



An Analysis on Weekly Market of Ruabandha(Local Area Plan), Bhilai (C.G.)

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Abstract

Informal sector marks the benchmark for formal sector of economy. The incremental growth of weekly informal market projects to the formal market economy, which results in the development of the surrounding area, zone or locality. As a part of informal economy, weekly markets is an important aspect to be focussed upon. This directs to the need of the changes in this informal weekly market towards the well planned and developed market and the planning tool aka Local Area Plan will help in accomplishing the task. The aim of the study is to plan for the Ruabandha weekly market in Bhilai including dimensions of the planning and sustainability i.e. physical, social, economic, etc.. The study tries to come up with the development proposal and guidelines which will help in retrofitting any existing weekly market primarily located along the road, open area or near commercial land use, etc.

Key Words - Weekly market, Local Area Plan, Informal economy

Broad Area – Urban Planning

Sub- Area – Local Area Planning

1. Introduction

Local weekly markets are a traditional style of retailing where on a particular day of a week petty traders display their commodities on a makeshift arrangement in places authorized by the state municipal authorities against payment of some fixed remuneration. Usually these markets are organized on pavements of the roads. Commodities sold in these markets range from small objects of daily use to vegetables, garments, toys, and small electrical gadgets and cost of most of these goods are cheaper when compared to the price of similar articles sold in established outlets or malls.

Weekly markets are the immediate available contact place of rural and urban settlements and specialized in retail transactions of all commodities. The market place is the main focal point for commercial activities. In brief, market may be defined as a place where buyers and sellers gather for marketing at regular intervals or

daily. The weekly markets act to dispose daily needs of human being and have the basic building blocks of more complex hierarchy of central places and capable of spatial-economic structure. Market is a place gathering to buyers and sellers at regular interval. Weekly markets at present are specialized for certain commodities Market places always attract people from surrounding area such as worship or administrative offices from surrounding area for marketing.

Ruabandha Market is an area of approximately 16 Acres of town Bhilai located on the South side of the city, 6km from the Bhilai Steel Plant. The study project identifies progressing the sustainable development of Ruabandha market areas for commercial, and the development of supporting public transport and infrastructure; as a key future growth enabler for Bhilai city. Ruabandha is identified as a key growth area in

the City Development Plan and is capable of delivering employment up to 1500 vendors and accommodating a population of up to 10000.

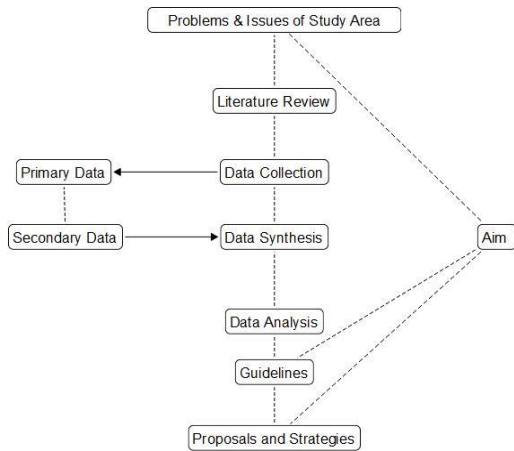


Figure 1 – Shows the Methodology followed.

1.1 Study Area Profile

Ruabandha is a locality in Bhilai City in Chhattisgarh State, and its ward code is 63 of the Durg district surrounded by areas - Sector 10, Risali Sector, Maitri Kunj, Sector 9, Risali are the nearby Localities to Ruabandha,market, Bhilai. Durg-Bhilai Nagar, Raipur , Rajnandgaon are the nearby Cities to Bhilai.



Figure 2 – Bhilai Municipal Corporation Ward Map

The site shown in the below picture is called as the Ruabandha market area, which comprises of shops of permanent structure and other part towards the western side is a vacant land where every Saturday vegetable and meat market is arranged to cater the need of nearby residents of Bhilai township.

The selected site is divided by municipal road which join Durg to Raipur via Utai town. On the northern side is the municipal ward no. 64 and on the southern side is municipal ward no. 63.

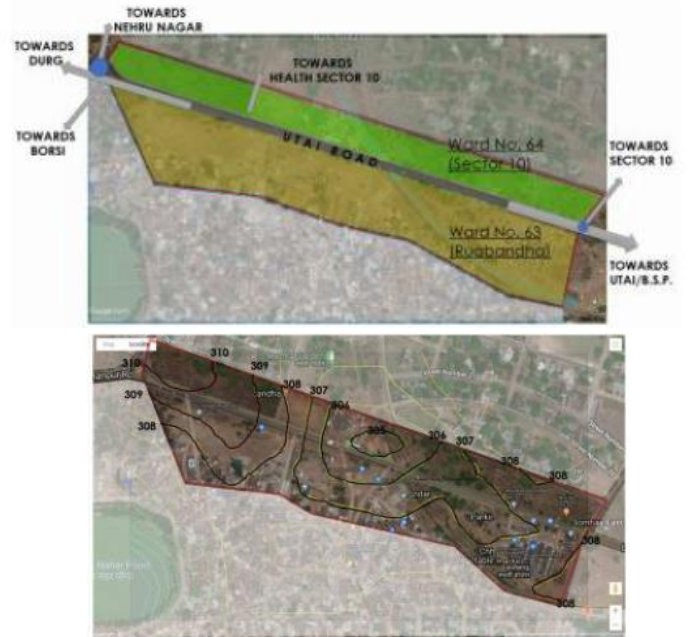


Figure 2 Ruabandha Market Location and Topography

Table 1 Demography of the study area

Ward No. 63 Ruabandha, Bhilai Nagar (M. Corp.+ OG)	Total	Male	Female
No. of Households	5962		
Population	26341	13432	12909
Population (0-6yrs)	2142	1127	1015
Scheduled Castes Population	2250	1108	1142
Scheduled Tribes Population	1110	543	567
Literates	22753	11282	10925
Ward No. 64 Sector 10, Bhilai Nagar (M. Corp. + OG)	Total	Male	Female
No. of Households	1615		
Population	6982	3677	3305
Population (0-6yrs)	948	472	476
Scheduled Castes Population	1844	953	891
Scheduled Tribes Population	575	304	271
Literates	4931	2832	2099

The Ruabandha Market Local Area Plan (LAP) is a land use plan and sets out the statutory framework for the development of the Ruabandha Market area over the period 2018-2023. The LAP was made in accordance with the requirements of the URDPFI (as amended).

The LAP complements the implementation of the current Durg-Bhilai City Development Plan 2014. Ruabandha Market is designated by State government as a Major corridor – an Action Plan for Vendors and Employment.

The preparation of the LAP focused on consultation and engagement in order to devise a sustainable and evidence-based plan for the development of Ruabandha Market over a five-year period. The input received from the public, stakeholders, government departments, and interest groups is gratefully acknowledged.

1.2 Land Use Analysis

The land use study of the study area was described in the below figures from the year 2005 till 2019. The percentage of land use typology over the year which it changes has been demarcated on the map showing the variation of the land use land cover changes of the year 2005, 2009, 2014, 2018.

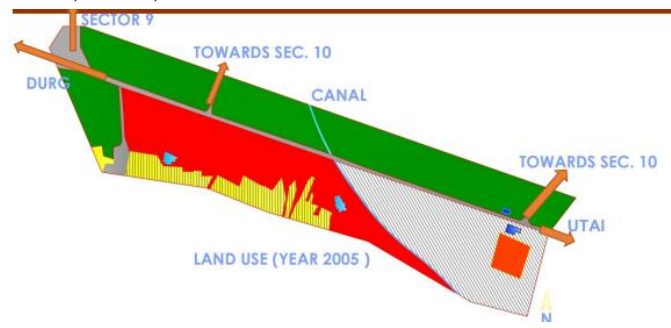


Figure 3 – Land Use in the year 2005

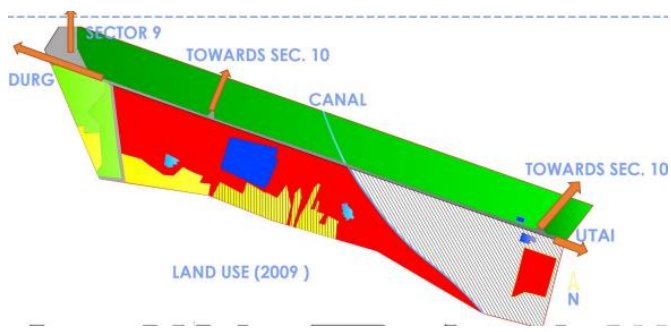


Figure 4 – Land Use in the year 2009

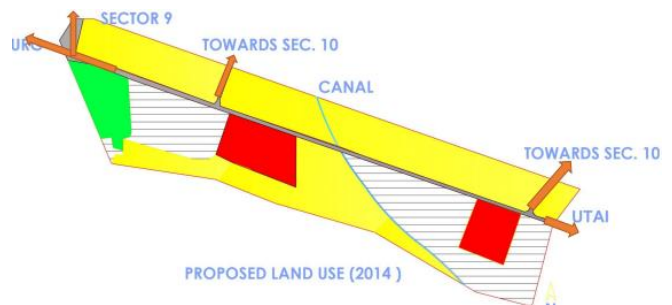


Figure 5 – Land use in the year 2014

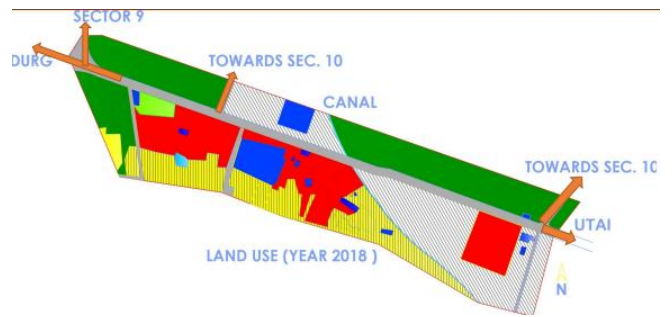


Figure 6 Land use in the year 2018

The variation in the land use change over the year can be easily characterised as the variation and inclination towards the commercial usage. This inclination and conversion to the commercial use is the direct impact of the growing revenue from the weekly market and imposing the dimensions towards the surrounding areas.

2. Primary Data

2.1 Present Scenario of the weekly market.

The ownership of the built market varies from the lease of ownership from 10 to 30 years duration. During this tenure, the paradigm shift is observed from purchase trend of vegetables to commodities. During the weekly market setup, equal division of vendors providing vegetables, fruits, pooja items, etc. were observed. The percentage share of the information gathered through our primary surveys is graphically presented below.



Figure 7 Scenario of the weekly market

2.2 Traffic Scenario of the weekly market.

The street vendors and the traffic accumulation add to the issues and problem faced during the weekly market. Large volume of vehicles gathered during the market along with the vendors along the road side results in total traffic failure and congestion on the market day. The data gathered for the traffic volume and vendors count is graphically presented below.

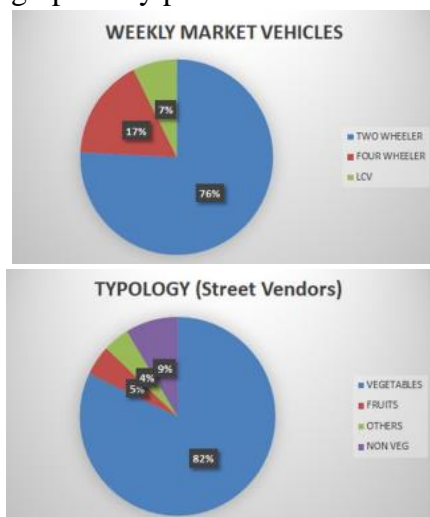


Figure 8 Traffic Scenario of the weekly market

The quantity of vendors and parking issues originated from it is given by the following table showing the vehicle counts and no. of vendors presented during our survey. The existing scenario on the weekly market day was presented in the form of images below :

Table 2 Traffic of the study area

S. No.	Type of Vehicle	No. of Vehicles	Occupancy	No. of Persons
1	Two wheelers	379	2	758
2	Four Wheelers	84	4	336
3	LCV	37	3	111
Total				1094
S. No.	Type of Vendor	No. of Vendors		
1	Vegetables	664		
2	Fruits	40		
3	Others	35		
4	Non-Veg	70		
Total		809		

2.3 Traffic Volume Study of the weekly market.

The existing g road index was created for the area around the weekly market to analyze the traffic flow using the below road map and inventory. The traffic volume study was conducted on the weekly market day to understand the issues arising with this informal setup. The study was conducted using the vehicle count towards BSP and Durg routes in the peak hours of the time slot throughout the day.

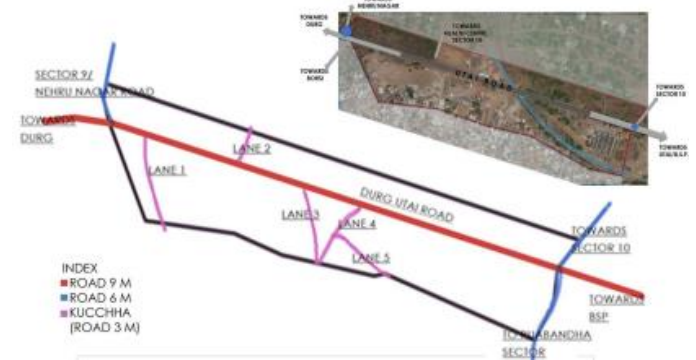


Figure 9 Transportation Map surrounding the study area



Figure 10 Picture of Existing scenario on the weekly market

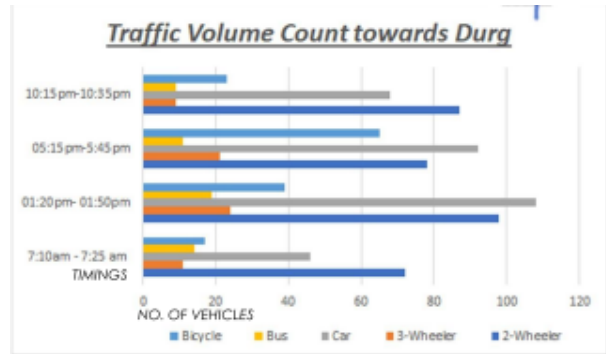


Figure 11 Traffic Volume count towards Durg

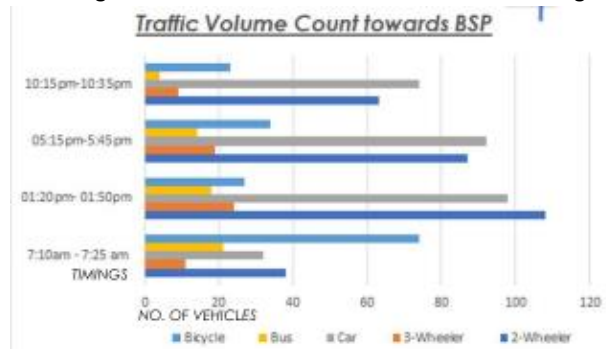


Figure 12 Traffic Volume count towards BSP

Vehicle composition was also generated along the volume study in terms of two wheelers, 4 wheelers, bicycle, etc.

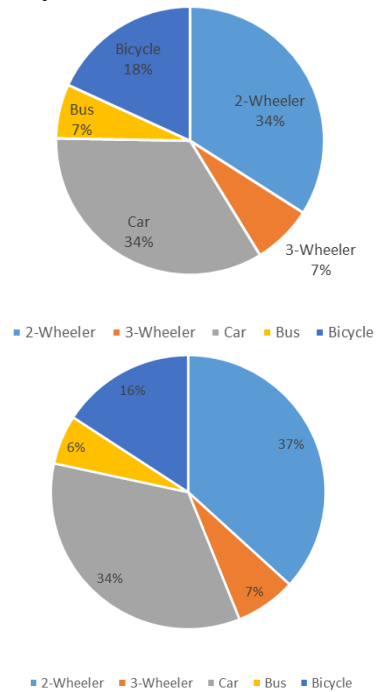


Figure 13 Traffic Volume count towards a) BSP and b) DURG

2.4 Traffic Study Summary

The following observations were deducted from the traffic volume study adding to the cause of concern for our study –

- 18% of bicycle users identified.
- Only 6% of public transportation existing in our route.
- Absence of parking bays for vehicles.

3. Analysis

3.1 Problems Identified

The absence of public transport in the city seems to have convinced the residents about the need to take care of their mobility needs themselves. Also, information dissemination on bus routes and timings needs to be taken on a high priority basis.

Residents of the ward face water supply issues owing to faulty lines. In terms of sewerage, the area needs better sewage disposal systems upgrading the current septic tank system.

Our research revealed the presence of several spots where container bins were overflowing with garbage causing health related issues. The door-to-door collection system needs to be expanded in a way that it covers all residential areas. Also, container bins need to be collected more often.

Since commercial and residential land use are located in proximity, there are issues of compatibility. Given the employment opportunities generated by the market, there is no need to shift the market out of the ward. However, land use interventions that integrate the commercial area into the largely residential nature of the ward needs to be undertaken.

The lack of community parks came to Our notice in the technical analysis of accessibility. Also,

besides the available two parks, there are no ward level recreational spaces for all age groups. Nor are there any playgrounds for children to play outdoor games like cricket.

There is a serious lack of street lighting in the ward manifesting in lack of access to certain pockets of the ward for women & children. Also, it places limitations on outdoor interaction and use of common spaces in the community. The lack of street lighting has also led to safety and security concerns in that section of the ward.

Table 2 – Issues identified in the study area

Issues	
Land Use Issues	
Water Supply Issues	
Safety issues	
Solid Waste Collection issues	
Waterlogging issues	
Road Safety issues	
Lack of pucca roads	
Lack of Drainage	
Public Transport issues	
Maintainance issues	
Lack of Parks	
Street Lighting	

3.1.1 Matrix of Socio – Economic Issues

The matrix is formulated along the dimensions of land use, transportation, social amenities, etc. with respect to the residents, migrants, customers, vendors to highlight the issue concerning the potential of the Ruabandha weekly market and its future development towards the more formal economic sector.

3.1.2 SWOT Analysis

The SWOT was conducted based on all our findings primary and secondary to frame the objective required and aim fulfilment incorporating the future projections along the development.

Table 3 – Socio-economic issue matrix

A Matrix of Priority Issues Across Socio-Economic Groups					
Sl. No	Categories	Land Use	Transport	Social Amenities	Other Issues
1.	Residents	Water Logging	Pedestrian Safety	Community Spaces, Parks	Sewerage, Solid Waste Disposal
2.	Migrants (Floating)	-	Costly	Language Issues as Barriers to Education, Health Care & Employment	Water supply, Solid Waste Management
3.	Customers	-	Costly, Unreliable Public Transport	Community Spaces, Parks, Banks, Atms	Sewerage, Water Supply, Solid Waste Management
4.	Vendors	Safety, Water Logging	Parking, Walkability	-	Street Lightings

Table 4 observation in SWAT analysis

Sl. No.	STRENGTH	WEAKNESS	OPPURTUNITIES	THREATS
1.	Proximity to External/Internal Linkages	Narrow and Meandering Roads	Scope of Developing the Nodes to Make The Streets Alive -	Problem of Water Logging
		Poor demarcation for roads, shortage of parking spaces		
2.	Less Community Divisions	Less Places for Social Gathering	Public Acceptance and Participation Towards Changes and Development	Road Safety Like Poor Street Lights, Etc.
		Less recreational spaces	Scope of ppps	
3.	Proper Social Infrastructure	Lack of Services Like Bank, ATMs	Scope of Improving Streetscape	-
		Haphazard Zoning	Adequate Open Spaces	
4.	Proportionate Growth and Economy Distribution	Poor Waste Management		--

4. Proposals and Recommendations

The main objective would be to transform the weekly market area into an economical corridor in the next few years. This can be achieved through improving walkability and bicycle infrastructure; making the outdoor activities safe during on and off hours, improving basic amenities and service delivery. The detailed schematic strategies were listed below.

4.1 Strategies

1. Walkability

Provision of wide footpaths along major thoroughfares with continuity, signage and infrastructure allowing easy crossing elderly and children.

2. Safety

Provisions to improve lack of lighting to oversee inaccessibility after dusk. Approach roads from all directions need to be well lit and usable for all age groups.

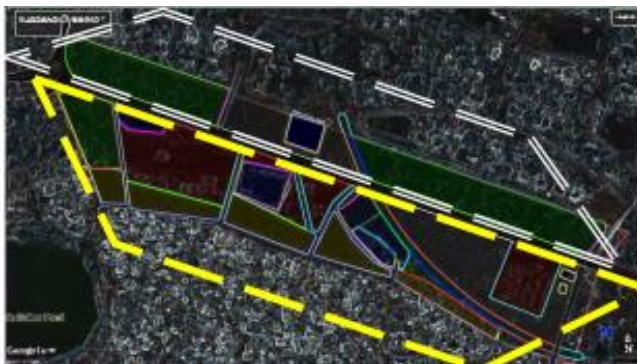
3. Basic delivery services

Solid waste collection needs to be augmented to overcome the wastage during market. Proper drainage system planning to be deployed to maintain cleanliness.

4. Social amenities

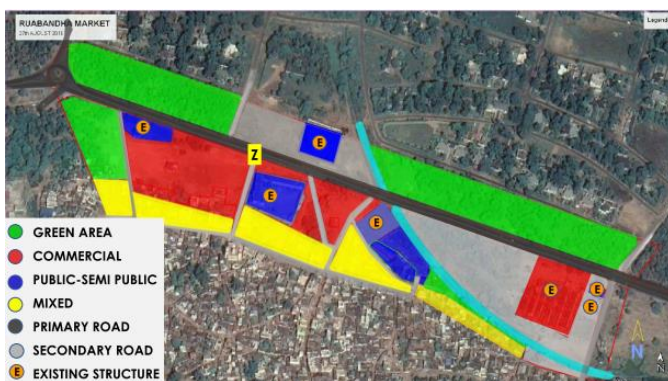
Provision of public toilets be provided near the weekly market.

4.2 Proposal for the Ruabandha Market



- PHASE-1 (First 3 Years)
- PHASE-2 (After 3 Years)

The detailed proposal refers to the below mentioned schematic planning proposal for the Ruabandha Market catering to the peoples demands based on peoples survey and analysis wrt land use land cover analysis.



- | | |
|--|---|
| <u>DURING PHASE 1</u> | |
| • ROAD WIDENING TO DECREASE TRAFFIC CONGESTION | |
| • CONSTRUCTION OF BUS STOPS AND PARKING BAYS | |
| • PROPER LAYOUT FOR WEEKLY MARKET VENDORS WITH WATER SUPPLY. | |
| • CONSTRUCTION OF FOOTPATHS | |
| • PROPER DRAINAGE NETWORK | |
| <u>DURING PHASE 2</u> | |
| • STREET LIGHTING AT NODAL POINT 'Z' | • BEAUTIFICATION OF THE CANAL AND GREEN AREAS |
| • DRAINAGE SYSTEM & WASTE MANAGEMENT | • DEVELOPMENT OF PARKS IN GREEN AREAS |

Conclusions

The strategic goals of the transformation of the weekly market area into the economical corridor via LAP reflect the vision for weekly Market and inform the policies and development strategy for weekly Market. These are as follows:

Strategic Proposal 1: Create a high quality, mixed use, commercial corridor that will support a strong sustainable neighborhood and facilitate access to a range of services and community facilities.

Strategic Proposal 2: Create a business-friendly commercial corridor and support the sustainable economic growth of weekly Market.

Strategic Proposal 3: Promote a sustainable environment through integration of landscape features and through promotion of the use of renewable, low carbon energy and green design.

Strategic Proposal 4: Facilitate the development of commercial corridor that is well connected, walkable and accessible and that is so designed to encourage the use of sustainable transport modes.

Strategic Proposal 5: Require a high standard of urban design to achieve a vibrant public realm with a distinct sense of place.

Conflict of interest

The author declares no conflict of interest.

References

- [1] District Census HandBook – CHHATTISGARH
<https://censusindia.gov.in/2011census/dchb/ChhattisgarhA.html>
- [2] Bhilai ward Map and details. -
<http://www.bhilainagarnigam.com/enMap.aspx>
- [3] Local Area Plan, 1.5.4.,
URDPFI Guidelines, 2014.
Ministry of Urban Development
- [4] Visual surveys / Reconnaissance survey,
URDPFI Guidelines, 2014.
- [5] Preparation of existing land use maps, 7.7.2.2., URDPFI Guidelines, 2014. Ministry of Urban Development.
- [6] TOD Development Control Norms, 8.2.15.5., URDPFI Guidelines, 2014. Ministry of Urban Development.
- [7] Bhilai Development Plan, Directorate of Town and Country Planning, Chhattisgarh, <http://tcp.cg.gov.in/vikasyojna/DURG/Bhilai.htm>