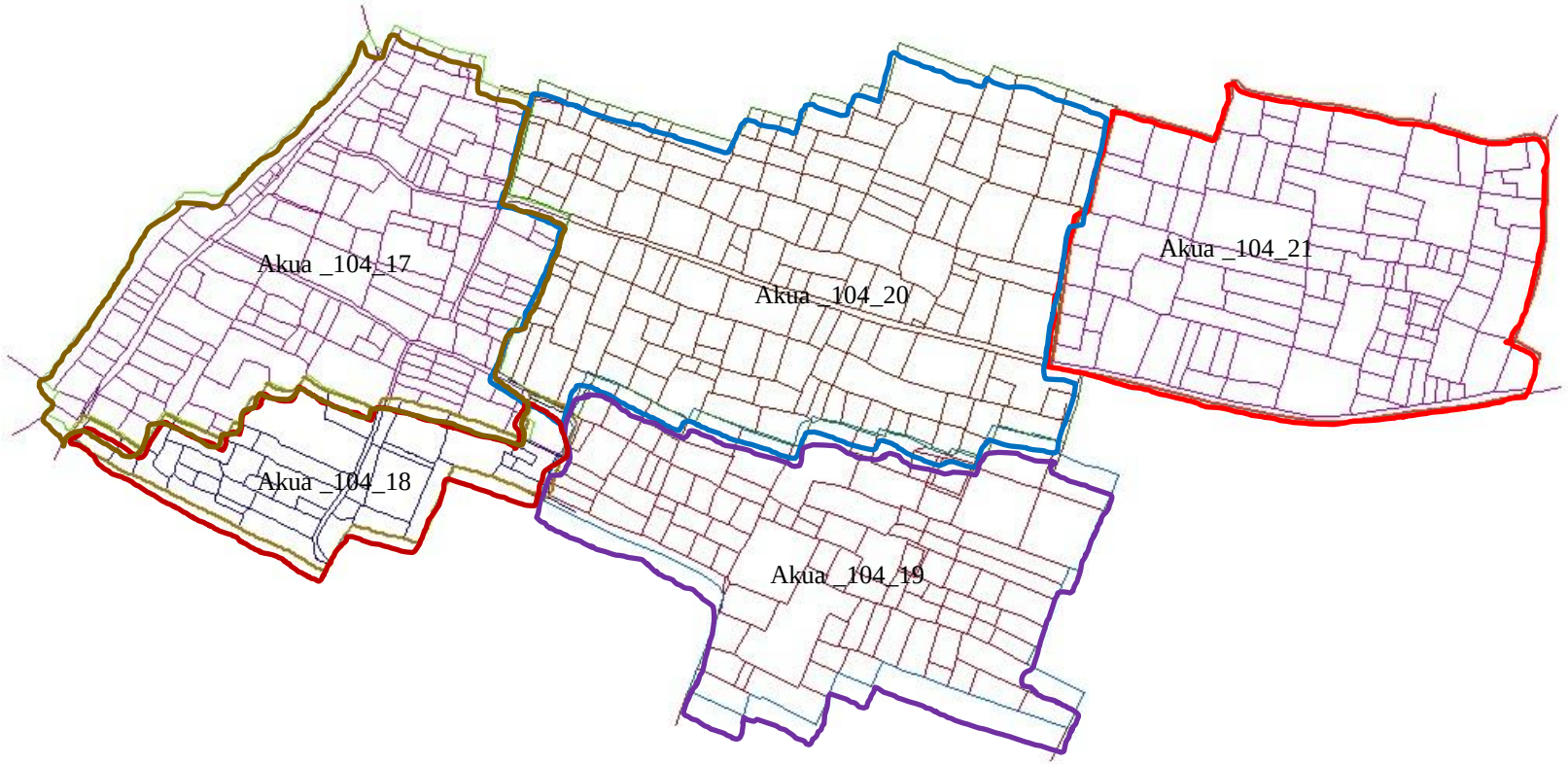
Step- 3 Digitization of Mauza Maps

On screen digitization method is Using for digitization

- GIS based Arc GIS 10 software is Using for digitization of mauza maps.
- Feature wise manuscripts has been developed for digitizing the mauza maps
- All features are storing as layer coverage with a separate ID or code number of respective features in the GIS database.
- To keep uniqueness of all features the ID or code numbers of respective features has been finalized as per suggestion and discussion with UDD.

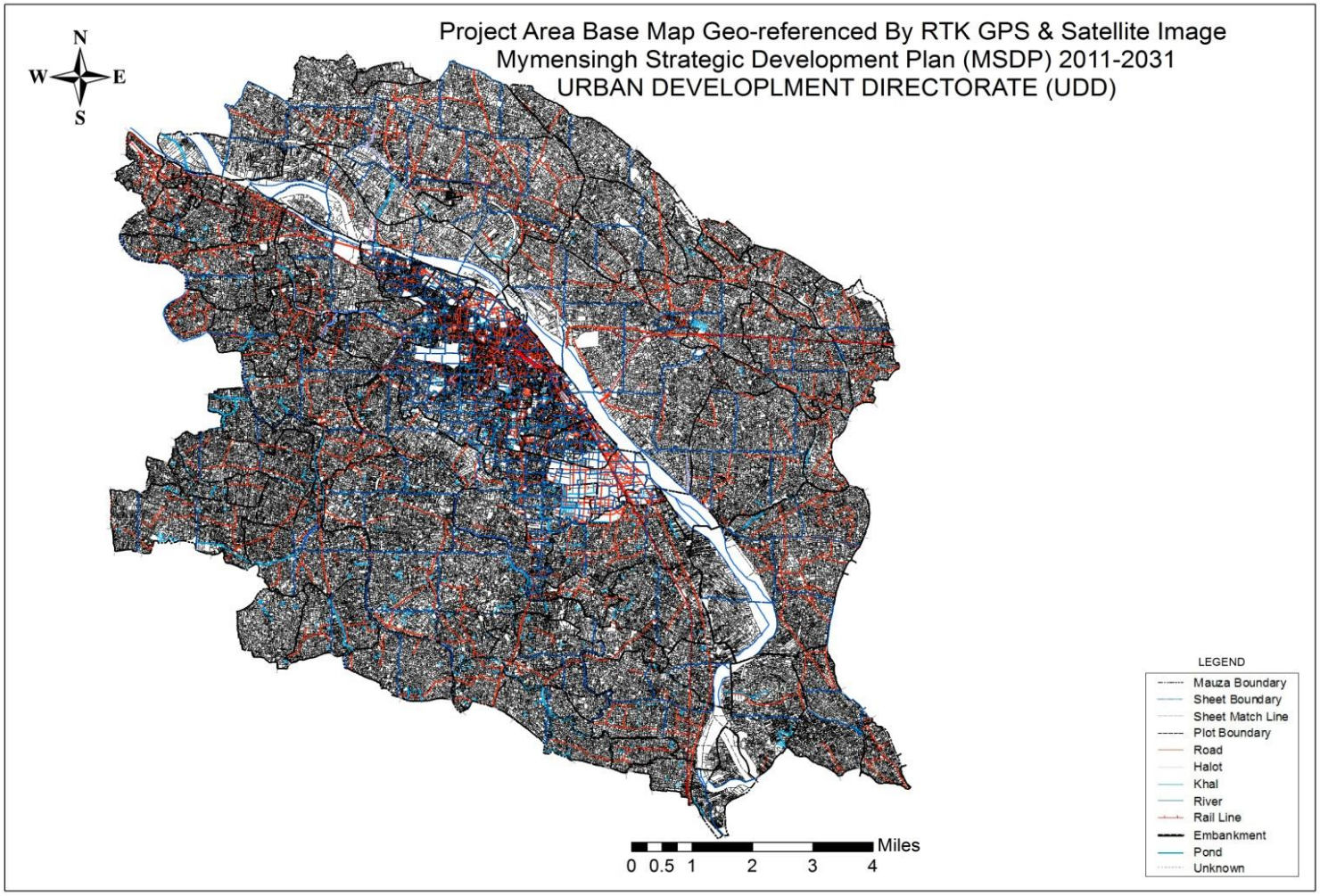
Step- 3 Digitization of Mauza Maps (Cont.)

Mosaic map of Mauza Maps



Step- 4 Base Map Preparation

Project Area Base Map Geo-referenced RTK GPS Field Survey and Satellite Image



Step- 5 Draft Print Received

Step- 6 Mauza Map Check

Mauza Sheet Check on Light Table
By MSDP Team UDD

Image of Checked Mauza Sheet

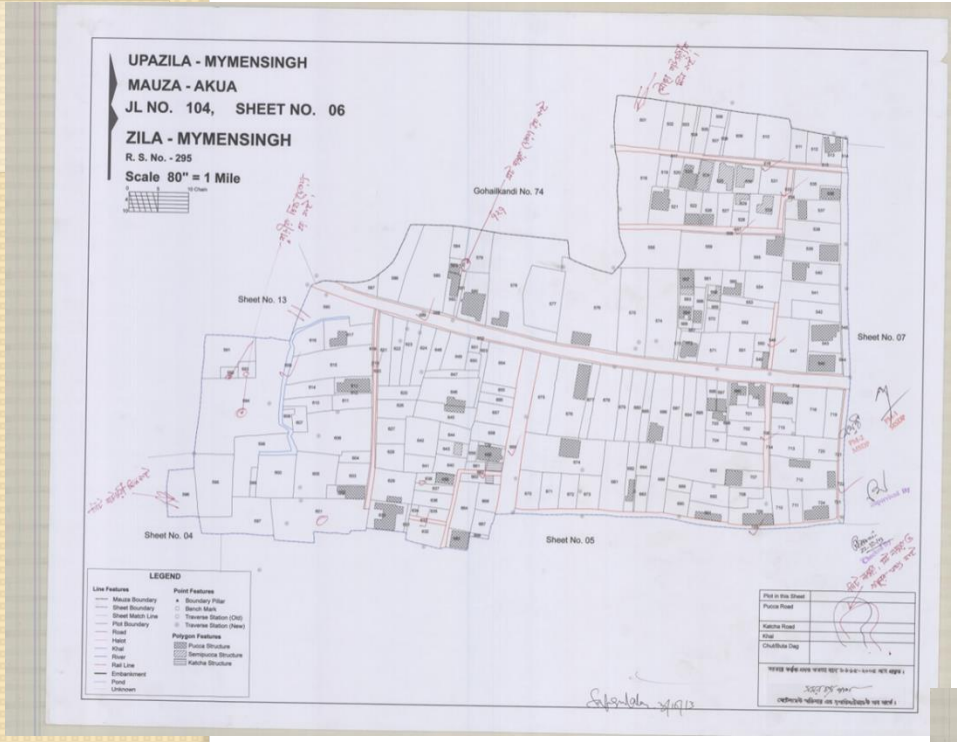
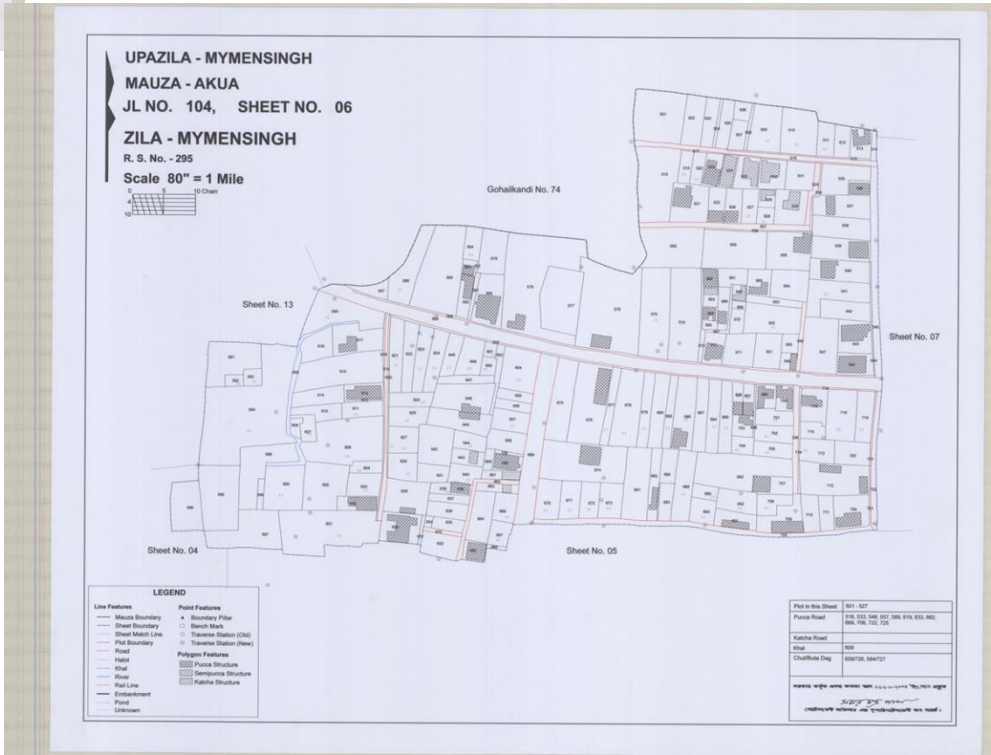


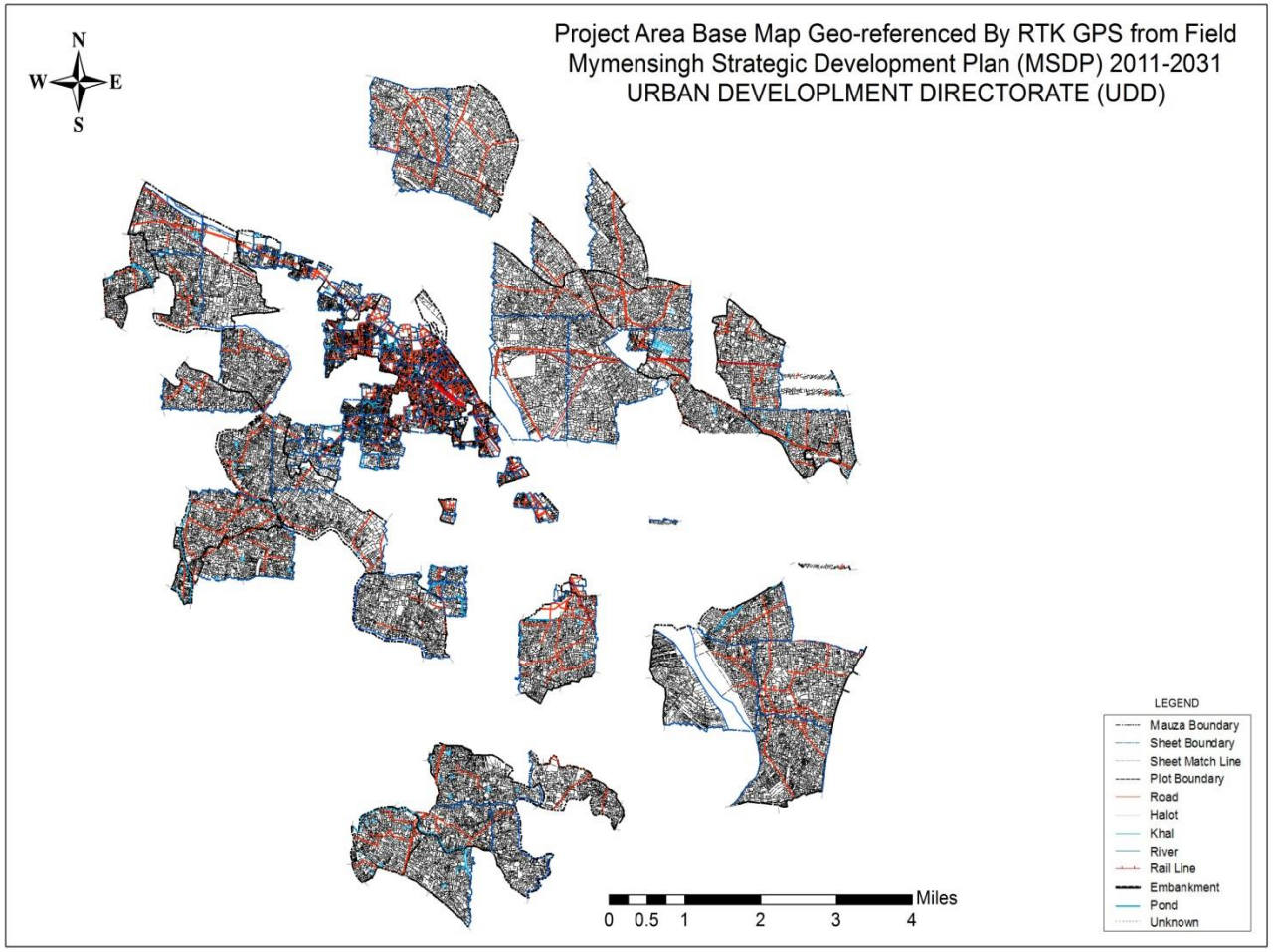
Image of Corrected Mauza Sheet



Step -7: Geo-referencing Check

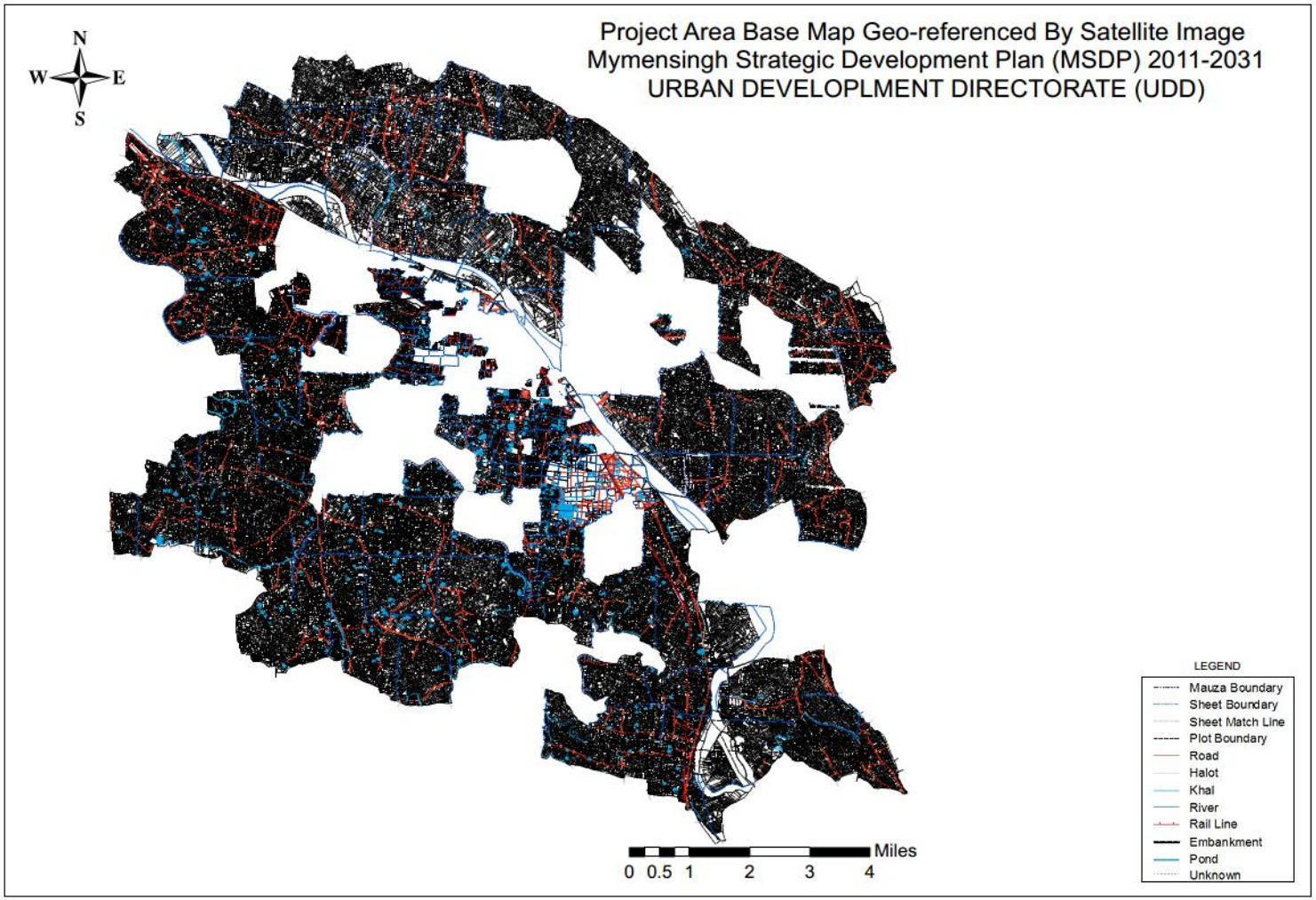
Project Area Base Map Geo-referenced By RTK GPS From Field

Union/Municipality	Mauza	JL	Sheet
Total (10 Union & Municipality)	38	41	167



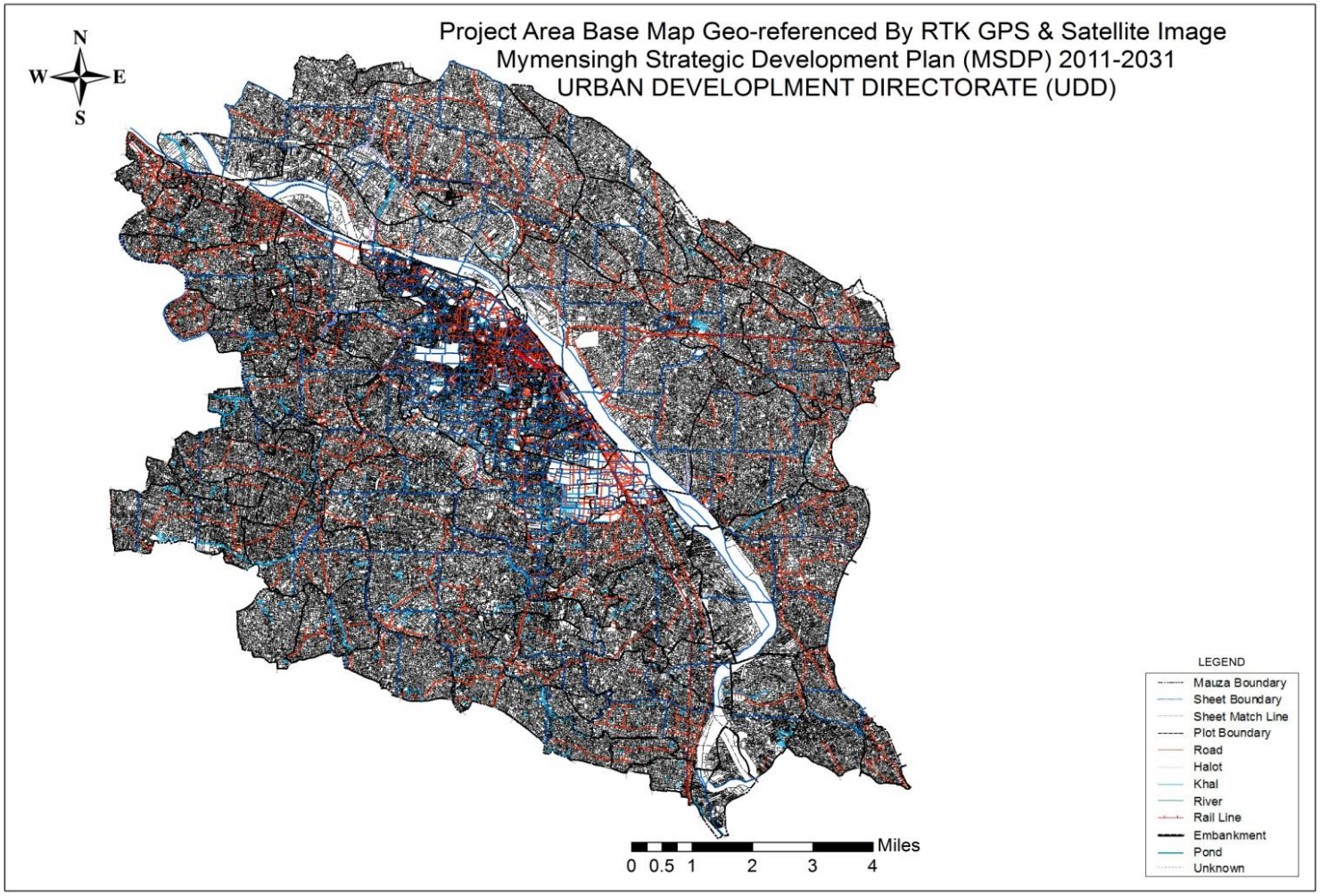
Step -7: Geo-refferencing Check

Project Area Base Map Geo-referenced By Satellite Image

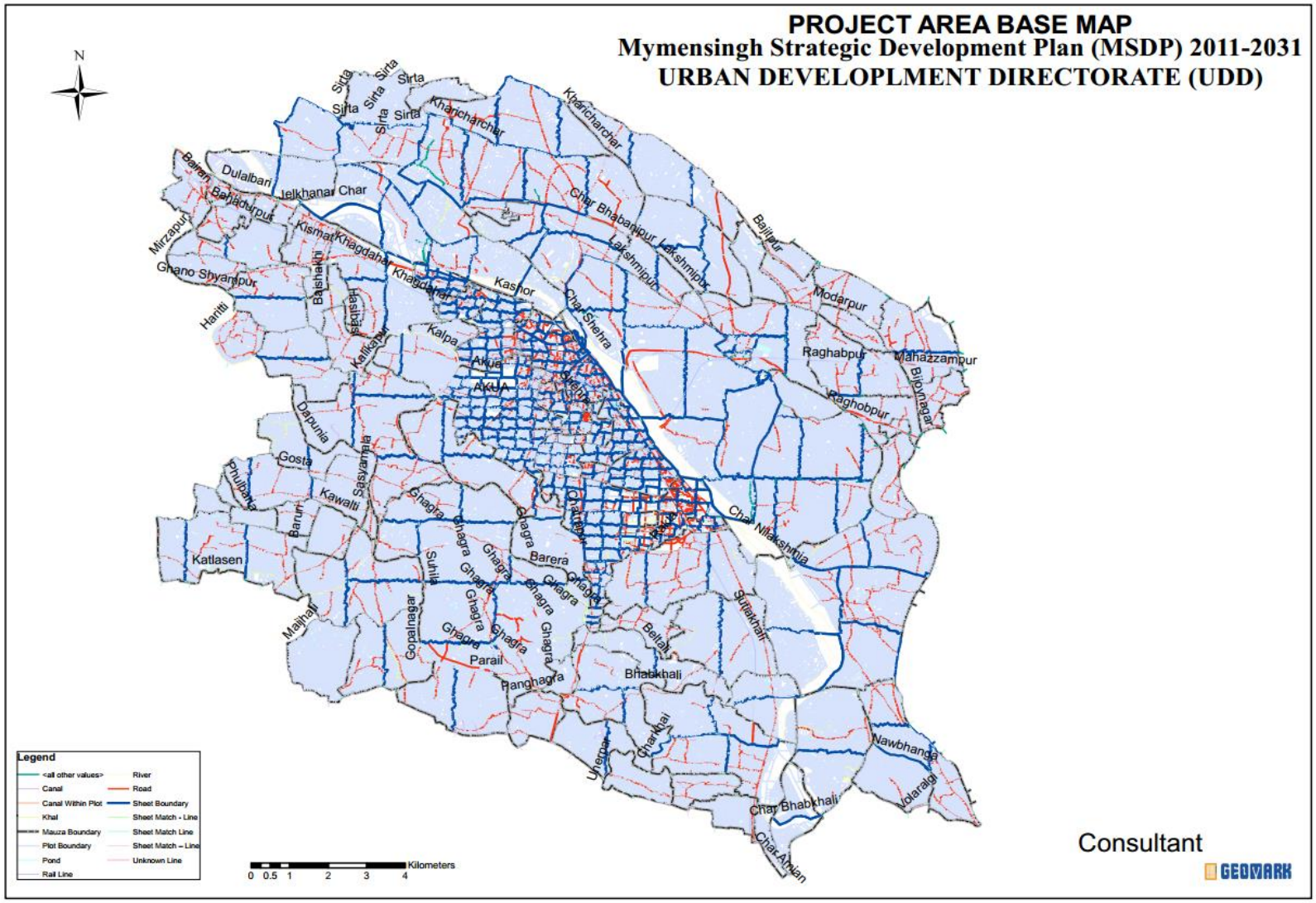


Step -7 : Geo-refferencing Check

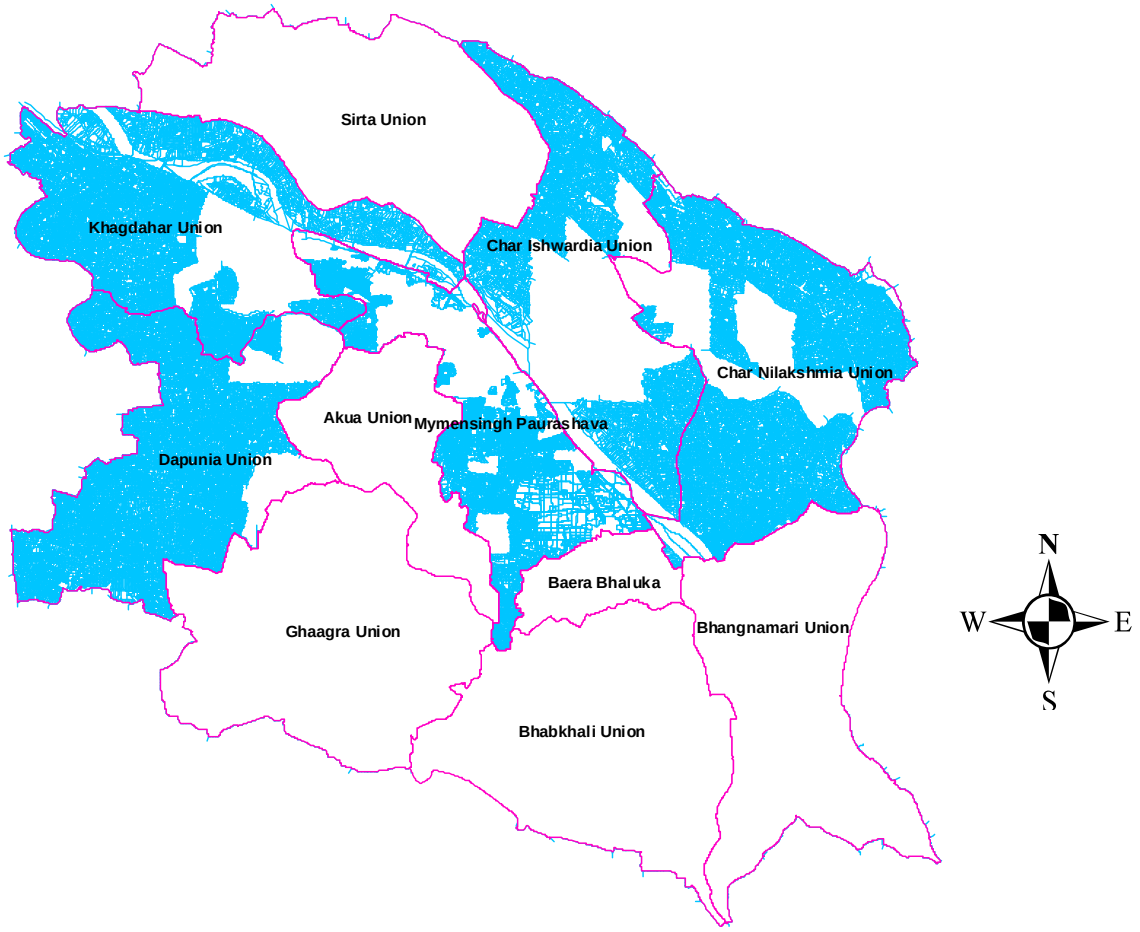
Project Area Base Map Geo-referenced RTK GPS Field Survey and Satellite Image



Step-8: Finalization of Base Map

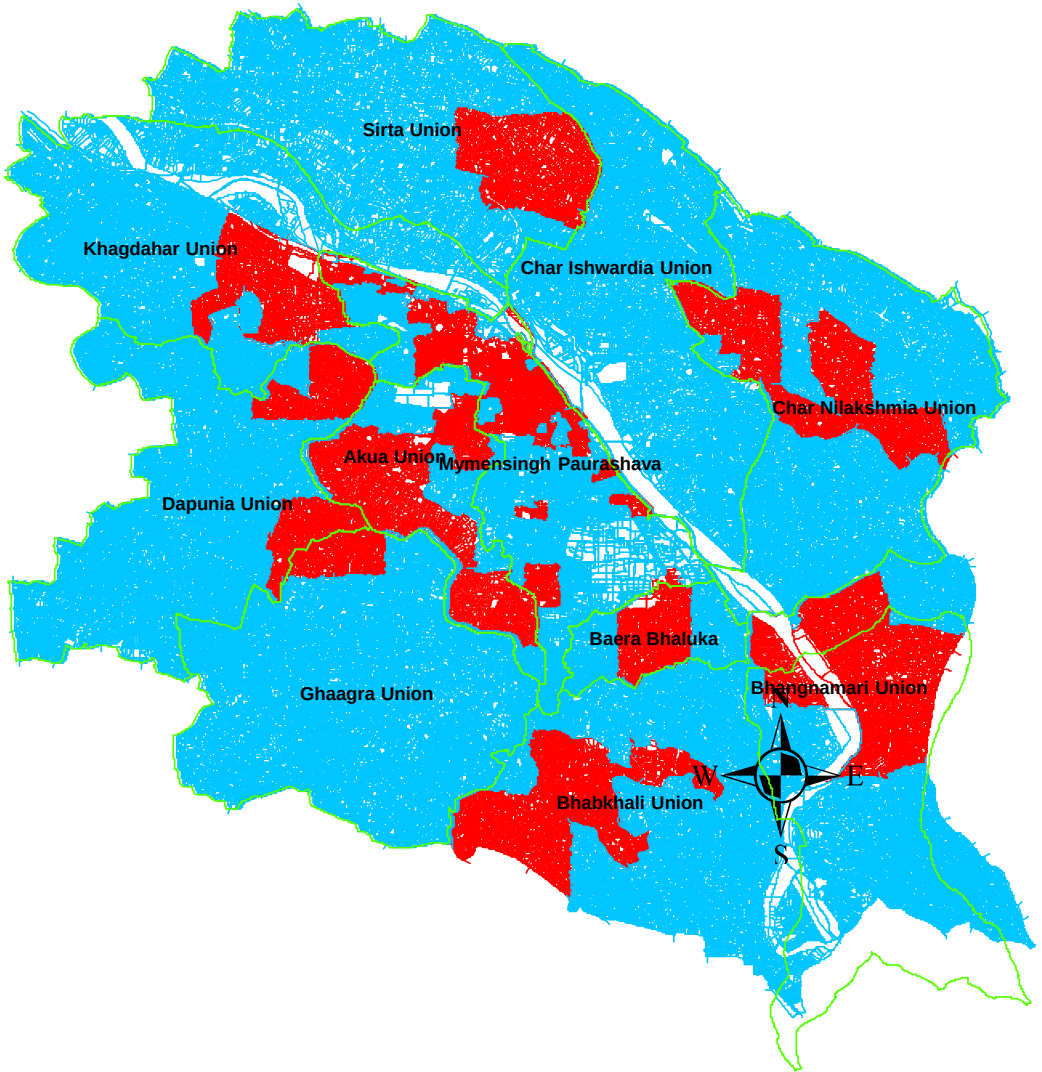


Referenced Mauza of MSDP From 3D Image



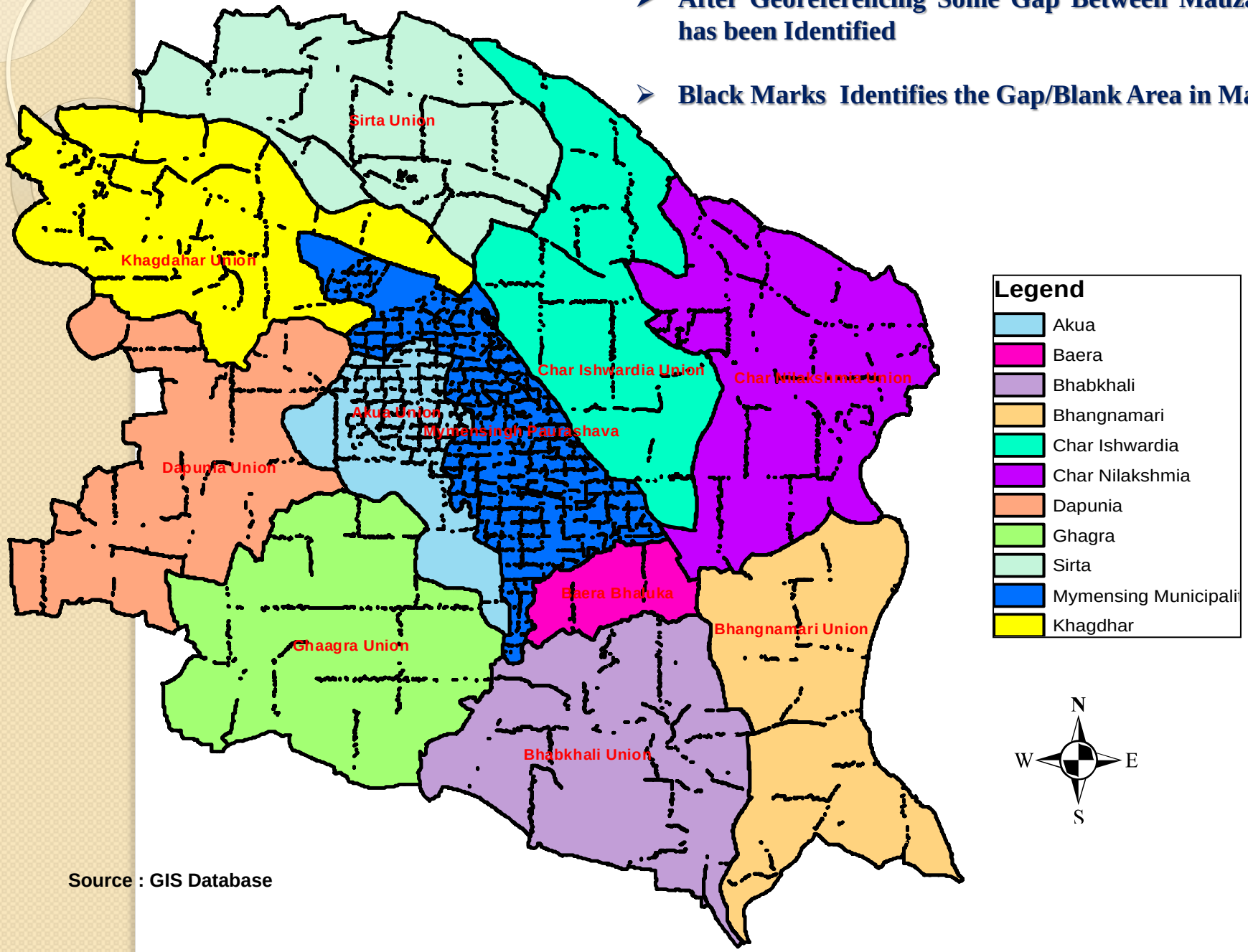
Source : GIS Database

Red Colour is Marked as Referenced Mauza From GCP
Blue Colour is Marked as Referenced Mauza From Image



Source : GIS Database

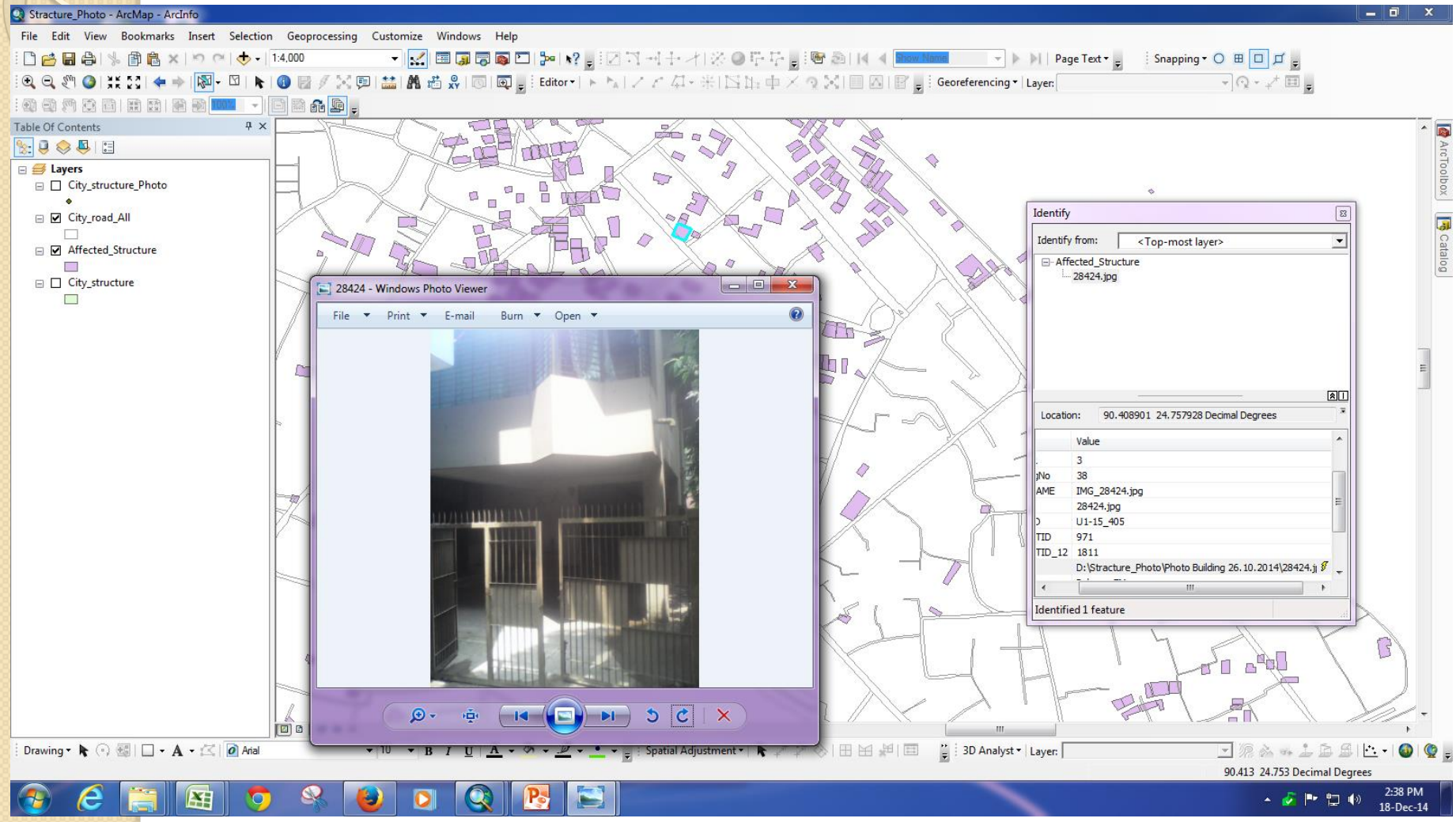
- After Georeferencing Some Gap Between Mauza Sheets has been Identified
- Black Marks Identifies the Gap/Blank Area in Mauzas



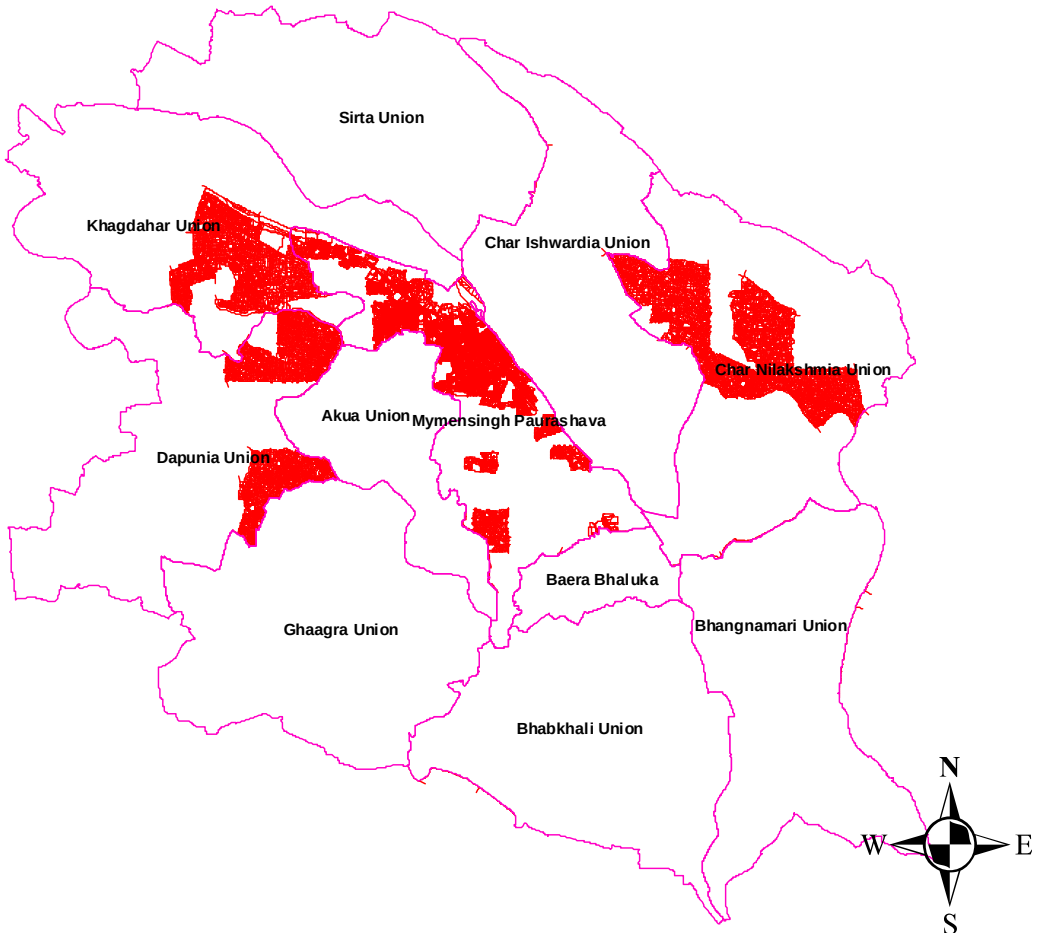
Source : GIS Database

Pictures of Affected Structures has been Taken and Attached with Database

An example of Image Linkage with Structure Database



Referenced Mauza of MSDP From GCP



Source : GIS Database

Drainage Checking

Drainage Condition of R K Mission Mondir, Pourashava

Sutiya River Out Fall Cheek

Filed Verification of Socio-economic Survey

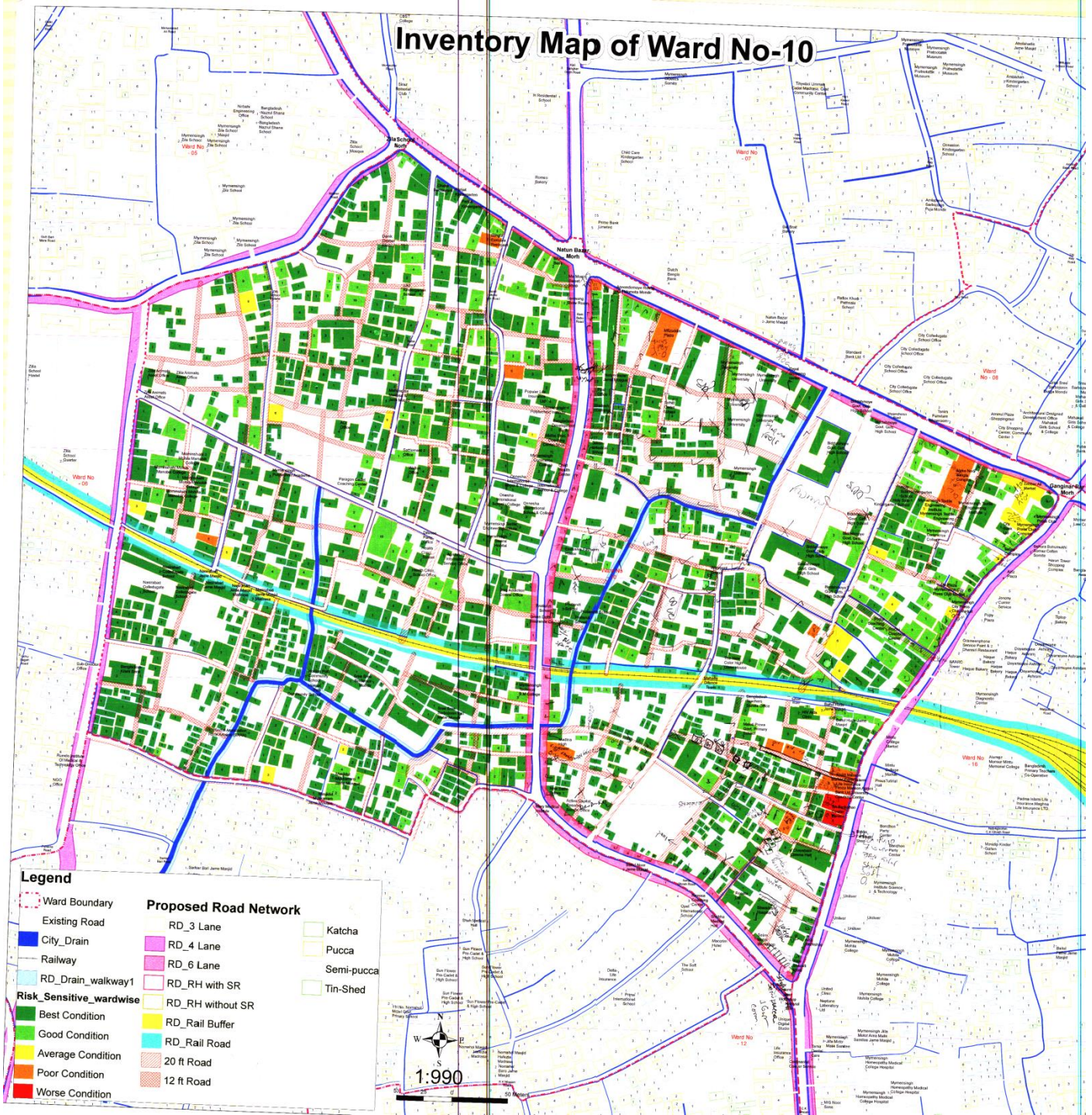
Filed Survey of BM Pillar & Mauza

Transport Survey

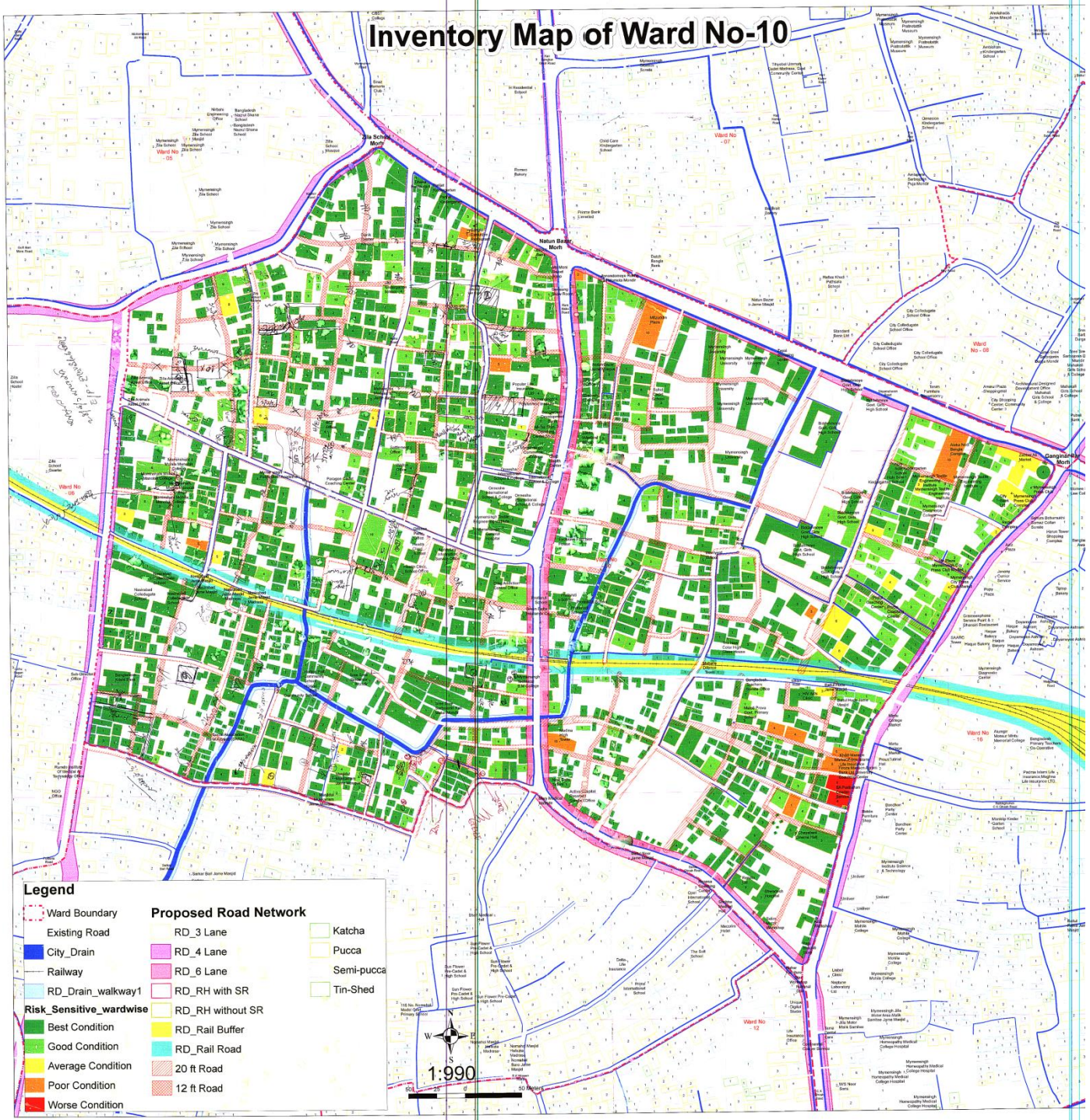
Filed Survey of Soil Condition

Detail Area Plan Verification at Ward-10

Inventory Map of Ward No-10



Inventory Map of Ward No-10



Drainage Condition at Ward-10

Miserable Living Condition of Horizon Palli at Ward-10

Different Survey Conducted by MSDP Team

1. Physical Feature Survey
2. Socio-economic Survey
3. Transport Survey
4. Hydrological Survey
5. Geological Survey
6. RL Checking and Ground Trotting from SoB BM Pillar
7. Drainage Survey
8. Growth Center (Rural Area) Survey
9. Archeological Survey
10. Hat-Bazar Survey
11. Hospital (Govt.) Survey
12. Informal Economy Survey
13. School-College Survey
14. Recreational Space Survey
15. Industrial Area Survey
16. River khal Survey
17. Water Logging Survey
18. Catchment, Sub-catchment Area Survey
19. Socio-economic Validation
20. Mauza Reference Point Validation
21. Proposed Road Network Validation
22. Detail Area Plan Validation,
23. Structure Plan Validation.

Thank you All