

ROLE OF WEEKLY MARKET CENTRES IN RURAL DEVELOPMENT-
A CASE STUDY OF DAUND TALUKA IN PUNE DISTRICT,
MAHARASHTRA STATE

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Tilak Maharashtra Vidyapeeth, Pune
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Under the Faculty of Moral and Social Sciences

By
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October, 2013

DECLARATION

I hereby declare that the thesis entitled “Role of Weekly Market Centres in Rural Development - A Case Study of Daund Taluka in Pune District, Maharashtra State” completed and written by me and has not previously formed the basis for the award of any degree or other similar title of this or any other University or examining body.

Place : Pune

(Dattatraya J. Durgade)

Date :

Research Student

CERTIFICATE

This is to certify that the thesis entitled, “Role of Weekly Market Centres in Rural Development - A Case Study of Daund Taluka in Pune District, Maharashtra State” which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D.) in Geography of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by Dattatraya Jagannath Durgade under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body.

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Research Student
(Mr. Dattatraya J. Durgade)

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CHAPTER-I

INTRODUCTION

1.1 General Introduction

Marketing process is originated from the exchange of commodities and the creation of market exchange system. The market is a geographical space where commodities are kept for selling. The term 'Market' is a Latin word "Marcatus" meaning to trade. Hodder (1965) has described market centres as an authorized public gathering of buyers and sellers for purchasing commodities and meeting at approved place at regular interval where selling and purchasing of commodities are performed by both of local and outside commodities. Marketing is concerned with demand identification for goods and services and arrangement for supplying goods through an efficient distribution network (Dixit, 1984). Marketing is essentially a function of management for buying and selling. Marketing is a geographical phenomenon exchanging goods and services took place. Moreover market centres performs exchanging of goods and services and ideas and information too. These centres are the places of social contacts. The different groups of society gather and make contact among themselves at market places. These market centres provide knowledge for surrounding villages and act as nodes in the settlement system.

The market is a place of exchange and process functions. Such process could be called as marketing. The main function of market is to provide better prices for goods and services to be exchanged. Marketing includes all activities involved in flow of goods and services from production to consumption. Yeung (1974) has experienced that marketing is a common activity for everyday which involves the exchange of goods and services from producers to consumers. Market centres are the integral part of geo-economical and cultural landscape of the region having fixed location where exchange of commodities takes place. It is an authorized public gathering of buyers and sellers at the determined hours. A specific typology of market places can be evolved based on the physico-socio-economic and administrative factors prevailing in region. The market can be categorized on the basis of time duration. If the marketing function is observed on all the days of a week it is known as regular or daily market and if it is observed once a week is named as weekly market. Weekly market centres are the farmers first contact points with the marketing channel and provide

opportunities for selling and purchasing of commodities besides social contact. The spatial temporal, institutional and behavioural characteristics have made market systems to which termed as internal marketing system (Mint, 1959). Thus, markets are the centres of economic, social, political, religious and cultural activities for rural folk.

Weekly markets are basically place of exchange of goods and services to the residents of a given geographical area at a fixed interval of time. Weekly market are locally called as, 'Bazar'. Weekly markets are the centres of economic activities. Weekly markets are held periodically on some specific day or days of the week or month at some fixed sites and provide goods and services to the rural settlements. Markets provide primarily a base for collection and subsequent distribution of various agricultural products in surrounding region. The weekly registration therefore, weekly, weekly markets are not only the indicator of regional economic development but also roots of the overall development of region. Thus weekly market centres play important role in accelerating rural development particularly economic and social life of people.

1.2 Importance of Weekly Markets

Weekly markets are the immediate available contact place of rural settlements and specialized in retail transactions of all commodities. The weekly markets give opportunities to increase social contacts and become a focal point for economic and political activities for human being. Market place is a location for collection and distribution of goods. In this regards Prof. Hugar (1984) has rightly described that markets have fixed location and arrangement of time to exchange 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 spatio-economic structure (Shrivastava, 1987). Weekly markets in rural area play a magnificent role for rural development. The constant flow of demand may create market place for agricultural products. The cash exchanges accelerate through the network of weekly markets. Weekly markets are directly contributing the growth of trade and development of agrobased services. 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

workshop or administrative offices from surrounding area for marketing. According to Christaller, “Central place is not a city or a town but is a place offering variety of services. Market centres are fixed both in time and space” Wanmali (1981) thought that even weekly markets could be considered as a central places as they are fixed in space and unfixed in time. The marketing activity plays important role for the development of settlement by providing extra employment and infrastructural development.

1.3 Growth of Market in India

The growth of marketing system in India can be divided into ancient, medieval, British and modern periods. Ancient period was known for exchanging goods by certain coins and was varied from place to place. The exchange of commodities in Vedic period which was based on the principle of barter. Cow was regarded as a unit of value in this period. The great importance is attached to another unit is called ‘Nishka’. Nishka means originally a gold ornament of shape of necklace. The Vaisya class was engaged in trade and commerce during this coin age. Even then most of trade was managed by exchanging currency coins. Penini mentions the coins like pana, karshopana, pada and vaha. And weights like adhaka, achita, patra, drona and prashta. At the time of beginning of Christianera, the market place was called upana and was known as apanika. The popular system of exchange was barter and this was called nimana.

During the early medieval period (1290 to 1320 A.D.), Alauddin Khiliji has appointed certain members for market control. This control was exercised by the ‘Shaha’. During this period nature of India’s trade both inland and foreign was controlled like ancient period. The growth of market towns (Mandies) including port, town was a improve feature of market. Another major feature of market in this period was rapidly development periodic markets in rural areas. During the Mughal period nature of India’s trade both internal and external was same. After discovering the sea route by Portugaese to India via Cape of Good Hope and landed to Vasco da Gama at Calicut in 1498 trade started with Europe.

The rural trade institution in the form of ‘Mela’ (Fair) and ‘hat’ (weekly market) was major characteristic of this period. The British period of Indian history may be considered as a period of economic development in agriculture, industry, transportation and marketing too. During this period several commissions were instituted to study the agricultural marketing product. Cotton and grain crops were

examined in 1897 for marketing purpose. This act control of marketing and finally commission provided act highlighting the aspect, (a) All markets which existed on the data of the enforcement of law come under its hold. (b) The resident could set up additional market or bazar for selling of agricultural product. (c) The commission was to appoint of five members to look either look after market affairs. (d) Market functionaries were required to take out licenses after the market affairs. (e) Trade allowances on usage were abolished. In fact, British Government has given new direction to the Indian market exchange system not only in the field of agricultural marketing but also other types of products which has later on developed systematically in our country.

After Independence of India, there has been a rapid transformation of economic conditions and the need for the establishment of regulated markets was felt due to prevailing system. This is more true in case of market centres in urban area. Thus, the Indian market exchange system was then percolated into rural area on periodic market or weekly market and played indispensable role in India.

1.4 Review of Literature

The study of marketing geography was started in India after 1960 and very few studies are carried out on morphology of markets, sellers and buyers behaviour. V. K. Shrivastava, H. M. Saxena and R. S. Dixit have shown keen interest in marketing geography. Dr. R. S. Dixit is the pioneer in marketing geography in India. A very few researchers have made study either in the form of monographs, projects and Ph. D. work. In 1959 Rao, R. has submitted his dissertation to Allahabad University on "Regulated Markets in India with special reference to Andhra Pradesh". Later on, Saxena, H. M., has studied the correlation of transport and market centres of Hadaoti plateau. Stine (1962) and Hodder (1965) have analyzed the origin and growth of periodic market centres and he has given a good account of change in traditional markets to modern markets.

In 1975, Sami has carried out research on "Functional Spatial Analysis of Market of Patna"; in Patna University. In 1979, Dr. R. S. Dixit, has submitted his Ph. D. dissertation to Allahabad University on "Market centres and their spatial Development in Umland of Kanpur". The proximity in space implies separation in time has examined by R. H. T. Smith (1971), Wood (1978), Bromley (1976), Hay (1969), Gana (1976), Ishihara (1978), Thorpe (1978), Filani (1976) etc. have discussed trader and consumer behaviour. Among Indian geographers V. K.

Shrivastava, R. S. Dixit, B. G. Tamaskar, H. M. Saxena, S. Wanmali, D. C. Jayashankar, S. M. Singh, S. I. Hugar have notable work in marketing geography. Indian geographers have carried out micro-level studies on the periodicity rural and urban markets. B. G. Tamaskar (1977) has analyzed the periodic marketing system of medieval period and geographical perspectives of some periodic market systems in Maharashtra State. H. M. Saxena (1979) has highlighted the general morphological features of market towns in India. V. K. Shrivastava and H. O. Shrivastava (1979) have identified the distributional pattern of market centres in Soryupar plain, Uttar Pradesh. V. K. Shrivastava (1983) has studied the evolution and spatio-temporal assessment of 22 market places lying around Gorakhpur and has analyzed the morphology of five markets in term of numbers and types of shops, their lay-out and character and service components. K. M. Kulkarni (1980) has studied the spatial pattern of shops in Nashik city and changing functional characters from religion to commerce. R. M. Mathur (1982) has analyzed the consumer's behavior in markets of Jaipur city.

K. R. Shrivastava and V. K. Shrivastava (1984) have identified the process of market distribution and studied geographical personality in Terai region of India. R. S. Dixit (1984) has indepthly evaluated market centres of Kanpur and has correlated market distribution with population. A. P. Kumbhar and P. W. Deshmukh (1984) have identified markets in Sangli District, Maharashtra and have studied their functions, periodicity and relation to producing areas. M. Singh (1984) has studied the rural market and marketing functions of lower Ganga-Ghagra Daob wherein transport control the typed of market centres. D. A. Gedam (1984) has identified the hierarchy and transport system of periodic market centres in Wardha valley in Maharashtra State.

After 1979 literature on marketing geography study have found in the form of books written by Sami, A. (1980), Ramchandra, H. (1982), Saxena, H. M. (1984), Shrivastava, V. K. (1987) and Dixit, R. S. (1988). A few studies in marketing have carried out by Nagpur University and Pune University as a part of research for M. Phil. and Ph. D. degree. Dr. Gedam, D. A. has submitted his Ph. D. thesis on "The marketing system and network in Wardha Valley", to Nagpur University where he made systematic attempt to study of morphology as well as characteristics of buyers and sellers. Patil, B. J. (1983), Jagdale, S. D. (1990), Chaudhari, R. H. (1993) and have studied aspects of market characteristics, behaviour of sellers and buyers. A. A.

Mulimani (2002) has studied spatial analysis of traditional and non-traditional market centres for Raichur district. Smt. V. B. Saviramath (2007) has attempted to make study on traditional and non-traditional markets in Bellary district in Karnataka. S. B. Sugandhi (2009) has make study on market systems in Belgaum district.

1.5 Choice of Region

The study area has attracted by researcher due to its typical physical nature. The choice of region and topic under investigation is influenced by many considerations. Firstly, no one has studied this region on the marketing aspect. Secondly, entire study region is flat surface and nature, function and characteristics of weekly market centres have profoundly influence in this region and thirdly study region has still dominating trade of rural nature. Finally, researcher belongs to study region and is familiar with study region.

1.6 Study Region

Daund taluka lies in Pune district consisting 102 villages and one urban centre. Geographically, this region extents from 18° 18' to 18° 40' north latitudes and 74° 6' to 74° 50' east longitudes (Fig.-1.1). The region is drained by river Bhima on both north and east parts in study region. Purandhar taluka is in southwest, Indapur taluka in southern and on Haveli taluka belongs to west part of Daund taluka. The area of study region is 1288.04 square kilometres. According to 2011 Census (provisional) population of region is 382535 persons (198269 male) and (184266 female). And the density of population is 297 persons per square kilometre. The river Bhima and its tributary, namely, Mula-Mutha are dominating in study region.

The study region experiences semi-arid climate. May is the hottest month and temperature gradually reduces in December and January. The highest mean temperature is observed in May (30.6° centigrades) and lowest in January (20.4° centigrades). The slope of region is towards north and northeast. The region falls under scarcity zone receiving rainfall between 500 mm. and 750 mm. Monsoon generally commences in June occurring highest rainfall in July (133.29 mm) and lowest in December (0.85 mm average annual). There are three soil types, namely, coarse shallow, medium black and deep black soils occupying 60 percent, 25 percent and 15 percent area respectively. The coarse shallow soil is confined to south and central parts, medium black soil lying in north and black soil in low lying area of Bhima and Mula-Mutha rivers. The soil fertility supports for growing sugarcane, groundnut, jowar, bajara and onion. The region has less 0.91 percent deciduous trees and is found scatterly distributed. The irrigated land is 74463 hectares accounting 58.05 percent. National highway, state highway, major district road, other district road and village road and railway are major routes of transport in study region. Daund is a headquarter of this taluka.

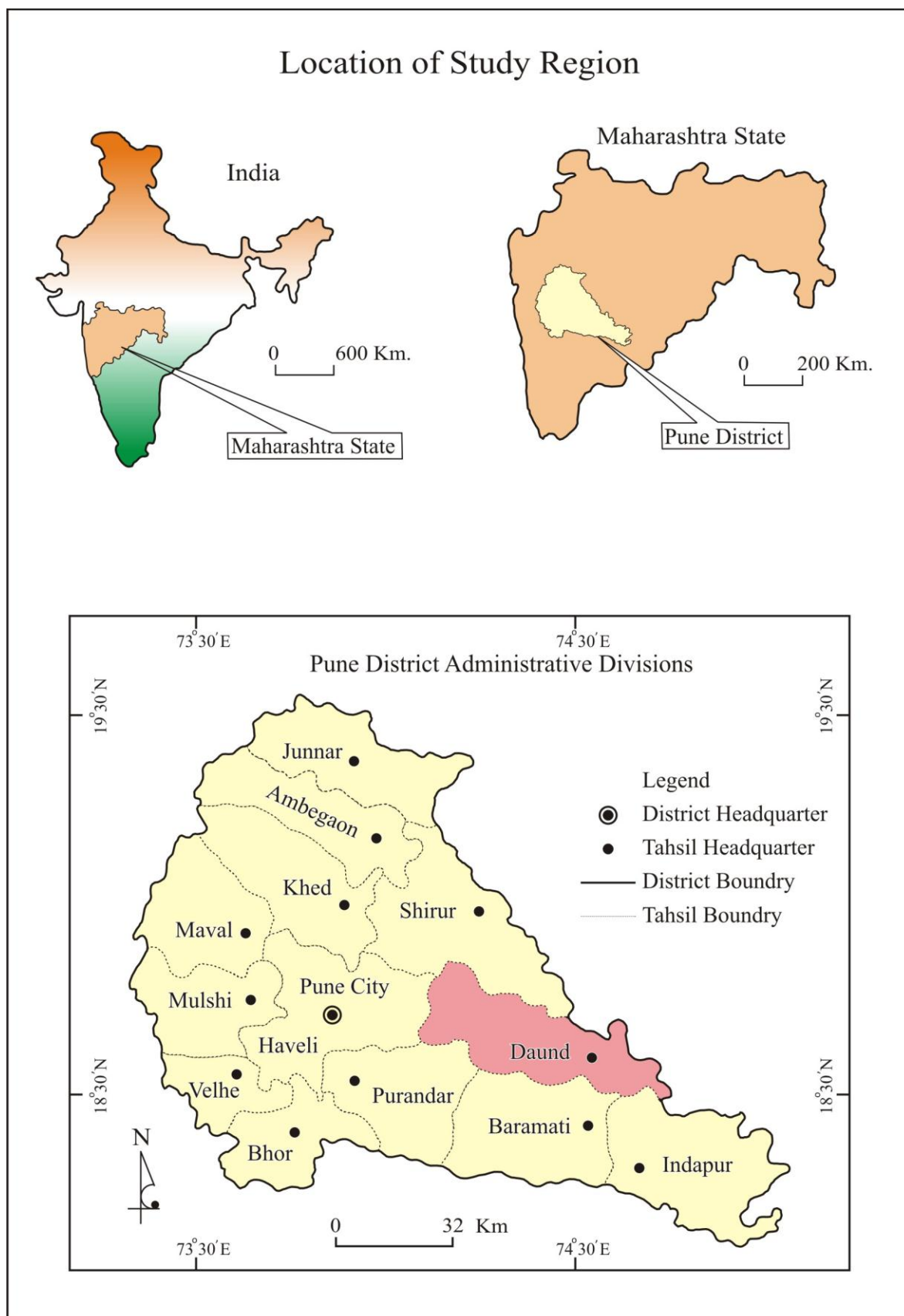


Fig. 1.1

1.7 Objective

The present study has undertaken with on objective to examine the market centres of Daund taluka in Pune district. The sub-objective for this study can be putfourth as bellow :

- a) Identifying the morphology and arrangement of stalls in market centres of Daund taluka.
- b) Examining the origin, characteristics and behaviour of buyers in market centres in study region.
- c) Assessing the origin, characteristics and behaviour of sellers and to identify the process.
- d) Assessing the role of weekly market centres for rural development in study region and identify problems of market centres. and,
- e) To presents suggestions and finding of study region.

1.8 Database and Methodology

This research work is based on both primary and secondary sources of data. The primary data have collected from fieldwork in 2012. This data have behaviors of pertaining to sellers and buyers were gathered from nine market centres, namely, Patas, Kedgaon, Ravangaon, Rahu, Warwand, Kurkumbh, Yewat, Khadki and Daund by administrating questionnaire. The questions were on location, duration, economic functions, sex, education, transport, etc. Out of existing number of shops and peoples, 10 percent sellers and buyers have been selected for this study for each market centre. The secondary data have obtained from District Census Handbook, Pune district (1991, 2001 and 2011 (Provisional)), Pune District Gazetteer and Socio-economic Abstract, Pune District (1991 to 2011). Other sources of data have gathered from Daund Tahsil Office. The obtained data were converted into percent. The process data have displayed by relevant maps, figures and divided circles. The following techniques have been used in present study.

- i) Nearest-Neighbour Analysis Techniques.

$$R_n = \frac{d_o}{d_e}$$

Where:

R_n = Nearest Neighbour Value

d_o = Observed Average Distance Between Market Centres.

d_e = Expected Average Distance Between Market Centres.

$$de = 1/2\sqrt{A/N}$$

Where:

N = Number of Points in the Study Region.

A = Area of the Study Region.

ii) Centrality Index.

$$Ci = \frac{O_s \times 100}{M_x}$$

Where:

Ci = Centrality Index of Market Centres

Os = Observed or Weighted Composite Scores.

Mx = Maximum Weighted Scores.

iii) Market Attractiveness :

(100 percent) – (Percent of observed number of buyers in term of expected number of buyers).

Where:

Expected number of Buyers has represent a single family unit of five members from each of villages.

iv) Market Efficiency :

(100 percent) – (Percent of observed number of sellers in term of expected number of sellers).

Where:

Expected number of sellers has calculated empirical basis of normal ratio of sellers (10 Buyers : 1 Sellers).

1.9 Arrangement of Text

It is necessary to organize in proper manner any piece of research which gives a brief idea of the whole study. Therefore, the present study has been divided into seven chapters. The beginning chapter opens with introductionally background of study explaining significance of markets, choice of study region, history of development of market centres, growth of market in India, review of literatures, objectives, database and methodology and arrangement of text. The second chapter has attempted to describe the geographical personality of Daund taluka where in Physiography, drainage, climate, soil types and vegetations. Moreover, economic personality of the tahsil like population distribution and density occupational

structure, transport network and distribution of weekly market centres have described. The third chapter, on morphology of market centres has highlighted the study of different characteristics of weekly market centres in term of location, morphology, shape and stalls situation. The fourth chapter has observed local and outside sellers, place of their origin, distance traveled by sellers, types of commodity, age and sex composition, educational composition, religions composition and travel pattern. Chapter five deals with the behaviour of buyers, network of buyers, origin, distance and type of commodity, age, sex, educational, religions and caste composition and travel pattern of buyers. The six chapter, has discussed the delimitation of market area, market centres and service villages, market centres and influencing factors, market attractiveness and efficiency, spatial pattern of market centres have been determined by applying nearest neighbour technique, hierarchy of weekly market centres, weekly market centres and rural development. Lastly, An attempt in seven chapter has presented major findings and suggestions followed by concluding remarks.

1.10 Limitation of Study

The existence and functioning of market centres in rural areas are influenced by physiography, irrigation, transport, communication, literacy, social and physical factors. The information regarding these factors has not updated and was found insufficient for the researchers. During this period the changes in case of market site and situation, rural economy, agriculture and infrastructure facilities have occurred hence researcher has handicapped in proper explanation of text. The lack of accurate data on morphology of market, behaviour of sellers and buyers and indicators of rural development have solely dependend during fieldwork resulting certain accuracy. The study regarding market and village level was available only for the year 2011-12 hence rural development in relation to market centres have been studied for 2011-12 in study region.

CHAPTER-II

GEOGRAPHICAL PERSONALITY

2.1 General Introduction

Markets perform major role by its functions in the economy of any region. Weekly market is a assemblage of local traders organized to facilitate retail operations. It is a tertiary economic activity. The river Bhima and its tributaries Mula-Mutha rivers have studied from marketing point of view. Hence, it is necessary to study the geographical personality and its salient features of study region. The present chapter is an attempt to describe geographical background of study region.

2.2 Location, Site and Situation

Daund tahsil is located in east part in Pune district of Maharashtra state. It has elongated shape running northwest to southeast direction. This region extends from $18^{\circ} 18'$ to $18^{\circ} 40'$ north latitudes and $74^{\circ} 6'$ to $74^{\circ} 50'$ east longitudes. The study region is bounded by river Bhima on north and east sides. The south boundary is confined by Purandhar, Baramati and Indapur tahsils of Pune district. While the west boundary is confined by Haveli and Shirur tahsils in Pune district. The total geographical area is 1288.04 square kilometres and has population of 382535 according to 2011 Census and consisting of 102 villages and one urban centre.

2.3 Geology

The study region consists of basalt rock developed through numerous eruptions during the period from the early Eocene to late Cretaceous and has step-like topography. This types of rock occurs in the form of massive vesicular having dark brown colour with a fine texture and basaltic in nature containing minerals like augite, labradorite, paraoxon, etc. Basaltic surface has free and exchangeable calcium i.e. augite and labradonite. The basalt appears in the form of vesicular and vermicular in nature and is easily weathered and eroded. The fine grained basalt is very resistant to weathering and erosion. Both types of flow are found in study region. There is one major and several minor lineaments running perpendicular to the major one. The major lineament lies from the northwest to southeast region for a distance of about 40 kilometres. These lineaments control the drainage system and soil types. The northern part in the vicinity of Bhima river is undissected and degree of dissection increases towards south part. The central part of study region is characterized by upland plateau and is found dissected.

Table- 2.1 : Name and Code Numbers of Villages in Daund Tahsil

Code No.	Name of Villages	Code No.	Name of Villages	Code No.	Name of Villages	Code No.	Name of Villages
01	Takli	27	Sahajpurwadi	53	Kedgaon	79	Wadgaon Dearekar
02	Panwali	28	Boribhadak	54	Boripardhi	80	Pedgaon
03	Vadgaon Bande	29	Dalimb	55	Warwand	81	Shirapur
04	Koregaon Bhiwar	30	Boriaindi	56	Deulgaon Gada	82	Kurkumbh
05	Walki	31	Tamhanwadi	57	Padvi	83	Pandharewadi
06	Telewadi	32	Bharatgaon	58	Kusegaon	84	Jiregaon
07	Patethan	33	Yawat Station	59	Roti	85	Kauthadi
08	Devkarwadi	34	Yawat gaon	60	Hingnigada	86	maladpatas
09	Mirwadi	35	Bhandgaon	61	Wasunde	87	Kadamwasti
10	Dahitane	36	Wakhari	62	Kangaon	8	Boribel
11	Rahu	37	Khor	63	Gar	89	Kalewadi
12	Pilanwadi	38	Pimpalachiwadi	64	Betwadi	90	Hingni Berdi
13	Tambewadi	39	Galandwadi	65	Navingar	91	Malthan
14	Undwadi	40	Pargaon	66	Patas	92	Lonarwadi
15	Ladkatwadi	41	Nangaon	67	Virobawadi	93	Gadewadi
16	Nathachiwadi	42	Ganesh Road	68	Girim	94	Ravangaon
17	Pimpalgaon	43	Amoni Mal	69	Nanwji	95	Nandadevi
18	Delwadi	44	Hatwalan	70	Sonwadi	96	Khadki
19	Ekeriwadi	45	Kadethawadi	71	Malwadi	97	Chincholi
20	Khutbav	46	Dapodi	72	Gopalwadi	98	Gadebagade Wasti
21	Nandur	47	Khopodi	73	Lingali	99	Watluj
22	Boratewadi	48	Handalwadi	74	Mergalwadi	100	Naygaon
23	Khamgaon	49	Deshmukh Mala	75	Masanarwadi	101	Rajegaon
24	Kamthwadi	50	Kedgaon Station	76	Khorodi	102	Khanote
25	Kasurdi	51	Nimbalkar Vasti	77	Alegaon	103	Daund
26	Jawajebuwachiwadi	52	Dhumalicha Mala	78	Deulgaon Raje		

Source : District Census Handbook of Pune, 2001

2.4 Physiography

Daund tahsil is part of Deccan plateau belongs to upper Bhima basin. The entire area is nearly flat with less variations having slope towards north and northeast and altitude decreases towards north and northeast. The average height is 554 metres from mean sea level. The maximum height is observed in south near Tamhanwadi village (886 metres) while minimum height is in extreme east on the bank of Bhima river near Khanote village (520 metres) in study region. The southern boundary of tahsil is demarcated by small hill range running eastwest direction (Fig.-2.1). This hill range is divided into hillocks and escarpments. The rainfall amount declines sharply eastwards from crestline and is responsible for existing landscape.

2.5 Drainage

The river Bhima and its tributaries, namely, Mula-Mutha are dominating the drainage pattern in study region. Bhima is the major river flowing toward east in study region (Fig.-2.2). It originates near Bhimashankar in Pune district. Mula-Mutha rivers joins together to Bhima river near Delwadi village in northwest corner in Daund tahsil. Total length of Bhima river is 123 kilometres and length of Mula-Mutha is 29 kilometres in study region. Both Bhima and Mula-Mutha rivers flow with magnificent volume of water during rainy season and shrink into narrow streams during the hot season. Out of 103 villages, thirtytwo villages are situated along the river Bhima in northern zone in study region. The south part has an undulating topography and is a source of emerging many seasonal streams flowing towards the north and east parts in study region (Fig.-2.2).

2.6 Climate

Climate is a major determinant of climatic condition in study region and experiences semi-arid climate and it is characterized by dryness during major part of the year and hot summer. The climate from January to April is comparatively dry. The relative humidity is high in July, August and September. May is found high evaporation rate. Winds are generally high force during the summer. There are three seasons experienced in study region, namely, winter, rainy season and summer. Winter is observed from November to February and summer from March to May. The southwest monsoon season is observed from June to September and the northeast monsoon season from October to November (Fig.-2.3/A).

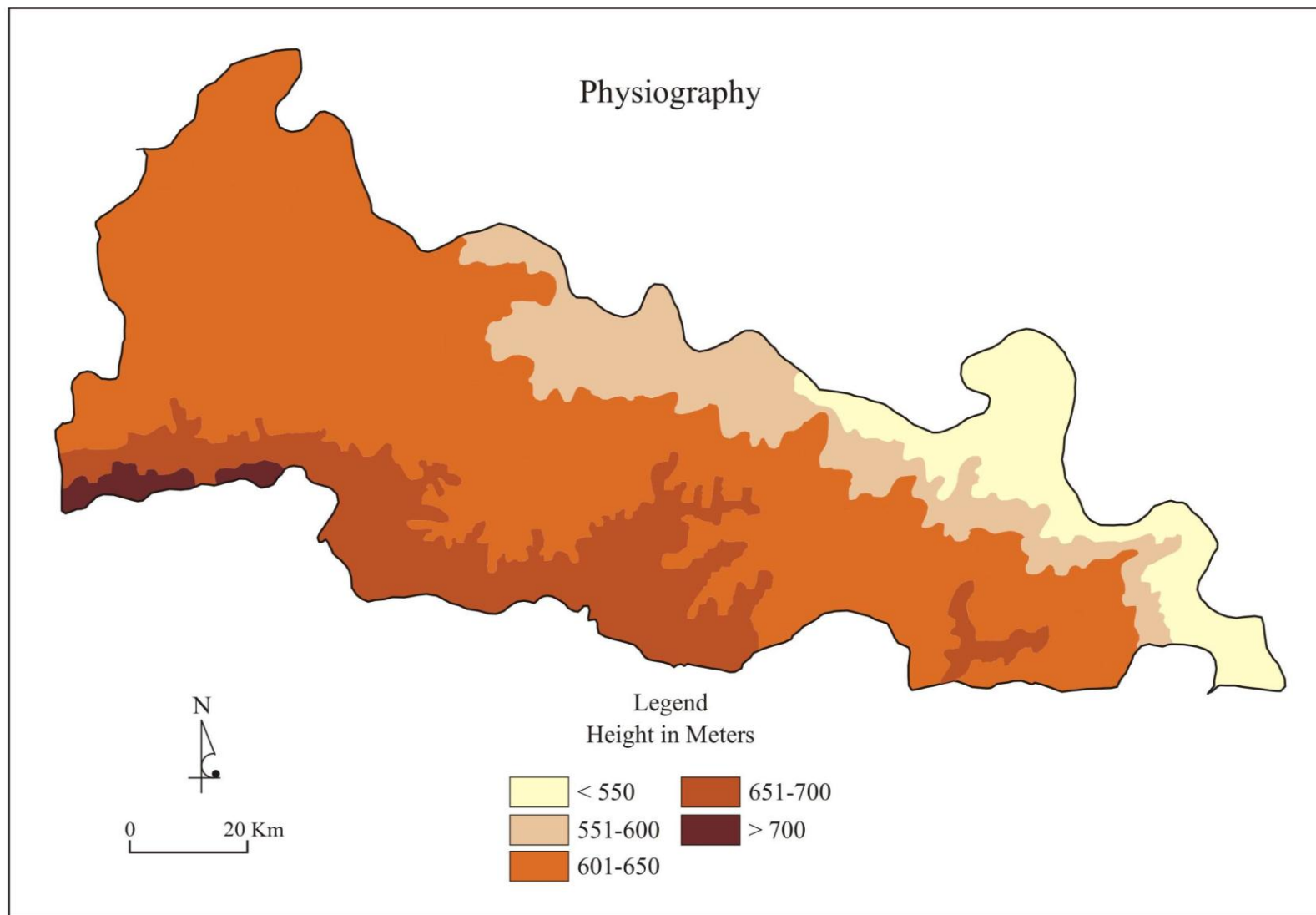


Fig. 2.1

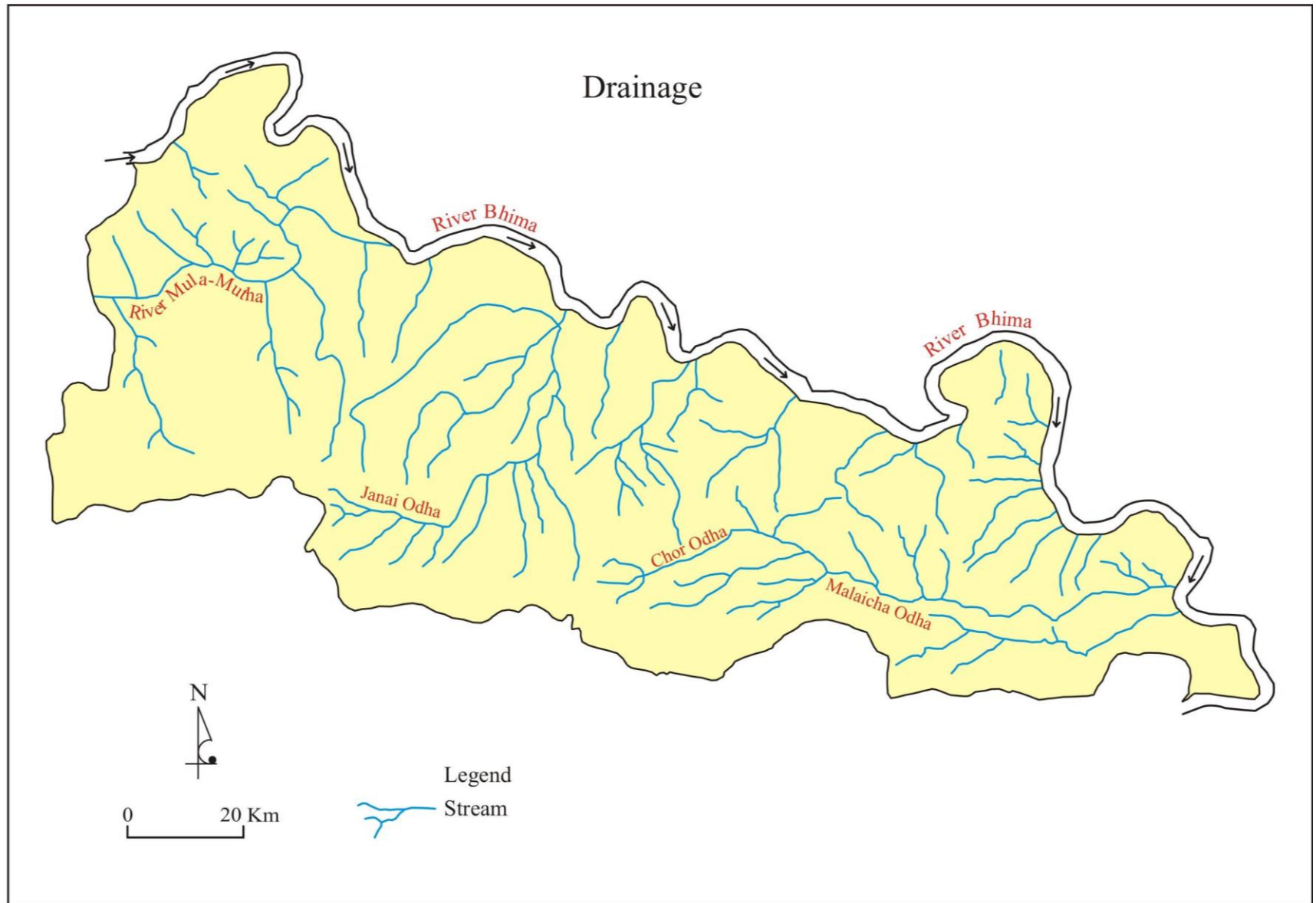


Fig. 2.2

Table - 2.2 : Mean Monthly Average Rainfall at Daund

Sr. No.	Months	Rainfall	Sr. No.	Months	Rainfall
1.	January	0.00	7.	July	133.29
2.	February	0.00	8.	August	132.13
3.	March	0.00	9.	September	87.90
4.	April	0.00	10.	October	43.21
5.	May	0.00	11.	November	2.22
6.	June	88.32	12.	December	0.87

Source : Irrigation Department, Patas Division, Pune.

Note : Rainfall is given in millimetres.

The variations in rainfall in study region are found from year to year. The study region receives rainfall from southwest monsoon and it is mostly confined to period from June to September receiving 60 percent annual rainfall and 30 percent rainfall during the retreating monsoon season (October to November). The average annual rainfall ranges between 500 mm. to 750 mm. July is the month of highest rainfall and December is lowest rainfall. In study region receives uneven and irregular rainfall during rainy season (Fig.-2.3/A).

Table- 2.3 : Mean Monthly Temperature at Daund

Months	Maximum	Minimum	Mean
January	26.06	14.08	20.4
February	32.35	14.68	23.5
March	35.78	14.72	27.3
April	38.39	21.80	30.1
May	37.74	23.36	30.6
June	32.5	22.26	27.4
July	29.75	22.15	26.0
August	29.1	21.66	25.4
September	30.63	21.29	26.0
October	31.74	17.71	24.7
November	30.25	15.51	22.9
December	28.9	13.9	21.4

Source : Department of Irrigation, Patas Division, Pune District, Pune.

Note : Temperature is given in degree centigrades.

The period from November to February is the coolest part of the year. By the end of February temperature begins to rise and May is hottest month. It is found mean annual maximum temperature is recorded in May (30.6° centigrades) while mean annual minimum temperature is found in January (20.4° centigrades). The maximum summer temperature is 37.74° centigrades and minimum winter temperature is 13.9° centigrades in study region (Table-2.3 and Fig.-2.3/B).

2.7 Soil Types

Soil is formed by the process of disintegration and decomposition of rocks together with plants and animals over a long period of time. The soils are mainly formed in this sedimentary manner due to deposition of original occurrence. The major soil types are in study region, namely coarse shallow soil, medium black soil and deep black soil. 60 percent area in study region is covered by coarse shallow soil. It is confined to south and central parts in study region. This soil appears at the higher altitude upto 600 metres on undulating land containing less moisture resulting low yield. Jowar and Bajra crops are well grown on this soil. The medium black soil is appeared in surrounding Bhima and Mula-Mutha rivers areas covering 25 percent area in study region (Fig.-2.4). It is fairly deep, well drained and fine textured. It suffers from moderate erosion. It is moderate saline, clayey and calcareous in nature. This soil is comparatively less fertile than deep soil. Sugarcane, wheat, vegetables and fodder are common crops grown in this soil in study region. Deep black soil lies on low lying area of Bhima and Mula-Mutha basin. It is well drained, clayey and it appears dark brown to grayish black in colour owing to excessive predominance of humus content. This soil varies in depth from 3 to 15 feet. This soil contains high moisture holding capacity with calcium carbonate in varying proportions and is suitable for cultivation. The crop cultivation in this soil is supplemented by irrigation. Vegetables, sugarcane, wheat, fodder crops are grown on black deep soil in study region.

2.8 Natural Vegetation

The study region is found scattered vegetation due to irregular and scanty rainfall resulting existing vegetation. Physiography, soil types, availability of ground water level exerts influence on types and occurrence of natural vegetation in study region. The natural vegetation yields materials for shelter, firewood, agricultural implements, cattle-feed, medicines of common use etc. In study region there is not much variations in natural vegetation. The vegetation occupies on 138 hectares accounting 0.09 percent area in study region.

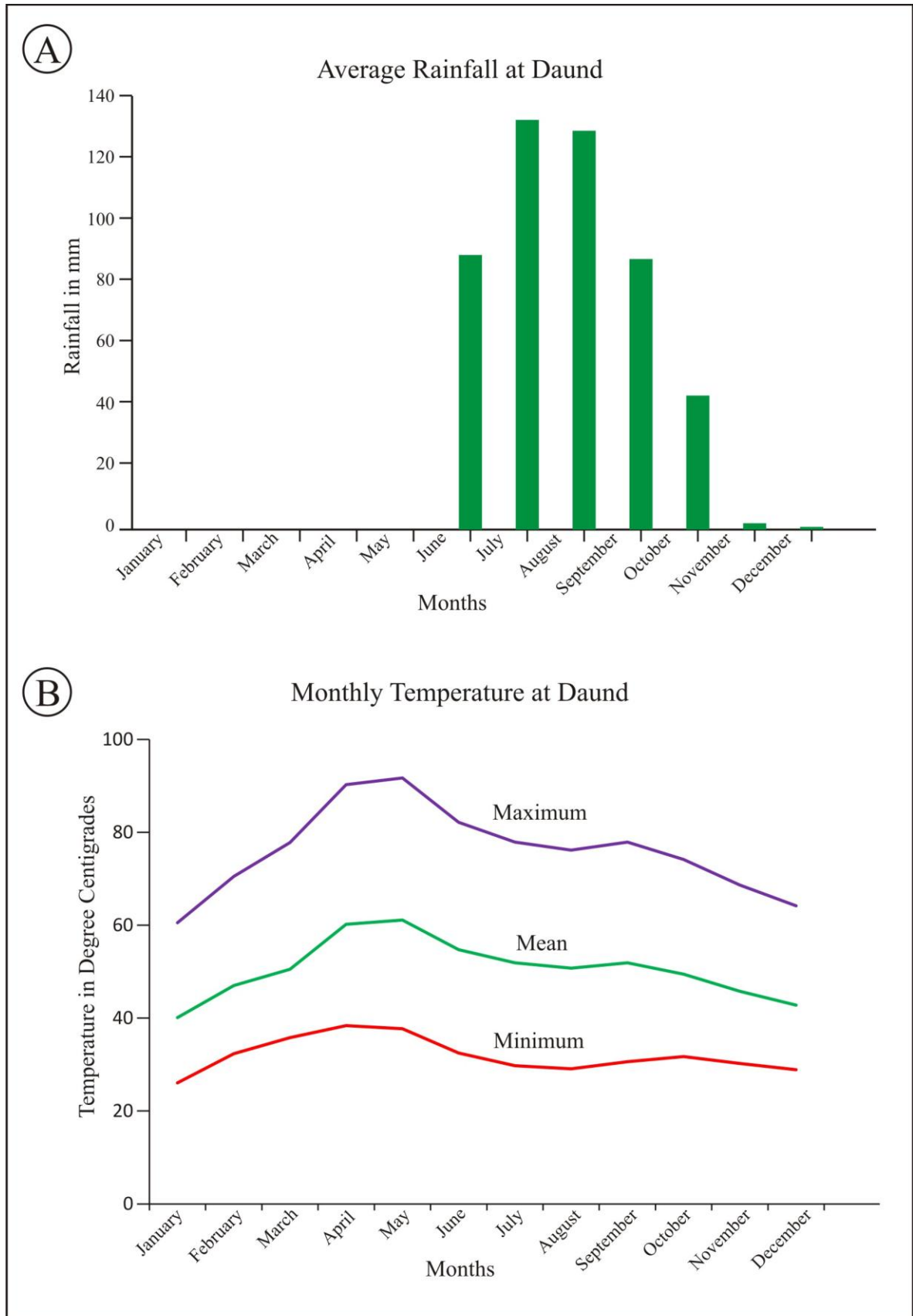


Fig. 2.3

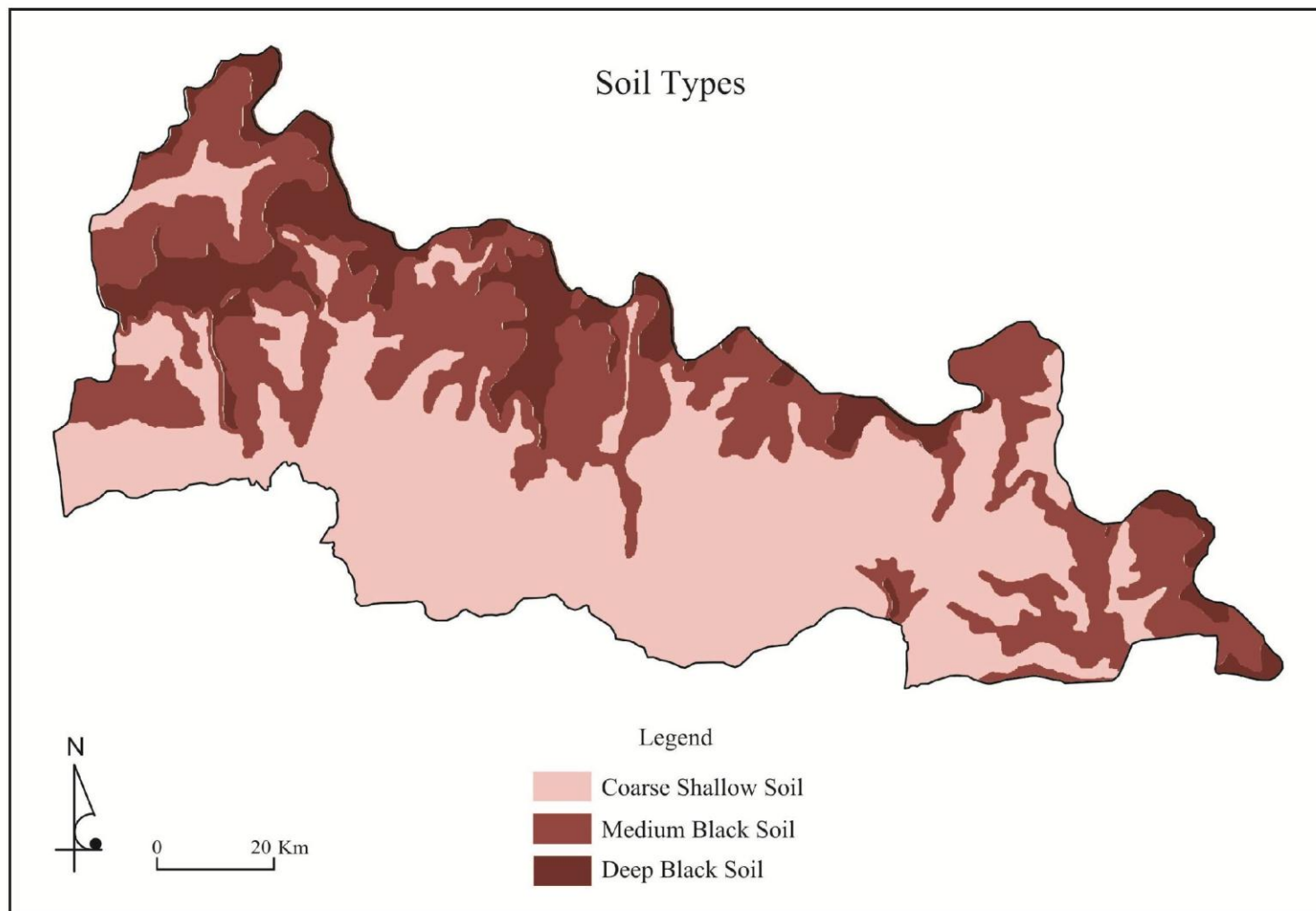


Fig. 2.4

2.9 Agriculture

Agriculture is predominant in study region provides livelihood to 66.93 percent population. It largely depends upon soil types, climatic condition and irrigation and reflects the variations on cultivation of different crops. Sugarcane is one of the important crop in Daund taluka. The area under sugarcane cultivation in study region is increasing due available irrigation facility. The agricultural operation of this crop requires more care and more capital. Another important crops are jowar, bajra and onion. But, area under these crops under cultivation in Daund taluka is declined as in comparison sugarcane area. The farmers are generally reluctant in cultivation the pulses, grams and vegetables. Therefore, the acreage under above crops are declined largely in study region. The cash crops are sold in wholesale market. The remaining crops are consumed locally. The agriculture in study region is entirely depended on amount of rainfall receives in both kharif and rabbi seasons. Total area under cultivation is 103844.94 hectares in study region.

2.10 Irrigation

Irrigation is main source for crop growth and drinking purpose. It largely depend upon the types of sources. The main source of irrigation is canal irrigation besides wells, tanks and ponds. Victoria tank is major tank and it supplies water to Warwand and Patas villages. Lift irrigation is available along south bank of Bhima river. Villages lying on river side irrigate land by using pump sets both for drinking and land cultivation. Irrigation through exploitation of ground water is found high. The irrigated land in study region is 74463 hectares accounting 58.05 percent. Out of this 42.66 percent land is irrigated by canal in study region. Tanks irrigation accounts only 27.29 percent, wells irrigation constitutes 27.90 percent whereas followed by 2.15 percent of borewells in study region.

2.11 Transport

Transport plays a vital role between men, material and ideas in any region. It always supports for developing markets centres in rural area. Without an efficient transport market will not perform effectively. The mobility of goods and people from place to place is largely governed by efficient means of transport and communication. The availability of transport in region plays a key role in reducing an imbalanced development in study region. The study region has a well road routes and railway.

Apart from these study region has of post-offices and communication network. The road transport in study region plays dominant role in the origin and development of market centres in Daund taluka. The study region has national and state highway, major district road, other district road and village roads. The national highway passes through study region (Pune-Solapur NH-9) having length of 72 km (Fig.-2.5) and it connects Yawat, Warwand, Patas, Kurkumbh, Ravangaon and Khadki market centres. State highways are main roads and have linked to national highway and district head quarters and major cities. The total length of state highway in study region is 88 km (Fig.-2.5). Four state highways, namely, Saswad-Shirur state highway (SH-63) of length of 21 km. Supe-Shirur state highway (24 km length) (SH-64). Baramati-Ahamadnagar state highway (SH-10) of length of 23 km. Patas-Daund state highway (SH-67) length of 15 km lie in study region. The market centres, namely, Daund, Kedgaon, Warwand, Patas and Yawat are located on the route of state highway (Fig.-2.5).

Table -2.4: Road and Railway Route in Daund Taluka

Sr. No.	Categories	Length in Km.
1	National Highway (NH)	72.00
2	State Highway (SH)	88.00
3	Major District Road	137.0
4	Other District Road	156.40
5	Village Road	198.80
6	Broad Gauge Railway	73.60
7	Metre Gauge Railway	14.00

Source : District Census Handbook, Pune District, 2001.

Major district roads in study region has 137 km length and have found connected the areas of agricultural produces and market centres by highways and railways route. These roads provide hauling services in rural areas.

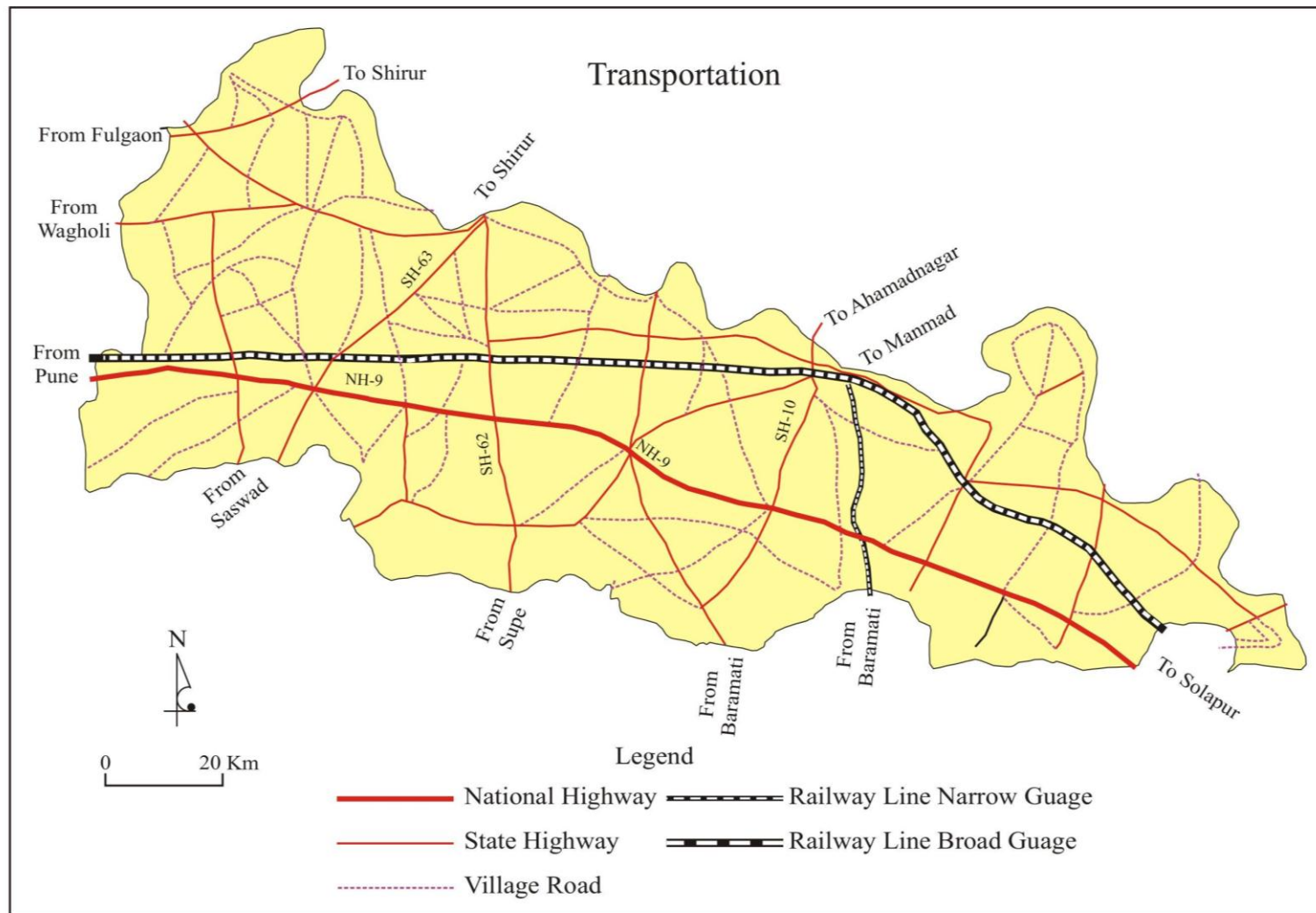


Fig. 2.5

Rahu market centres lies on Fulgaon-Shirur major district road (Fig.-2.5). Other district roads link with major district road, national highway and state highway in study region. The total length of other district road is 156.4 kms in study region and these roads are used for bringing agricultural goods to market centres and distributing them to consumers.

Village roads in study region links villages with major and other district roads for collecting and distributing agricultural goods to interior rural areas having length of 198.8 Km. (Fig.-2.5). The study region has broad gauge and metre gauge railway line of 87.6 Km. length. Pune-Solapur broad gauge has 73.6 kms length and Daund-Baramati metre gauge railway has 14 km in study region. Daund is a major railway junction in study region and Kedgaon and Daund market centres are located on this railway route. Another three market centres, namely, Patas, Warwand and Yawat are located within range of 5-10 km from railway route. Rahu is only market centre lies interior part in rural area and has found less road connectivity.

2.12 Population Distribution

Market activity is an integral part of settlement system. The population and its size have certain consequences on marketing activity as it determines the level of consumption. According to Provisional Census 2011 study region has 382535 population, (198269 male) and (184266 female) in study region. The study region has 326099 rural and 56436 urban population. The distribution of population attributed to type of crop cultivation, urbanization and industrial development within the study region.

Daund taluka has 297 persons per square kilometre population density in 2011 and 2001 population was 341338 having density of 265 persons per square kilometre. In 1991, population was 230641 having density of 179 persons per square kilometre and growth rate from 1991 to 2001 was 47.99 percent. It is noted that the growth was almost three times from 1971 to 2001 in Daund tahsil. The spatial distribution of population density for 2011 is given in Fig.-2.6. It is observed from this figure that the highest population density for 1981 was recorded at Daund (909 persons per square kilometre) followed by Tambewadi (727 persons). There were five villages having a population density ranging between 250 and 500. These villages are Kedgaon station (386), Dhumalicha Mala (303), Boripardhi (298), Kedgaon (289) and Handalwadi (279) located in central part in study region (Fig. 2.6).

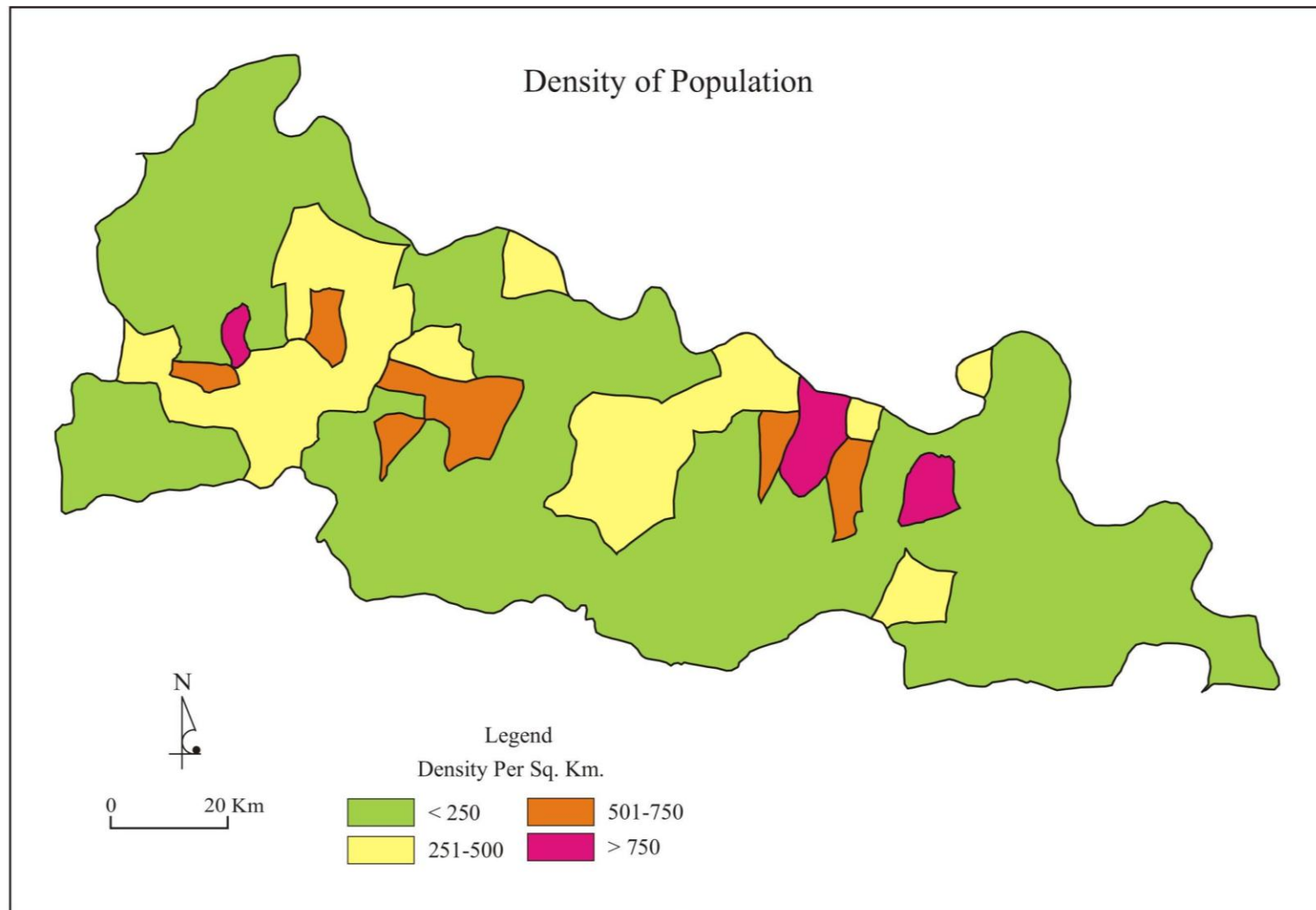


Fig. 2.6

The five villages spread in study region into two patches one lying central and another two villages found in north east part, namely, Kadamwasti (456) and Khorodi (350). Ninetyfour villages in study region have density of less than 250 persons per square kilometre observed in the study region. Fig.-2.6 exhibits the spatial distribution of population density in 1991. The density of population in 1991 was 179 persons per square kilometre in study region. Two villages, namely, Kadamwasti and Kedgaon show a considerable increase in population density during the study period due to their nodal locations. Kedgaon is located on Pune-Solapur Railway route and Baramati-Saswad state highway. Kadamwasti has 456 population density due to its proximity of Maharashtra Industrial Development Corporation located at Kurkumbh.

The lowest density of population is recorded in southeast part in study region, medium density of population is in central part in Daund taluka, while higher density is found in central-west part in Nathachiwadi, Kamatwadi, Kedgaon station, Dimalichamala, Kedgaon, Boripardi, Malwadi, Gopalwadi. Highest density in central part has attributed to industrial centres. Another high patch of density lies along the Bhima river on irrigated land (Fig.-2.6). In study region sixtyfive villages have lowest density accounting less than 250 persons per square kilometre due to less cultivated land and less transport. Medium density is found twentyseven villages between 250 to 500 persons per square kilometre. However, high density of 500 to 750 persons per square kilometre is found in eight villages and highest density above 750 persons per square kilometre is found in three villages lying central part in Daund taluka due to fertile agricultural land, transport and urban area, Kedgaon, Warwand, Yawat, Patas and Daund markets are located in this high density population area in study region.

2.13 Occupational Structure

The economic activity can be considered as one of the measure of economic development engaged in primary, secondary and tertiary activities. The working force ratio to total population reveals the gravity of problem of ever growing population pressure on land causing unemployment. In study region, mostly populations are engaged in farming either as cultivators or agriculture labours. The Planning Commission of India in 1951 has classified population into three occupational structures, namely, total, main workers, non-workers and marginal workers. These main workers have been further classified into three categories, namely, cultivators, agricultural labours and other workers (Fig.-2.7).

Main workers mean those who are engaged in economic productive activity for the major part of the preceding year (at least six months or 180 days) while marginal workers means those who work for some time but not for the entire year. Other workers consist of those who are engaged in livestock, forestry, fishing, hunting, plantation, orchard, mining, quarrying, manufacturing, processing, servicing, construction work, trade and commerce and other services. Table-2.5 show the decadal changes of occupational structure in study region for 1981 to 2001. It is clear from Fig.-2.7 that cultivators have found 18.35 percent in 1981 and 19.79 percent in 1991 respectively.

Table- 2.5 : Occupational Structure in Daund Tahsil

S. No.	Years	Cultivators	Agricultural Labours	Other workers	Marginal Workers
1	1981	18.35	10.53	5.02	18.76
2	1991	19.79	13.45	8.96	5.25
3	2001	18.11	11.19	12.21	5.14

Source : District Census Handbook, Pune District, 2001.

Note : Figures are given in percent

The total change from 1981 to 1991 in study area was recorded 6.54 percent. The percent of agricultural labour shows a steady increase 2.92 during 1981 and 1991. In the study area other workers have increased by 3.94 percent from 1981 to 1991 and 3.25 percent from 1991 to 2001. Marginal workers declined by 13.51 percent from 1981 to 1991 in study region.

2.14 Weekly Market Centres

The location of weekly markets is mainly governed by physical, human factors and involvement of surrounding villagers in marketing activity. These village seems to have been created the weekly market on demand and convenient of availability of transport facilities. There are nine weekly market centres spreaded in study region and performs the retailing activities. The two weekly markets are located in west namely, Patas and Warwand of 15 and 21 kms distance from Daund city respectively (Fig.-2.8). Other three market centres lie on the distance of more than average distance of 23.83 Km., namely, Kedgaon, Rahu and Yawat. The remaining three markets centres, namely, Kurkumbh, Ravangaon and Khadki are located in east part in study region. Further Rahu is located on 43 kms distance from Daund. Patas, Warwand, Yawat, Kedgaon, Kurkumbh, Ravangaon, Khadki and Daund are lying on roadside (Fig.-2.8) while Rahu market is located in interior and is connected by major district road.

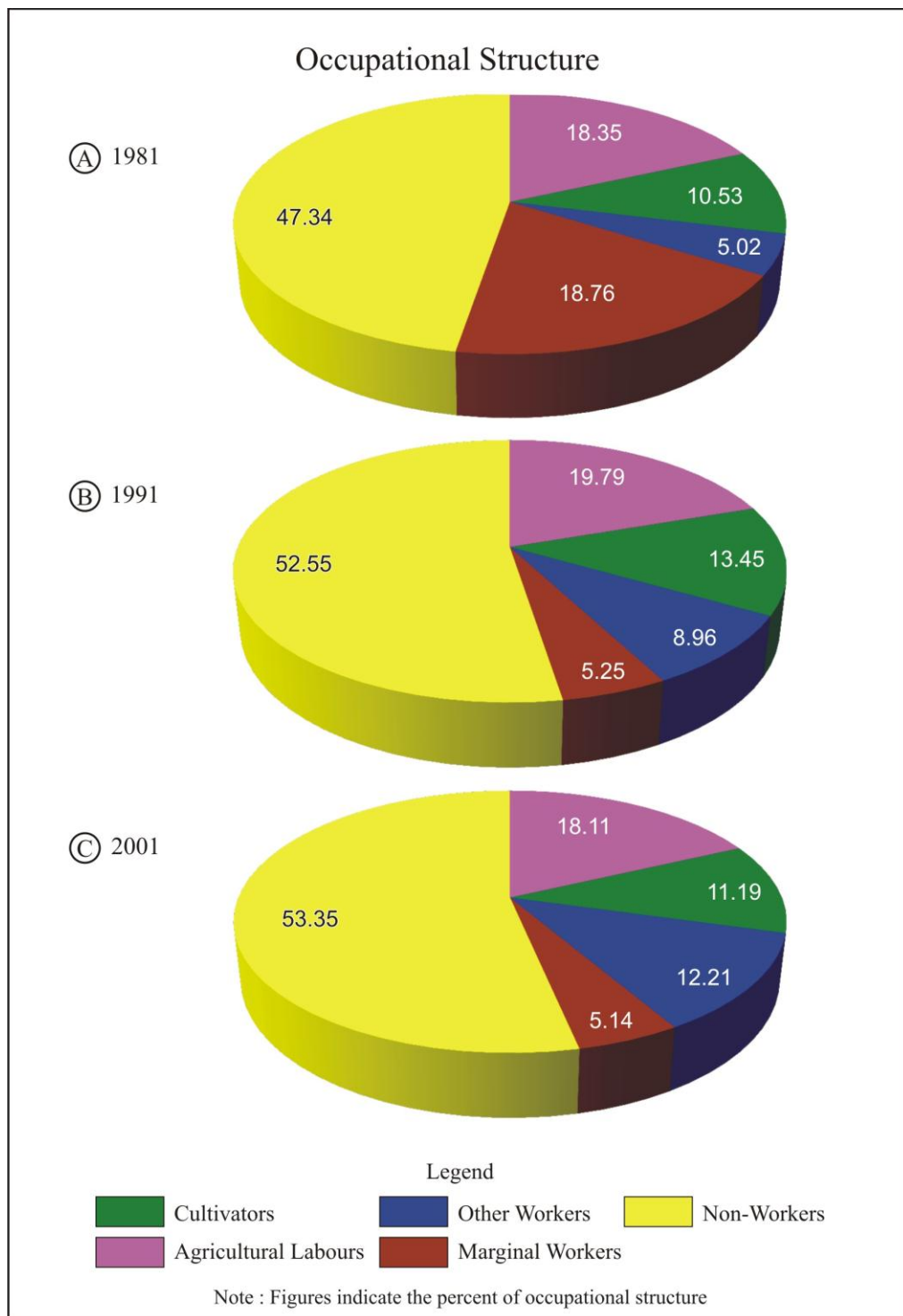


Fig. 2.7

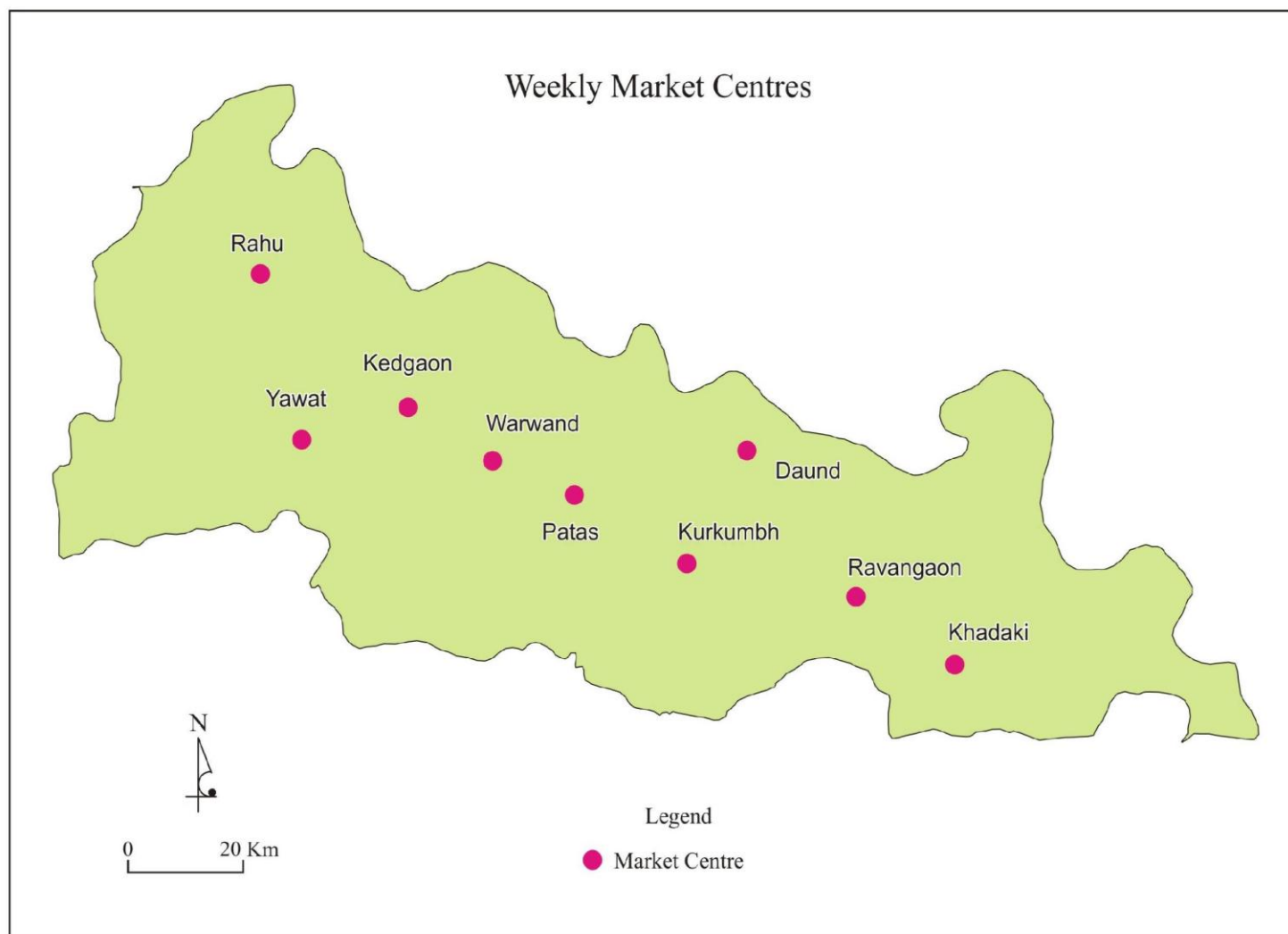


Fig. 2.8

The market development depends upon types of commodities produced, transport facilities and population. Weekly market centres provide opportunity to consumers, sellers, traders and mediators for exchanging their goods. Yawat, Kedgaon, Warwand, Patas, Kurkumbh, Ravangaon and Khadki market centres lie on National Highway-9 and are linked with state highways, major district roads and are easily accessible to these market centres throughout the year. Rahu market centre has less connection with other market centres in study region owing its isolated location (Fig.-2.8). Any these market centres, Yawat is well known for cattle marketing in study region. Table-2.6 presents weekly market centres, market days and their distance in study region.

Table- 2.6 : Weekly Market Centres in Daund Tahsil

Market Centres	Market Day	Distance	Market Centres	Market Day	Distance
Patas	Monday	15	Kurkumbh	Thursday	10
Kedgaon	Tuesday	28	Yawat	Friday	36
Ravangaon	Tuesday	17	Khadki	Friday	26
Rahu	Wednesday	43	Daund	Sunday	00
Warwand	Thursday	21			

Source : District Census Handbook, Pune, 2001.

Note : Distance is measured from Daund in kilometres

2.15 Resume

Present chapter deals with geographical profile of Daund taluka, where Physiography, drainage, climate, soils, vegetation, agriculture, irrigation, population, occupational pattern, transport and weekly markets have described. This study has uncovered the major characteristics of study region. The study region is 1288.04 square kilometre area covering 102 villages and one urban centre. Geologically, this taluka is a part of Deccan plateau. The entire area is nearly flat with less variations having slope towards north and northeast. The average height is 554 metres from mean sea level. The study region is a part of Bhima river catchment area. Bhima river and its tributaries Mula-Mutha are major rivers in study region. Climatically, this region experiences to semi-arid climate. May is the hottest month (maximum temperature of 37.74°C). The study region has average annual rainfall ranges between 400 to 500 mm. July receives highest rainfall (133.29 mm.) and December receives minimum rainfall of 0.87 mm. The distribution of rainfall is uneven throughout the year in study region.

Along the south side of Bhima river has fertile soil and it is suitable for agriculture. The study region has three types of soils, namely deep black, medium black and coarse shallow containing varied moistures to produce variety of crops. Deep black soil lies in northern part along Bhima and Mula-Mutha occupying 15 percent area and medium black soil in the region of Bhima and its tributary Mula-Mutha river covers 25 percent area. This soil is suitable for cultivation of sugarcane, wheat, vegetables in study area. Coarse shallow soil is spreaded in central and southern parts on 60 percent area in the study region where jowar, bajra, sugarcane, wheat and vegetables are cultivated. The region occupies less than one percent forest area of deciduous trees and is found scattered grown in study region (0.09 percent). 58.05 percent area is found under irrigated land mainly under for sugarcane cultivation. According 2001 Census study region has 341388 populations and 66.93 percent population is engaged in agricultural activity.

This region has national highway, state highway, major district road, other district road and village road. The national highway runs in east-west direction connecting Yawat, Warwand, Patas, Kurkumbh, Ravangaon and Khadki market centres. Four state highways act as linking route to national highway and major settlements in study region. Major district roads have supported agriculture for bringing agricultural produce to regional market centres. Village roads are supporting to collecting and distributing agricultural goods to interior rural areas. Daund lies along railway junction and state highway. It is noted that nine weekly market centres, namely Patas, Kedgaon, Ravangaon, Rahu, Warwand, Kurkumbh, Yawat, Khadki and Daund are perform the function for exchanging goods and fulfill primary needs of surrounding villages in study region.

CHAPTER-III

MORPHOLOGY OF WEEKLY MARKETS

3.1 General Introduction

The social, cultural and economic condition of any place is determined the nature of market. The location plays vital role in serving the market area. It is a place of geographical layout which is termed as “Market Morphology”. Saxena (1984) has rightly said in this regards that “Every market place has its own morphological pattern”. The study of market morphology is necessary for planning for investment and promotion of sellers and buyers activities, transport and change in market systems. Every Market has its own morphological pattern. The morphology of market is the result of site and situation on one hand and social and political conditions on other. Market place displays social life as it satisfied the needs of society. Socio-political factors are influencing the market morphology. The market morphology forms number of residents and their economic condition. The process of market morphology grows according to population and lanes and this process, later on, will be developed on the way or chowk. If the small place or lane is converted into big place then shops will grow on the chowk or behind the main way or rounded somewhere. Even shops will grow on empty places if population in term of buying and selling increases in market and fulfills the needs of people (Trivedi, 1996). The growth of market morphology is very much linked with the growth of settlements. It is very difficult to find out whether marketing activity determines the man-made geographic structure in urban area or whether the structure of urban area determines the marketing activity. In fact, both these factors are interrelated and interdependent. It is said that market morphological pattern becomes increasingly complex as its grows in its size. The market centre can be studied with considering arrangement of shops, their types and facilities provided to consumers. Moreover, market looks into the structure and function too.

3.2 Site and Layout

The site and layout of weekly market place is an important aspects in marketing geography. The site of weekly market is generally fixed and does not shift frequently. The common site for weekly market is either on main street in settlement or open spaces. The following aspects may evolve the site for market centre.

- (a) Nearness of the existing regular market, if any.
- (b) Nearness to the common meeting ground like 'Temple' 'Panchayat' or 'Municipal area' or Open space in the centre of habitation.
- (c) Nearness to roads or road joining the settlements with other settlements in the neighbourhood.

The layout or morphology of weekly market is controlled by location, relief and surface condition although there is no fixed location for shops in weekly markets. The site of particular shop or trading is more or less fixed resulting certain pattern of shops in market which is called morphology or layout of weekly market.

3.3 Arrangement and Layout of Nine Weekly Markets

The morphological pattern and its layout of nine weekly markets have studied on the bases of fieldwork and personal observations as below:

3.3.1 Patas Market Centre

Patas weekly market is located 15 kilometres away to west of Daund along northern side of Pune-Solapur highway and southern side of Patas-Hatwalan major district road. This market centre is situated on open space in central part in Patas settlement. Market held on every Monday from 11.00 am and onwards. The layout of this market consists of six lanes having total 470 stalls. It is noticed from field observations that this layout is similar to 'Z' (Fig. 3.1). The lane begins from Patas bus stop and ending with Patas settlement. It is surround by Patas settlement. In this market vegetable commodities are available in large scale and few stalls belong of utensils, spices, fresh fish, meat and grains. The pattern of stalls is linear of mixed nature.

Among the six lanes, 'E' is largest accounting 98 stalls. There are mixed types of commodities like fruits, stationary, cloth, tobacco, bangles, vegetables, dry chilies' are kept for selling. Stalls in lane 'C' and 'E' are mainly dominated by vegetables of 56 and 67 stalls respectively. The lowest stalls in number in 'C' lane of bangles, eatables and utensils (2 stalls) and lane 'E' has 2 stalls of eatable, utensils, kirana and other commodities. There are another three lanes, namely, 'B, C and D' are found mixed types of commodities.

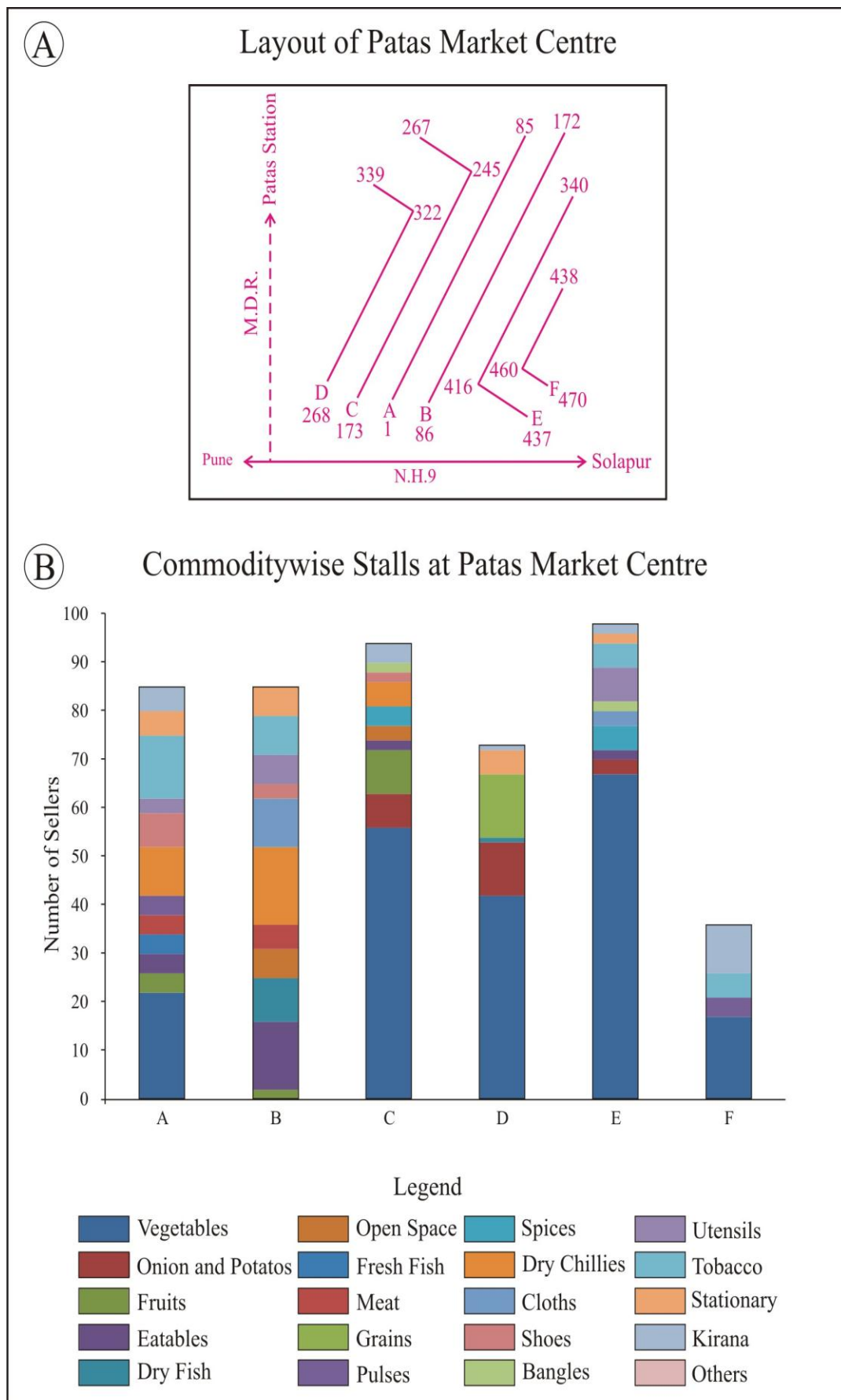


Fig. 3.1

Lane 'B' is mainly dominated by cloths (16 stalls) whereas lanes 'A' and 'D' have majority of vegetables accounting 22 and 42 stalls respectively. The stalls in 'A' are mainly dominated by non-perishable goods like cloth, bangles, stationary, kirana and other commodities. It is found that 'B, C' and 'D' lane has one open space. The lowest number of 34 stalls occupied in lane 'F' consisting of stationary, spices, vegetables other commodities.

3.3.2 Kedgaon Market Centre

This market is located 28 kms away towards west of Daund and is situated on southern side of Pune-Solapur railway route and western side of Supe-Shirur state highway (Fig.-3.2). Tuesday is the market day held from 10.00 am to 6.00 pm on open space in front of Grampanchayat building at Kedgaon. The market comprises of 800 stalls. The arrangement of stalls is 'E' shaped (Fig.-3.2) commencing from Supe-Shirur road and ends at Kedgaon settlement. Out of these stalls few lanes along the main street and others on open space. The pattern of stalls is linear in nature. Highest numbers of stalls percent belong to vegetables accounting 38.36 percent and lowest percent is utensils in this market centre (0.25 percent).

Eight lanes are found in Kedgaon market (Fig. 3.2). Lane 'A' consists of 127 stalls with mixed type of commodities. It is found that mixed stalls of cloth, shoe, grains, vegetables, meat, onion and potatoes are in this lane. Vegetables (61 stalls) are dominant. Lanes, namely, B, C, D, E and F' are also mixed types stalls of commodities like vegetables, pulses, cloth, shoes, grains, fruits, onion and potatoes. Lane 'B' is specialized mainly to agricultural commodities for vegetables, onion and potatoes. Vegetables consisting of 71 stalls, meat 6 stalls, onion and potatoes 5 stalls and kirana 2 stalls, The lanes 'C, D, E and F' have occupied by vegetables accounting 25, 36, 41 and 74 stalls respectively. One open space lies in 'C' lane. The lanes 'G' and 'H' found mixed type of stalls of fresh fish, stationary, eatables, onion and potatoes, bangles. In lane 'G' has found eatable commodities with less number (34 stalls) and lane 'H' has stationary with mix number accounting 39 stalls. Moreover, non-agricultural commodities are dominant in these two lanes.

3.3.3 Ravangaon Market Centre

This is another weekly market centre lying irrigated track in study region. This market centre is located 17 kilometres from in east away Daund along Pune-Solapur national highway. The market day is Tuesday between 3.00 pm to 7.00 pm consisting 270 stalls.

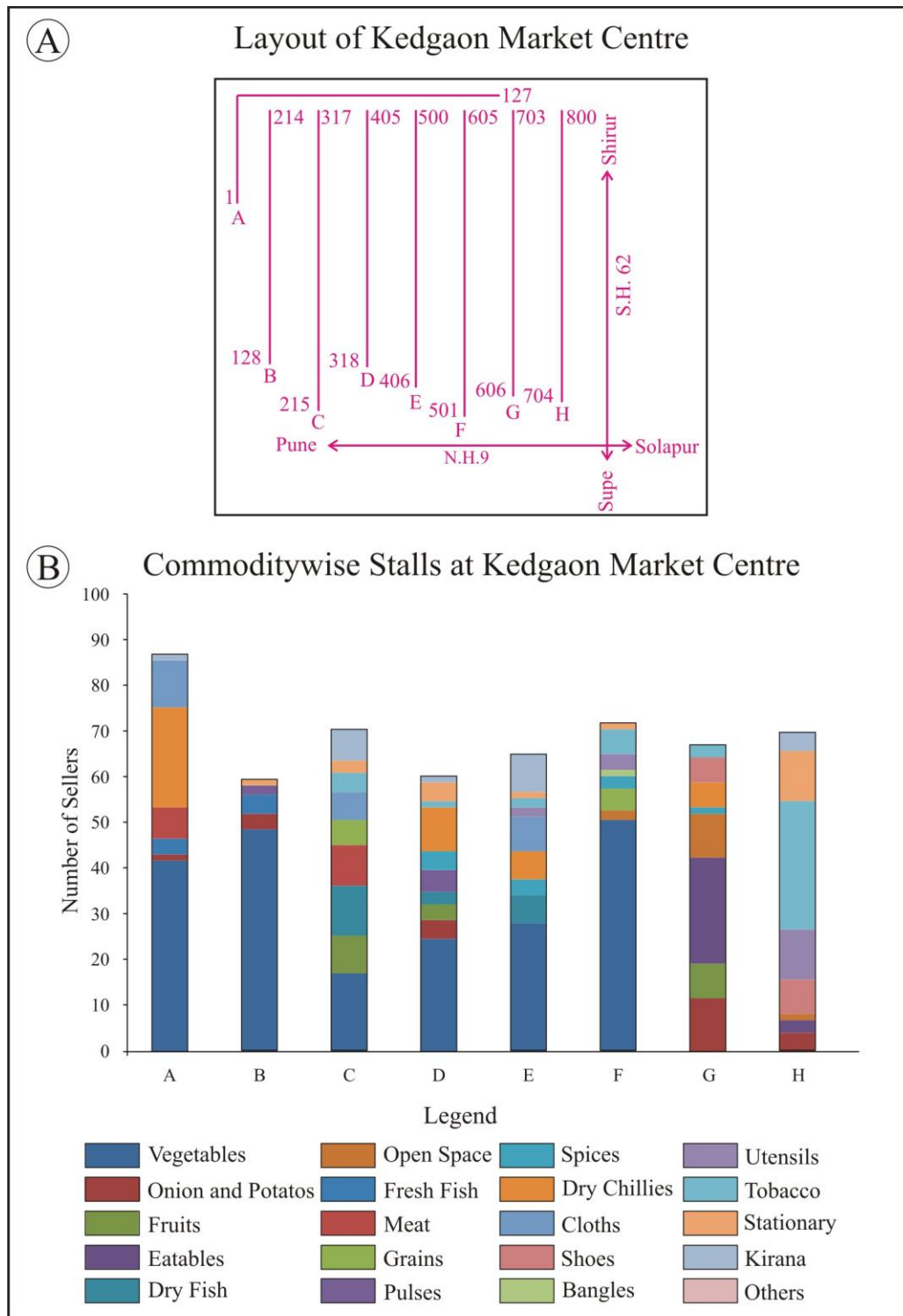


Fig. 3.2

The arrangement of market is like 'P' shape and has linear pattern of mixed commodities (Fig.-3.3). This market area extends towards the south side delimited by small stream (Nala) and north side is confined by village settlement. This is smallest weekly market centre serving very few surrounding villages in study region. There are six lanes found in this weekly market among them 'D' lane has largest number of stalls accounting 58. The lanes, namely, 'C', 'D', 'E' and 'F' are of mixed commodities whereas 'D' and 'F' lanes are mainly selling vegetables and have 49 and 42 stalls. The stalls in 'A' and 'B' are mainly dominated by cloths, bangles, stationary and spices. In lane 'A' has found fresh fish and meat with less number (25 stalls) and lane 'B' has bangles (31 stalls). However, perishable goods are found in 'C', 'D', 'E' and 'F' lanes. The lane 'E' is occupied mainly by food items like vegetables, onion and potatoes, fish sellers. One open space lies in lane 'A' and 'E'. This market is sold mainly perishable commodities, namely, vegetables, onion and potatoes and fruits.

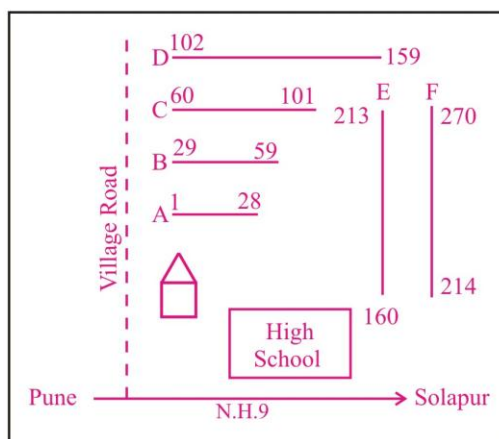
3.3.4 Rahu Market Centre

This weekly market centre is located in irrigated track in Daund taluka (Fig.-3.4). It lies 43 kilometres away in west to Daund and is situated on Wagholi-Shirur major district road (Fig.-3.4). This market serves few villages in surrounding area. Market is held on Wednesday between 1 pm to 7 pm. The numbers of stalls enumerated in Rahu bazaar were 270. The arrangement of stalls is like 'L' shape and linear pattern (Fig.-3.4). Larger commodities percent are vegetables (41.48 percent) and lowest percent belong to utensils and kirana and utensils accounting 1.11 percent.

Four lanes of stalls are visible in this market. The lanes are mixed types of stalls. The stalls in lane 'A' is mainly dominated by non-perishable goods like cloths, grains, tobacco, spices (10.75 percent stalls). Among them, higher number (21 stalls) is of cloths and lowest number of kirana 3 stalls in 'A' lane. Open space lies in between fresh fish and eatables in lane 'A'. The lane 'B' comprises 110 stalls. This lane is specialized for vegetables (81 stalls). Another commodity, namely, onions and potatoes, dry fish, eatables, meat and fruits are also found in 'B' lane. The lane 'C' is mainly occupied by vegetables, fruits, pulses, utensils and kirana accounting 40 stalls. While lowest stalls is observed in lane 'D' (35 stalls) with mixed types having commodities of onions and potatoes, fruits, cloths, stationary. In lane 'D' cloths shops are largest number accounting 20 stalls and lowest is one stall for onions and potatoes.

(A)

Layout of Patas Ravangaon Centre



(B)

Commoditywise Stalls at Ravangaon Market Centre

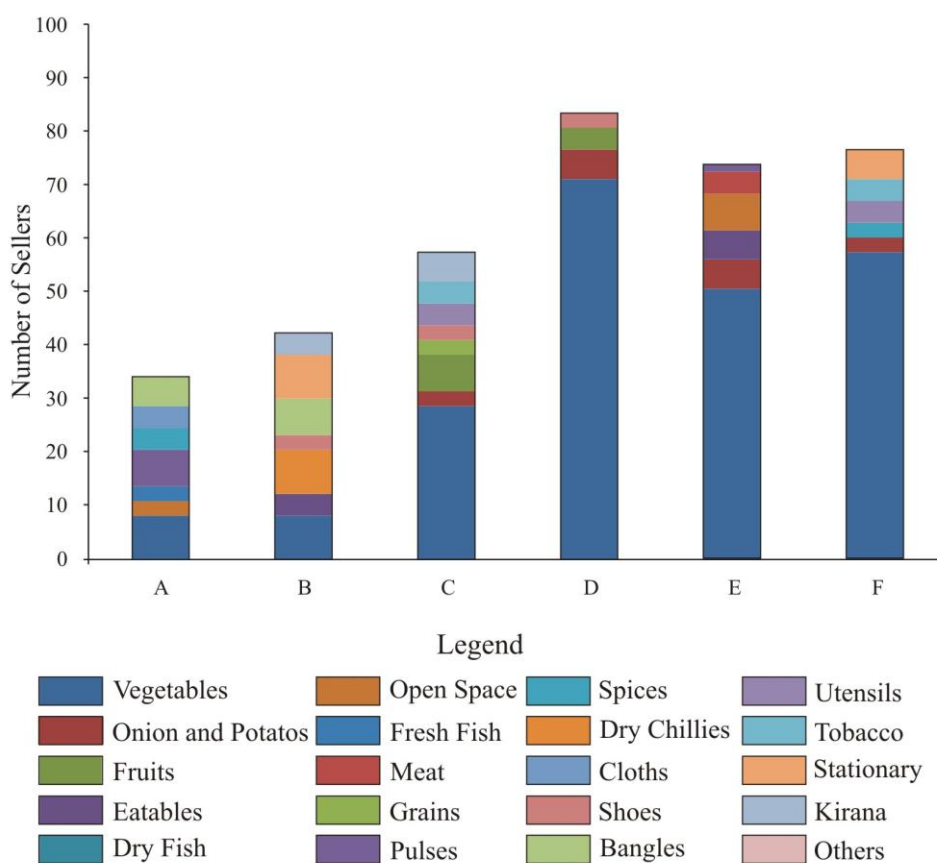


Fig. 3.3

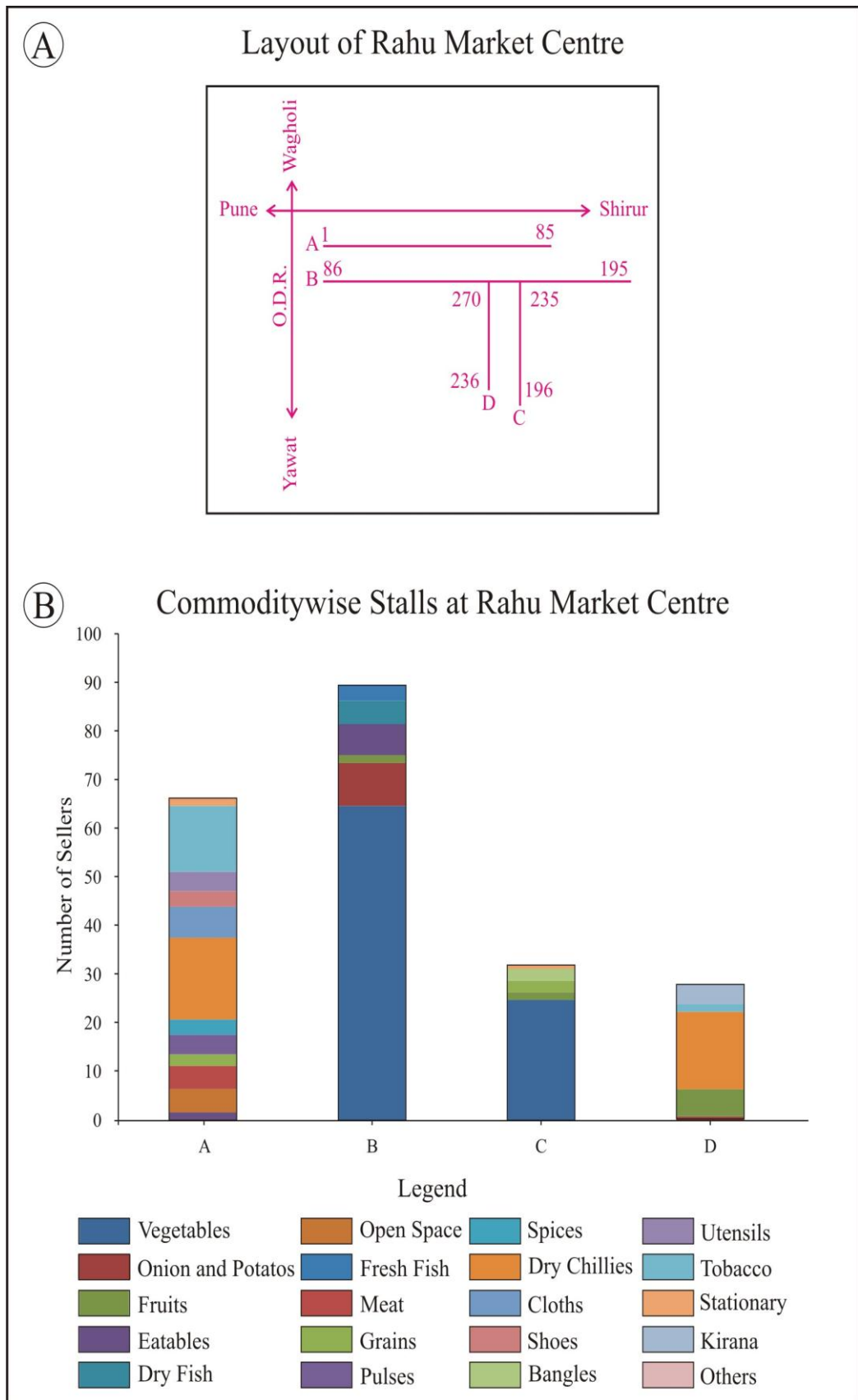


Fig. 3.4

3.3.5 Warwand Market Centre

This weekly market lies 21 km away from Daund along Pune-Solapur highway. The market place is located in front of Warwand Grampanchayat building. This market extends 100 metres from Pune-Solapur highway towards the village settlement (Fig.-3.5). On every Thursday this market is held between 11 am to 6.00 pm. Total stalls enumerated at this weekly market are 420. The arrangement of the stalls is 'L' shapes and pattern of stalls is linear in nature of mixed types commodities.

Six lanes are found in this weekly market among them 'A' and 'B' lanes have largest number of stalls accounting 93 and 86 respectively. The lowest stalls is found in lane 'D' (51 stalls). The stalls in lane 'A' are mainly dominated by non-agricultural commodities of eatables, fresh fish, meat, shoes, stationary, cloths and bangles. Shoes stalls are found more number (18 stalls) and meat 2 stalls is lowest in term of number of shops. The stalls in lane 'B' are established to sell non-perishable goods like kirana, grains, dry fish, cloth, stationary and utensils. The lanes 'C, D, E and F' are specialized by agricultural commodities particularly vegetables, fruits, onions and potatoes. The lanes 'C, D, E and F' have 66, 51, 67 and 53 stalls respectively. One open space lies between dry fish and fresh fish in lane 'C'. The lane 'E' has largest number of vegetables (36 stalls) and lowest number of dry chillies and kirana (2 stalls).

3.3.6 Kurkumbh Market Centre

This weekly market centre is located in industrial area in Daund taluka. It lies 10 kilometres away in southeast from Daund on Pune-Solapur National highway and Baramati-Daund state highway. The weekly market day is Thursday between 2.00 pm to 7.00 pm consisting 370 stalls. The arrangement of market is like E shape and has linear pattern of mixed types commodities (Fig.-3.6). The market area extends towards the west and north delimited by National highway and state highway.

Nine lanes are found in Kurkumbh market (Fig.-3.6). Lane 'A' consists of 20 stalls of mixed types commodities. It is found that mixed stalls of fruits, eatables, cloth and shoes in this lane. Eatables (8 stalls) are dominant. Lane 'B' is specialized mixed types of commodities, namely, fruits, vegetables, onion and potatoes, pulses, dry chillies, bangles, utensils and kirana. The Lanes, namely, C, D, E, F and G are also mixed types of stalls with varying dominance of commodities of vegetables, fruits, onion and potatoes. The lanes 'C, D, E, F, and G' are occupied mainly by vegetables having 45, 35, 41, 35 and 39 stalls respectively.

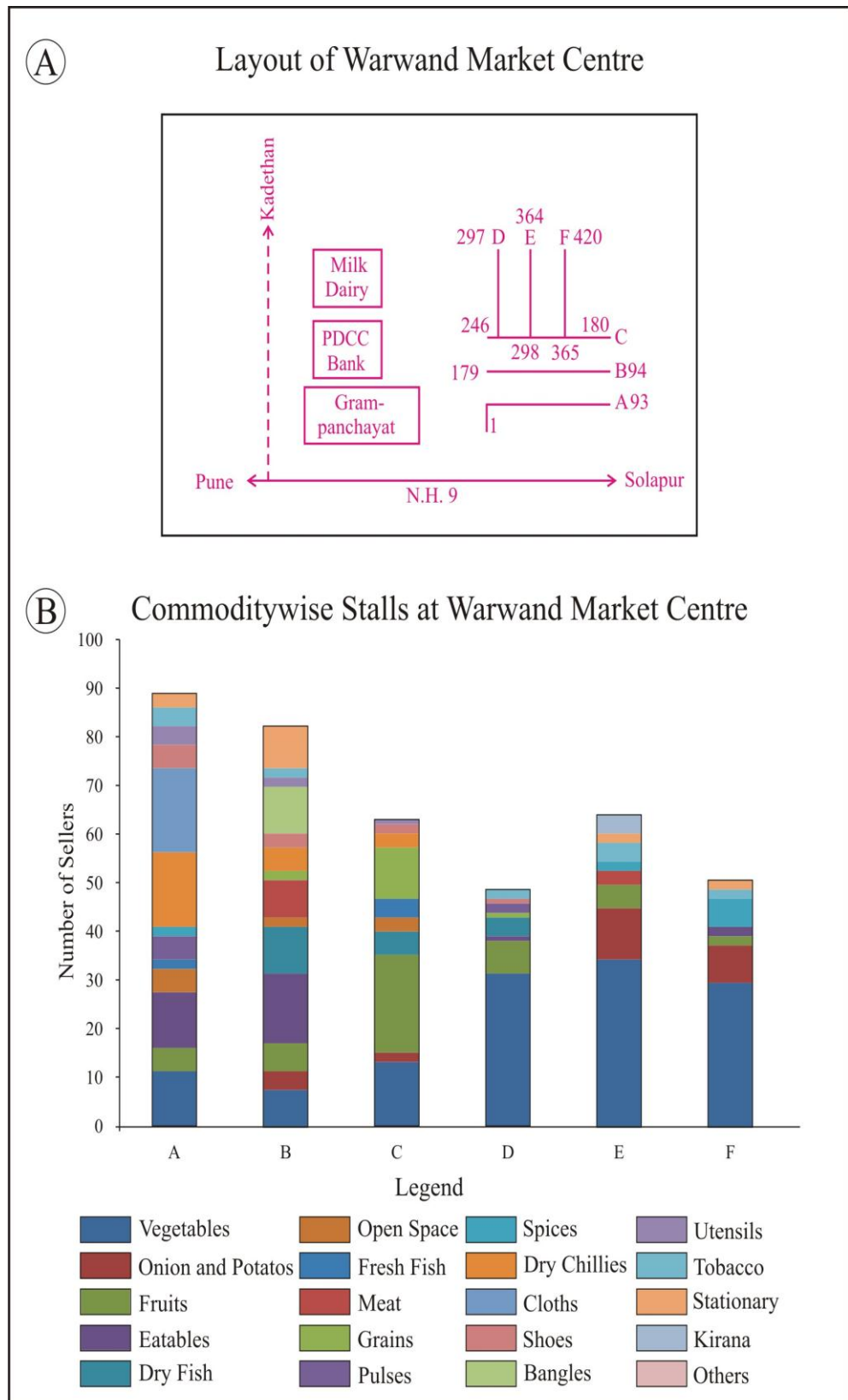


Fig. 3.5

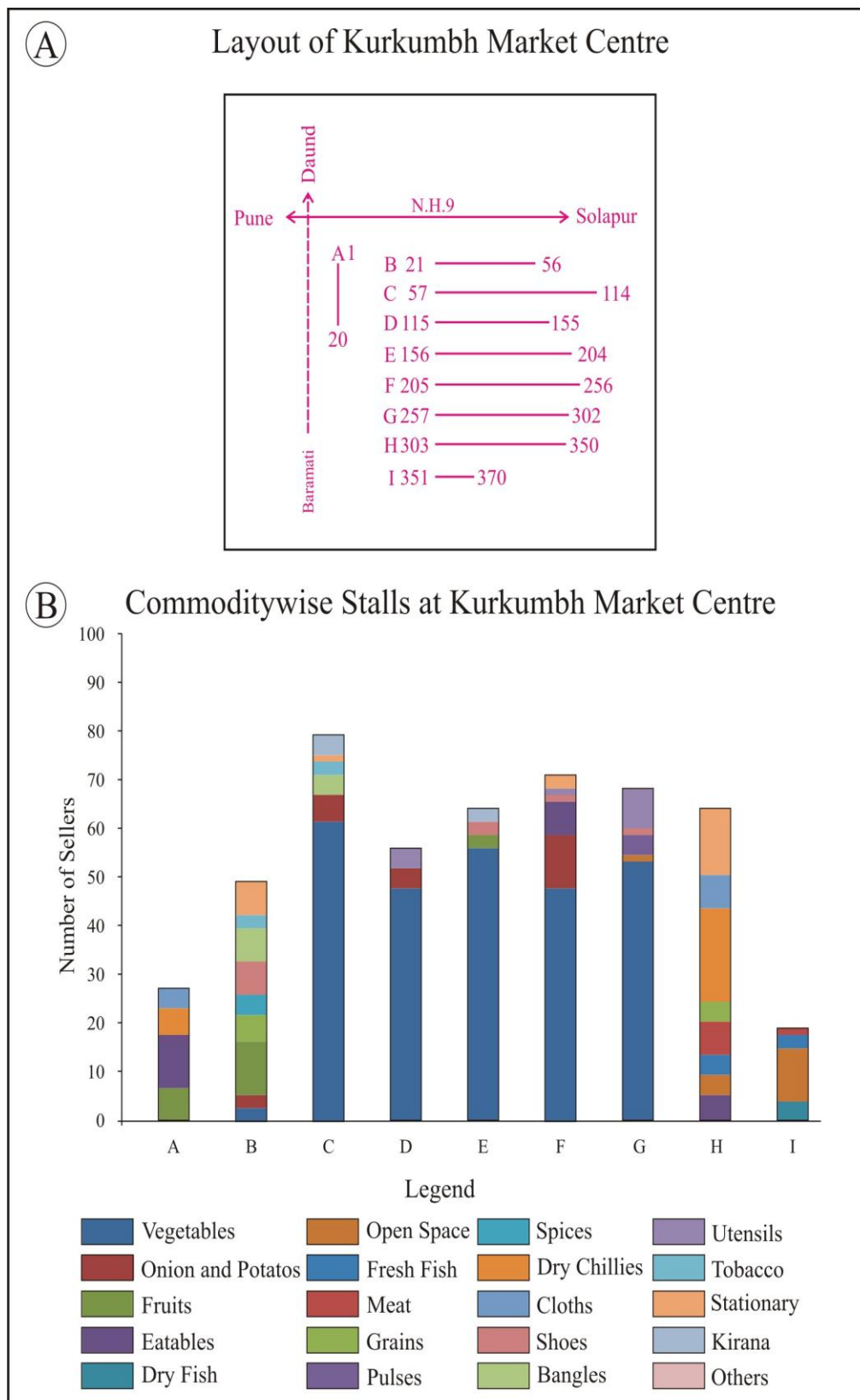


Fig. 3.6

The lanes 'H' and 'I' have found mixed types stalls like fresh fish, eatables, meat, grains, pulses, cloths and bangles. One open space lies in lane 'H' and 'I' respectively. In lane 'H' has found cloths (14 stalls) and lane 'I' has fresh fish 8 stalls. Moreover non-agricultural commodities are also dominant in these two lanes.

3.3.7 Yawat Market Centre

Yawat weekly market is attending largest sellers in Daund tahsil and serves for 24 surrounding villages. The weekly market of Yawat clearly represents an ideal morphological pattern for weekly market. Moreover, this market is well-known for livestock market. This market lies 36 kms away in west to Daund on Pune-Solapur highway and east side of Saswad-Shirur state highway. Market held on open space and is confined by seasonal stream in west part and Saswad-Shirur state highway and agricultural fields in north. Friday is the weekly market day between 8 am to 6.00 pm of linear type shops on market day. It was found that there are 745 commodity stalls and 355 animal sellers. The arrangement of stalls and lanes is sited in Fig.-3.7.

The market has 11 lanes of whom 'I, J and K' are specialized for livestock. Livestock market center to the needs of agriculture and requirement of animal power for their agricultural and rural transport. The lanes 'A, B, C, D, E, F, G and H' have mixed types commodities accounting 77, 94, 112, 102, 108, 78, 75 and 103 stalls respectively. Among this, a largest stall is found in lane 'C' 112 stalls and lowest in 'A' lane 77 stalls. The stalls in lane 'A' are mainly dominated by non-perishable commodities like cloths, kirana, stationary, tobacco, and grains. The lane 'B' is found mixed type commodities of stationary, shoes, cloths, eatable, tobacco, fresh fish and meat. The lane, 'C' is occupied mainly by eatable and kirana, dry fish, cloths, stationary, dry chilies, bangles sellers. The lanes 'D, E, F, G and H' also mixed types stalls of vegetables, fruits, onions and potatoes. In these lanes, vegetables stalls are dominated. 'G' and 'H' lanes are specialized for vegetables accounting 40 and 76 stalls respectively. One open space lies in between eatables and spices is in lane 'F'.

3.3.8 Khadki Market Centre

This is smallest weekly market centres among nine weekly market centres in study region. This market is located 20 kilometres away in east part of Daund and lies on Pune-Solapur National highway (Fig.-3.8). This market serves to few villages in surrounding area. Market is held on Friday between 3 pm to 7 pm. The stalls enumerated in bazaar of Khadki were 250.

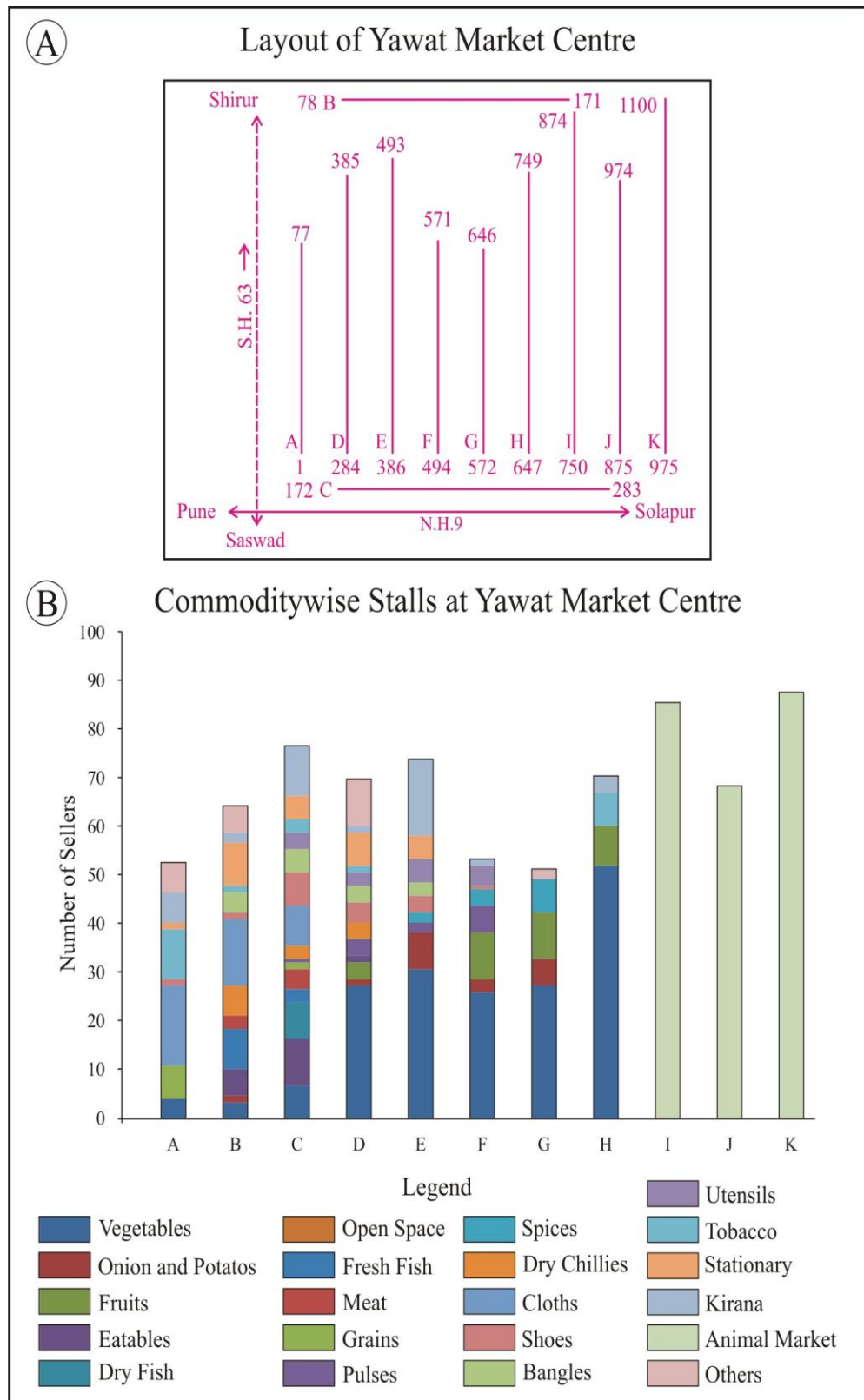


Fig. 3.7

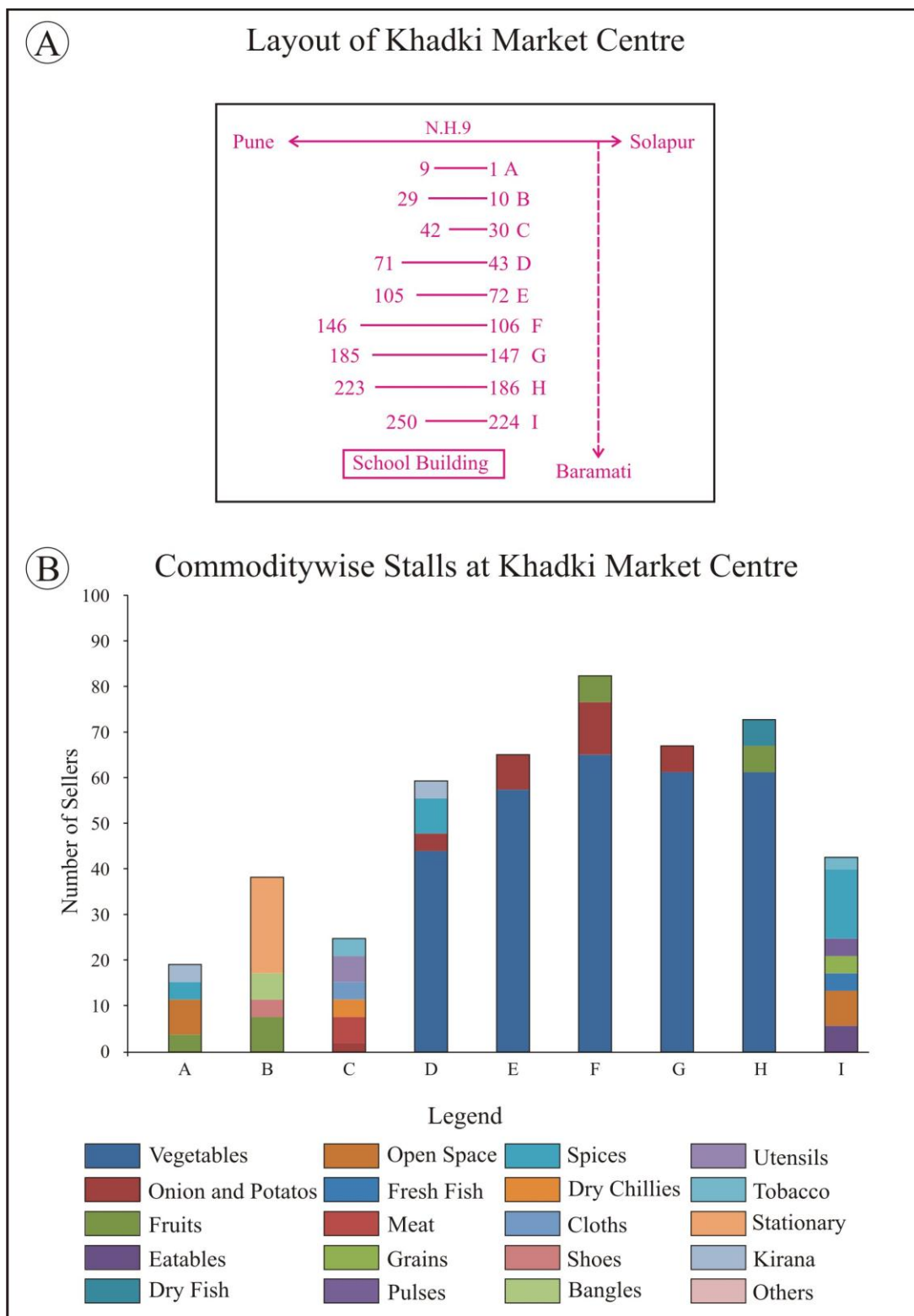


Fig. 3.8

The arrangement of stalls is 'U' shape and found linear pattern (Fig.-3.8). The larger percent commodities are of vegetables (61.64 percent) and lowest percent belong to meat, pulses, spices, cloths, shoes and bangles accounting 0.82 percent in Khadki market centre.

Nine lanes are found in Khadki market (Fig. 3.8). Lane 'A' consists of 9 stalls and two open spaces lying between fruits and fresh fish. It is found that mixed stalls of fruits 2 stalls, fresh fish (4 stalls), dry chilly (2 stalls) and other commodities (2 stalls). Lane 'B' and 'C' are mainly dominated by mixed type commodities having 20 and 13 stalls respectively. Lanes, D, E, F, G and H' are mixed types stalls of vegetables and onion and potatoes, vegetables accounting 23, 30, 34, 32 and 32 stalls respectively and onion and potato accounting 2, 4, 6 and 3 stalls. These lanes are specialized for food items. Lane 'I' is specialized mainly to non-agricultural commodities, namely, eatables (3 stalls), fresh fish (4 stalls), meat (2 stalls), pulses (2 stalls), spices (2 stalls) and stationary (1 stall). Moreover, agricultural commodities are found in lane particularly dry chillies (7 stalls). Higher numbers of stalls percent belong to food items accounting 93.40 percent and lowest percent is non food item (6.60 percent) in this market centre.

3.3.9 Daund Market Centre

This market centre is important weekly market in study region being headquarter as its location of taluka and provides commodity services to many surrounding villages besides border villages of Shrigonda tahsil. This market place lies in north part of taluka office along and Pune-Solapur railway route (Fig.-3.9). The west boundary of market confines by Baramati-Ahmadnagar state highway. This market is held on every Sunday from 10 am to 6 pm. This shopping pattern is linear with mixed types commodities. 730 shops are available in this market. The arrangement of market stalls seems like 'E' on open space (Fig.-3.9).

The market consists of eight lines where 'A' lane is having largest stalls accounting 142 and lowest (65 stalls) in 'F' lane. 'A' and 'B' lanes have found mixed types of commodities fruits, cloths, grains, shoes, stationary, tobacco, utensils, kirana, eatables, dry chillies, vegetables. Non-perishable commodities are dominated in lanes 'A' and 'B'. The largest is found in lane 'A' of fruits and eatable commodities accounting 24 stalls and 'B' lane has stationary 20 stalls. The lowest 2 stall is found in 'A' lane of spices and in 'B' lane consisting 4 stalls of cloth.

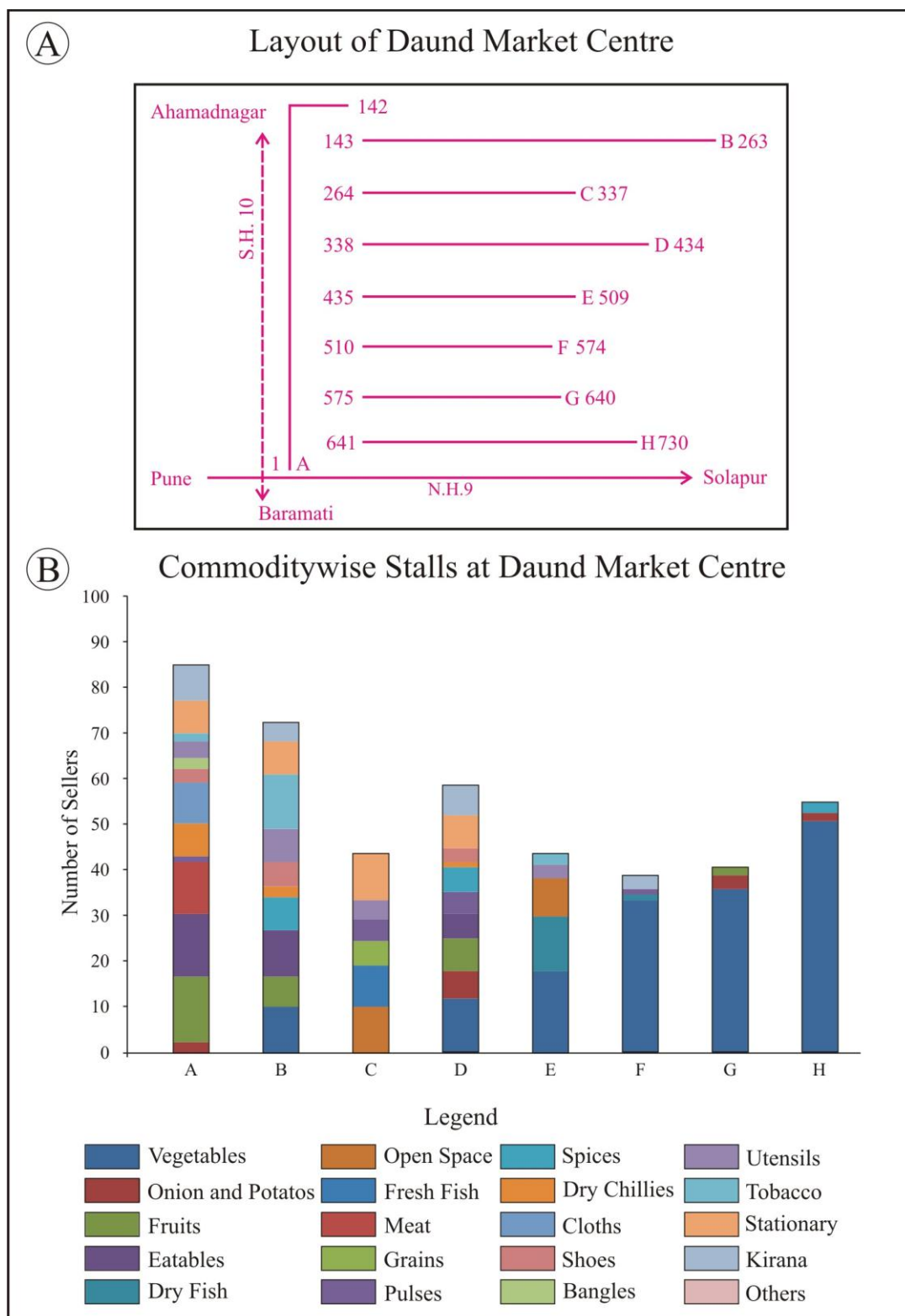


Fig. 3.9

Table- 3.1 Commoditywise Stalls in Nine Weekly Markets

Sr. No.	Nature of Commodity	Weekly Market Centres								
		Patas	Kedgaon	Ravangaon	Rahu	Warwand	Kurkumbh	Yawat	Khadki	Daund
1	Vegetables	43.32	38.33	58.74	41.51	32.22	53.42	23.54	61.63	36.79
2	Onion and Potatoes	4.46	4.48	4.46	4.44	6.01	4.66	2.45	6.53	3
3	Fruits	3.18	3.49	2.97	4.07	11.06	4.11	4.08	4.9	6.81
4	Eatables	4.67	4.73	2.6	3.7	7.21	4.66	2.17	1.22	6.68
5	Dry Fish	2.12	3.61	2.23	2.22	4.57	0.82	1	1.22	3
6	Fresh Fish	1.91	2.37	2.6	2.22	2.4	3.29	1.45	3.27	4.22
7	Meat	0.85	1.37	0.74	1.48	1.44	1.37	0.91	0.82	2.04
8	Grains	1.91	2.86	1.12	2.22	2.64	1.64	1.09	1.22	2.59
9	Pulses	2.76	1.87	0.74	2.22	3.37	1.92	1.54	0.82	1.23
10	Spices	1.7	1.25	2.23	1.85	1.68	0.82	1.63	0.82	2.72
11	Dry Chillies	1.91	2.12	1.86	1.48	2.4	0.82	1.63	5.31	3.41
12	Cloth	6.58	7.85	2.23	15.19	5.77	4.93	5.07	0.82	2.45
13	Shoes	2.76	4.36	1.12	2.96	4.33	2.19	2.36	0.82	2.04
14	Bangles	2.55	2.37	2.23	1.48	2.64	2.47	1.99	0.82	2.59
15	Utensils	0.85	0.25	3.35	1.11	2.4	2.19	1.99	1.22	0.54
16	Tobaco	3.4	2.99	2.23	1.85	1.68	2.74	2.99	1.22	4.09
17	Stationary	6.58	7.72	2.23	7.04	3.37	1.1	3.53	1.22	3.68
18	Kirana	3.82	3.99	3.72	1.11	3.85	4.93	5.34	4.49	7.22
19	Other	4.67	3.99	2.6	1.85	0.96	1.92	3.08	1.63	4.9
20	Animal Markets	0	0	0	0	0	0	32.16	0	0
Total		100	100	100	100	100	100	100	100	100

Source: Fieldwork, 2012

Note : Figures are given in percent.

The lanes 'C' and 'D' have occupied by mixed type of commodities like kirana, spices, fruits, meat, tobacco, pulses, accounting 73 and 98 stalls respectively. Lanes 'E, F, G and H' have identified mainly for vegetables, onion and potatoes, dry fish. Vegetables are major commodities sold in these four lanes. One open space lies in between dry fish and fresh fish in lane 'E'. The lane 'H' has found largest vegetables (87 stalls) (Fig. 3.9).

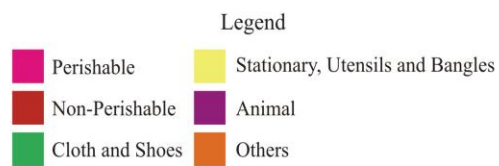
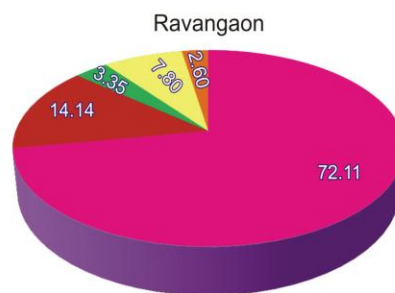
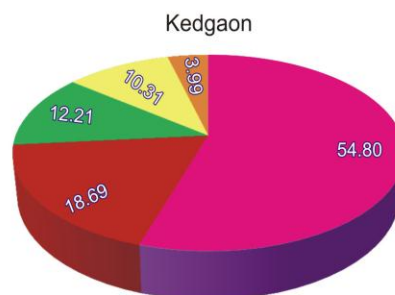
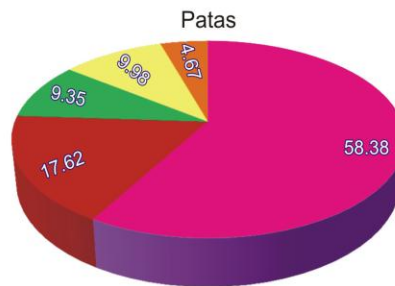
3.4 Commodity and Weekly Markets

The weekly markets supply various types of commodities and provide sub-services to surrounding villages in Daund taluka. The commodity structure of market reflects by local geographical environment and resulted produces. Two types of commodities are mainly sold at these nine weekly markets, namely, food and non-food commodities. Food commodities can be categoried into two, (i) perishable like vegetables, onion and potatoes, eatable commodities, fruits, fresh fish, meat, etc. and (ii) non-perishable commodities, namely, grains, pulses, spices, dry chilies, dry fish, kirana, etc. In non-food commodities includes readymade cloth, shoes, stationary, utensils, bangles, etc. (Table-3.1 and Fig.-3.10 A, B and C) indicates commodity structure in nine weekly markets in study region.

Food items are major commodities sold at Patas market. Vegetable sellers dominate the market accounting 43.31 percent sellers (Table-3.1) and onion and potatoes, fruits, eatables, fresh fish and meat accounting 15.07 percent perishable commodities. Non-perishable food items include dry fish, grains, pulses, spices, dry chilies, tobacco accounting 17.62 percent stalls. Non-food items in Patas market are comparatively less than and their proportion cloth and shoe sellers accounting 9.35 percent. Stationary, bangles and utensils have found 9.98 percent stalls. Others commodity stalls have 4.67 percent stalls in this market.

Food items are sold in Kedgaon market. Perishable food items stalls, namely, vegetables, eatable commodity, onion and potatoes, fruits, fresh fish and meat account for 54.80 percent stalls (Table-3.1). Whereas non-perishable food items include grains, pulses, dry fish, species, and dry chilies having 18.69 percent. Both perishable and non-perishable food commodities have 73.49 percent stalls in this market centre. The fieldwork shows that non-food items show less significant. Both cloth and shoe show 12.21 percent whereas stationary, utensils and bangles have 10.21 percent and other commodities (3.99 percent) in study region.

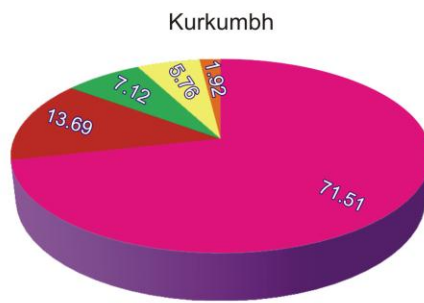
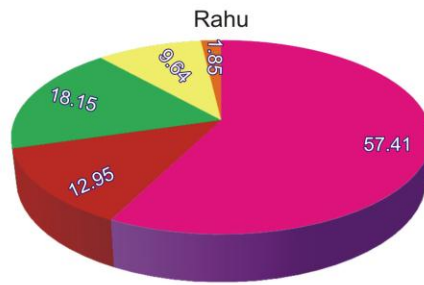
Commodities sold at weekly market centres



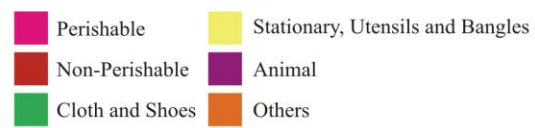
Note : Figures indicate the percent of commodities

Fig.3.10/A

Commodities sold at weekly market centres



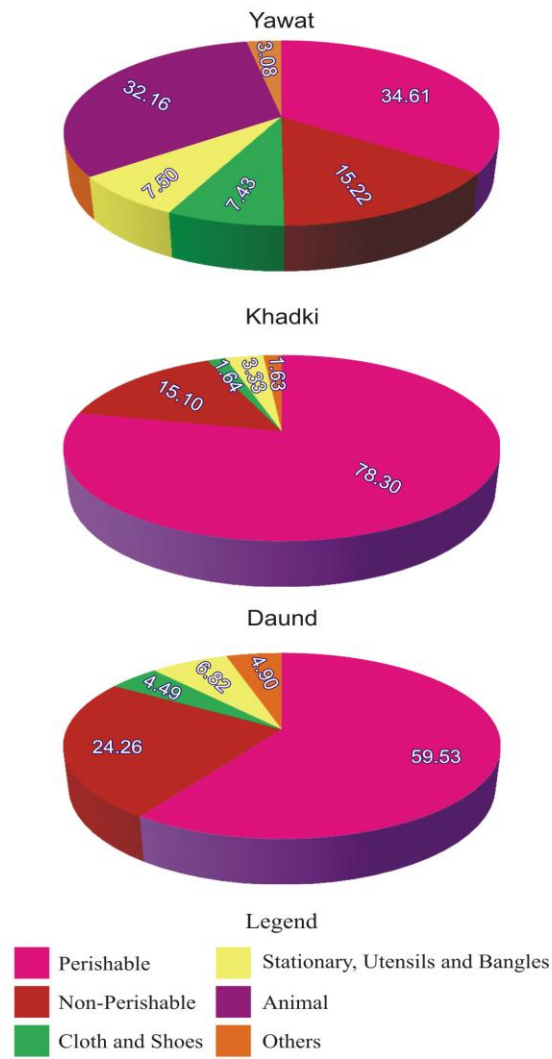
Legend



Note : Figures indicate the percent of commodities

Fig.3.10/B

Commodities sold at weekly market centres



Note : Figures indicate the percent of commodities

Fig.3.10/C

Perishable food items are mainly sold in Ravangaon market, namely, vegetables, onion and potatoes, fruits, eatable commodity, fresh fish and meat accounting 72.11 percent stalls (Table-3.1). Non-perishable food items have identified 14.14 percent stalls wherein dry fish, grains, pulses, spices, kirana, tobacco and dry chillies are major commodities. Both perishable and non-perishable food commodities account 86.25 percent stalls in Ravangaon market. It is also noticed that earlier this market had less significant to non-food commodities accounting (14.35 percent stalls). Cloth and shoes have 3.95 percent. Stationary, utensils and bangles 7.80 percent and other commodities stalls have 2.60 percent Ravangaon market (Table-3.2).

The perishable food commodities are mainly sold in Rahu market that includes vegetables, onion and potatoes, fruits, eatable commodity fresh fish and meat (57.41 percent stalls). In non-perishable food commodities pulses, grains, spices, dry chillies and dry fish account for 12.95 percent. The proportion of cloth and shoe has 18.15 percent. Stationary, utensils and bangles together account 9.64 percent and other commodities (1.85 percent) stalls (Table-3.2).

Table-3.2 : Commodities and Animals Sold At Weekly Markets

Sr. No.	Market Centres	Food Items		Manufactured Goods		Animals	Others	Total
		Perishable	Non-Perishable	Cloth and Shoes	Stationary, Utensils & Bangles			
1	Patas	58.38	17.62	9.35	9.98	-	4.67	100.00
2	Kedgaon	54.80	18.69	12.21	10.31	-	3.99	100.00
3	Ravangaon	72.11	14.14	3.35	7.80	-	2.60	100.00
4	Rahu	57.41	12.95	18.15	9.64	-	1.85	100.00
5	Warwand	60.30	20.19	10.10	8.45	-	0.96	100.00
6	Kurkumbh	71.51	13.69	7.12	5.76	-	1.92	100.00
7	Yawat	34.61	15.22	7.43	7.50	32.16	3.08	100.00
8	Khadki	78.30	15.10	1.64	3.33	-	1.63	100.00
9	Daund	59.53	24.26	4.49	6.82	-	4.90	100.00
Average		60.79	16.87	8.21	7.73	3.57	2.85	100.00

Source : Fieldwork, 2012.

Note: Figures are given in percent.

Warwand market centre has found perishable and non-perishable commodities. Vegetables, onion and potatoes, fruits, eatable commodity stalls are dominant in this market accounting 60.3 percent stalls and pulses, grains, spices, dry chillies dry fish, kirana and tobacco (20.19 percent) in this market. Both food and

non-food commodities have found 80.49 percent stalls. Among them, non-food commodities are found only 19.51 percent stalls of cloths, shoes, stationary, utensils, bangles and other (Table-3.1). Food commodities are sold as major commodities in Warwand market. Perishable food items sold in Kurkumbh market, namely, vegetable, onion and potatoes, fruits, eatable commodity, fresh fish and meat accounting 71.51 percent stalls (Table-3.1). Non-perishable food items have identified 13.69 percent stalls of dry fish, grains, pulses, spices, kirana, tobacco and dry chilies are major commodities. Both perishable and non-perishable food commodities account 85.20 percent is in Kurkumbh market. It is observed that earlier this market had less non-food commodities of 14.80 percent stalls. Cloth and shoes have 7.12 percent stalls. Stationary, utensils, bangles 5.76 percent and other commodities stalls have 1.92 percent in Daund market (Table-3.2).

Yawat market centre is important for livestock accounting 32.16 percent (Table-3.1). In this market centres perishable food commodities stalls include vegetable, onion and potatoes, eatable commodities, fruits, fresh fish and meat (34.61 percent stalls). Non-perishable food items consist of grains, pulses, dry chilies, dry fish, species and tobacco (15.22 percent stalls). Both perishable and non-perishable food commodities account 49.83 percent stalls. Non-food commodities, namely, cloth and shoe (7.43 percent), stationary, utensils, bangles (7.50 percent) and other commodities (3.08 percent) stalls are found in Yawat market.

Food items are major commodities sold in Khadki market. Vegetable sellers are found and it accounts for 61.64 percent sellers (Table-3.1) and onion and potatoes, fruits, eatables, fresh fish, meat have 16.66 percent together with perishable commodities accounting 78.38 percent sellers. Non-perishable food items include dry fish, grains, pulses, spices, dry chilies, tobacco of 15.10 percent stalls. Non-food items in Khadki market are comparatively less of cloth and shoes sellers accounting 1.64 percent. Stationary, bangles and utensils have 3.25 percent stalls. Others commodity stalls have 1.63 percent to total stalls in this market.

Perishable food items are mainly sold in Daund market, namely, vegetables, onion and potatoes, fruits, eatable commodity, fresh fish and meat accounting 59.53 percent stalls (Table-3.1). Non-perishable food items have identified 24.26 percent stalls of dry fish, grains, pulses, spices, kirana, tobacco and dry chilies are major commodities. Perishable and non-perishable food commodities account 83.79 percent stalls in Daund market. It is also noticed that earlier this market had less significant to

non-food commodities having (16.21 percent stalls). Cloth and shoes have 4.49 percent. Stationary, utensils, bangles (6.82 percent stalls) and other commodities stalls (4.90 percent stalls) in Daund market (Table-3.2).

3.5 Resume

This chapter has examined the arrangement of shops, their types in nine weekly market centres in study region. It is found that both of perishable and non-perishable commodities are sold in nine markets centres in study region. The stalls in market centres are laid down in rows. The actual layout of stalls depends upon availability of space in local market centre. Patas and Yawat have found located along National Highway hence location of market centre lies immediate west part of highway. Kedgaon is situated west part on Supe-Shirur state highway. Rahu market lies near bus stop of this village. Warwand market centre is located in front of Gram Panchayat Office, P.D.C.C. Bank and Milk Dairy of village. Daund has vast ground space for market. This market lies near taluka office and along Pune-Solapur railway route in study region. Ravangaon market centre is located along Pune-Solapur national highway. The arrangement of market is like 'P' shape and has linear pattern of mixed commodities. Kurkumbh market centre lies in industrial tract of Daund taluka along Pune-Solapur national highway and Baramati-Daund State highway. The arrangement of market is like 'E' shape and has linear pattern of mixed types of commodities. Khadki market centre exists in east part in Daund taluka on Pune-Solapur national highway. The arrangement of stalls is 'U' shape and has found linear pattern. Food and non-food commodities are sold in nine market centres in study region.

CHAPTER – IV

BEHAVIOUR OF SELLERS

4.1 General Introduction

Sellers and buyers are two aspects in market system. The present study is based on spatial interaction between these two participants, namely, sellers and buyers. The analysis of spatial interaction of sellers and buyers is attempted here. This empirical study of market centres was made in regards to part time, full time, local and outside sellers. Sellers choose either full time or part time in selling activity in order to cover the profit, transport cost and their ability. Weekly market places are generally associated more with traditional way than that of modern. In study region, there are different types of sellers. They sell various commodities in markets to buyers and provide goods. Out of total sellers 10 percent were interviewed and have studied their behaviour both male and female sellers, types of goods they sell in market. Do they sell commodities according to their category from which seller belong, daily and weekly market. The market places have rural or urban locations from which place do they coming to the market. A few sellers are mobile and are visiting daily to market. This mobility helps to create periodic market cycles.

An attempt has been made in this chapter to describe and analysis of sellers behaviour on the basis of interviewed taken by researcher. Simultaneously, it was noted that interviewed sellers, categorically, spell out nature of movement and thereby sellers provide stability to market place. Thus, undertaken study has revealed the behaviour pattern of sellers as discussed in undergoing text.

4.2 Behaviour Pattern of Sellers

Nine weekly markets were studied from study region. Out of total sellers 468 were interviewed. In first stage, sellers were divided into two broad categories, namely, local sellers and outside sellers. The local sellers means those belonging to weekly market centres from local place whereas outside sellers belong to peripheral places of market centre. The permanency of outside sellers and local sellers are important theoretical consideration in study of weekly markets. It is found that local sellers are generally sell their surplus products. Moreover, trading pattern of local sellers is structurally different than that of outside sellers. Table-4.1 and Fig.-4.1/A, B, C, D and E reveal attendance percent for both local and outside sellers.

The proportion of full time and part time sellers varies in nine weekly markets. Full time sellers means those who have full time occupation to sell the commodities on a regular basis showing well defined sequence of weekly market. The full time sellers are interested in obtaining maximum profit by visiting as many weekly markets as possible. The profit is generally depend upon the capital investment and are directly related to each others in the sense that the profit derived is more than the invested capital. However, capital invested depends on nature of goods and types of goods. The trading made by full time sellers can be divided into three categories, namely, selling traders, luxury goods sellers and buying sellers.

Part time sellers are occupationally sell their surplus from produce or local produce in small quantities to raise some sort of cash or income. The main purpose of part time seller is to attend to weekly market for buying rather than to selling. The part time sellers spend most of their time in producing goods so as to sell in weekly markets. It is observed that most of part time sellers belonging poor condition and have less capital investment.

Table-4.1 : Percent of Local and Outside Sellers

Sr. No.	Market Centres	Percent of Local Sellers			Percent of Outside Sellers			Total Percent
		Full Time Sellers	Part Time Sellers	Total	Full Time Sellers	Part Time Sellers	Total	
1	Patas	18.08	11.70	29.78	56.38	13.84	70.22	100
2	Kedgaon	28.75	6.25	35.00	53.75	11.25	65.00	100
3	Ravangaon	22.22	7.41	29.63	48.15	22.22	70.37	100
4	Rahu	40.74	14.82	55.56	33.33	11.11	44.44	100
5	Warwand	31.20	16.42	47.62	30.95	21.43	52.38	100
6	Kurkumbh	18.91	5.41	24.32	70.27	5.41	75.68	100
7	Yawat	22.03	8.88	30.91	52.93	16.16	69.09	100
8	Khadki	16.00	12.00	28.00	48.00	24.00	72.00	100
9	Daund	26.03	8.22	34.25	46.57	19.18	65.75	100

Source : Fieldwork, 2012.

The mobility pattern of part time sellers is totally different than that of full time sellers. It is significant to note that in present study Kedgaon and Kurkumbh market centres have found more share than (80 percent) full time sellers.

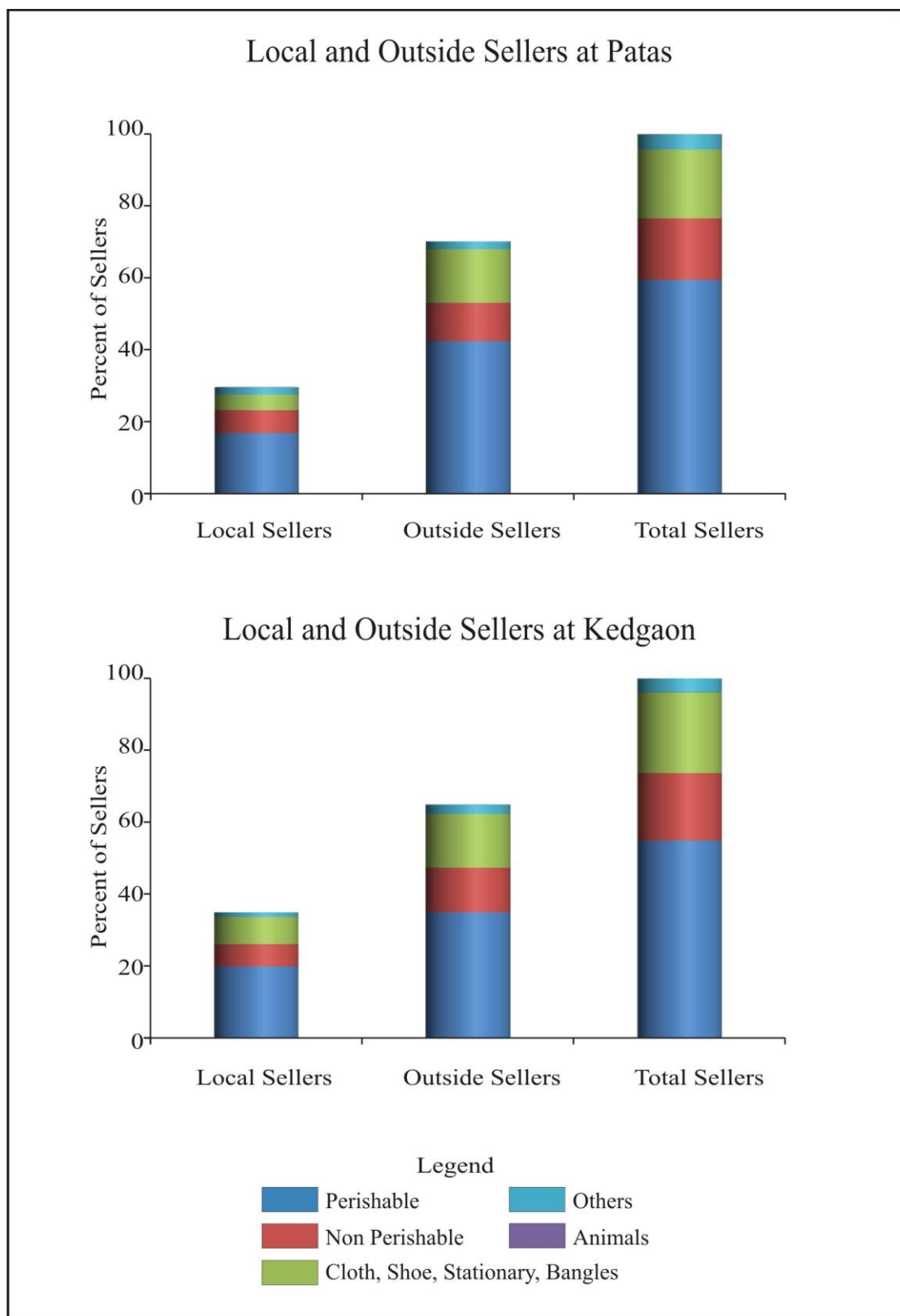


Fig. 4.1/A

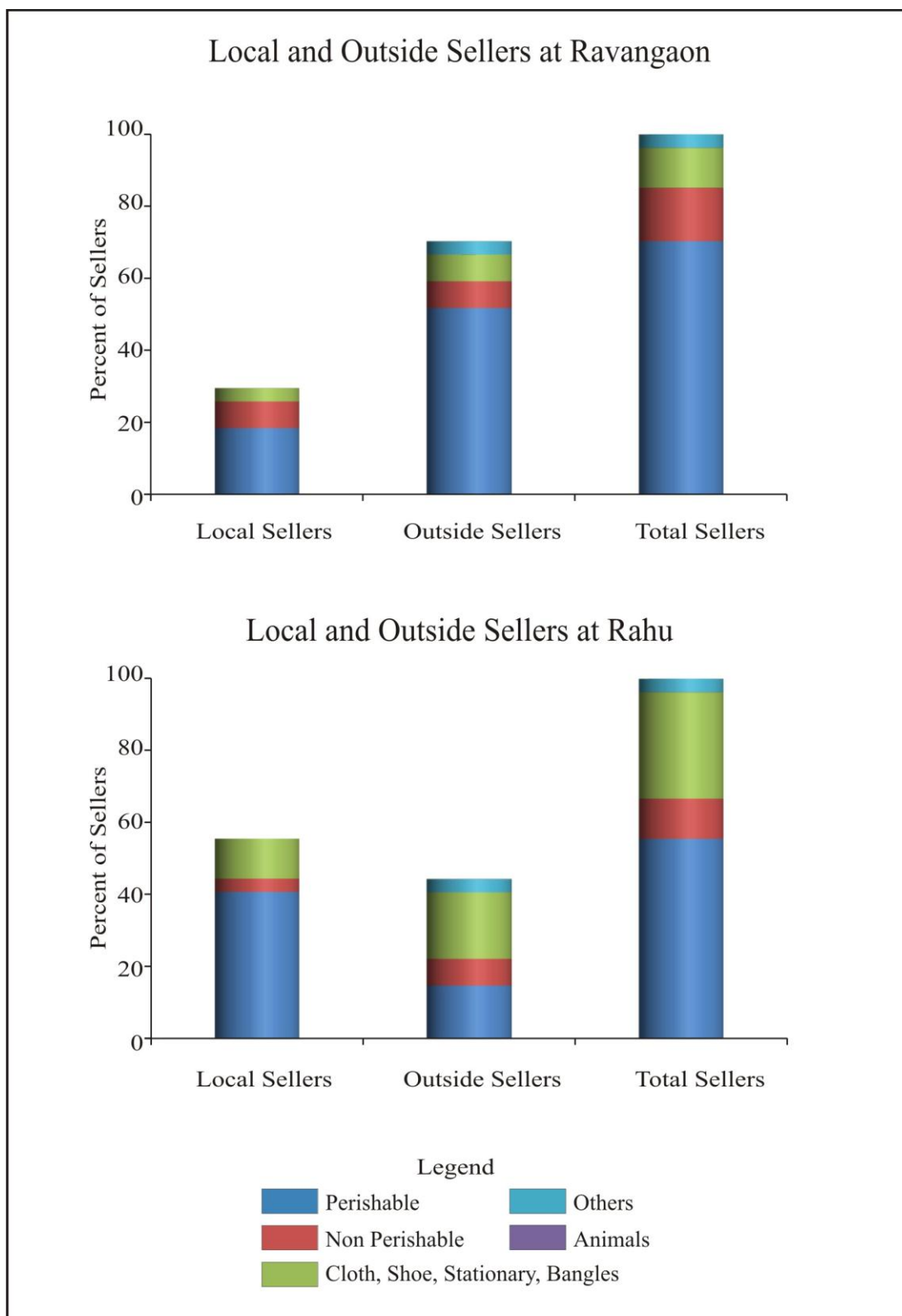


Fig. 4.1/B

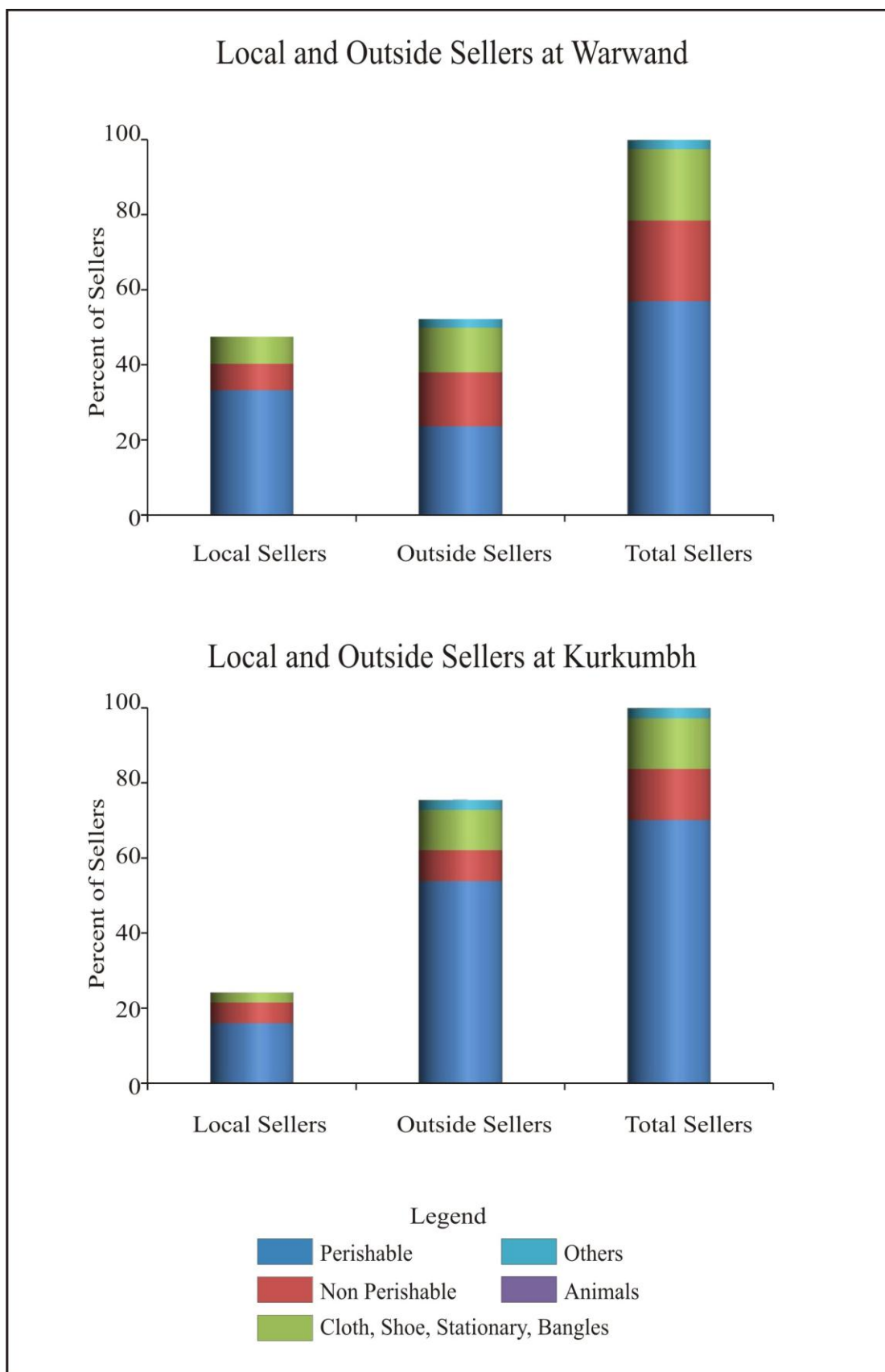


Fig. 4.1/C

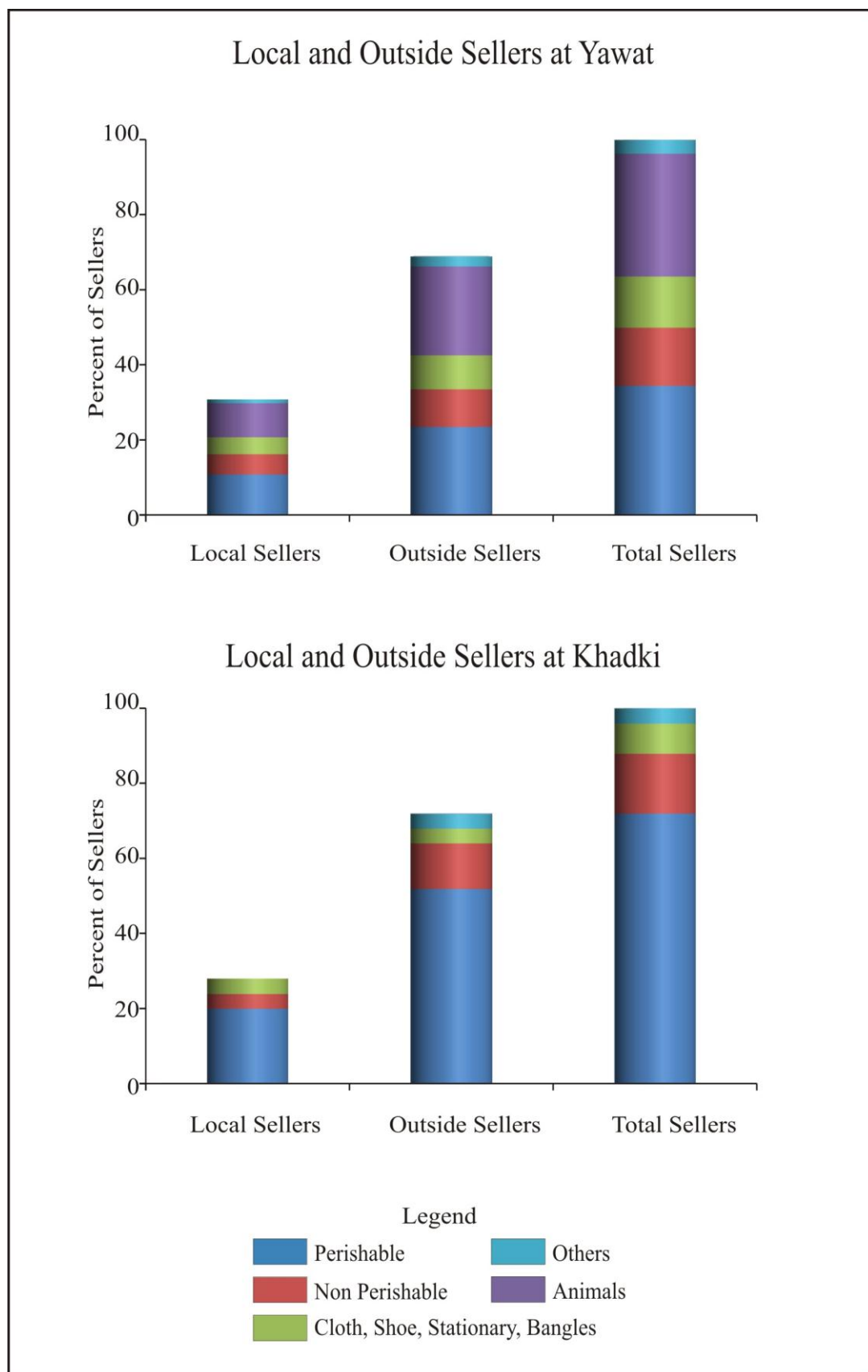
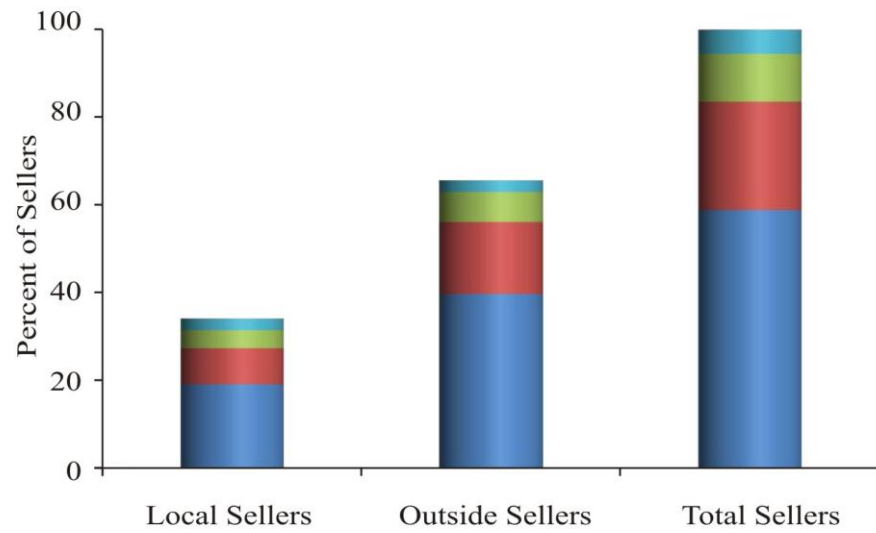


Fig. 4.1/D

Local and Outside Sellers at Daund



Legend

- Perishable
- Non Perishable
- Cloth, Shoe, Stationary, Bangles
- Others
- Animals

Fig. 4.1/E

It is also observed that Kedgaon Market has 82.50 percent full time sellers and Kurkumbh Market has found 89.18 percent. Patas market has 76.46 percent full time sellers. Moreover, it is found that Rahu market centre has 40.74 percent full time local sellers (Table-4.1 and Fig.-4.1/A, B, C, D, and E). Another significant notable thing is that the Warwand and Khadki market centres have found part time sellers in study region accounting 37.85 percent and 36.00 percent respectively. Kedgaon, Ravangaon, Kurkumbh, Yawat and Daund weekly market centres have found lowest percent of part time local sellers accounting 6.25, 7.41, 5.41, 8.88, 8.22 percent respectively.

4.3 Characteristics of Sellers

The characteristics of sellers have identified for nine weekly market centres in study region. This is mainly based on fieldwork carried out in 2012.

4.3.1 Sellers Characteristics in Patas Market Centre

This market 15 km away from Daund on Pune–Solapur highway. Total 470 sellers were attended in this market during fieldwork. It was observed that outside full time sellers were predominance (56.38 percent) and local full time sellers are 18.08 percent (Table-4.1). The local sellers are generally travelled on foot, bicycle or motorcycle. Outside sellers are used truck, tempo, matador, state transport bus. It is seen from this table that this market centres provides 72.34 percent food items and 27.66 percent non-food items (Table-4.2). The radius of inner hinterland of sellers is 10 km from Patas. It is observed that inner hinterland limit of sellers are drawn from green vegetables, pulses, grains etc. The percent of farmer sellers are very high. The farmer sellers are worked in the field and are attending market to sell their surplus agricultural produces such as vegetables, oil seeds, pulses etc. Moreover, Patas market centre shows (11.70 percent) farmer sellers (Table-4.1). Whereas 70 percent sellers belong to farmers who live in surrounding villages and have found limited role in selling. The local sellers stalls are poorly organized with low capital investment.

The outer hinterland limit is 40 km. Out of total sellers 50 percent sellers came from 10 km. distance. And 50 percent sellers were attended by travelling between 10 km to 40 km. These sellers are mostly coming with non-food commodities to this market (Table-4.2). It is important to mention here that Patas market centre has linked with good transport facilities hence outside sellers are attending more in number in this market centres.

Table 4.2 : Origin and Distance of Sellers from Patas Market Centres

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Patas (Km.)	Percentage of food-items	Percentage of non-food items	Percentage of total sellers
1	Patas	14	-	25.53	4.25	29.78
2	Yawat	4	21	8.51	-	8.51
3	Kedgaon	4	13	4.25	4.25	8.5
4	Baramati	2	34	2.13	2.13	4.26
5	Warwand	4	6	6.38	2.13	8.51
6	Supa	1	20	2.13	-	2.13
7	Kurkumbh	1	12	2.13	-	2.13
8	Betwadi	1	8	2.13	-	2.13
9	Kangaon	1	10	2.13	-	2.13
10	Khadki	1	32	2.13	-	2.13
11	Kusegaon	1	8	2.13	-	2.13
12	Birobawadi	4	6	6.38	2.13	8.51
13	Daund	7	15	4.25	10.64	14.89
14	Uruli	2	40	2.13	2.13	4.26
Total		47	-	72.34	27.66	100

Source : Fieldwork, 2012

4.3.2 Sellers Characteristics in Kedgaon Market Centre

Kedgaon is an important market place in study region. It is located 27 km away from Daund on Pune-Solapur railway route. 800 sellers have attended this market. Out of these, 80 sellers were interviewed. It is identified that 65.00 percent sellers were from outside and 35 percent local sellers (Table-4.1). The local sellers have generally travelled by on foot and bring agricultural commodities for selling. The majority of local sellers sell their surplus products for purchasing required commodities. Their role as sellers in market is limited as they visit to market for multipurpose. 82.5 percent sellers account full time and 17.95 percent part time sellers. Thus, this market sold 83.75 percent food items and 16.25 percent non-food items (Table-4.3). The farmer sellers and producer are marginal sellers as they play a dominant role in Kedgaon market. Producer sellers produce various commodities and sell in this market such as baskets, bamboo, ropes etc. These products are of household nature. The most family members are involved in process of making these items. The farmer sellers sell vegetables, pulses, grain etc. they travel to market on

foot and carry commodities on head for selling purpose. There farmer sellers perform dual role in selling and buying.

Table 4.3 : Origin and Distance of Sellers from Kedgaon Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Kedgaon (Km.)	Percentage of food-items	Percentage of non-food items	Percentage of total sellers
1	Kedgaon	28	-	33.75	1.25	35
2	Yawat	6	16	5	2.5	7.5
3	Supa	5	17	6.25	-	6.25
4	Varvand	5	7	3.75	2.5	6.25
5	Malwadi	1	10	-	1.25	1.25
6	Chaufula	11	5	11.25	2.5	13.75
7	Patas	5	12	3.75	2.5	6.25
8	Nangaon	4	10	5	-	5
9	Nagargaon	3	16	2.5	1.25	3.75
10	Nhavare	2	20	1.25	1.25	2.5
11	Pargaon	2	11	2.5	-	2.5
12	Dapodi	1	6	1.25	-	1.25
13	Galandwadi	1	12	1.25	-	1.25
14	Betwadi	1	7	1.25	-	1.25
15	Khopodi	1	8	-	1.25	1.25
16	Lonikalbhor	1	52	1.25	-	1.25
17	Boripardhi	1	2	1.25	-	1.25
18	Andhalgaon	1	12	1.25	-	1.25
19	Khutbav	1	7	1.25	-	1.25
Total		80	-	83.75	16.25	100

Source : Fieldwork, 2012

Among buying traders and luxury goods sellers are 65.03 percent. These buying traders purchase goods from farmers and sold at the same market. The radius of inner hinterland of sellers is upto 10 km. from Kedgaon, who brought their commodities like fruit, grain, vegetables, oil seeds. The outer limit of hinterland to sellers is 52 km who bring stationary, cloth, shoe, etc. 52.58 percent sellers came from inner limit upto 10 km from Kedgaon, 47.42 percent walked to this market who travelled between 11 km to 52 km (Table-4.3). Mostly these sellers brought non-

agricultural commodities for selling. Kedgaon market is connected with railway route and roads. Hence, outside sellers are used railway and roads for travelling to this market.

4.2.3 Seller's Characteristics in Ravangaon Market Centre

This market centre plays role for distributing commodities and related services. It lies on Pune-Solapur highway. 269 sellers have attended this market. Among them 27 sellers have interviewed (10 percent). It is observed that two groups of sellers were found engaged in selling goods, both farmers and non-farmers. Moreover, this centre has large number of farmer's sellers as compared to non-farmer sellers. The farmer sellers are generally used to come on foot and carry load of commodities on their head to sell in this market. These sellers are containing are generally has from the range of 1 to 5 km. and travel by bus, truck or matador. These sellers were from the area with a radius of 32 kilometres from Ravangaon and travelled by tempo or truck and are selling non-agricultural commodities.

Table-4.4 : Origin and Distance of Sellers from Ravangaon Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Ravangaon (Km.)	Percentage of food-items	Percentage of non-food items	Percentage of total sellers
1	Ravangaon	8	-	25.93	3.7	29.63
2	Nandadevi	3	5	11.11	-	11.11
3	Parvadi	3	12	3.7	7.41	11.11
4	Bhigwan	3	32	7.41	3.7	11.11
5	Patas	2	18	3.7	3.7	7.4
6	Kurkumbh	1	12	-	3.7	3.7
7	Baramati	1	30	3.7	-	3.7
8	Khadki	1	5	-	3.7	3.7
9	Daund	1	25	-	3.7	3.7
10	Shirsufal	1	12	-	3.71	3.71
11	Katfal	1	15	3.71	-	3.71
12	Kedgaon	1	31	-	3.71	3.71
13	Gar	1	30	3.71	-	3.71
Total		27	-	62.97	37.03	100

Source: Fieldwork, 2012

This market is provides both food and non-food commodities accounting for 62.97 percent food and 37.03 percent non-food items (Table-4.4). Inner limit of hinterland of sellers is 15 km and outer limit of hinterland is 32 km. 44.44 percent sellers have found attended by travelling between 15 to 32 km from the outer limit of hinterland for selling non-food commodities.

4.3.4 Seller's Characteristics in Rahu Market Centre

Rahu is the smallest market centre in term of sellers in study region. However, the empirical observations revealed that Yawat and Kedgaon are the bigger market centres and have better interaction with consumers in Yawat and Kedgaon market centres. 270 sellers have visited to this market. 10 percent sellers of this market were interviewed. 44.44 percent sellers were radius of 52 km from market. They travelled by tempo, truck or bus for selling non-agricultural commodities. It is seen from Table-4.5 that 55.57 percent sellers are small farmers. Outside small farmers travelled by on foot or motor cycle. The surplus produce were sold in market by sellers in order to purchase their daily requirements. It is noted that farmer sellers and luxury goods sellers are observed as marginal in this market. This market provides 62.97 percent food items and 37.03 percent non food items (Table-4.5). 40.75 percent food items are found from local area.

Table-4.5: Origin and Distance of Sellers from Rahu Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Rahu (Km.)	Percentage of food-items	Percentage of non-food items	Percentage of total sellers
1..	Rahu	15	Nil	40.75	14.82	55.57
2	Pimpalgaon	4	5	14.82	-	14.82
3	Yavat	3	15	3.7	7.41	11.11
4	Wagholi	1	35	-	3.7	3.7
5	Vadgavrasai	1	40	-	3.7	3.7
6	Daund	1	48	3.7	-	3.7
7	Talegaon	1	52	-	3.7	3.7
8	Khutbav	1	9	-	3.7	3.7
Total		27	-	62.97	37.03	100

Source: Fieldwork, 2012

4.3.5 Seller's Characteristics in Warwand Market Centre

This market centre is important for distributes commodities and related services. The market day is held on Thursday between 8.00 am to 7.00 pm. The peak period is 4.00 pm to 7.00 pm as agricultural labours returned from field and visit after getting their payment. This market centre lies on Pune-Solapur highway, 420 sellers were attended in this market. Among these, fortytwo sellers were interviewed accounting 10 percent. It is observed that two sellers groups have found engaged in selling goods, namely, farmers and non-farmers. Moreover, this centre has large number of farmers sellers as compared to non-farmer sellers. The farmer sellers are generally used to come on foot and carry load of commodities on their head to sell in this market. These sellers live from the range on walk 5 to 7 kilometres and travelled by bus, truck or matadors. These sellers are from the radius of 20 kilometres from Warwand and travelled by tempo or truck for selling mostly non-agricultural commodities. The market provides both food and non-food commodities accounting for 69.04 percent food and 30.96 percent non-food items (Table-4.6). Inner limit of hinterland of sellers is 15 kilometres and outer limit of hinterland is 40 kilometres.

Table-4.6: Origin and Distance of Sellers from Warwand Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Warwand (Km.)	Percentage of food- items	Percentage of non-food items	Percentage of total sellers
1	Warwand	20	Nil	38.09	9.53	47.62
2	Patas	5	6	9.53	2.38	11.91
3	Yawat	4	10	2.38	7.15	9.53
4	Kedgaon	2	7	2.38	2.38	4.76
5	Malwadi	3	5	4.76	2.38	7.14
6	Kadethan	3	5	4.76	2.38	7.14
7	Baramati	1	40	2.38	-	2.38
8	Supe	1	15	2.38	-	2.38
9	Khutbav	1	12	-	2.38	2.38
10	Shiragaon	1	40	-	2.38	2.38
11	Boribhadak	1	35	2.38	-	2.38
Total		42	-	69.04	30.96	100

Source: Fieldwork, 2012.

It is observed that inner limit of hinterland of sellers are drawn their commodities like green vegetables, onion and grains etc. 14.29 percent who were sellers have attended this market travelling range of 15 to 40 km for selling non-food commodities in this market. The sellers come from Baramati, Supe, shirgaon and Boribhadak and sell stationary and other non-food commodities.

4.3.6 Seller's Characteristics in Kurkumbh Market Centre

Kurkumbh weekly market centre is located in MIDC area in Daund taluka. . It lies on Pune-Solapur national highway (N.H.9) and Baramati-Daund state highway (S.H.10). 370 sellers have attended this market.

Table-4.7 : Origin and Distance of Sellers from Kurkumbh Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Kurkumbh (Km.)	Percentage of food-items	Percentage of non-food items	Percentage of total sellers
1	Kurkumbh	9	Nil	21.63	2.7	24.33
2	Patas	5	7	8.11	5.41	13.52
3	Daund	4	10	5.41	5.41	10.82
4	Ravangaon	3	12	2.7	5.41	8.11
5	Supa	2	30	2.7	2.7	5.4
6	Varvand	1	13	2.7	-	2.7
7	Shirasgaon	1	40	2.7	-	2.7
8	Jiregaon	1	15	2.7	-	2.7
9	Bhandgaon	1	25	-	2.7	2.7
10	Vakhari	1	17	2.7	-	2.7
11	Chaufula	1	15	-	2.7	2.7
12	Bhigvan	1	25	-	2.7	2.7
13	Khadki	1	16	2.7	-	2.7
14	Urulikanchan	1	36	-	2.7	2.7
15	Kedgaon	1	20	-	2.7	2.7
16	Pandrewadi	1	2	2.7	-	2.7
17	Malad	1	7	2.7	-	2.7
18	Sirsufal	1	12	2.71	-	2.71
19	Rahu	1	30	-	2.71	2.71
Total		37	-	62.16	37.84	100

Source: Fieldwork, 2012.

Out of these, thirtyseven sellers were interviewed. It is identified that 75.70 percent sellers were outsider and have found dominance in market (Table-4.1). 89.18 percent accounts full time sellers and 10.82 percent part time sellers. Thus, this market sold 62.16 percent food items and 37.84 percent non-food items (Table 4.7). The farmer sellers as well as producer sellers are marginal and plays dominant role in Kurkumbh market. Producer sellers produce various commodities and selling baskets, bamboo, ropes etc. These products being household in nature, most of family members are involved in the process of making these items. Buying traders and luxury goods sellers are largest in this market (75.68 percent) buying traders purchase goods from farmers and sold in this market. The radius of sellers is upto 10 km. from Kurkumbh and brought commodities, namely, fruit, grain, vegetables and oil seeds. The outer limit of hinterland is 40 km who came stationary, cloth, shoe, etc. for selling 54.06 percent sellers came from inner limit up to 10 km from Kurkumbh, 45.94 percent walked this market from 11 km to 40 km.

4.3.7 Seller's Characteristics in Yawat Market Centre

Yawat is biggest market centre among nine market centres in study region. This market is located on Pune-Solapur highway (N.H. 9) and is 36 km away from Daund. The market day is held on Thursday between 8.00 am to 7.00 pm. 1100 sellers have attended in this market. 10 percent were interviewed. Outside sellers are predominance in this market centre (69.10 percent) and 30.90 percent from local (Table-4.1). Outer limit of outside sellers is 45 km from Yawat. They are generally travelled by truck, tempo or bus and selling non-agricultural commodities in order for obtaining maximum profit whereas outside sellers are mostly buying traders and specialize in such as vegetables and fruits. These goods are purchased from Pune city and these sellers attend 3 to 4 markets in a week as full time basis. The local sellers are generally travelled on foot and bring agricultural commodities for selling. The majority of local sellers sell their surplus products for purchasing their other requirements. Their role as sellers in this market is limited as their visit to market is of multipurpose. The local produces such as vegetables, food grains, oilseeds are sold in this market on retail basis. Yawat market has 44.55 percent sellers sold non-food commodities and 55.45 percent food commodities (Table-4.8). This market is also well known for animal market. Out of total sellers 32 percent are found animal sellers in this market. The market prices are normally determined by demand and supply of

animals. Yawat weekly market centre is well connected by national highway, district roads, village roads and railway transportation in study region.

Table-4.8 : Origin and Distance of Sellers from Yawat Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Yawat (Km.)	Percent of food- items	Percent of non-food items	Percent of total sellers
1	Yawat	34	Nil	20	10.91	30.91
2	Patas	13	21	4.54	7.27	11.81
3	Varvand	12	15	4.54	6.36	10.9
4	Kedgaon	11	17	5.45	4.54	9.99
5	Rahu	6	12	3.64	1.82	5.46
6	Supe	6	20	4.54	0.91	5.45
7	Kurkumbh	5	30	2.73	1.82	4.55
8	Chaufula	3	12	1.82	0.91	2.73
9	Malwadi	2	20	0.91	0.91	1.82
10	Whalki	2	20	0.91	0.91	1.82
11	Vasunde	2	45	-	1.82	1.82
12	Daund	2	36	0.91	0.91	1.82
13	Khor	1	10	0.91	-	0.91
14	Bhandgon	1	6	0.91	-	0.91
15	Kasurdi	1	9	-	0.91	0.91
16	Khamgon	1	10	-	0.91	0.91
17	Loni	1	23	-	0.91	0.91
18	Malshiras	1	12	0.91	-	0.91
19	Sahajpur	1	7	-	0.91	0.91
20	Dapodi	1	25	-	0.91	0.91
21	Padvi	1	18	0.91	-	0.91
22	Valaki	1	20	0.91	-	0.91
23	Paragon	1	30	-	0.91	0.91
24	Kadethan	1	21	0.91	-	0.91
Total		110	-	55.45	44.55	100

Source: Fieldwork, 2012.

4.3.8 Seller's Characteristics in Khadki Market Centre

Khadki is the smallest market centre in term of sellers in study region. This market 20 km away lying Daund on Pune–Solapur highway. The market day is held on Tuesday between 4.00 pm to 7.00 pm Total 250 sellers were attended this market during fieldwork. In this market outside full time sellers were 72.00 percent (Table-4.1). This market provides 60 percent food items and 40 percent nonfood (Table-4.9). The radius of inner hinterland of sellers is 10 km from Khadki. It is observed that inner limit of hinterland of sellers are drawn their commodities like green vegetables, pulses, grains etc. The farmer sellers percent are very high (20 percent). The farmer sellers are worked in field and are attending market for selling their vegetable, oil seeds, pulses etc. Moreover, Khadki market shows more number of farmer sellers as compared to other type of sellers. Whereas 28 percent sellers belong to farmers who are living in surrounding villages and have limited role in selling. The outer limit of hinterland is 60 km. Out of total sellers 40 percent sellers came from radius of 10 km. In this market 60 percent sellers were attended by travelling between 10 km to 60 km. These sellers are mostly coming with their non-food commodities to this market (Table-4.9). They are generally travelled by truck, tempo or bus whereas outside sellers are mostly buying traders and buying of various commodities in this market.

Table-4.9: Origin and Distance of Sellers at Khadki Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Khadki (Km.)	Percent of food- items	Percent of non-food items	Percent of total sellers
1	Khadki	7	Nil	20	8	28
2	Khanota	4	20	8	8	16
3	Ravangaon	4	7	8	8	16
4	Bhigwan	3	30	4	8	12
5	Palasdev	3	22	8	4	12
6	Rashin	2	60	8	-	8
7	Chincholi	1	3	4	-	4
8	Baramati	1	27	-	4	4
Total		25	-	60	40	100

Source: Fieldwork, 2012.

4.3.9 Seller's Characteristics in Daund Market Centre

Daund market was attended by 730 sellers. Total 73 sellers were interviewed during fieldwork. Daund is headquarter of Daund taluka. This market centre performs a number of administrative functions and has many public facilities. However, Daund observes both weekly and regulated market. Outside sellers accounts for 65.75 percent. The outer limit of these sellers is 65 km from Daund. Mostly sellers brought non-agricultural commodities for selling. The Daund market is connected with road and railway routes.

Table-4.10 : Origin and Distance of Sellers from at Daund Market Centre

Sr. No.	Name of Villages from where sellers are drawn	No. of sellers	Distance from Daund (Km.)	Percent of food- items	Percent of non-food items	Percent of total sellers
1	Daund	25	Nil	23.28	10.96	34.24
2	Patas	12	15	13.7	2.74	16.44
3	Yawat	8	35	8.22	2.74	10.96
4	Kurkhumbh	6	10	4.11	4.11	8.22
5	Kedgaon	4	28	4.11	1.37	5.48
6	Sonwadi	3	5	2.74	1.37	4.11
7	Roti	2	20	1.37	1.37	2.74
8	Birobawadi	2	8	2.74	-	2.74
9	Warwand	2	21	1.37	1.37	2.74
10	Gopalwadi	1	3	1.37	-	1.37
11	Nimgaon	1	3	1.37	-	1.37
12	Devlgaonraje	1	12	1.37	-	1.37
13	Khorawadi	1	4	1.37	-	1.37
14	Rahu	1	48	-	1.37	1.37
15	Dapodi	1	37	-	1.37	1.37
16	Loni	1	65	-	1.37	1.37
17	Pargaon	1	45	1.37	-	1.37
18	Uruli	1	50	-	1.37	1.37
Total		73	-	68.49	31.51	100

Source: Fieldwork, 2012.

Hence, outside sellers have used railway and roads for travelling to this market. 34.24 percent are local sellers at Daund. These are mostly travelled on foot,

bicycle or motor cycle for bringing agricultural commodities. Out of total sellers at Daund market 68.49 percent sellers sold food items and 31.51 percent sellers sold non-food items (Table-4.10).

4.4 Age and Sex Composition of Sellers

The age composition of sellers is given in Table-4.11. It reveals that higher sellers percent is found between 31 to 40 age group accounting 31.36 percent and lowest belongs to below 20 years and above 50 years. Only 2.47 percent sellers have found below 20 years and only 16.5 percent sellers are above 50 years. The sellers are between age group of 20 to 30 (19.77 percent). 41 to 50 age groups sellers are accounting for 29.90 percent. The sexwise composition has been studied in order to understand the male and female attendance in this market centres in Daund taluka. Table-4.11 revolved that there is dominance of male sellers in Yawat market (80.91 percent). The average number of male sellers have worked out (71.80 percent) in each market centre. Table-4.11 exhibits corresponding figures of female sellers (28.20 percent). Among, female participants, sellers appear in backward classes who are involved selling bangles, fishes, manufactured articles from bamboos and vegetables are sold by female sellers in market places. These female sellers visit market within the range of 3 to 10 kilometres from their native place. The maximum proportion of female sellers account for Warwand (38.10 percent) whereas minimum proportion is found at Yawat (19.09 percent) (Table-4.11).

Table-4.11 : Age and Sex Composition of Sellers

Sr. No.	Market centres	Number of sellers	Sex Composition		Age Composition				
			Male	Female	<20	20-30	31-40	41-50	>50
1	Patas	47	80.85	19.15	2.13	14.89	36.17	27.66	19.2
2	Kedgaon	80	66.3	33.75	-	18.75	26.25	43.75	11.3
3	Ravangaon	27	66.7	33.33	3.7	3.7	40.74	37.04	14.8
4	Rahu	27	70.4	29.63	7.41	29.63	37.04	14.81	11.1
5	Warwand	42	61.9	38.10	-	11.9	50	19.05	19.1
6	Kurkumbh	37	73.0	27.03	2.7	10.81	27.03	37.84	21.5
7	Yawat	110	80.91	19.09	0.91	24.55	21.82	36.36	16.4
8	Khadki	25	72.0	28.00	4	24	24	28	20
9	Daund	73	74.0	26.03	1.37	39.73	19.18	24.66	15.1
Average		-	71.8	28.20	2.47	19.77	31.36	29.90	16.5

Source: Fieldwork, 2012.

4.5 Religions and Composition of Sellers

The study of religion and caste wise composition of sellers is mainly based on personal interview during fieldwork in 2012. There are two main religions groups, namely, Hindus and Muslims, Hindus can be divided into two broad categories, namely, backward and non-backward caste. 35.98 percent sellers belongs to non-backward caste including various sub-castes namely, Maratha, Brahmin, Gujar, Marwadi, Guajarati, etc. and 53.67 percent sellers are backward caste of Mali, dhangar, varadi, chambhar, mahar, mang (Table-4.12). Muslims are categoried into two broad groups, namely, backward and non-backward. In study region 5.45 percent muslims sellers are backward and 4.90 percent non-backward. Generally, backward sellers appear large in numbers accounting 59.12 percent involved in selling bangles, fishes, manufactured articles made by bamboos, eatable goods, shoe, utensils, vegetables, etc. Whereas non-backward sellers have particularly sold kirana, cloth and vegetables. It is observed that Muslim male sellers are sold stationary and fruits whereas female sellers sold bangles

Table-4.12 : Religions and Composition of Sellers

Sr. No	Market Centres	Hindus		Muslim		Total Percent
		Non-backward	Backward	Non-backward	Backward	
1	Patas	40.43	42.55	8.51	8.51	100
2	Kedgaon	41.25	52.50	3.75	2.5	100
3	Ravangaon	29.63	62.97	3.7	3.7	100
4	Rahu	59.26	29.63	7.41	3.7	100
5	Warwand	40.48	54.76	2.38	2.38	100
6	Kurkumbh	24.32	64.86	5.41	5.41	100
7	Yawat	43.64	52.73	0.91	2.73	100
8	Khadki	16.00	60.00	8.0	16.0	100
9	Daund	28.77	63.01	4.11	4.11	100
Average		35.98	53.67	4.90	5.45	100.00

Source: Fieldwork, 2012.

4.6 Educational Composition of Sellers

The weekly marketing system can be considered a major effective medium for education relating to agriculture and social behaviour to participants who assemble in market places. It is found that study region has 14.24 percent illiterates. The

maximum illiterates are found in Khadki (24 percent) and minimum in Yawat 6.36 percent (Table-4.13). 5th standard educated sellers constitute 14.06 percent and 41.38 percent upto 6th to 10th standard in Daund taluka. Minimum percent is found in Khadki. However, 7.51 percent sellers completed their graduation. It is significant to note that 0.10 percent post-graduate sellers. Moreover, illiterate sellers in study region sold vegetables, fruits, eatables, etc. and 5th to 10th standard sellers involved in selling stationary utensils, shoe, etc. However, graduate sellers are busy for selling cloth, kirana and manufactured goods. Most of the farmer sellers were illiterate and luxury sellers are educated.

Table-4.13 : Educational Composition of Sellers

Sr. No.	Market Centres	No. of Sellers	Educational Level						Total Percent
			Illiterate	Below 5 th Std.	6 th to 10 th Std.	Above 10 th Std.	Graduate	Post Graduate	
1	Patas	47	14.89	8.51	40.43	27.66	8.51	-	100
2	Kedgaon	80	16.25	17.5	41.25	18.75	6.25	-	100
3	Ravangaon	27	11.11	18.52	40.74	18.52	11.11	-	100
4	Rahu	27	18.52	3.7	51.86	22.22	3.7	-	100
5	Warwand	42	7.14	14.29	45.24	28.57	4.76	-	100
6	Kurkumbh	37	18.92	18.92	35.14	16.21	10.81	-	100
7	Yawat	110	6.36	12.73	55.45	20.91	3.64	0.91	100
8	Khadki	25	24.00	20	24	20	12	-	100
9	Daund	73	10.96	12.33	38.35	31.51	6.85	-	100
Average		-	14.24	14.06	41.38	22.71	7.51	0.91	100.00

Source: Fieldwork, 2012.

Note : Figures indicate percent of sellers.

4.7 Capital Investment and Credit System

In Daund taluka 50 percent sellers have capacity of Rs.5000 capital investment. Few sellers dealt with utensils and readymade cloths by putting their own capital. It is noted that 40 percent sellers have obtained loans from co-operative bank, LIC, society or friends for purchasing commodities upto Rs. 10,000/-. Thus, sellers have involved in weekly marketing activities.

4.8 Average Distance Travelled by Sellers

The range of travel distance of sellers is found between 5 to 20 kilometres in Daund taluka. 80.24 percent sellers are travelled not exceeding more than 20 kilometres distance to attend the market. Out of nine weekly markets in study region only 19.76 percent sellers travelled more than 20 kilometres. At Rahu and Warwand market centres account more than eightyfive percent sellers travelled for a distance of 15 kilometres. Yawat and Khadki market centres have found 30.91and 32.00 percent sellers respectively who travelled more than 20 kilometres (Table-4.14).

Table-4.14 : Average Distance Travelled by Sellers

Sr. No.	Market Centres	No. of Sellers	Distance Travelled from Market Centre (in Km.)				
			0-5	6-10	11-15	16-20	20>
1	Patas	47	36.17	17.02	14.89	17.02	14.90
2	Kedgaon	80	35.00	17.50	20.00	21.25	6.25
3	Ravangaon	27	29.63	11.12	14.81	14.81	29.63
4	Rahu	27	55.56	18.52	11.11	3.70	11.11
5	Warwand	42	42.86	33.33	9.52	4.76	9.53
6	Kurkumbh	37	24.33	29.73	10.81	13.51	21.62
7	Yawat	110	31.82	10.00	15.45	11.82	30.91
8	Khadki	25	28.00	12.00	12.00	16.00	32.00
9	Daund	73	34.24	16.44	16.44	10.96	21.92
Average		-	35.29	18.41	13.89	12.65	19.76

Source: Fieldwork, 2012.

4.9 Travel Pattern of Sellers

The distribution of sellers according to means of transport used by sellers are displayed in Table-4.15. Their goods are transported by trucks, tempoes, matadors, state transport service, buses, trains and motorcycles or bicycles. 8.12 percent of local sellers are brought their goods on foot carrying goods on their head. It is observed that selling residing within 2 to 5 km. and used bicycles, motorcycles or bullock carts. Whereas sellers who lived 5 km away from market is found to use trucks, tempoes, matadors, buses or trains. The travel pattern has revealed (Table-4.15). 21.7 percent sellers travel by trucks, 30.16 percent sellers travel by tempoes/ matadors, 9.18 percent sellers travel by buses and 1.47 percent sellers uses railway transport for attending the market centres. Railway transport is available in Daund taluka but very few sellers are used trains due to distance between railway stations and market

centres. Only sellers of Patas, Kedgaon, Yawat and Daund market centres have found used railway transport 1.47 percent (Table-4.15).

Table-4.15 : Travel Pattern of Sellers

Sr.No.	Market Centres	Sellers Travelled By							
		On Foot	Bullack Cart	Bicycle	Truck	Tempo/ Matador	Motor Cycle	S.T. Bus	Rail-way
1	Patas	6.4	2.13	6.38	19.2	31.92	25.53	6.4	2.1
2	Kedgaon	6.3	1.25	3.75	23.8	37.5	20	5	2.5
3	Ravangaon	11	3.7	7.41	14.8	25.93	25.93	11	-
4	Rahu	11	3.7	7.41	22.2	37.04	11.11	7.4	-
5	Warwand	14	-	4.76	16.7	21.43	33.33	9.5	-
6	Kurkumbh	2.7	2.7	5.41	27	27.03	21.62	14	-
7	Yawat	5.5	0.91	7.27	30.9	30	17.27	6.4	1.8
8	Khadki	8	-	12	24	36	8	12	-
9	Daund	8.2	2.74	6.85	16.4	24.65	23.29	11	6.9
Average		8.12	1.90	6.8	21.7	30.16	20.67	9.18	1.47

Source: Fieldwork, 2012.

Note : Figures indicate percent.

4.10 Attendance of Sellers

The seller's attendance has been classified on based of information gathered from sellers during fieldwork. The sellers are attending one market belong to the farmers category who sold their own produce only. The regular sellers have obtained commodities from other markets for resale at least three or four market centres. It is found that 12.92 percent sellers sold commodities in single market place. Such sellers are usually attended one market centre once week for selling commodities. However, sellers who are regularly visiting two to five market centres obtaining commodity from market centres for re-sale and sold in three to five market centres located in surrounding of their own choice to get profit. The linking of market places together in a system is accomplished through the movements of these sellers with their goods. 26.34 percent sellers have found attended two markets in a week, 34.74 percent sellers were attended three markets, 20.6 percent sellers attended four markets and 3.4 percent sellers were attended five markets in the circuit (Table-4.16). In addition to that attendance choice of market is also factor for regular sellers who live in the

vicinity. The sellers another attendance pattern shows inclination toward market closest to their native place. The traditional sellers who belong to trader class are attending three markets within a week as sellers depend on their selling (Table-4.16).

Table-4.16 : Number of Seller and Attendance

Sr. No.	Market Centre	No. of Sellers	No. of Weekly Market Attended by Sellers					Total
			1	2	3	4	5	
1	Patas	47	10.64	25.53	36.17	19.15	8.51	100
2	Kedgaon	80	8.75	26.25	40	22.5	2.5	100
3	Ravangaon	27	18.52	25.93	37.03	18.52	-	100
4	Rahu	27	18.52	33.33	25.93	18.52	3.7	100
5	Warwand	42	2.38	23.81	45.24	26.19	2.38	100
6	Kurkumbh	37	10.81	24.32	35.14	29.73	-	100
7	Yawat	110	11.82	29.09	33.63	22.73	2.73	100
8	Khadki	25	28	20	28	20	4	100
9	Daund	73	6.85	28.77	31.51	26.02	6.85	100
Average		-	12.92	26.34	34.74	22.6	3.4	100

Source: Fieldwork, 2012

4.11 Resume

This chapter has attempted to identify sellers characteristics in nine market centres of Daund taluka. There are two types of sellers involving in selling, one is part time and another is full time sellers. It is also observed that mostly sellers are outside sellers. Part time sellers are poor in capital and hence is spending less investment. The highest percentage of outside sellers are from Kurkumbh accounting 75.68 percent. Local part time sellers are absent in Patas, Kedgaon and Rahu. Full time local sellers ranked highest in Rahu (40.74 percent) and lowest in Khadki (16.00 percent (Fig.-4.1). Table-4.11 revealed that sellers belong to male category 71.8 percent is more in number than 28.23 percent female in Daund Taluka. The highest percent male sellers are found in Yawat (80.91 percent) and lowest in Kedgaon (66.3 percent). In case of age composition, sellers of 20 to 40 age groups are taking active part in selling commodities. It is significant to note that in Yawat market centre has lowest number of sellers (3.64 percent) in Muslim community involved in selling. It is found that in study area maximum (41.38 percent) sellers have taken education upto 6 to 10th standard. There is 0.91 percent post graduate person involved in selling commodities. Truck, tempo, matador, motor cycles and state transport bus are common means for travelling by sellers in order to reach to market centres in study region.

CHAPTER – V

BEHAVIOUR OF BUYERS

5.1 General Introduction

The market is a place for buying and selling of commodities. The market performs periodically in rural areas as periodicity depending upon the nature of demand. Weekly market day increases opportunities to participants for sellers and buyers. This is entirely depends upon distance of market centres. Moreover, visit of buyers may be biased by attitudes and values. Christaller was aware of this exceptions and the nature of oprimation of behaviour. The motivation for non-optimizing behaviour emanates from the personal values, qualities and attitudes of participants of social groups. In addition to this, credit availability, free accommodation renewing and strengthening of contact are influencing on buyers.

The further this chapter, examines the spatial interactions of local and outside buyers and evaluate its role to perform in weekly market in the study region. Buyers predominantly are rural inhabitants attend market place, convenient to them primarily to purchase of commodities needed to them. The existence of a market place impinges upon availability of goods and others services. The buyer's travel behaviour changes with rise income and availability of transport means. The requirements of buyers are not constant and they are generally travelled for short distances to purchase essential commodities required to them. The buyer's characteristics are primary based on functions, periodicity, population size, persons involved in tertiary activity, distance and shops. The nine market centres in Daund taluka have studied and explained in forthcoming text.

5.2 Network of Buyers

The fieldworks of nine weekly markets were carried of buyers who attending markets. Total 468 buyers both local and outside were interviewed (Table-5.1 to 5.9). It was found that local buyers have found attending higher percent male in market centres from surrounding villages. In case of Patas female (63.80 percent) buyers are more in numbers than male (36.20 percent). It was observed that local consumers travelled on foot to market centres whereas surrounding buyers have travelling by bicycles, motorcycles, S.T. buses, trucks, tempoes and trains. It was found that buyers belonging to 20 to 40 age have visited frequently market centres than children

and aged persons. However, 6th to 10th standard educated buyers have highest accounting 33.02 percent and graduate and post-graduate buyers are less in number 7.55 percent and 2.86 percent respectively. The Hindu buyers are more in number (91.98 percent) visited the market centres. It was identified that buyers of backward and non-backward are equal percents. But muslims buyers were found lowest (8.02 percent). Generally, buyers have travelled between 0 to 5 kilometres accounts for 44.16 percent. Whereas buyers who travelled beyond 20 kilometres for administrative work and marketing.

5.3 Characteristics of Buyers

The characteristics of buyers are identified for nine weekly markets in study region on the basis of fieldwork and analysed. The characters were extracted from the samples taken to the further text.

5.3.1 Buyers Charactristics in Patas Market Centre

Buyers play significant role in Patas market centre. It is observed that 60 percent consumers were found satisfied in this market. It is interesting to note that more than half of the buyers belong to outside. It is found that outside buyers belong to labourers category and earn daily wage by visiting to market on foot and seems to be poor and live within 2 to 6 km distance. The average travel distance of buyers for marketing is 1 to 12 km. and travell on foot, bicycles, private transport services, state-transport buses etc. (Table-5.1 and Fig.-5.1).

Table-5.1: Origin and Distance of Buyers from Patas Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of Food items	Percent of Non-food items
1	Patas (Local)	18	38.3	Nil	31.91	6.38
2	Kusegaon	9	19.15	6	14.89	4.26
3	Madukarnagar	5	10.63	2	8.5	2.13
4	Birobawadi	4	8.51	6	6.37	2.13
5	Pataskarkhana	4	8.51	1	4.26	4.26
6	Nimbalkarwasti	3	6.38	3	4.26	2.13
7	Malwadi	2	4.26	12	2.13	2.13
8	Padvi	1	2.13	10	2.13	-
9	Roti	1	2.13	7	2.13	-
Total		47	100	-	76.58	23.42

Source: Fieldwork, 2012.

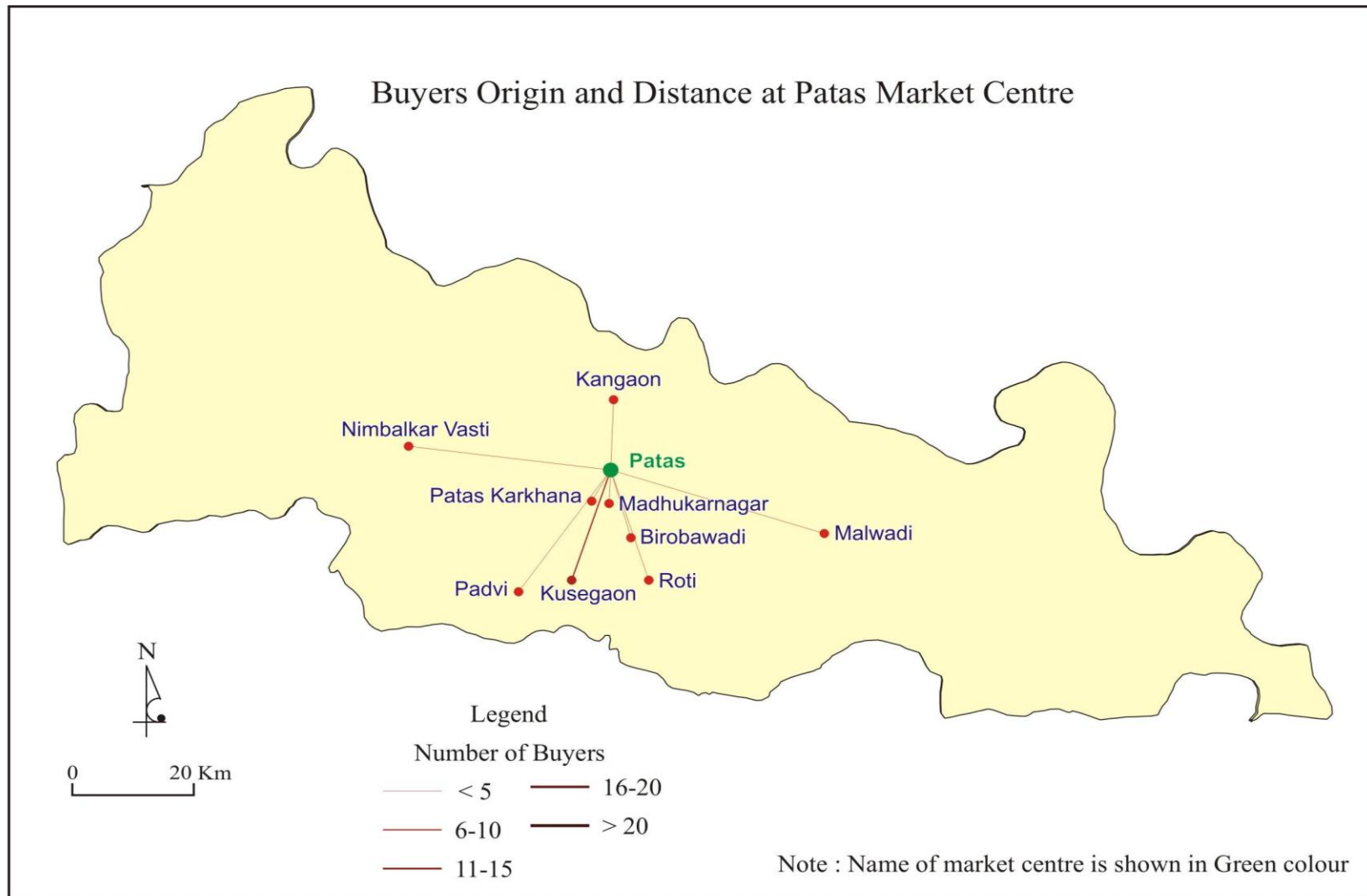


Fig. 5.1

This study reveals that the buyers in Patas market who came from 12 km distance travelled by buses and their own vehicles accounting 50 percent (Table-5.1). Moreover, accounting 38.30 percent buyers are local and 61.70 percent are outside. Outside buyers hailed from Kusegaon, Madukarnagar, Birobawadi, Kusegaon, Pataskarkhana, Nimbalkarwasti, Malwadi, Padvi, Roti villages. It is noticed that the out of total buyers, 76.58 percent buyers purchased food items whereas 23.42 percent buyers purchased non-food items in Patas market.

5.3.2 Buyers Characteristics in Kedgaon Market Centre

This market is held on Tuesday. The market is located near Kedgaon railway station. The market centre is well connected with road and railway routes. It is observed that 21.25 percent buyers travelled on foot. At present, this market has recorded 30.00 percent buyers involved in purchasing. Buyers are commonly farmers who are mainly purchasing subsistence items. Moreover, large numbers of buyers are engaged in wholesale purchasing (Fig.-5.2).

Table-5.2: Origin and Distance of Buyers from Kedgaon Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of food items	Percent of Non-food items
1	Kedgaon (Local)	24	30	Nil	25	5
2	Dapodi	13	16.25	5	12.5	3.75
3	Kadethan	12	15	10	11.25	3.75
4	Boripardhi	10	12.5	3	10	2.5
5	Chaufulla	6	7.5	3	5	2.5
6	Hatwalan	3	3.75	8	2.5	1.25
7	Galandwadi	2	2.5	9	1.25	1.25
8	Bormalnath	2	2.5	3	2.5	-
9	Kangaon	2	2.5	10	1.25	1.25
10	Paragon	2	2.5	10	1.25	1.25
11	Ekerewadi	2	2.5	11	1.25	1.25
12	Nangaon	1	1.25	7	1.25	-
13	Walaki	1	1.25	20	-	1.25
Total		80	100	-	75	25

Source: Fieldwork, 2012.

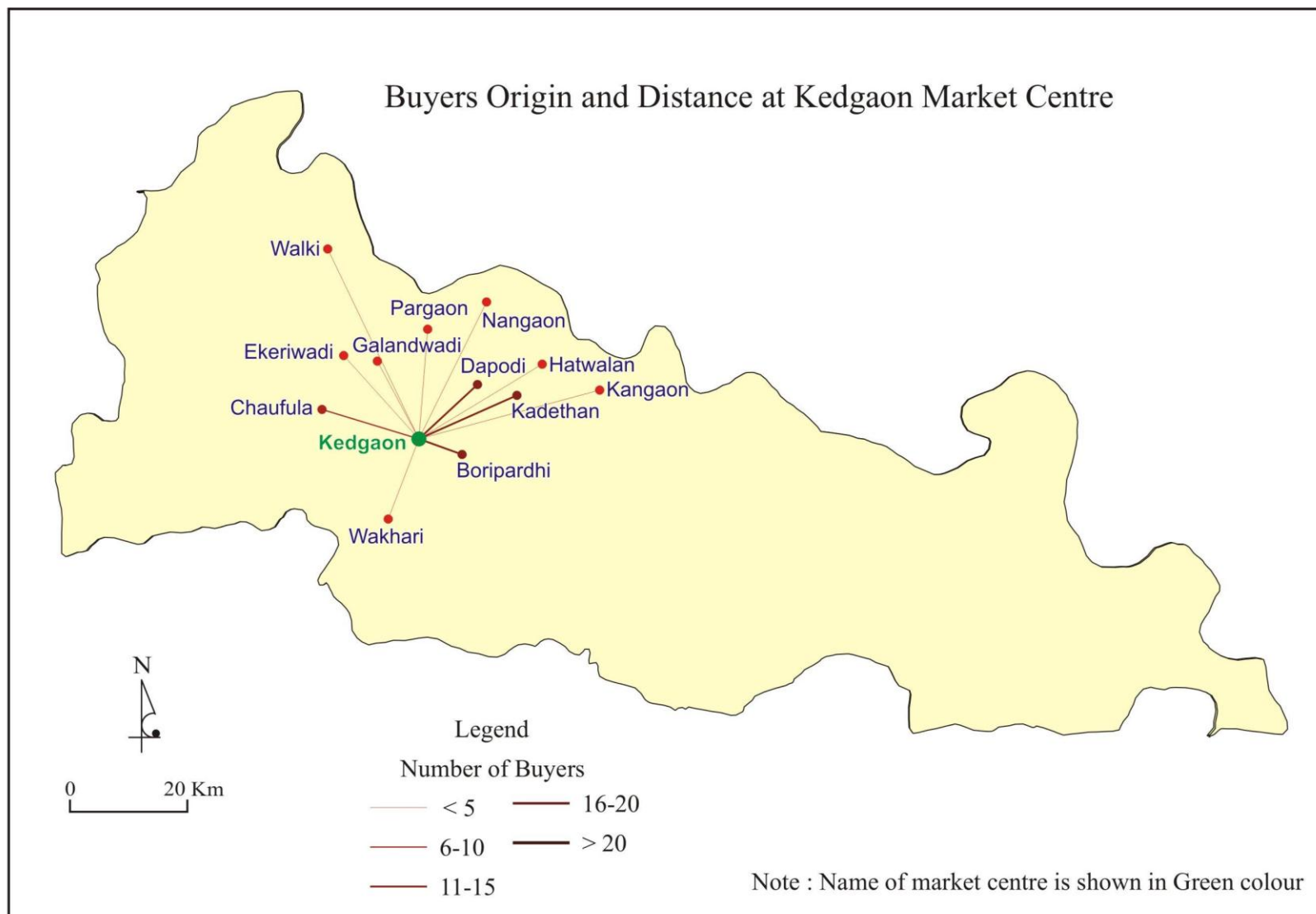


Fig. 5.2

They are mainly purchasing onions, grains, dry chilies, etc, which are sold mainly to Pune thereby buyers for getting profit. It is noted that buyers are drawn from less than 20 km range in this market. However, longer distance buyers travel to market place for visiting to relatives or administrative work. The fieldwork found that 30.00 percent local buyers have preferred to purchase 25.00 percent food items and 5.00 percent non-food items. Whereas, outside buyers are purchasing food and nonfood commodities. Out of buyers 75.00 percent buyers purchased food items whereas 25.00 percent buyers purchased non-food items (Table-5.2).

5.3.3 Buyers Characteristics in Ravangaon Market Centre

This market is held on Tuesday and provides variety of goods and services to buyers. Buyers visited to this market centre within eleven kilometres distance. The outside buyers are very less in this market centre from surrounding 6 villages. The buyers travelled from nearby villages to this market on foot, tempoes and motorcycles for travelling. Twentyseven buyers were interviewed in this market. The participation of local and outside buyers is shown in Table-5.3. There are 48.15 percent local buyers purchasing 33.33 percent food and 14.82 percent nonfood items. Whereas outside buyers account 51.85 percent and buying 29.63 percent food items and 22.22 percent nonfood items. The service area of this market is very limited. More than ninety percent buyers are coming from seven kilometres distance to this market centre. The various commodity are sold in this market centre (Fig.-5.3).

Table-5.3: Origin and Distance of Buyers from Ravangaon Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of food items	Percent of Non-food items
1	Ravangaon	13	48.15	Nil	33.33	14.82
2	Malad	4	14.81	4	7.41	7.41
3	Nandadevi	3	11.11	6	7.41	3.71
4	Boribel	3	11.11	7	7.41	3.7
5	Khadki	2	7.41	5	3.7	3.7
6	Paravdi	2	7.41	11	3.7	3.7
Total		27	100	-	62.96	37.04

Source: Fieldwork, 2012.

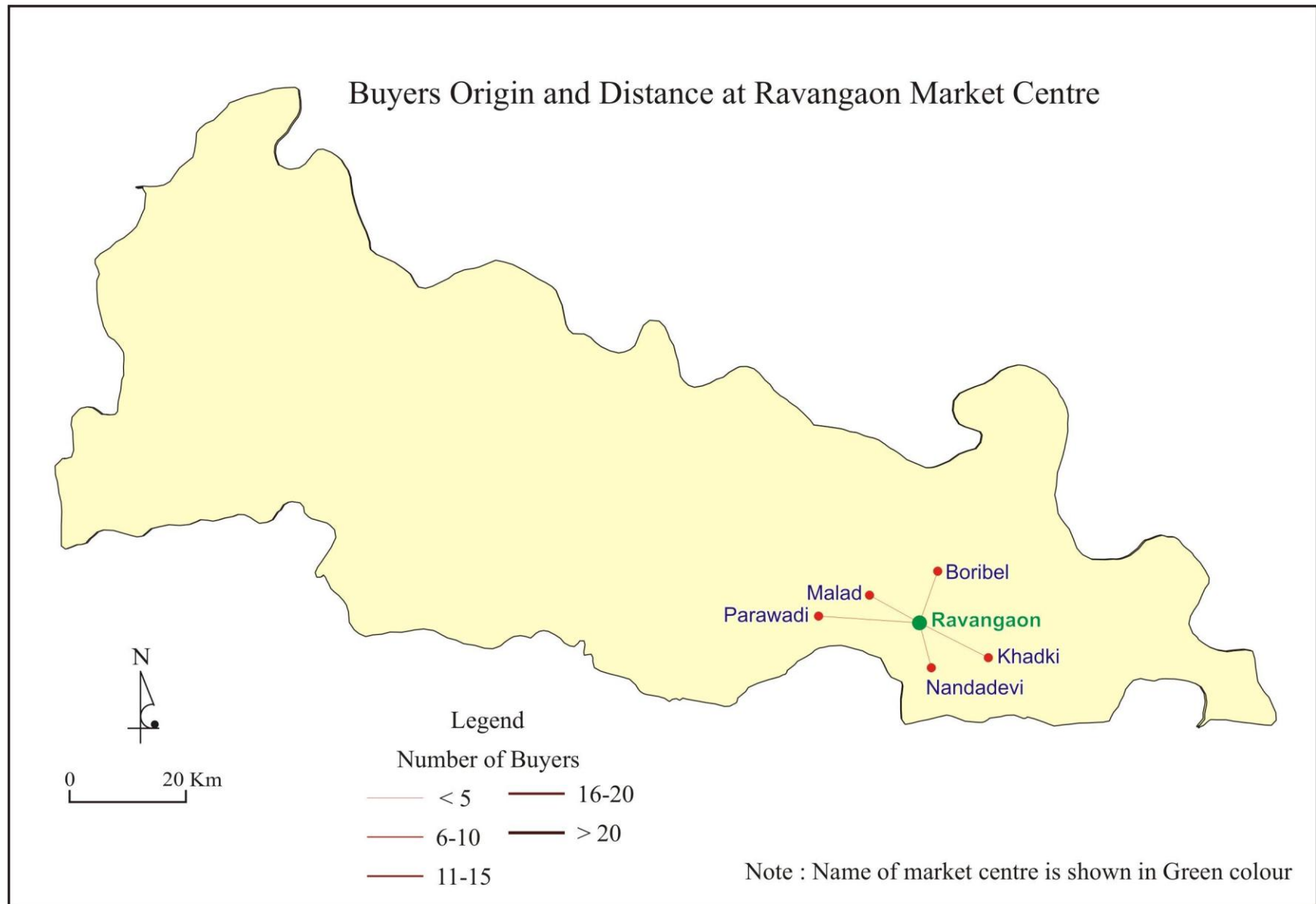


Fig. 5.3

5.3.4 Buyers Characteristics in Rahu Market Centre

This market centre is smallest in term of number of buyers and sellers in study region. Market day is held on Friday at Rahu and provides variety of goods and services to buyers. Due to less availability of goods, very few buyers make frequent visit to this centre. Table-5.4 and Fig.-5.4 show that 40.74 percent local buyers are purchasing 29.64 percent food items and 11.11 percent non-food items. Outside buyers have accounted 59.26 percent and purchased 37.03 percent food items and 22.22 percent non-food items. It is observed that most of buyers are located within 8 km distance from Rahu. The buyers of nearby villages travelled to this market on foot and by buses, use bicycles, trucks, tempos/metadoors for travelling. The present study unfolds that male buyers are more (62.96 percent) than female in this market accounting 37.04 percent.

Table-5.4: Origin and Distance of Buyers from Rahu Market Centre

Sr. No	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of food items	Percent of Non-food items
1	Rahu (Local)	11	40.74	Nil	29.64	11.11
2	Pimpalgaon	6	22.22	3	14.82	7.41
3	Ladkatwadi	4	18.81	10	7.41	7.41
4	Delavadi	2	7.4	6	3.7	3.7
5	Walki	2	7.4	7	3.7	3.7
6	Galandwadi	1	3.7	12	3.7	-
7	Nathachiwadi	1	3.7	8	3.7	-
Total		27	100	-	66.67	33.33

Source: Fieldwork, 2012.

5.3.5. Buyers Characteristics in Warwand Market Centre

This market is located along Pune-Solapur national highway No.-9 and 21 Kilometres away from Daund and participatly 42.86 percent local buyers purchased (33.34 percent) food items and 9.53 percent non-food commodities. While outside buyers have recorded 57.14 percent in Warwand and purchased 35.71 percent food items and 21.42 percent non-food items (Table-5.5 and Fig.-5.5). This market provides goods to surrounding villages on market day. Mostly consumers in this market are from peripheral location travelling within 5 km distance from Warwand. It is noticed that 28.57 percent buyers have travelled on foot to market.

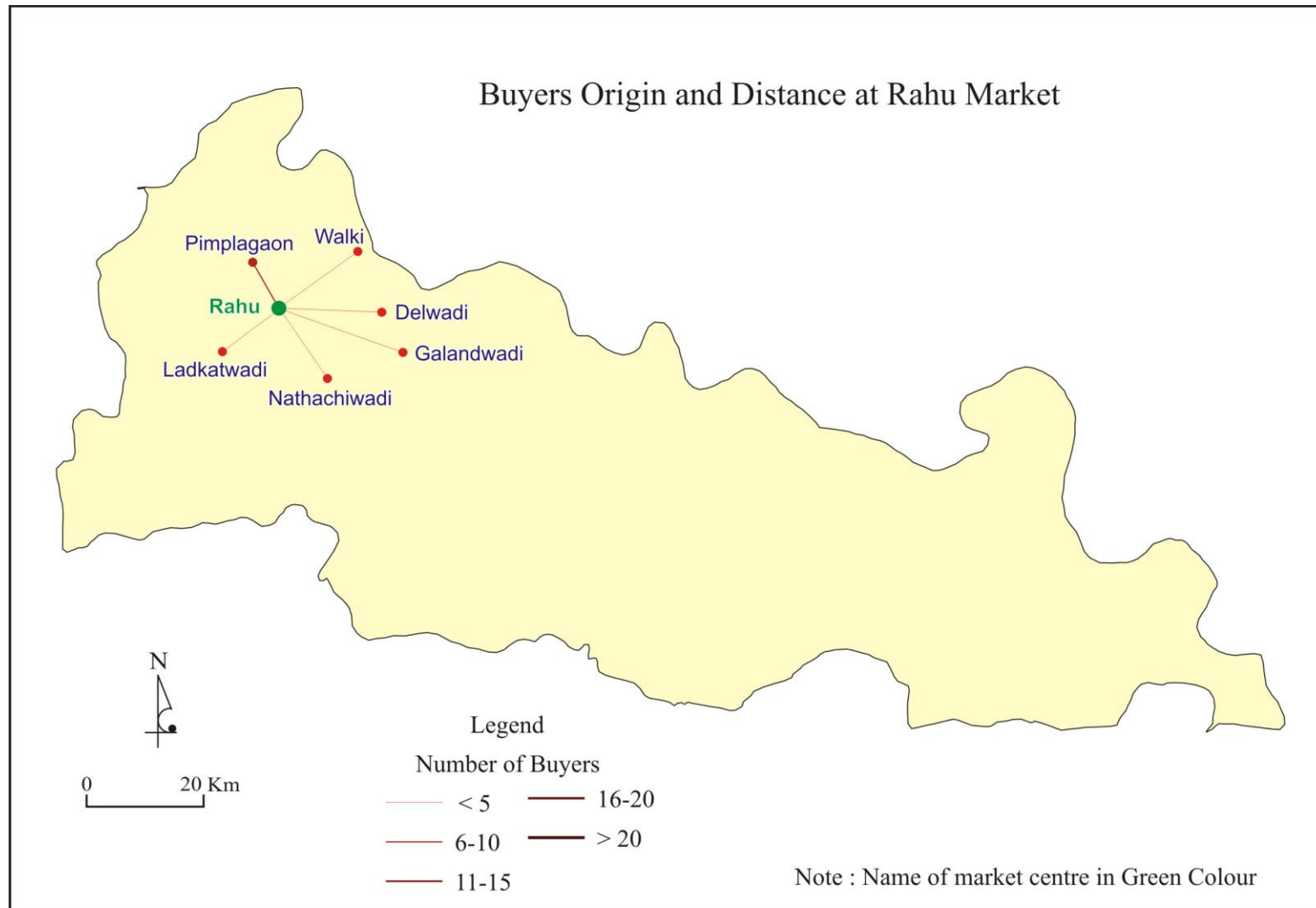


Fig. 5.4

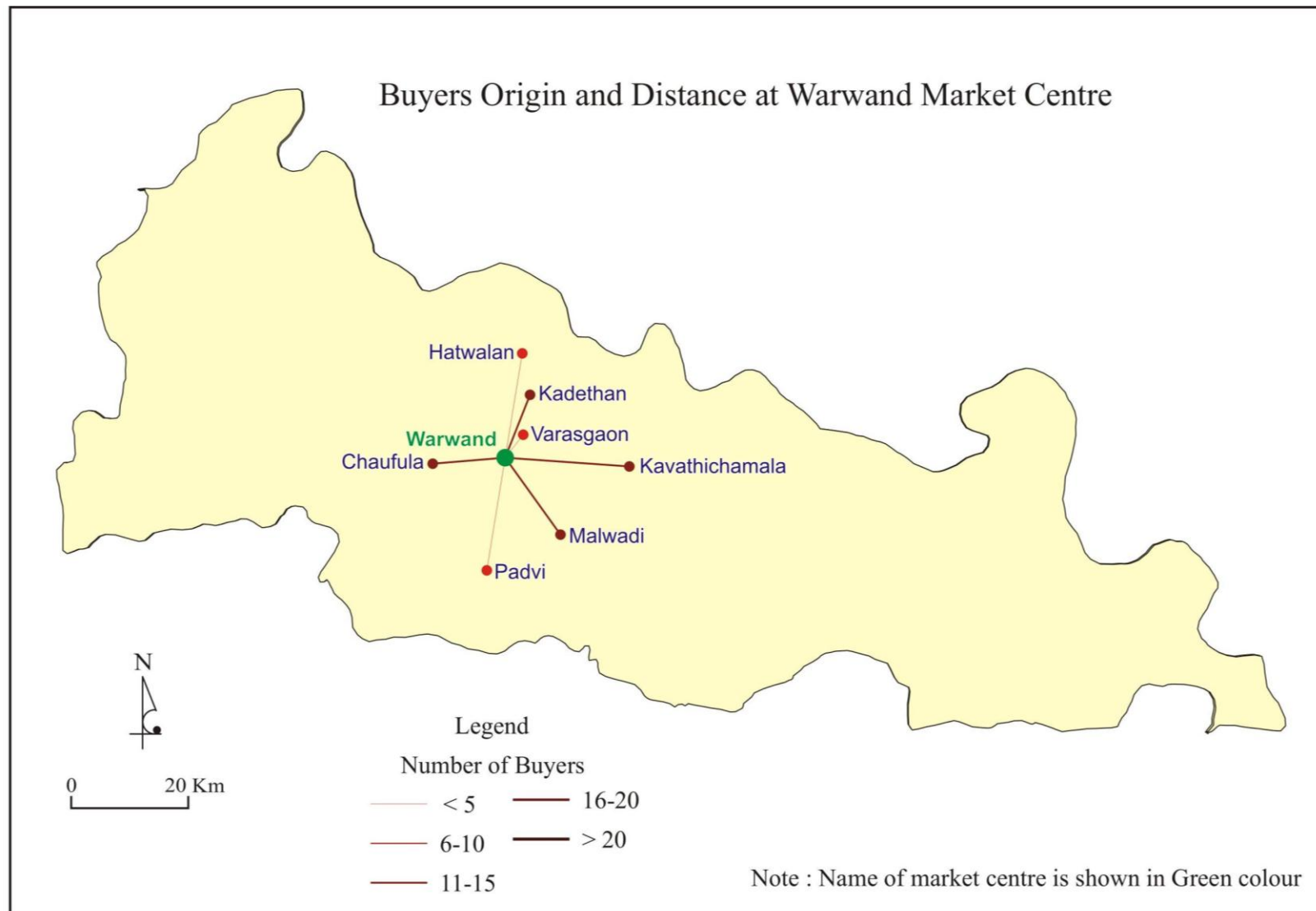


Fig. 5.5

Warwand is a relatively developed market in Daund taluka than other market. It is significant note that consumers behaviour is influenced by local socio-cultural and economic conditions. This market provides all types of goods including medicine.

Table-5.5 : Origin and Distance of Buyers from Warwand Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of food items	Percent of Non-food items
1	Warwand(Local)	18	42.86	Nil	33.34	9.53
2	Kadethan	7	16.67	8	11.91	4.76
3	Varasgaon	4	9.53	1	4.76	4.76
4	Chufulla	3	7.14	3	4.76	2.38
5	Kavatichamala	3	7.14	3	4.76	2.38
6	Malwadi	3	7.14	4	4.76	2.38
7	Hatwalan	2	4.76	8	2.38	2.38
8	Padavi	2	4.76	9	2.38	2.38
Total		42	100	-	69.05	30.95

Source: Fieldwork, 2012.

5.3.6 Buyers Charactristics in Kurkumbh Market Centre

Kurkumbh weekly market centre is located in MIDC industrial area in Daund taluka. It lies on Pune-Solapur national highway and Baramati-Daund state highway. Thirtyseven buyers were interviewed in Kurkumbh market. It is observed that 60 percent consumers were found attended in this market less then 6 km. It is interesting to note that more than half of buyers are from outsiders and particularly of labourers category. Buyers are travelled on foot, bicycles, private transport services and buses. This study reveals that buyers are visiting more than 5 kilometres distance travelled by buses and their own vehicles accounting 29.73 percent (Table-5.6 and Fig.-5.6). It is found that regular buyers are attended this market whose distance is within 5 kilometres from this market centre. Kurkumbh market centre has identified 43.24 percent local buyers buying 32.43 percent food items and 10.80 percent non-food items. Moreover, outside buyers are found travel by roads. Outside buyers account 57.76 percent purchasing 35.14 percent food and 21.63 percent non-food items. Outside buyers hailed from Jiregaon, Pandharewadi, Jadhavwadi, Malad, Roti villages located in surrounding to this market centre.

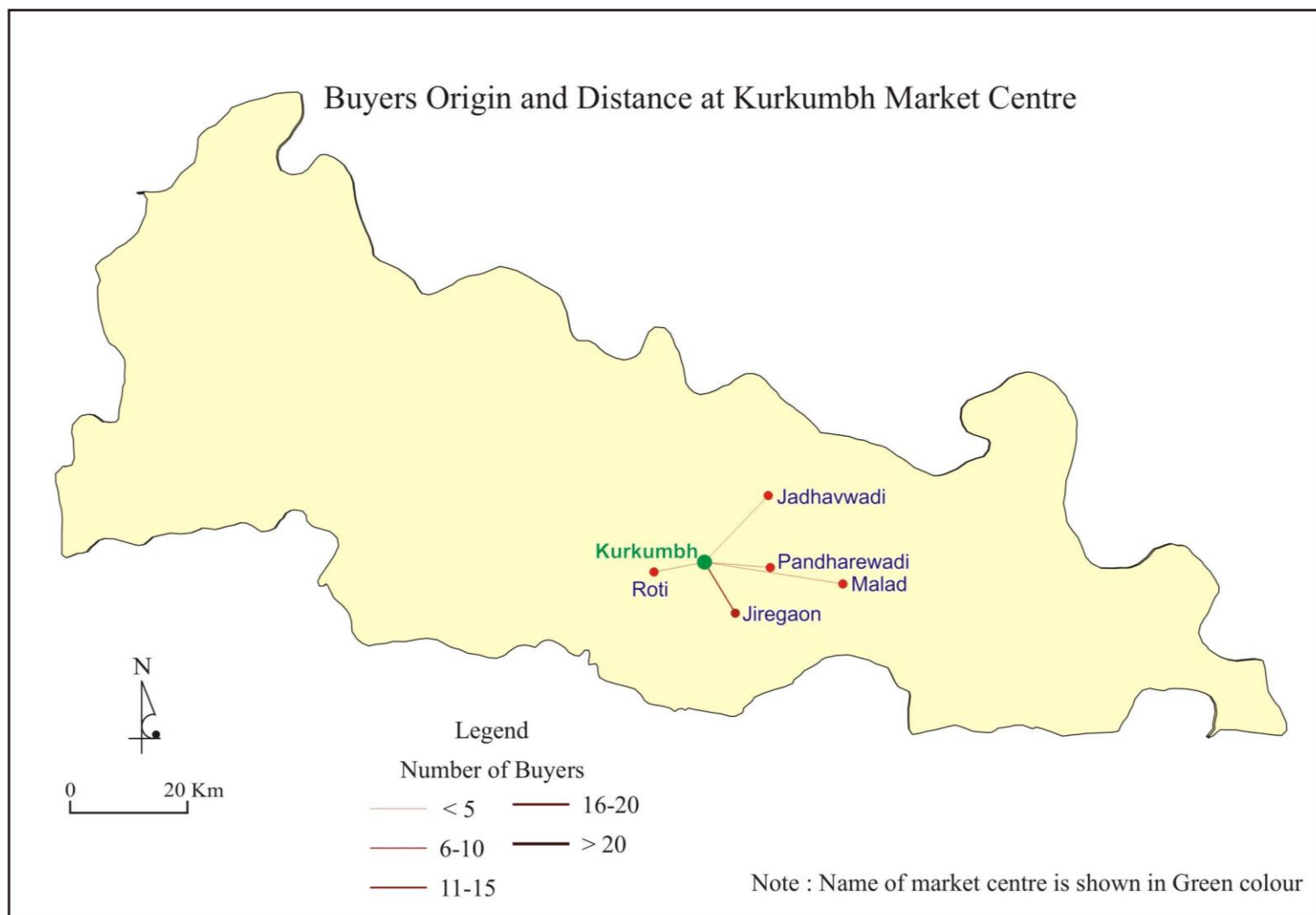


Fig. 5.6

Table-5.6 : Origin and Distance of Buyers from Kurkumbh Market Centre

Sr. No	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of food items	Percent of Non-food items
1	Kurkumbh	16	43.24	Nil	32.43	10.8
2	Jiregaon	6	16.22	5	10.81	5.41
3	Pandharewadi	5	13.51	3	8.11	5.41
4	Jadhavwadi	4	10.81	4	8.11	2.7
5	Malad	4	10.81	7	5.41	5.41
6	Roti	2	5.41	6	2.7	2.7
Total		37	100	-	67.57	32.43

Source: Fieldwork, 2012.

5.3.7 Buyers Characteristics in Yawat Market Centre

Yawat is biggest market centre in study region lying central part near bus stand of Yawat. It lies 33 km away from Daund. This centre performs collection and distribution of agricultural products in market. It is significant note that this centre has larger range of commodities and population in market other than market centres in Daund taluka. Moreover, this market centre is well linked with road routes resulting larger number of buyers are attending for commodity purchasing. This market provides various goods and other services to 24 villages. It is observed that this market has found 22.72 percent local buyers who purchased 15.45 percent food commodities and 7.27 percent non-food commodities. Whereas outside buyers account 77.28 percent and purchasing 43.64 percent food items and 33.64 percent non-food items. Moreover, outside buyers have travelled by various transport means. It is noticed that regular buyers are drawn within 10 kilometres distance in this market centre. It is significant note that longer distance buyers are purchased non-food commodities (Table-5.7 and Fig.-5.7). 66 percent buyers belong to surrounding villages of 10 kilometres whereas 34 percent buyers are outer of 25 kilometres distance. Besides this, Yawat is well known for animal market, therefore, buyers are coming from longer distance in this market place.

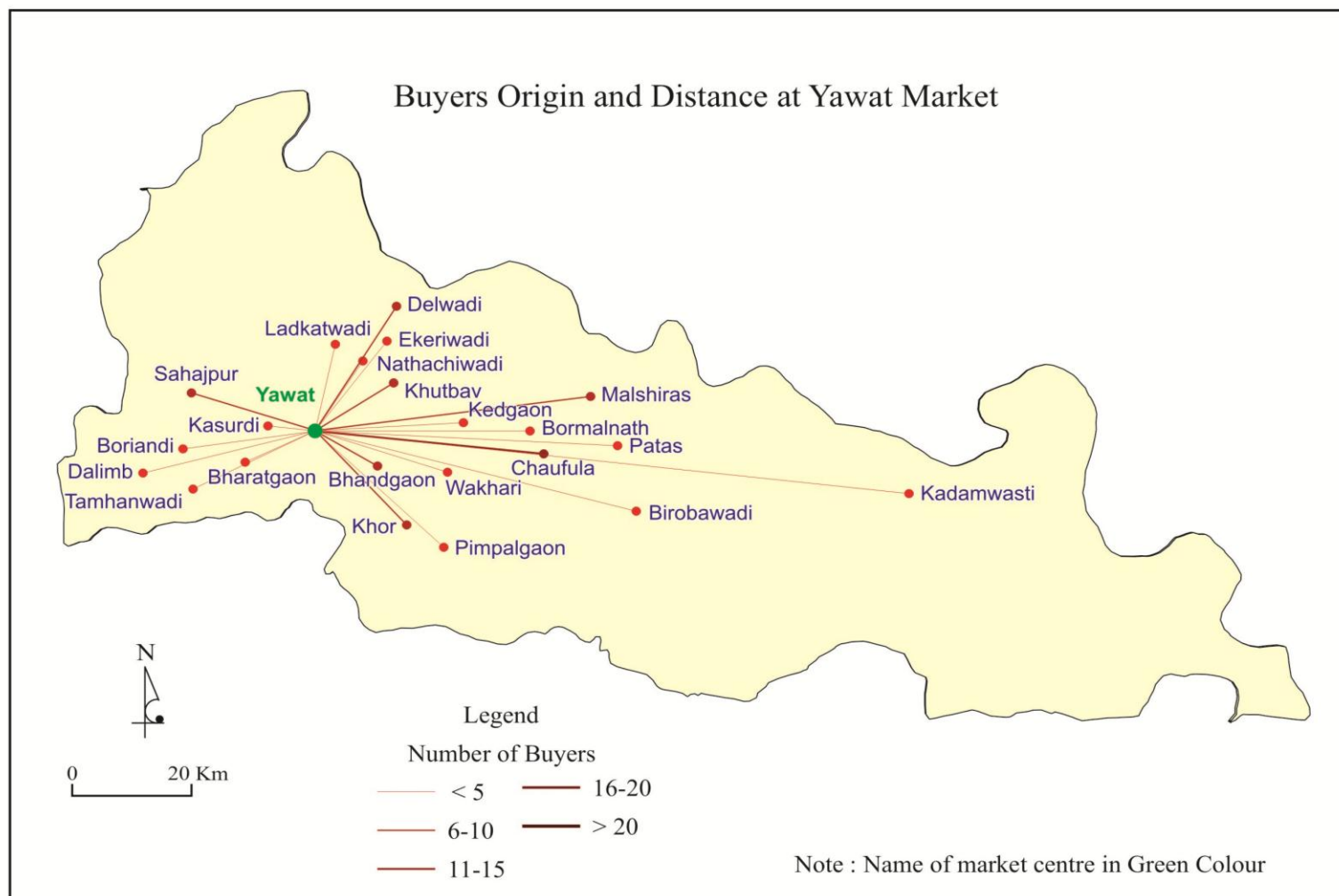


Fig. 5.7

Table-5.7 : Origin and Distance of Buyers from Yawat Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of Food items	Percent of Non-Food items
1	Yawat (Local)	25	22.72	Nil	15.45	7.27
2	Chaufula	14	12.73	12	7.27	5.45
3	Khutbav	8	7.27	5	4.55	2.72
4	Bhandgaon	7	6.36	6	3.64	2.72
5	Khor	6	5.45	15	2.72	2.73
6	Delwadi	5	4.54	10	2.72	1.82
7	Sahajpur	5	4.54	7	2.72	1.82
8	Malshiras	5	4.54	10	3.64	0.91
9	Bormalnath	4	3.64	10	1.82	1.82
10	Ekeriwadi	4	3.64	7	2.73	0.91
11	Urulikanchan	3	2.73	12	0.91	1.82
12	Ladkatwadi	3	2.73	10	0.91	1.82
13	Pimpalwasti	3	2.73	13	1.82	0.91
14	Kadamwasti	3	2.73	12	1.82	0.91
15	Birobawadi	3	2.73	25	0.91	1.82
16	Kedgaon	2	1.82	18	0.91	0.91
17	Patas	2	1.82	20	0.91	0.91
18	Bharatgaon	2	1.82	9	0.91	0.91
19	Nathachiwadi	1	0.91	7	0.91	1.82
20	Dalimb	1	0.91	12	0.91	-
21	Tamhanwadi	1	0.91	8	-	0.91
22	Wakhari	1	0.91	10	0.91	-
23	Kasurdi	1	0.91	11	-	0.91
24	Boriaindi	1	0.91	9	0.91	-
Total		110	100	-	59.09	40.91

Source: Fieldwork, 2012.

5.3.8 Buyers Characteristics in Khadki Market Centre

This market centre is smallest in term of number of buyers and sellers in study region. Market day is on Friday providing variety of goods and services to buyers. Due to less availability of goods, few buyers make frequent journey. Table-5.8 presents that this market has 44.00 percent local buyers who purchased 36.00 percent food and 8.00 percent non-food items. Outside buyers have accounted 56 percent and they purchased 32 percent food and 24 percent non-food items. It is noticed that most of buyers are located within 5 km distance. The buyers of nearby villages travelled on

foot, buses, bicycles, trucks, tempos/ matadors in this market centres (Table-5.8 and Fig.-5.8).

Table-5.8 : Origin and Distance of Buyers for Khadki Market Centre

Sr. No.	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of Food items	Percent of Non-Food items
1	Khdaki (local)	11	44	Nil	36	8
2	Kalewasti	4	16	2	8	8
3	Lonarwadi	3	12	4	8	4
4	Kalborwasti	2	8	1	4	4
5	Malad	2	8	5	8	-
6	Chincholi	2	8	3	4	4
7	Shisufal	1	4	15	-	4
Total		25	100	-	68	32

Source: Fieldwork, 2012.

5.3.9 Buyers Characteristics in Daund Market Centre

Daund is a major market centre in Daund taluka and marketing facilities to taluka villages and neighbouring talukas. Seventythree buyers were interviewed in Daund market. Consumers of different villages of around Daund depend on this single market centre. The fact is that dominant markets tend to limit the temporal choice of markets to the consumers. This market provides an opportunity for purchasing a wide range of goods to the villages around talukas. It has observed that rates of commodities are relatively cheaper in this market. This study reveals that buyers have travelled with twin objective of marketing and administrative work as Daund is headquarter of this taluka. This market has well linked with rail and road routes resulting involvement of buyers. This market centre has the facility of various commodity and provide service to 23 villages in Daund taluka. The participation of local and outside buyers is shown in Table-5.9 and Fig.-5.9. There are 27.40 percent local buyers who purchased 23.28 percent food and 4.11 percent non-food items. Whereas outside buyers account 72.60 percent and who buy 46.58 percent food items and 26.03 percent non-food items. The average reduces inner limit of buyers is 4 kilometres and outer limit 23 kilometres distance. Outside buyers travelled by various means of transport. It is noted that regular buyers are generally drawn from less than 10 kilometres to this market centre.

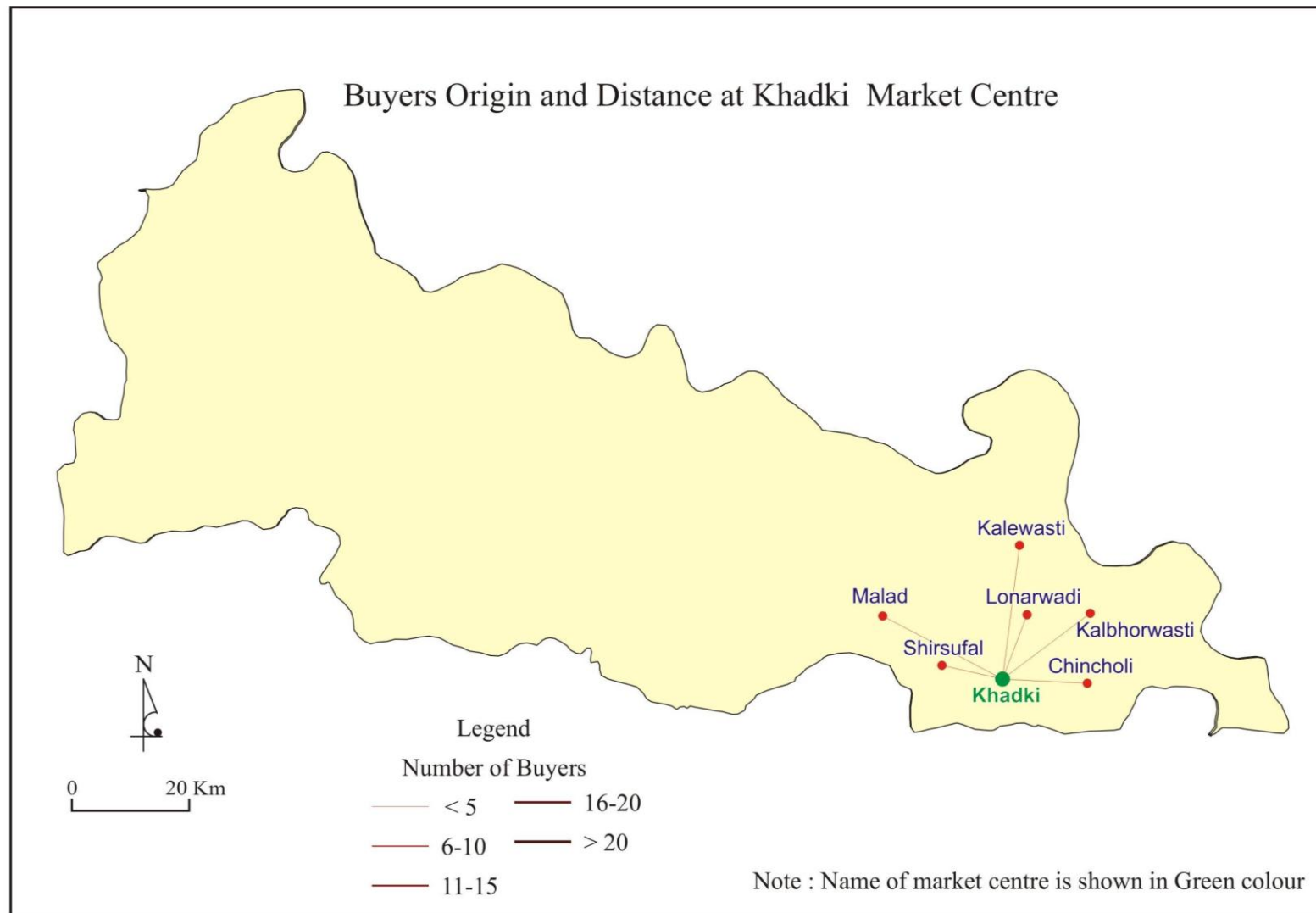


Fig. 5.8

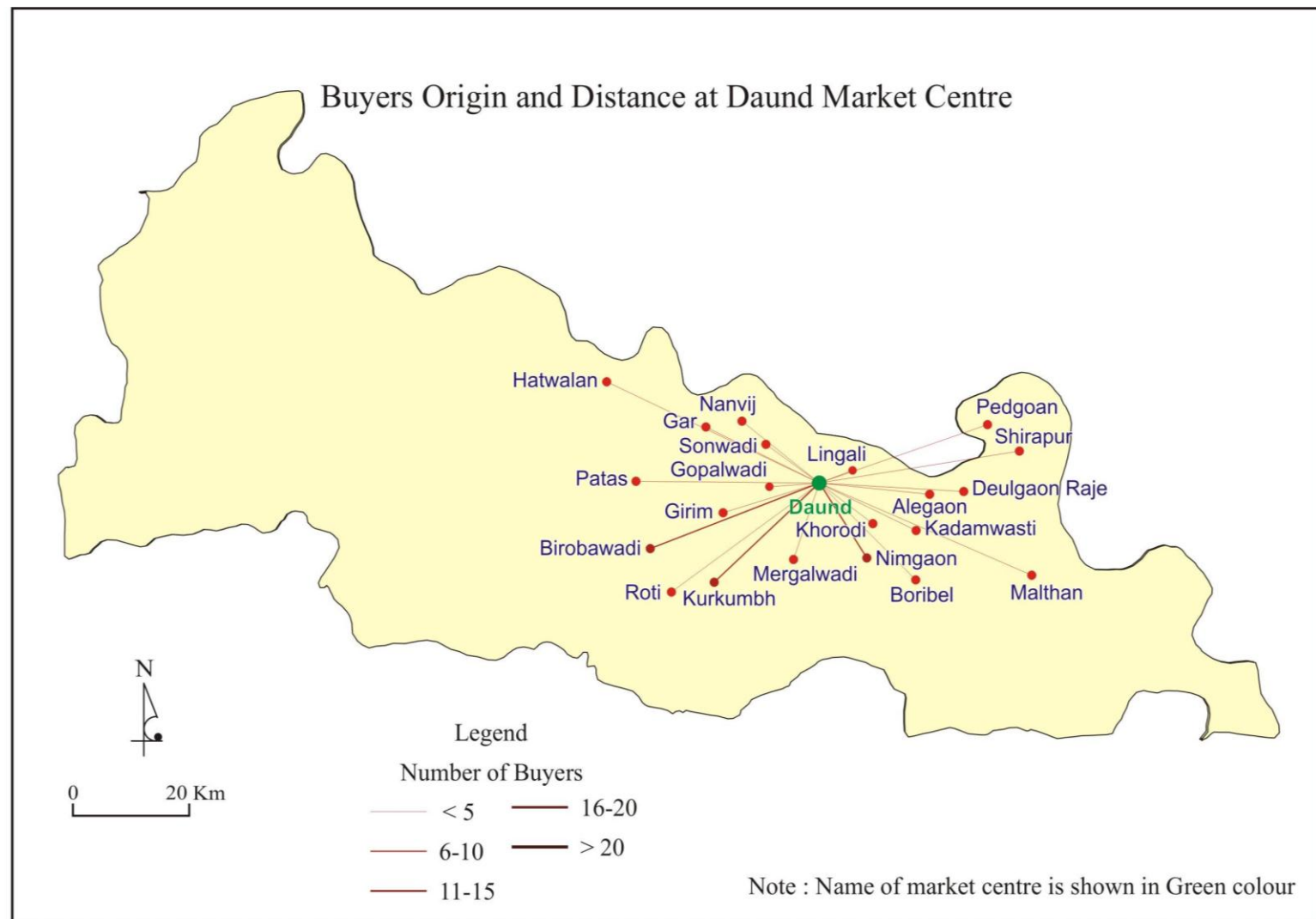


Fig. 5.9

Table-5.9: Origin and Distance of Buyers from Daund Market Centre

Sr. No	Native Place of Buyers	No. of Buyers	Percent of Buyers	Distance from Market in km	Percent of Food items	Percent of Non-Food items
1	Daund (local)	20	27.4	Nil	23.28	4.11
2	Birobawadi	7	9.58	8	5.48	4.11
3	Kurkumbh	6	8.22	10	5.48	2.74
4	Nimgaon	6	8.22	5	6.85	1.37
5	Gar	5	6.85	7	4.11	2.74
6	Deulgaon Raje	4	5.48	11	4.11	1.37
7	Girim	3	4.11	8	1.37	2.74
8	Gopalwadi	3	4.11	5	2.74	1.37
9	Sonawadi	2	2.74	4	1.37	1.37
10	Nanvis	2	2.74	6	1.37	1.37
11	Hatwalan	2	2.74	21	1.37	1.37
12	Shirapur	2	2.74	20	1.37	1.37
13	Patas	1	1.37	15	1.37	-
14	Roti	1	1.37	21	-	1.37
15	Lingali	1	1.37	8	1.37	-
16	Margallwadi	1	1.37	6	1.37	-
17	Khorodi	1	1.37	4	-	1.37
18	Alegaon	1	1.37	13	1.37	-
19	Shirapur	1	1.37	18	1.37	-
20	Pedgaon	1	1.37	22	1.37	-
21	Boribel	1	1.37	15	-	1.37
22	Malthan	1	1.37	23	1.37	-
23	Kadamwasti	1	1.37	7	1.37	-
Total		73	100	-	69.86	30.14

Source: Fieldwork, 2012.

5.4 Age and Sex Composition of Buyers

Table-5.10 presents the age and sex composition of buyers in nine weekly markets centres in Daund taluka. It is observed that the higher percent buyers is found in the range of 31 to 40 age group accounting 32.58 percent and lowest buyers percent is to below 20 years and above 50 years. Only 6.29 percent buyers belonging below

20 years and only 13.75 percent buyers are above 50 years. The buyers between the age group 20 to 30 have found 25.07 percent. 32.58 percent buyers were in age group 31 to 40 and 41 to 50 years accounts for 22.31 percent. Moreover, Patas market has observed 87.23 percent buyers who are between age group 20 to 50 years. Whereas market centres in Kedgaon represents lowest buyers (1.25 percent) of less than 20 years. It is identified that maximum buyers of 31 to 40 age group are found because of larger population engaged in marketing activity in this market centres. Female buyers are found less number than male (Table-5.10). Whereas sex composition of male buyers dominate in study region. Out of 56.80 percent male buyers and 43.20 percent female. Generally, buyers are travelled from surrounding villages to this market centre (Table-5.10). The highest female buyers indicate in Patas market 63.80 percent (Table-5.10). It is found that Kedgaon, Rahu, Kurkumbh and Daund Khadki market centres have larger male buyers engaging in accounting 62.50, 63.00, 64.90, 54.80 and 60.00 percent respectively.

Table-5.10 : Age and Sex Composition of Buyers

Sr. No	Market Centres	No. of Buyers	Sex Composition		Age Composition					Total (%)
			Male	Female	<20	20-30	31-40	41-50	>50	
1	Patas	47	36.2	63.80	2.13	23.4	27.66	36.17	10.6	100
2	Kedgaon	80	62.5	37.5	1.25	17.5	32.5	30.0	18.8	100
3	Ravangaon	27	55.6	44.44	11.1	22.22	22.22	18.52	25.9	100
4	Rahu	27	63	37.00	11.1	48.15	33.34	3.7	3.7	100
5	Warwand	42	59.5	40.50	2.38	16.67	35.71	30.95	14.3	100
6	Kurkumbh	37	64.9	35.10	2.71	13.51	48.65	21.62	13.5	100
7	Yawat	110	54.6	45.40	8.18	23.64	33.64	24.54	10.0	100
8	Khadki	25	60.0	40.0	4.0	40.0	28.0	12.0	16.0	100
9	Daund	73	54.8	45.20	13.7	20.55	31.51	23.29	11	100
Average		-	56.8	43.20	6.29	25.07	32.58	22.31	13.75	100

Source: Fieldwork, 2012.

5.5 Education Composition of Buyers

Market centres are considered as recognized place for marketing and social interaction both buyers and sellers and therefore, weekly market plays a major role as place for marketing and education. Market provides information of goods and commodities to farmers thereby layman sellers and buyers get information to understand the behaviours of people and their standard of living. Table-5.11 reveals the educational composition of consumers in study region. This table shows that 10.57

percent buyers are illiterate in these markets. It is observed that Ravangaon and Kurkumbh markets have 18.52 and 18.92 percent illiterate respectively whereas minimum proportion is found at Patas market (4.26 percent) by educated upto 5th standard and recorded 23.71 percent. Whereas 33.02 percent buyers have identified between 6th to 10th standard and 22.29 percent buyers above 10th standard. While 7.55 percent graduate and only 2.86 percent buyers have completed their post-graduation in Daund taluka. The higher percent graduate buyers is found in Kurkumbh market centre (13.51 percent) and lowest is in Ravangaon (3.70 percent). In Patas market has 4.25 percent buyers post-graduate and Kurkumbh market (5.41 percent) while in Ravangaon and Rahu market centres have absence of post-graduate buyers in study region (Table-5.11).

Table-5.11 : Education Composition of Buyers

Sr. No.	Market Centres	No. of Buyers	Educational Level (Percent)						Total Percent
			Illiterate	Below 5 th std.	6 th to 10 th std.	Above 10 th std.	Graduate	Post Graduate	
1	Patas	47	4.26	25.53	38.30	21.28	6.38	4.25	100
2	Kedgaon	80	8.75	12.50	38.75	25.00	11.25	3.75	100
3	Ravangaon	27	18.52	29.63	29.63	18.52	3.70	-	100
4	Rahu	27	7.41	33.34	25.92	25.92	7.41	-	100
5	Warwand	42	11.91	28.57	30.95	19.05	7.14	2.38	100
6	Kurkumbh	37	18.92	13.51	27.03	21.62	13.51	5.41	100
7	Yawat	110	9.09	27.27	39.09	16.36	6.37	1.82	100
8	Khadki	25	8.00	28.00	36.00	20.00	4.00	4.00	100
9	Daund	73	8.22	15.06	31.51	32.88	8.22	4.11	100
Average		-	10.57	23.71	33.02	22.29	7.55	2.86	100

Source: Fieldwork, 2012.

5.6 Religions and Composition of Buyers

The behaviour of individual buyers for a particular marketing place varies due to variations in the level of income, education, nature of goods, price of commodities, etc. However, religions are largely influence on the behavioural pattern of buyers activities. Fairs and festivals increase marketing. In study region, Hindus, Muslims are two religions are found majority as buyers Table-5.12 reveals the religion composition of buyers in study region. It is found that 91.98 percent buyers are Hindus. Among Hindu 47.09 percent buyers belongs to non-backward including Maratha, Brahmin, Gujar, Gujarathi castes and 44.89 percent are backward belongs

castes, namely, Mali, Dhangar, Vadari, Nhavi, Chambhar, Lohar, Mahar, Mang etc castes. Only 8.02 percent consumers belong to Muslim communities who have attended market in study region.

Table-5.12 : Region and Composition of Buyers

Sr. No.	Market Centres	Hindus		Muslim		Total Percent
		Non-Backward	Backward	Non-Backward	Backward	
1	Patas	40.42	55.32	2.13	2.13	100
2	Kedgaon	43.75	52.50	2.50	1.25	100
3	Ravangaon	40.74	48.15	7.41	3.70	100
4	Rahu	55.56	37.04	3.70	3.70	100
5	Warwand	52.38	38.10	4.76	4.76	100
6	Kurkumbh	40.54	48.65	8.11	2.70	100
7	Yawat	54.55	36.36	5.45	3.64	100
8	Khadki	52.00	40.00	4.00	4.00	100
9	Daund	43.84	47.94	5.48	2.74	100
Average		47.09	44.89	4.84	3.18	100

Source: Fieldwork, 2012.

5.7 Average Distance Travelled by Buyers

Table-5.13 highlights the average minimum and maximum travel distance of buyers. In study region, buyers are generally travelled on foot, bullock-carts, bicycles, motorcycles, private transport means, state transport buses, trains etc. It is noticed from this study that most of buyers are found reaching to markets by privet transport. Table-5.13 reveals average distance travel by consumers. 44.16 percent buyers are travelled less than 5 kilometres to market while 36.48 percent buyers travelled accounting average 6 to 10 kilometres distance, 19.36 percent buyers were travelled to market at average distance more than 10 kilometres from market centres. In case of Warwand market, it is found that 95.24 percent buyers travelled within 10 kilometres distance and only 4.76 percent buyers travelled more than 10 kilometres. Yawat market 40 percent buyers have travelled from above10 kilometres in study region. In Patas market centres 55.32 percent buyers have travelled less than 5 kilometres and 36.17 percent buyers travelled 6 to 10 kilometres and 8.51 percent buyers travelled more than 10 kilometres. In Daund weekly market centre 27.40 percent buyers travelled more than 10 kilometres and 72.60 percent buyers travelled less than 10 kilometres.

Table-5.13: Average Distance Travelled by Buyers

Sr. No.	Market Centre	No. of Buyers	Distance Travelled from Market Centres		
			0-5	6-10	>10
1	Patas	47	55.32	36.17	8.51
2	Kedgaon	80	45.00	40.00	15.00
3	Ravangaon	27	33.33	51.85	14.82
4	Rahu	27	40.74	37.04	22.22
5	Warwand	42	59.52	35.72	4.76
6	Kurkumbh	37	59.46	27.03	13.51
7	Yawat	110	21.82	38.18	40.00
8	Khadki	25	48.00	24.00	28.00
9	Daund	73	34.25	38.35	27.40
Average		-	44.16	36.48	19.36

Source: Fieldwork, 2012.

Note: Distance is given in Kilometres.

5.8 Travel Pattern of Buyers

The travel behaviour changes with increasing income and availability of transport means. Buyers are more rational in terms distance travel from their home to market place. Though their requirements are dynamic. Buyers prefer short distance to obtain essential commodities for daily needs and save their transport cost.

Table-5.14 : Travel Pattern of Buyers

Sr. No.	Market Centre	Means of Travelled						
		On Foot	Bicycle	Truck	Tempo/ Matador	Motor- Cycle	S.T. Bus	Rail- Way
1	Patas	31.92	10.64	17.02	12.77	14.89	8.51	4.25
2	Kedgaon	21.25	8.75	20.00	23.75	15.00	7.50	3.75
3	Ravangaon	14.82	7.40	22.22	25.92	14.82	14.82	-
4	Rahu	14.82	7.41	25.92	29.62	14.82	7.41	-
5	Warwand	28.57	7.14	16.67	19.05	16.67	11.90	-
6	Kurkumbh	27.03	8.11	13.51	21.62	21.62	8.11	-
7	Yawat	22.72	11.82	17.27	19.09	13.64	12.73	2.73
8	Khadki	28.00	12.00	16.00	20.00	12.00	12.00	-
9	Daund	27.40	5.48	19.18	19.18	9.59	12.32	6.85
Average		24.06	8.75	18.64	21.22	14.78	10.59	1.96

Source: Fieldwork, 2012.

Note: Distance is given in Kilometres.

It is noticed in study region roadways are more preferred than that of railway. Travel pattern of consumers is given in Table-5.14. 24.06 percent buyers belonging to local and they travelled to market on foot. It has observed that 8.75 percent buyers have used bicycles, and motorcycles (14.78 percent), trucks (18.64 percent) by tempos/ metadoors (21.22 percent) for coming to market. This study revealed that 10.59 percent buyers have found to use state transport buses and 1.96 percent railway for to attending the market centres in study region (Table-5.14).

5.9 Resume

The questionnaires for 468 buyers in nine market centres have identified that 33.33 percent local buyers and outside buyers are 66.67 percent. It is clear that buyers have purchased maximum percent of food items from as per their requirements Patas has found food items (76.58 percent) followed by Kedgaon (75.00 percent).Whereas highest buyers of non-food commodities lies in Yawat 40.91 percent and lowest in Patas (23.42 percent). It is observed that male buyers are found dominance in all market centres in study region accounting 56.80 percent and female buyers have 43.20 percent. It is identified that 30 to 40 age groups are largely engaged in purchasing commodities as these buyers are mature for selecting of commodities and lowest buyers (6.19 percent) of less than 20 years age group. The educational composition of consumers unfolded that higher educated graduate are found in Kurkumbh (13.51 percent) and highest percent of post-graduate (5.41 percent) followed by Daund 8.22 percent. In study region, both backward and non-backward buyers are found. In case of Muslim highest percent is observed in Kurkumbh (10.81 percent) followed by Warwand (9.52 percent) in study region. In study region buyers have found travelled on foot, bicycles, motorcycles and private transport means. 44.16 percent consumers have travelled less than 5 kilometres and 19.36 percent buyers travelled more than 10 kilometres.

CHAPTER-VI

ASSESSMENT OF MARKET CENTRES

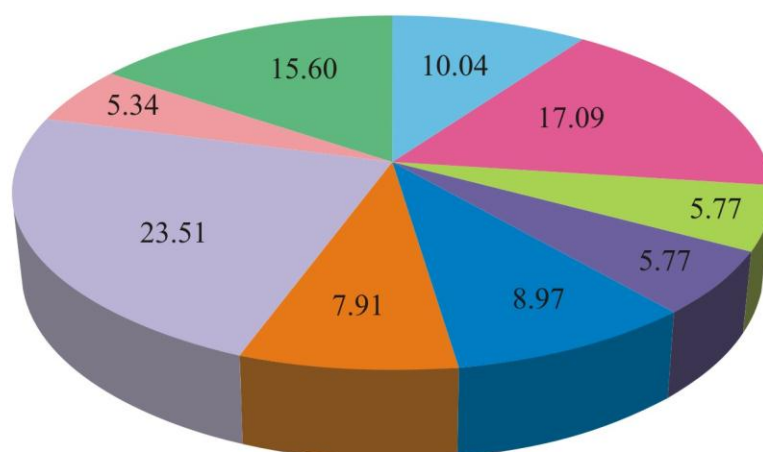
6.1 General Introduction

The present chapter attempts to make exhaustive study of characteristics of sellers, buyers and service area. For this, study primary data have taken into consideration. Further relationship has computed between market centres and other factors. In fact, there is direct relationship between distance, weekly market location and population. The existence populations influence to delimit the market area in study region. The weekly market centres perform a vital role and impact on economic and social life of people in study region participants on sellers and buyers assembling in market. Buyers are mainly rural inhabitants attending market place convenient to purchase of commodities for household consumption. The frequency of participants visit illustrate the attractions in weekly market centres. The existence of market place depends upon on the availability of goods and services in terms of wants to buyers and functional organization and thus differs in terms of service capacity. Weekly market centres are supporting by surrounding villages in study region and carry on their primary selling and buying activities in market places.

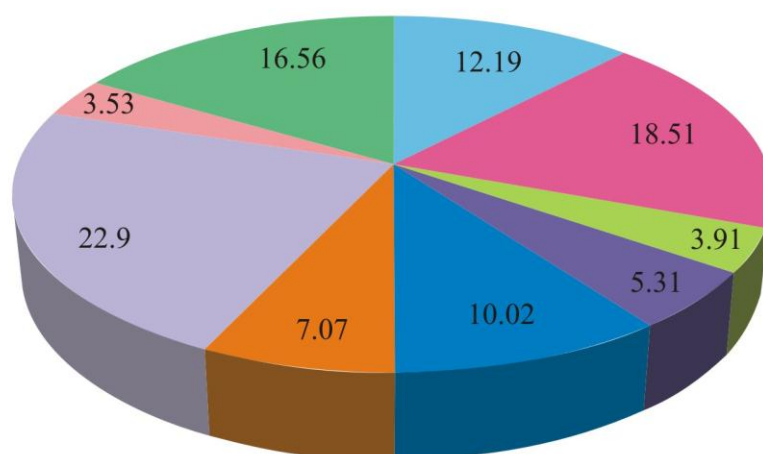
6.2 Sellers and Buyers in Study Region

The principle two participants, namely, sellers and buyers actively share in marketing activity for selling and buying of commodities in market centres in study region. In nine weekly market centres have identified in study region (Fig.-6.1). Yawat is market centre of buyers and sellers have highest percent (23.51 sellers) and 22.90 percent buyers and performs both commodities and animals market. Kedgaon is another market centre in study region 17.09 percent sellers and 18.51 percent buyers exists. Daund is a urban market centre has 56436 population (Census, 2011) accounting 15.60 percent sellers and 16.56 percent buyers. This market has found comparatively less buyers and sellers than Yawat. Daund market centre has both regular market and beside weekly market.

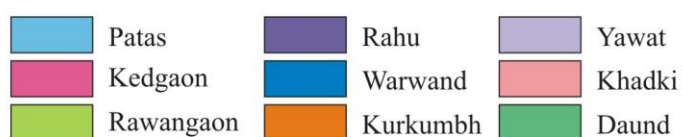
Ⓐ Percent of Sellers in Nine Weekly Market Centres



Ⓑ Percent of Buyers in Nine Weekly Market Centres



Legend



Note : Figures indicate percentage of Sellers and Buyers

Fig. 6.1

Patas, Warwand and Kurkumbh market centres have found 10.04, 8.97 and 7.91 percent sellers and 12.19, 10.02 and 7.07 buyers respectively. Rahu, Ravangaon and Khadki market centres have observed relatively less sellers and buyers having 5.77, 5.77 and 5.34 percent sellers and 5.31, 3.91 and 3.53 buyers respectively (Fig.-6.1). Khadki is smallest market centre in study region having less roads link resulting less sellers and buyers. Location of Ravangaon, Kurkumbh and Daund market centres are very near resulting few sellers and buyers have found attended Khadki market centre.

6.3 Delimitation of Market Area

The location of weekly market is mainly governed by involvement in marketing of buyers and sellers of surrounding villages. Each group of villages seems to have created the weekly market centre with the convenient of transport routes. The analysis of space-time relationship of weekly market, its interaction between weekly markets and villagers are much consideration. The interaction is in the form of mobility of consumers to various weekly markets. These interactions depend on economic and socio-cultural condition in study region. The distribution of weekly market differs in respect of consumer's choice, income in terms of rich farmers, poor farmers and agricultural labours and therefore, it is needless to mention that large interaction between consumers and traders and found in bigger market centre as compared to smallest markets. Moreover, size of settlement has also positive effect on the size of market.

The nine weekly markets in study region have selected for understanding the extent of service area influencing market centres. It would be pertinent to bring out the relationship of service areas of single weekly market centre with service areas of neighbouring weekly market centres (Fig-6.2). It is true that neighbouring weekly market centres have overlapping service areas in study region. The service area of any weekly market centre is demarcated by area from where buyers attending weekly market Fig.-6.2 exhibits that Yawat and Daund market centres have larger service area 17.06 and 17.32 percent respectively. Daund, Yawat and Kedgaon have found more sellers and buyers. Warwand and Patas markets have ranked second in term of service area because of good road link. However, Kurkumbh, Ravangaon, Rahu and Khadki weekly market centres have found less service areas than others market centres as buyers come from six to seven villages.

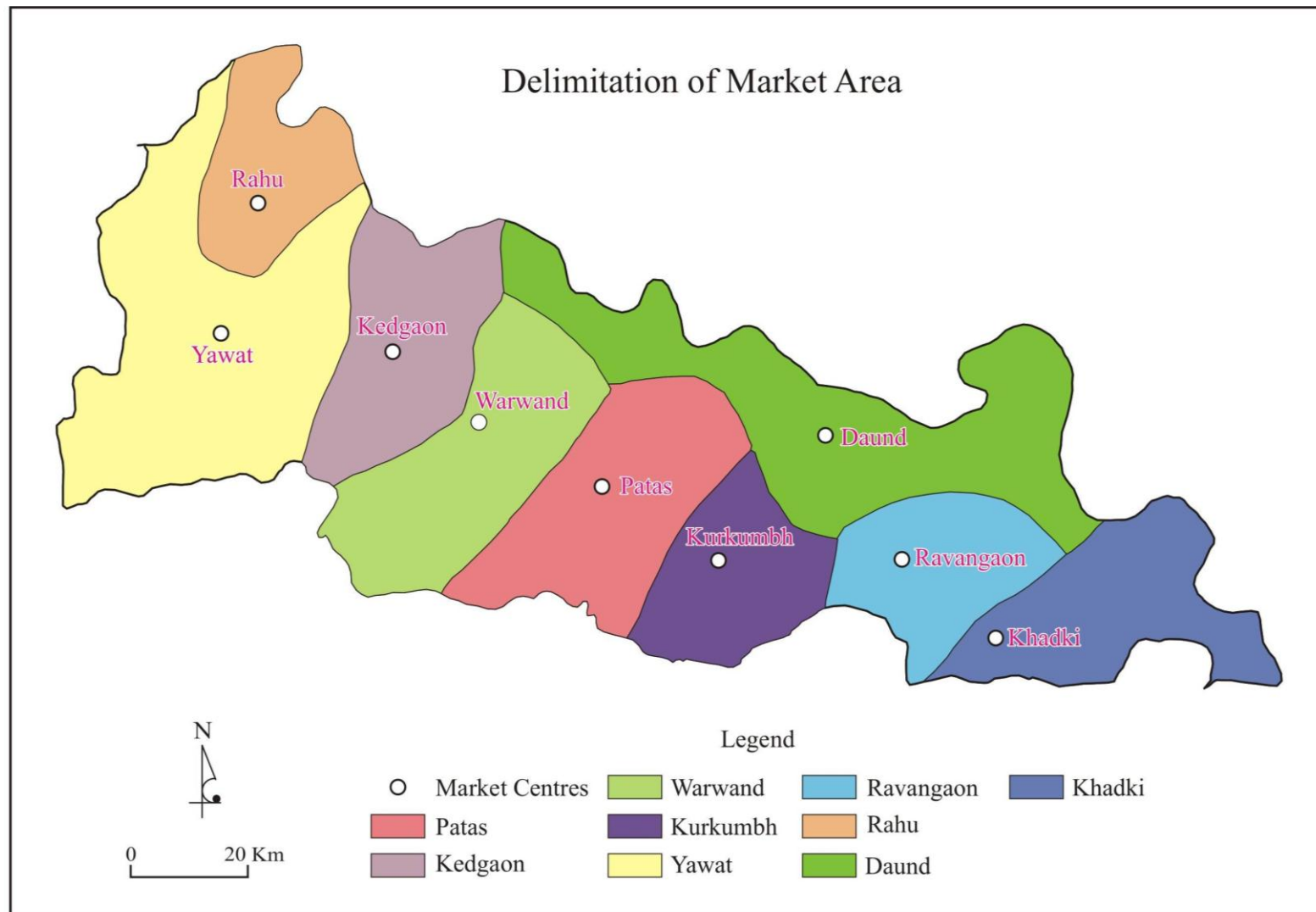


Fig. 6.2

And, therefore, east and west parts service area of these markets have increased as compared to other market centres. The reason for less service area in Rahu is proximity of Yawat and Kedgaon market centres. Kurkumbh market has less service area (7.21 percent) due to nearness of Daund big market. Whereas Ravangaon and Khadki market centres have less service area 7.74 percent and 9.21 percent respectively due to distance between both the markets and villages are very less 5.83 percent and 6.79 percent respectively. Daund and Yawat market centres have largest service area in study region. But Daund has less number 15.60 percent of sellers and 16.56 percent buyers as compared to Yawat because Daund performs both regulated and weekly market and negatively affected weekly market. Yawat market centre has large service area as it gets more sellers and buyers than Daund besides livestock market. The sellers and buyers come from Purandhar, Shirur, Baramati and Shrigonda in Yawat market. Kedgaon market centre has ranked third in term of service area after Daund and Yawat. It is found that less service area extent from east and west than north and south parts in study region.

6.4 Market Centres and Service Villages

The surrounding villages, their area and population served market centres have considered to evaluate the range of mobility of buyers and sellers in study region. The mobility of sellers and buyers are to due as transport facility available for selling and buying. Mostly buyers prefer to visit markets to purchase goods of their choice. In study region, nine weekly market centres of 102 villages and one urban centre exist. Out of these 9 villages serves as service for Patas weekly market within average 6.66 kilometres distance (Fig.-6.3). Total number of sellers in Patas weekly market is 470. However, total sellers in Warwand weekly market has 420 whereas buyers of 8 villages attend Warwand market is within 5.87 km. distance. Kurkumbh market centre in study region has 370 sellers and 6 villagers buyers have visited to this market centre within average 8.16 kilometres distance. Ravangaon, Rahu and Khadki are comparatively small weekly market centres in study region attended by 269, 270 and 250 sellers and buyers of 6, 7, and 7 villages have interacted with these market centre from surrounding villages of 5.80, 8.00 and 7.50 kilometres average distance respectively. Kedgaon, Yawat and Daund centres have higher number in term of sellers, buyers and hinterland villages. 800 sellers and 13villages buyers have attended Kedgaon market average 5.70 kilometres distance. 1100 sellers and 24 villages buyers involved in Yawat weekly market who used came from average 10.50 kilometres distance.

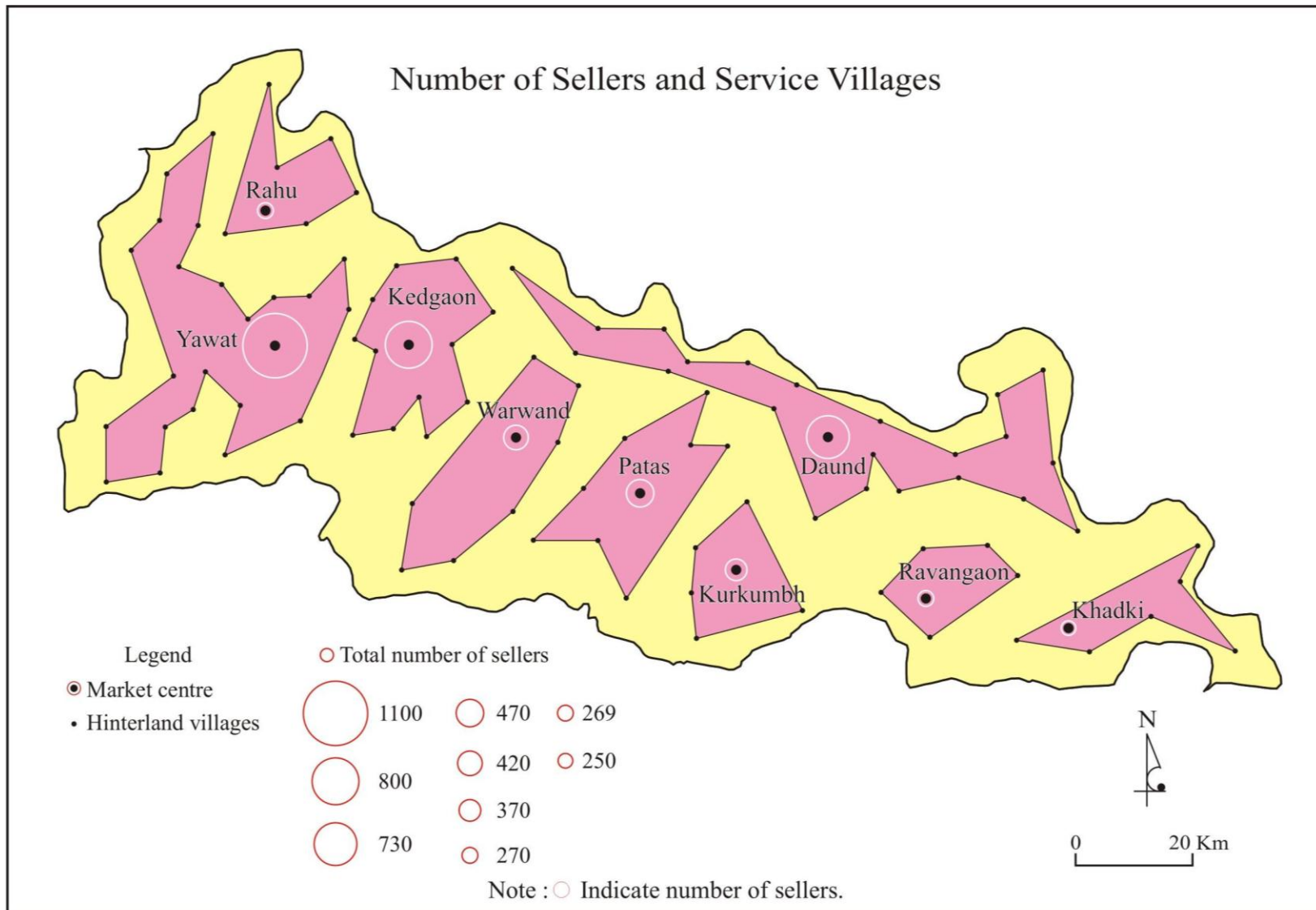


Fig. 6.3

Yawat market is known for livestock marketing. Whereas Daund is taluka head quarters, urban centre and connectivity of and railway routes. 730 sellers and 23 villages buyers come to Daund weekly market centre of average 13.73 kilometres distance in study region.

6.5 Market Centre and Influencing Factors

There are many factors influence marketing process. The important among them are population of service area, number of service villages, number of households, transport facility, number of sellers and buyers. The population of service villages determines directly the size of market. The smaller service area and less number of villages tends to exhibit normally smaller market while larger service area and more service villages leads to bigger market. The attendance of sellers and buyers in market centre is another important consideration. The larger number of buyers and sellers always encourage to business community which ultimately help for growth, expansion and stability of market centres. The transport facility is the basic necessity for connecting market centres with surrounding villages and location along roads in another consideration helping for marketing process.

The larger market spells out the greater number of service villages, service area, population, number of households, buyers and sellers of influence (Fig.-6.4). The number of villages to each weekly market centre is given in Table-6.1. Khadki market centre is smallest in term of number of sellers and buyers in study region and has involves 6.79 percent villages, 9.21 percent service area, 5.34 percent population including service area of market centre and 5.36 percent household in study region. Due to less transport facility in this market centre has only 5.34 percent sellers and 3.53 percent buyers involved in marketing. Moreover, this market has large percent of service area and villages than Ravangaon and Rahu market centres. But lesser buyers and sellers have found in Khadki market due to less distance between Ravangaon and Khadki markets. Ravangaon accounts 5.83 percent service villages and 7.74 percent service area. This market has occupied 4.20 percent population and 4.47 percent households. These centres have attended by 5.77 percent sellers and 3.91percent buyers. Rahu market centre accounts 6.79 percent service villages, 7.29 percent service area, 5.80 percent population and 5.76 percent households. It was also observed that 5.77 percent sellers and 5.31 percent buyers have attended in this market. Warwand has 7.77 percent service villages and 11.10 percent service area. This market has occupied population (11.35 percent) and household (10.74 percent).

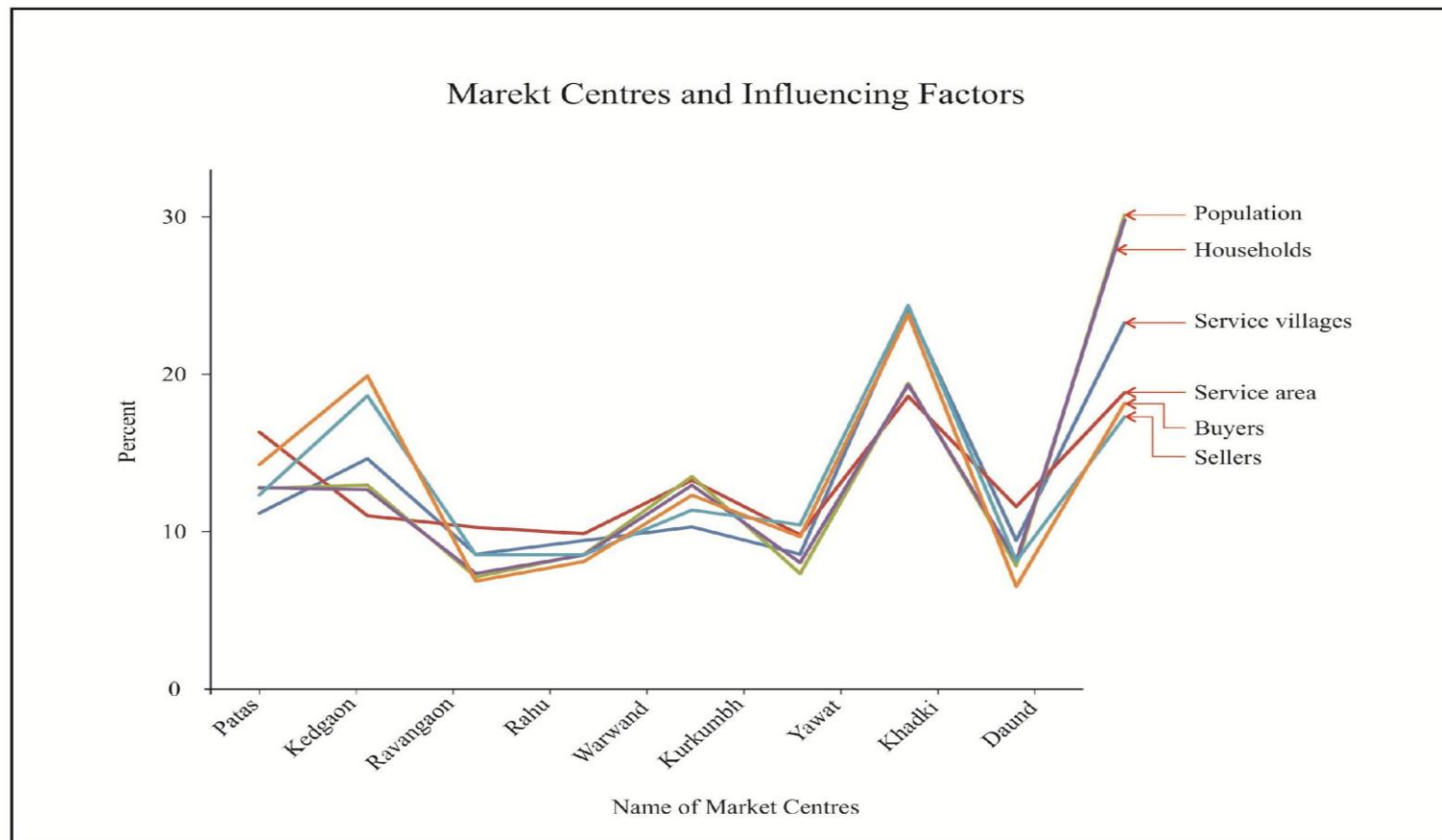


Fig. 6.4

This centre has attended by 8.97 percent sellers and (10.02 percent) buyers. The Patas market centre has found 10.53 percent population, service villages 8.74 percent and households is (10.58 percent). 10.04 percent sellers and 12.19 percent buyers involved in this market and covering 14.51 percent service area. The percent of service area in Patas is found higher as compared to Kedgaon market. But less buyers and sellers have attended in this market due to proximity of Daund big market where both regulated and weekly market exits.

Yawat has got 23.30 percent service villages, 17.06 percent service area, 17.98 percent population and 17.89 percent households. Though, this percent indicates larger than Daund market sellers (23.51 percent) and 22.90 percent buyers arrived in Yawat market centre. The reason is that Yawat performs both livestock and goods market and has sufficient transport linkages. Kedgaon market has 12.62 percent service villages, 8.56 percent service area, 10.73 percent population and 10.41 percent households. 17.09 percent sellers and 18.51 percent buyers have attended in this market. Daund market is largest in term of population than other market centres in study region accounting 29.95 percent population, 22.33 percent service villages, 17.32 percent service area, 29.57 percent households, 15.60 percent sellers and 16.56 percent buyers attended in this market. Daund market is largest in term of service area, population and number of households but it has found lesser buyers and sellers in this market centres due to regulated market here.

Table-6.1: Market Centres and Influencing Factors

Sr. No	Market Centres	Service Villages	Service Area	Population including Service Area of Market Centre	House-holds	Percent of Sellers	Percent of Buyers
1	Patas	8.74	14.51	10.53	10.58	10.04	12.19
2	Kedgaon	12.62	8.56	10.73	10.41	17.09	18.51
3	Ravangaon	5.83	7.74	4.20	4.47	5.77	3.91
4	Rahu	6.79	7.29	5.80	5.76	5.77	5.31
5	Warwand	7.77	11.10	11.35	10.74	8.97	10.02
6	Kurkumbh	5.83	7.21	4.45	5.22	7.91	7.07
7	Yawat	23.30	17.06	17.98	17.89	23.51	22.90
8	Khadki	6.79	9.21	5.01	5.36	5.34	3.53
9	Daund	22.33	17.32	29.95	29.57	15.60	16.56
Total		100	100	100	100	100	100

Sources: Fieldwork, 2012.

6.6 Attractiveness and Efficiency of Market Centres

Market attractiveness and efficiency both are closely inter-linked. The magnitude of attractiveness of weekly market reveals the percent of buyers to total population of service area. Whereas marketing efficiency manifests degree of marketing capacity of buyers assembled at market centre. Market attractiveness is assessing the location of weekly market centre in terms of defect/ excess proportion of observed number of buyers over their expected number based on 1 expected buyers represent a single family unit of 5 members from each of villages lying within the service area of market centre.

The market attractiveness of nine weekly market centres is shown in Table-6.2. Market attractiveness has been made for deficiency in expected number of extent of 25 percent to total family units has not able to send out their representatives to weekly market centres on account of unforeseen constraints. Thus, if the deficit of observed number of buyers over their expected number does not exceed 25 percent and it is labelled as good attractiveness. If the observed number of buyers exceeds their expected number, it has been ranked to have on excellent market attractiveness. If there is efficiency between the expected and observed number of buyers in any market centre ranging -0 to -25 percent and is designated as marginal attractiveness. The low or very low of market attractiveness is determined, if the deficiency of observed number of buyers below their expected number -25 to -50 percent and > -50 percent respectively.

The market attractiveness of nine weekly market centres in Daund taluka is shown in Table-6.2. Patas, Ravangaon, Rahu and Warwand market have ranked low value attractiveness. Khadki and Daund ranked very low attractiveness. However, Kurkumbh and Yawat market centre have ranked in marginal attractiveness. Whereas Kedgaon weekly market is ranked of goods value attractiveness. It is observed that among nine weekly market centres 66.66 percent market centres fall in low and very low category and 33.34 percent market centres have found marginal and good attractiveness. The Patas, Ravangaon, Rahu, Warwand, Khadki and Daund markets have found less market attractiveness. Rahu market is found less attractiveness due to less transport linkage whereas Patas, Warwand, Ravangaon market centres are near to Daund resulting less attractiveness, Daund weekly market centre is found less attractiveness due to regulated market here. Kedgaon is good attractives and Kurkumbh and Yawat have found good and marginal attractiveness due to their

isolated location whereas large number of sellers and buyers are has found as beside availability of railway and road transport in these market centres.

Table-6.2: Identification of Market Attractiveness

Sr. No.	Market centres	Population of service area for market centre	Expected No. of Buyers	Observed No. of Sellers	Percent of Col.5 in Terms of Col. 4	Excess/ deficit percent	Market Attractiveness
1	2	3	4	5	6	7	8
1	Patas	40268	8054	5620	69.78	-30.22	Low
2	Kedgaon	41040	8208	8532	103.95	+3.95	Good
3	Ravangaon	16059	3212	1800	56.04	-43.96	Low
4	Rahu	22197	4439	2450	55.19	-44.81	Low
5	Warwand	43406	8681	4620	53.22	-46.78	Low
6	Kurkumbh	17043	3409	3260	95.63	-4.37	Marginal
7	Yawat	68771	13754	10560	76.78	-23.22	Marginal
8	Khadki	19182	3836	1625	42.37	-57.63	Very low
9	Daund	114569	22914	7635	33.33	-66.67	Very low
Total		382535	76507	46102	-	-	-

Sources: Fieldwork, 2012.

Note : Based on attendance of buyers

Categories of Market Attractiveness

Sr. No.	Grades	Class Intervals, Excess Deficiency (100 Percent)
1	Excellent	>+ 25
2	Good	0 to 25
3	Marginal	- 0 to – 25
4	Low	- 25 to- 50
5	Very low	>- 50

Sources: Gedam, 1986.

The market efficiency assess the efficient marketing capacity on the basis of excess or deficit percent of observed sellers over their expected number in different weekly market. The expected number of sellers is derived from the observed number of buyers in individual market place on the empirical basis of normal ratio of buyers (10 :1) and correspondence of expected and observed sellers has designed as balanced marketing efficiency, the excess of observed number of sellers over expected number of sellers and deficiency of observed number of sellers below their expected number is called overbalanced marketing efficiency and under balanced marketing efficiency, respectively. The under balanced market efficiency puts sellers to heavy strain and render their services to their patrons while overbalanced market efficiency exposes

sellers to battle between buyers resulting heavy competition among sellers. Goods and services are seems for relatively cheap prices at market places with overbalanced marketing efficiency (Tamaskar, 1991).

Table-6.3 presents marketing efficiency of nine market centres in study region. It is observed that 55.5 percent of total sub-set of nine market centres in study region have overbalanced marketing efficiency and 44.45 percent shares under balanced marketing efficiency. It is noticed that Ravangaon, Rahu, Kurkumbh, Yawat and Khadki weekly market centres have found overbalanced marketing efficiency of +50, +9.79, +3.50, +4.17, +53.37 respectively and Patas, Kedgaon, Warwand and Daund market centre have under balanced marketing efficiency of -16.37, -6.21, -9.09, -4.45 respectively in study region.

Table-6.3: Marketing Efficiency

Sr. No	Market Centres	Population of Service Area for Market Centre	Expected No. of Sellers	Observed No. of Sellers	Percent of Col.5 in Terms of Col. 4	Excess/ Deficit Percent	Category of Marketing Efficiency
1	2	3	4	5	6	7	8
1	Patas	40268	562	470	83.63	-16.37	Underbalanced
2	Kedgaon	41040	853	800	93.69	-6.21	Underbalanced
3	Ravangaon	16059	180	270	150.00	+50.00	Overbalanced
4	Rahu	22197	245	269	109.79	+9.79	Overbalanced
5	Warwand	43406	462	420	90.91	-9.09	Underbalanced
6	Kurkumbh	17043	326	370	113.50	+13.50	Overbalanced
7	Yawat	68771	1056	1100	104.17	+4.17	Overbalanced
8	Khadki	19182	163	250	153.37	+53.37	Overbalanced
9	Daund	114569	764	730	95.55	-4.45	Underbalanced
Total		382535	-	4679	-	-	-

Source : Fieldwork, 2012.

Note : Based on attendance of sellers

6.7 Distribution of Market Centres

The distribution of market centres over space is controlled by population, service area and number of villages influencing market distribution centres. In present study, an attempt has made to measure the relationship of market centres with population, service area and number of villages. The Study region consists of nine market centres spreading on 1288.04 square kilometres area. There are 103 inhabited settlements. The locational characteristics of market centres and the socio-economic development showing high degree of spatial interaction in marketing activities.

The distribution of market centres and their pattern are closely related to physical and socio economic factors. The geographers have attempted to find out the explanation of the distribution patterns. Reddy N.B.K (1980) has pointed out the distributional patterns for assessing has accurate analysis and understands comparative study of spatial and temporal variations of distribution pattern and their quantification are fundamental importance and pre-requisite is concerned with space.

The nearest neighbour method was initially putforth by Clark and Evans in 1994. This method was effectively employed later by geographers. Thakur, 1972; Singh, 1973; Dixit, 1983. Deccy in 1964 have slightly modified this method in order to make it more effective and suitable. King has used this technique in United States for assessment of characteristics of settlement.

In present study, Nearest-neighbour technique is employed as it avoids the quadrate size problem and enables us to include as many observations as possible. Besides this, method considers distance as a factor between the points which is ignored in quadrate method. Vincent in 1976 has studied the Nearest-neighbour analysis technique for measuring pattern and gives information about distance. The Nearest-neighbour method involves measurement of distances as shortest line of physical distance from an individual centre to its Nearest-neighbour irrespective of directions in order to determine the Nearest-neighbour of two distances taken into consideration, firstly, one of the mean distance is obtained by drawing straight line connecting two nearest points irrespective of directions which is called as expected distance and which is normally expressed as d_e and secondly, actual distance which is conditioned by many physio-socio-cultural factors, it is not straight and it is expressed as d_o . The difference between these values measures the divergence of actual point. Thus, the spatial pattern of each market centre has been determined with the help of Nearest-neighbour analysis by using following formula.

$$R_n = \frac{d_o}{d_e}$$

Where: R_n = Nearest-neighbour value
 d_o = observed average distance between market centres
 d_e = expected average distance between market centres

$$d_e = 1/2 \sqrt{A/N}$$

Where: N = Number of points in the study region
 A = Area of the study region

The values can be placed on the scale known as Rn scale which ranges between 0.0 to 2.00 value. On the basis of Rn values has later identified distributional pattern. Zero value represents random pattern. As the score increases it represents various degree of dispersion. If the Rn value is less than 1.0, then the observed mean distance must be small relative to the expected value. If the Rn value is more than 1.0, then the observed mean distance will be greater than the expected distances. Thus, one can find out the distribution pattern either points will tend to be more regularly spaced than in a random situation, clustered or uniform or random. Three sub categories can also be obtained as approaching clustered, approaching uniformity, approaching random. Fig.-6.5 exhibits the nearest neighbour of market centres in study region, Table-6.4 demonstrates the nearest neighbour statistics of market centres in Daund taluka.

It is found from Table-6.4 that study region has tendency of approaching uniformity pattern. In study region, pattern of distribution of market centres is approaching uniformity with Rn values of 1.29. This is mainly due to diversified physical as well as economic condition in study region (Fig.-6.5).

Table-6.4: Daund Taluka Nearest Neighbour

Name of Talukas	No. of Markets	Service Area in Km.	do (Km.)	de (Km.)	Rn Value
Daund	9	1375,33	7.99	6.18	1.29

Source: Computed by Resarcher

6.8 Hierarchy of Weekly Market Centres

Market settlements differ in size and function and are found influency by physio-historic and socio-economic conditions. The market centres can be graded and grouped in hierarchical order in study region. The spatial organization of market centres and their orders have distributed in geographic space as major consideration in present study. Hence, the gradation and grouping of market centres into size of classes is termed as hierarchy. The importance of each market centre is governed by transport, population, service area etc. Further, the influence of each factor can differ from one settlement to another. In order to determine hierarchy of market centres for present study region, six indicators have been chosen, namely, number of stalls, market attendance, market duration, market fee, transport and administrative status for obtaining composite index. In this method each indicator is equally weighted assigning a maximum weightage of one.

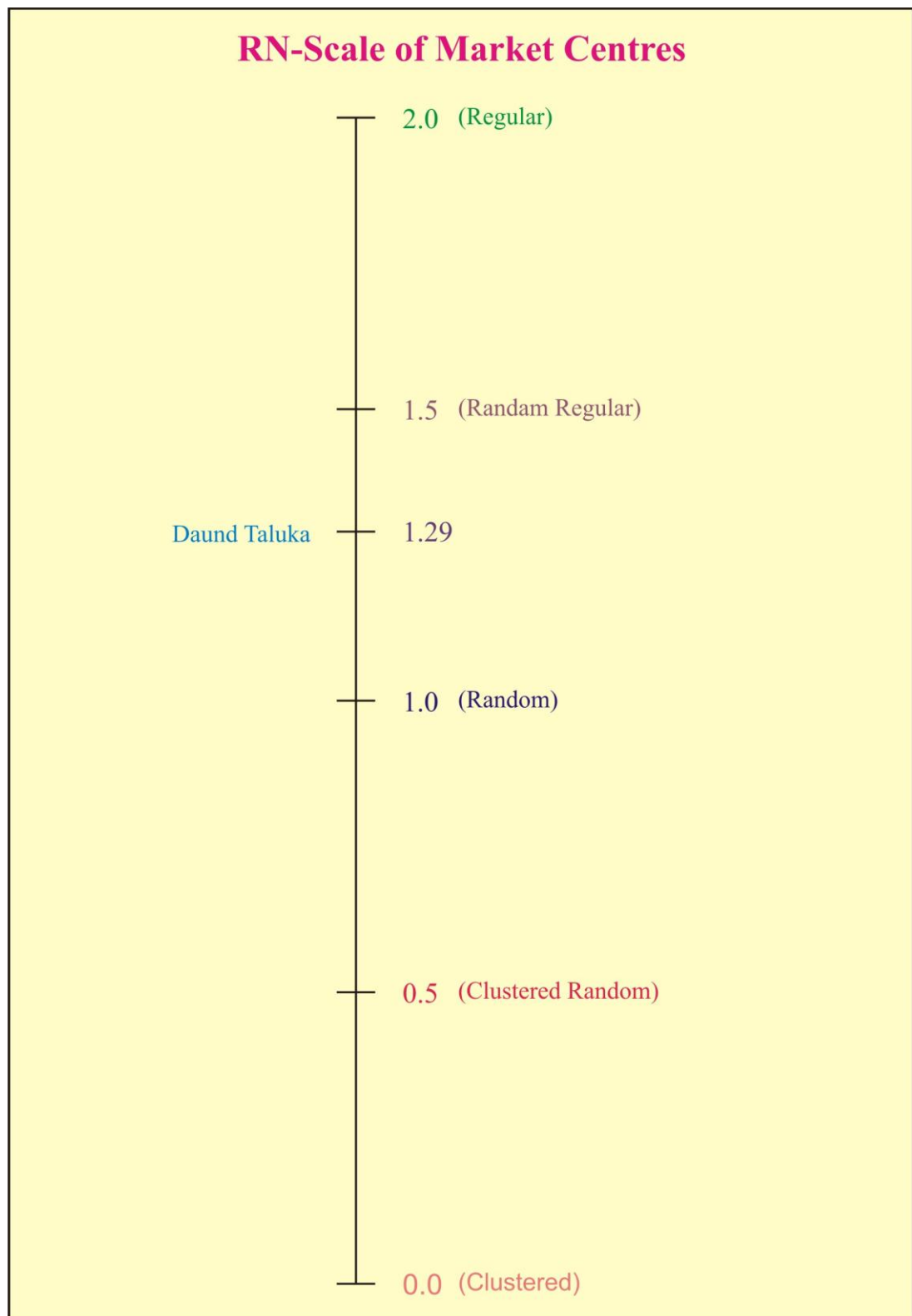


Fig. 6.5

On the basis of composite index, centrality index has been computed. Finally, hierarchical order of market centres has been determined (Table-6.5) and attempt has here made to computed the trade area by for analyzing the hierarchy of market centres. Centrality index is basically an important indicator for the attractiveness of individual market centres. It is based on important parametres which are varying from one market centre to another market centre. In study region, it is observed that buyers generally have attended the nearest market centres due to low per capita income. The following formula has used to measure to the centrality for nine market centres in study region.

$$Ci = \frac{O_s \times 100}{M_x}$$

Where : Ci = Centrality index of market centres.

Os = Observed or weighted composite score.

Mx = Maximum weighted scores

Table- 6.5 : Daund Tahsil Weekly Market Centres Centrality and Hierarchy

Sr. No.	Market Centres	Weightages on Parametres						Coi	Ci	HO
		I	II	III	IV	V	VI			
1	Patas	0.4	0.9	0.6	0.1	1.0	0.5	3.5	83.33	II
2	Kedgaon	0.5	0.9	0.9	0.1	0.9	0.5	3.8	90.48	II
3	Ravangaon	0.3	0.5	0.2	0.1	1.0	0.4	2.5	59.52	III
4	Rahu	0.3	0.7	0.3	0.1	0.6	0.4	2.4	57.14	III
5	Warwand	0.3	0.9	0.5	0.1	1.0	0.5	3.3	78.57	II
6	Kurkumbh	0.3	0.7	0.4	0.1	1.0	0.4	2.9	69.04	III
7	Yawat	0.7	0.9	1.0	0.1	1.0	0.5	4.2	100	I
8	Khadki	0.2	0.5	0.2	0.1	1.0	0.4	2.4	57.14	III
9	Daund	0.5	1.0	0.8	0.2	0.9	0.8	4.2	100	I

Source: Computed by Researcher

Note: I) Number of shops II) Market attendance
 III) Market duration IV) Market fees
 V) Transport VI) Administrative status
 Coi-Composite index Ci-Centrability index Ho-Hierarchical order

Table-6.6: Hierarchy of Weekly Market Centres

Sr. No.	Hierarchical Order	Centrality Value	No. of Market Centres	Type of Market Centres	Name of the Market Centres
1	First Order	100	2	Regional	Daund, Yawat
2	Second Order	90.48 - 78.57	3	Major	Kedgaon, Patas, Warwand
3	Third Order	69.04 - 57.14	4	Minor	Rahu, Kurkumbh, Ravangaon, Khadki

Source: Computed by Researcher.

Daund and Yawat market have identifies as first order market centres in study region. Daund is tahsil headquarter and has weekly and regular market centres in study region. The people from surrounding tahsils also attract for administrative purpose and marketing, medical recreation too. It also appears that farmers of villages bring their perishable produces namely, onion, vegetables and fruits for selling at better prices in this market. It is true that market centres for wholesale and retail transactions of perishable and non-perishable produces. Hence, it is treated as regional market (Table-6.6 and Fig.-6.6). Daund market is connected with road and railway route. Hence, outside sellers and buyers have used both railway and roads for travelling in this market. This market centre serves 23 villages consisting of 114569 population including service area in 2011. Yawat is another first order market centre in study region and this centres is biggest involving large range of commodities and population in market other than market centres in study region. Moreover, this market centre is well linked with road and railway as a result more number of buyers and sellers are attending. This market centre serves for 24 villages having 68771 population including service area in 2011. Besides this, Yawat in this market animals market, therefore, buyers travelled from longer distance in this market.

Three market centres have identify as second orders market and they exhibit rural characters and slowly moving towards urban characters. These market centres serve the settlements in varying number (Table-6.6). The maximum villages served to Kedgaon by 13 villages and is found centrality index (86.66). Although, other two settlements have identified second order market having variations in respect of area, population and settlements served. This has attributed to prevailing condition in study region. Patas and Warwand market centres serves by 9, 8 villages and centrality index is 66.66 and 63.33 respectively. The third order market situated over the rural nodes, namely Rahu, Kurkumbh, Ravangaon and Khadki in study region. Their centrality index is low and serve 6 to 7 villages consisting by 22197, 17043, 16059 and 12663 population respectively. This market centre is essentially rural in character and mainly deals with retailing of consumer goods and rural produces and serves as link to the hierarchical market as base for their function in exchange of commodities in study region.

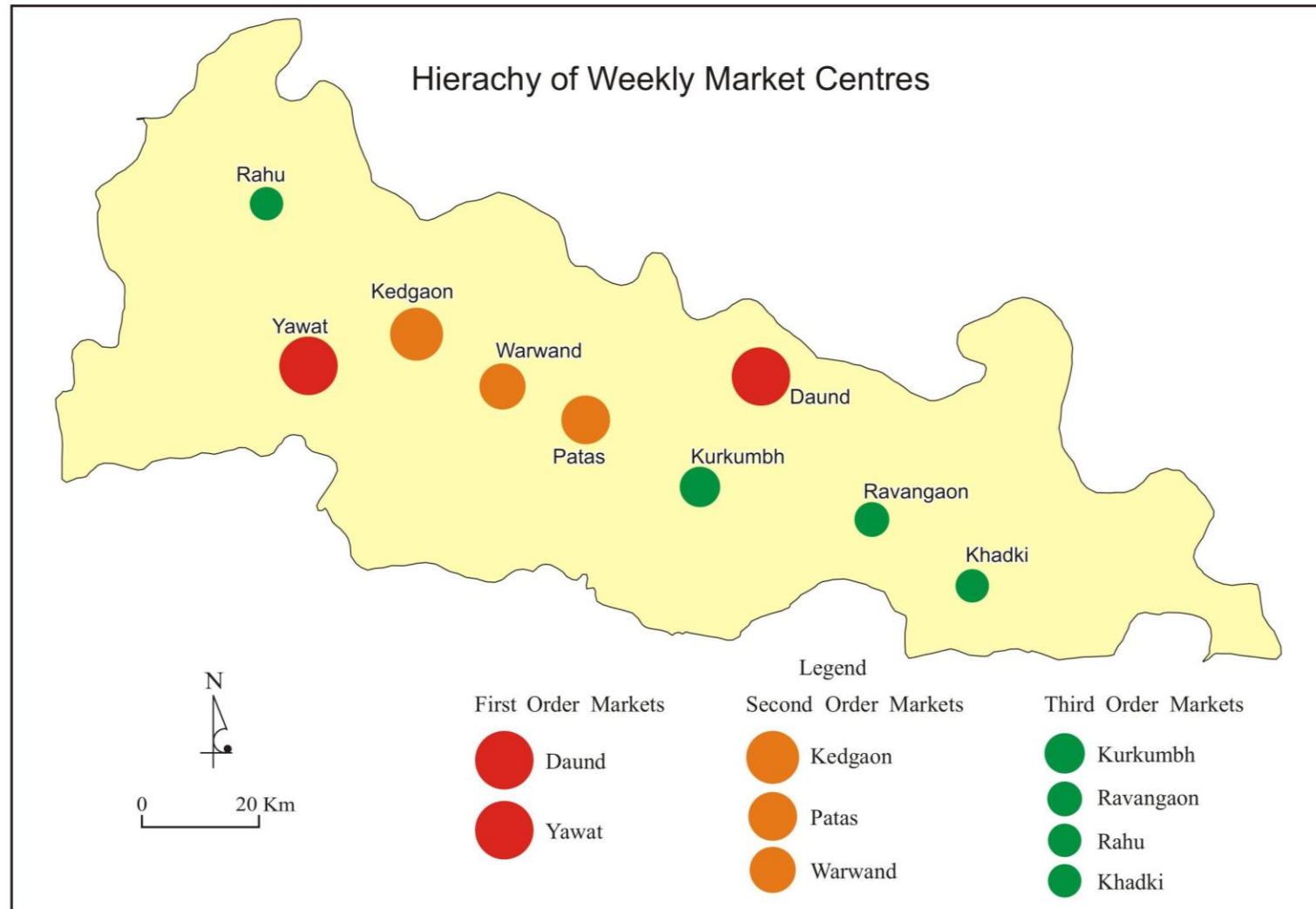


Fig. 6.6

The emergence of hierarchical markets has attributed to locational advantaged, transport, administrative factors and by strong background support extended by rural markets. In other words, it is appeared that markets of higher order perform their function by taking support from rural markets.

Table-6.7: Market Hierarchical Orders, Population, Settlement and Served Villages

Sr. No.	Name of Market Centres	Centrality Index	Population Served	No. of Settlements Served	Area Served in Sq. Km.
A) First Order					
1	Daund	100	114569	23	238.22
2	Yawat	100	68771	24	234.68
B) Second Order					
1	Kedgaon	90.48	41040	13	117.79
2	Patas	83.33	40268	9	199.54
3	Warwand	78.87	43406	8	152.63
C) Third Order					
1	Kurkumbh	69.04	17043	6	99.21
2	Ravangaon	59.52	16059	6	106.40
3	Rahu	57.14	22197	7	100.23
4	Khadki	57.14	19182	7	126.63

Source: Computed by Researcher

6.9 Weekly Market Centres and Rural Development

The present work has attended to study the weekly market centres and rural development in nine weekly market centres of Daund taluka in Pune district. Rural development generally refers to the process of improving the quality of life and economic wellbeing of people which includes social and economical development of people. The changes in agricultural production have increased urbanization have changed the character of rural areas. Transport, communication, education, social and physical infrastructure is playing an important role in developing rural area. Weekly market centres provides income generating opportunities for rural area. Daund market centre is developed weekly market in study region being headquarter of Daund taluka, 42.78 percent population has provided commodity services to 22.33 percent villages. Whereas Daund market has 5.67 percent service area, 31.87 percent literacy, 11.53

percent transport, 17.33 percent irrigation, 20 percent infrastructure and 18.46 percent other services. Yawat is second largest developed village in study region.

Yawat is considered as largest number service villages 23.30 percent and 17.31 percent transport facilities and highest 17.27 percent literacy, 15 percent infrastructure except Daund. Rahu, Kedgaon, Patas and Warwand are developed villages in study region with weekly market centres. Rahu is located in north part in study region with 16.86 percent service area, 12 percent irrigation, 8.33 percent infrastructure and 9.23 percent other services. Kedgaon, Patas, and Warwand are located along National highway (N.H.9). Kedgaon market has larger 12.62 percent service area 16 percent irrigation, 13.33 percent infrastructure and 12.31 percent other services. Whereas Patas has highest number of service area 20.29 percent in study region. Warwand market has larger 18.36 percent service area, 10.72 percent literacy, 10.67 percent irrigation, 10 percent infrastructure and 10.77 percent other services. Kurkumbh is another developed village in study region. This market centre is located near MIDC industrial area of Daund taluka and it has larger 13.46 percent transport facilities, 8.33 percent infrastructure and 9.33 percent other services. Ravangaon and Khadki are developing villages in study region. Ravangaon market has 6.13 percent service area, 4.22 percent literacy, 9.62 percent transport, 5.33 percent irrigation, 6.67 percent infrastructure and 7.69 percent other services. Khadki market has larger 14.30 percent service area and 9.62 percent transport facilities.

Table-6.8 : Indicators Market Centres and Rural Development

Sr. No.	Market Centres	Population	Service Area	Service Villages	Literacy	Transport	Irrigation	Infrastructure	Other Services
1	Patas	14.46	20.29	8.74	10.01	9.62	14.67	11.67	10.77
2	Kedgaon	2.65	2.19	12.62	11.17	11.53	16.00	13.33	12.31
3	Ravangaon	3.22	6.13	5.83	4.22	9.62	5.33	6.67	7.69
4	Rahu	7.76	16.86	6.79	5.35	7.69	12.00	8.33	9.23
5	Warwand	9.63	18.36	7.77	10.72	9.62	10.67	10.00	10.77
6	Kurkumbh	4.04	4.99	5.83	4.49	13.46	6.67	8.33	9.23
7	Yawat	10.60	11.21	23.30	17.27	17.31	13.33	15.00	13.85
8	Khadki	4.86	14.30	6.79	4.90	9.62	4.00	6.67	7.69
9	Daund	42.78	5.67	22.33	31.87	11.53	17.33	20.00	18.46
	Total	100	100	100	100	100	100	100	100

Sources: Computed by Researcher

Rural development related to infrastructural development, agriculture development, transportation development and other services. In study, region market centres with better physical infrastructure. Infrastructural development includes irrigation, road connectivity, market, electricity, primary health centre, post office,

banks, schools. In study region, 5.83 percent villages are located near railway station and 55.34 percent near bus stop with in villages and 38.83 percent villages at a distance of less than 5 kms from bus stop whereas 35.92 percent villages are located less than 5 kms away from an all metal road. 11.65 percent villages are found near national highway and 44.66 percent villages are near state highway. The Post offices are found in 37.86 percent villages and it has not exist in about 62.14 percent villages. Bank services are found 32.03 percent villages, still about 29.13 percent villages are located 5 kms away from the nearest bank branch. Market centres are located in 8.74 percent villages and 47.57 percent villages are reported at a distance of more than 5 km away from a place where weekly market. Secondary and higher secondary school are found in 69.90 percent villages and colleges are in only 3.88 villages. 0.97 percent villages were located at more than 5 kms away from a nearest higher secondary school. 100 percent villages have found primary school in study region. Primary health centre services existed only in 12.62 percent villages. In study region, 48.55 percent villages are located more than 5 kms away from a veterinary hospital. Co-operative societies existed only in 30 percent villages. 13 percent villages do not have proper electricity connection and 27.18 percent villages did not have found access of safe drinking water.

Table-6.9 : Infrastructure Development in Daund Taluka

Sr. No.	Infrastructure Facilities	Within Village	Less than 5 kms	Above 5 kms
1	Railway station	5.83	29.13	65.04
2	Bus Stop	55.34	38.83	5.83
3	Metal Road	44.66	35.92	19.42
4	National and State Highway	56.31	30.00	13.69
5	Post Office	37.86	51.46	10.68
6	Bank	32.03	38.84	29.13
7	Weekly Market Centre	8.74	43.69	47.57
8	Secondary and Higher Secondary School	69.90	29.13	0.97
9	Colleges	3.88	19.42	76.70
10	Industrial Training Institute	4.85	24.28	70.87
11	Primary Health Centre	12.62	60.20	27.18
12	Hospital	18.45	33.00	48.55
13	Irrigation	67.96	17.48	14.56
14	Drinking Water	43.69	29.13	27.18

Sources: Computed by Researcher

There are various approaches to delimit rural development region. In present study investigator is attempted to identify rural development regions on the basis of factors contributing in market analysis. These identified factors are namely, i) Market centres ii) Transportation iii) Agricultural development iv) Infrastructural facility v) Other services. These factors were obtained for 103 villages and grouped them into three categories (Fig.-6.7).

i) High Developed Region

In Daund taluka, sixty-six villages included in developed region. Out of these nine villages, namely, Daund, Yawat, Kedgaon, Patas, Warwand, Rahu, Ravangaon, Kurkumbh and Khadki are weekly market centres. Except Kedgaon, Daund and Rahu are lying on national highway. Daund weekly market centres there is increasing of economic activity along the roads in the form of building construction, stalls and other services. Daund being a Tahsil headquarter is administrative centre where secondary and tertiary activities are developed rather than agriculture. But in the periphery irrigated crops like vegetable, pulses, wheat and sugarcane are grown on the need basis. Kedgaon market centre is well connected with roadway and railway. Rahu has its location in north on the bank of river Bhima in fertile belt with irrigation facility. Irrigated crops like sugarcane, vegetable, wheat and onion are grown in this village.

Yawat is regional service centre and weekly market place developed in irrigated area. The surrounding region receives basic infrastructural facilities from this village. Since it lies on railway route has made possible to transport railway station it helps in transportation of agricultural goods and commodities to nearby big centres (Daund and Pune). Patas, Warwand, Ravangaon, Kurkumbh, Khadki market centres have emerged as newly service centre in central part in study region. The villages have located nearby national highway and easy access to accept new technology in agricultural development due to its roadside location. The roads provided means by which farm families could reach health and education services, improved community life and better rural development in study region.

ii) Medium Developed Region

There are twenty four villages included in this region are found in the process of change and development. These villages are located in north part in study region. Among this, Vadgaon Bande, Khanote and Pargaon are leading centres developed in region.

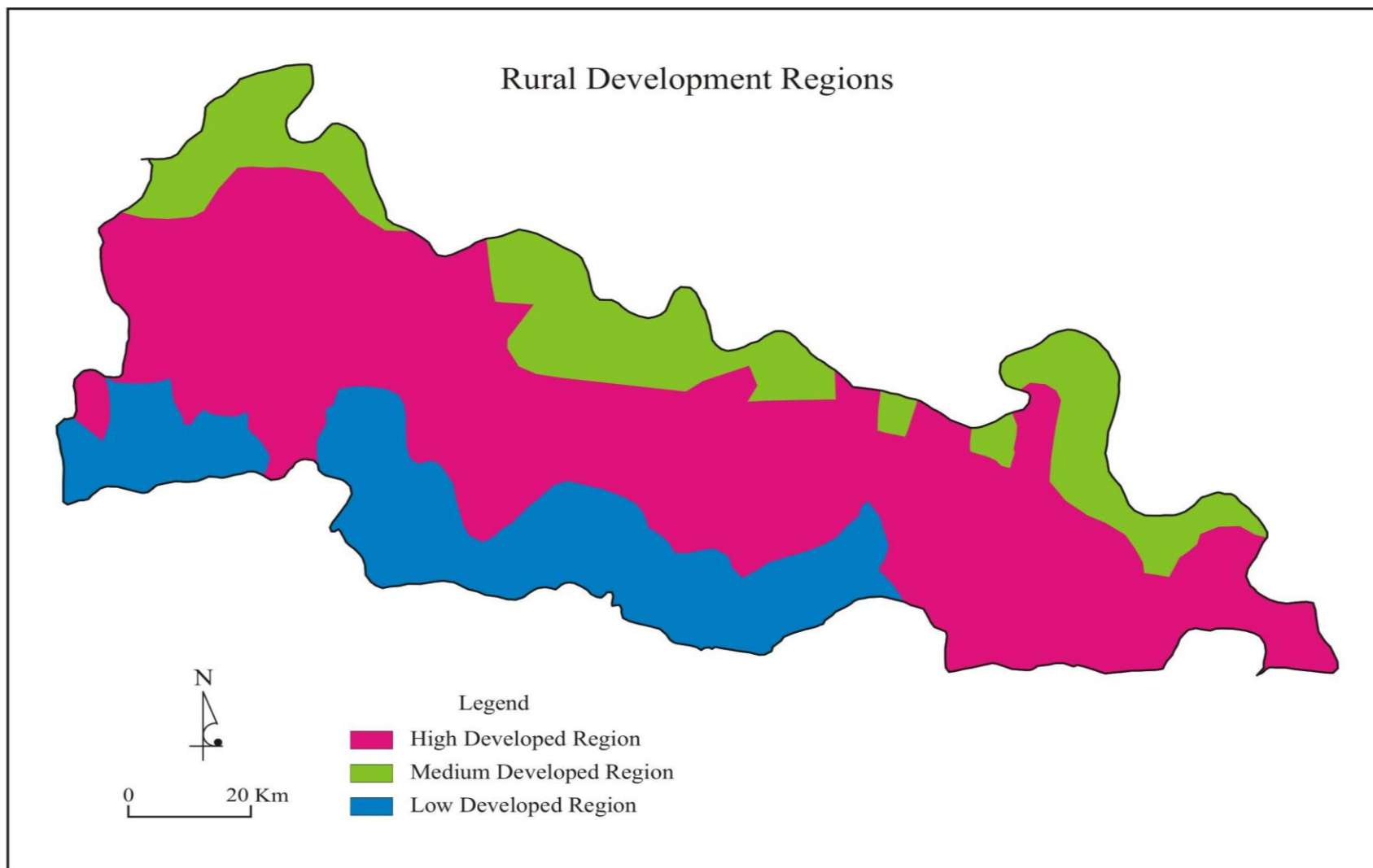


Fig.6.7

iii) Low Developed Region

Thirteen villages of Daund Tahsil have included in backward category. In study region, villages located in south part are more backward than the villages in central part. Follow land in this region is not fully utilized, non availability of irrigation, weekly market centres are not available, transport network is not developed these are the major factors for the backwardness of this region.

6.10 Resume

This chapter has attempted to assess sellers and buyers characteristics of market centres and rural development by applying Market attractiveness and efficiency, Nearest-neighbour and Hierarchy for nine weekly market centres in study region. It is found that Yawat and Daund market centres have larger service area. Yawat has both livestock and goods market. Whereas Daund is taluka headquarter and railway junction and therefore, large number of service villages have influenced. Kedgaon market has found good attractiveness and Yawat and Kurkumbh are found marginal market attractiveness. Patas, Ravangaon, Rahu and Warwand have ranked low attractiveness whereas Daund and Khadki market have found ranked in very low attractiveness. The study of market efficiency revealed that Ravangaon, Rahu, Kurkumbh, Yawat and Khadki weekly market centres have overbalanced marketing efficiency of +50, +9.79, +3.50, +4.17, +53.37 respectively. Whereas Patas, Kedgaon, Warwand and Daund have found marketing efficiency of -16.37, -6.21, -9.09, -4.45 respectively. In study region, first order two markets centres, namely, Daund and Yawat. The centrality index is high in Kedgaon, Patas and Warwand and these are second order market centres. Kurkumbh, Ravangaon, Rahu and Khadki lie in third order market centres in study region.

In study region, Daund and Yawat market centres are found largest service villages accounting 22.33 and 23.30 percent and infrastructure 20 percent and 15 percent respectively. Daund has highest number of irrigation (17.33 percent) and Yawat market has highest number of transport (17.31 percent). Kedgaon has irrigation accounting 16 percent and Patas have highest number of service area 20.29 percent. Rahu, Ravangaon, Warwand, Kurkumbh and Khadki villages have developing villages in study region. In Daund taluka 63 villages included in developed region, 24 villages have included in medium developed region and 13 villages have included in low developed region.

CHAPTER-VII

SUMMARY AND CONCLUSION

7.1 General Introduction

Weekly market centres are convenient market channel through which agricultural and manufactured products are distributed to consumers. Weekly markets provide central place and opportunity for selling and purchasing of commodity. The development of rural markets generally indicates the development of villages in study region. This depends on study of rural markets which carried out at micro and macro level. In present investigation, an attempt has been made to assess, analyses, describe and interpret the weekly market centres and its role for rural development in Daund taluka with a view to investigate influence of population, service area, service villages, transport, irrigation, literacy, social and physical infrastructure available in market centres. Here an attempt has made to present the findings and suggestions of research work in brief.

7.2 Summary

The research work has undertaken to study entitled “Role of weekly market centres in rural development-A case study of Daund taluka in Pune District, Maharashtra State”, with an objective to study the role of market centres for rural development in Daund taluka. This study consisted of field work at primary data. The questionnaires were served to buyers and sellers. 10 percent sellers and buyers were interviewed in this study. The secondary data have obtained from District Census Handbook, Pune district, Pune District Gazetteer and Socio-economic Abstract, Pune District. Nearest-Neighbour Analysis, Centrality Index, Market Attractiveness, Market Efficiency techniques have been applied in present study and then summaries its findings in following text.

Daund is one of eastern tahsil in Pune district in Maharashtra state having of 382535 population (2011) and total area is 1288.04 square kilometres. The study region is bounded by river Bhima on north and east sides. The south boundary is confined by Purandhar, Baramati and Indapur tahsils of Pune district while west boundary is confined by Haveli and Shirur tahsils of Pune district. The physiography is undulating and sloping towards north into Bhima and Mula-Mutha basins. The study region covered by basaltic surface and deep black, medium black and coarse

shallow soils. The study region receives rainfall from southwest monsoon from June to October having average annual rainfall of 500 mm. to 750 mm. The vegetation in study region falls under tropical dry deciduous forest. Transportation and weekly market centres play an important role in development of villages in study region. National highway No.-9 runs in east-west direction through the central part and it linked with other district road and village roads. The study region has 72 km. National highway and 87.60 km. railway routes. There are nine weekly market centres to mobilize the rural local resources, namely Patas, Kedgaon, Ravangaon, Warwand, Kurkumbh, Yawat and Khadki are located in central part and Rahu and Daund are located in north part in plain. The average density of population is 297 persons per square kilometre in study region. The high population density (more than 500 persons per square kilometre) is observed in central and north parts and low density (less than 250 persons per square kilometre) is observed in south and east parts in study region. Agriculture is carried out by 64 percent population.

The present study is primarily based on field work. The market centres in study region are found greatly diversified in nature. The location pattern, market day, time, market size and functions have changed with demand and supply of commodities in market. The market centre have situated on flat topography in study region. The road and railway accelerate marketing in study region. As population increases the service areas of individual weekly market centre increased the demand for transport and large number of buyers and sellers have attracted in these weekly market centres due to transport. The market centres in study region lie either on the route of national highway, state highway or railway. Patas, Ravangaon, Warwand, Kurkumbh, Khadki and Yawat market centres in study region are located along the Pune–Solapur National highway. Kedgaon market lies on Pune–Solapur railway route, Rahu market is located on major district road (Wagholi-Shirur). While Daund market lies in between Daund railway junction and Baramati-Ahamadnagar state highway. This study reveals that the layout of stalls in nine market centres have largely influenced by local conditions. Warwand and Kedgaon markets are fixed their market stalls on open space and are located in front of Grampanchayat office. The frequency of the market days analysis have indicated the predominance of Tuesday followed by the Friday which is mainly determined by the religious factor in study region. The market centres in study region have found mostly selling food and non-food commodities.

The functional structure of weekly market consists of producer sellers, mobile sellers and commercial sellers who sell various types local and non local produce in the market place. The characteristics of part-time and full time-sellers are analyzed for nine market centres. The shop of goods by sellers and their number gradually increases in Daund market whereas in rural markets shop sellers are comparatively less. The full-time mobile sellers are slowly decreasing in study region. Food items are the major commodities sold at nine weekly market centres accounting 77.64 percent and non-food commodities (15.94 percent) in study region. While other seller's stalls 2.85 percent and animal's sellers are found 3.57 percent, vegetables stalls are dominant in weekly market centres in study region (38 percent). While percent of utensils stalls is very less (0.78 percent). Full time sellers have dominance accounting 73.81 percent and part time sellers are 26.19 percent in study region. However, percent of outside full time sellers are higher (48.93 percent) than that of local full time sellers (24.88 percent) and percent of local part time and outside part time sellers have found lowest accounting 10.12 and 16.07 percent respectively. It is found that sellers have drow to market from average distance of 15 km. Vegetable sellers are come from the lower distance villages of surrounding area. Out of total sellers in study region more than 72 percent sellers have found attended four weekly markets per week. Sellers living for a distance of less than 5 km away from market are, generally, walk on foot or do come on bicycles or motorcycles. On the other hand, sellers come more than 5 km have found to use truck, tempo/ metadoor, S.T. bus or train. It is found that in study area maximum 64.09 percent sellers have taken education upto 5 to 12 standard followed by 14.24 percent sellers have founded illiterates, 14.06 percent taken have found primary and negligible graduate sellers (7.57 percent). There are 71.8 percent male sellers than female (28.20 percent) in Daund taluka. In case of age composition, sellers of 20 to 40 age group persons have taken active part in selling commodities (51.63 percent). Hindus and Muslims both backward and non-backward sellers have also involved in marketing. The maximum sellers belong to Hindus (90 percent) and minimum are Muslims (10 percent). Among Hindus highest 54 percent sellers are backward.

The behavioural character of buyers is analyzed in each market-level. The study has indicated that 75 percent consumers interact with single market in study region. It may be related to low purchasing power and transport network. The temporal choice provided by market periodicity is not much but is being used by the

majority of the consumers. However, 20 percent buyers have used 2 to 3 markets and 5 percent consumers visited 4 to 5 markets. 10 percent buyers have interviewed during fieldwork both local and outside buyers accounting 58 and 42 percent respectively. The local buyers have found mainly involved in Daund market (86 percent). It is observed that male buyers are dominant (56.80 percent) than female buyers (43.20 percent). The percent of female buyers is more among the local buyers compared to outside buyers. It was found that young persons took active part in buying than children and aged persons. 79.96 percent buyers belong 20 to 50 age group and only 20.04 percent were found in the age group of below 20 years and above 50 years. It was noted that 79.02 percent buyers studied upto 12 class, 7.55 percent buyers are graduate and only 2.86 percent completed their post graduation. It is observed that all market centres in Daund taluka have dominance of Hindu population involved in buying commodities accounting 91.98 percent and 8.02 percent buyers have belong to Muslims category. The range of travel distance of buyers varies from 2 km. to 20 km, 80.64 percent buyers have attended market centres less than 10 km.

The mobility of sellers and buyers depend on available transport facility for selling and buying. In study region, 9 villages' serves as service for Patas and total number of sellers in Patas weekly market is 470. However, total sellers in Warwand weekly market has 420 whereas buyers of 8 villages attend Warwand market. Kurkumbh market centre in study region has 370 sellers and 6 villagers buyers have visited to this market centre. Ravangaon, Rahu and Khadki are comparatively small weekly market centres in study region attended by 269, 270 and 250 sellers and buyers of 6, 7 and 7 villages. Kedgaon, Yawat and Daund market centres have higher number of in term of sellers, buyers and hinterland villages. 800 sellers and 13 villages buyers have attended Kedgaon market, 1100 sellers and 24 villages buyers involved in Yawat weekly market, Yawat market is known for livestock marketing. Whereas Daund is taluka head quarters, urban centre and has connectivity of road and railway. 730 sellers and 23 villages buyers come to Daund weekly market. The smaller service area and less number of villages tend to exhibit normally smaller market, namely, Rahu, Kurkumbh, Ravangaon and Khadki while larger service area and more service villages leads to bigger market, namely, Daund, Yawat Kedgaon, Patas and Warwand. The factors affecting the development of market are found varied intensity. There is considerable impact of socio-cultural, religious impact on market

centres in varying proportion. Attractiveness of weekly market reveals the buyers percent to total population of service area. Patas, Ravangaon, Rahu and Warwand market have ranked low value attractiveness. Khadki and Daund ranked very low attractiveness. However, Kurkumbh and Yawat market centres have ranked the marginal attractiveness. Whereas Kedgaon weekly market has ranked of goods value attractiveness. It is observed that among nine weekly market centres 66.66 percent market centres belongs to low and very low category and 33.34 percent market centres have found marginal and good attractiveness. Whereas marketing efficiency manifests degree of marketing capacity of buyers assembled at market centres. It is observed that 55.5 percent market centres in study region have overbalanced marketing efficiency and 44.45 percent market centres have under balanced marketing efficiency. It is noticed that Ravangaon, Rahu, Kurkumbh, Yawat and Khadki weekly market centres have found overbalanced marketing efficiency and Patas, Kedgaon, Warwand and Daund market centre have under balanced marketing efficiency.

The distribution of market centres in study region has found relationship with area, number of villages and population. The spatial pattern of market centres tends to deviation towards randomness. Analysis of distribution of market centres reflects the influence of population, service area and number of villages. Application of nearest neighbour technique to analyse spatial pattern of Daund market reveals that the distribution of market centres is approaching uniformity with R_n values (1.29) due to diversified physical as well as economic condition in study region. The hierarchical organization of nodes forms one of the most important prospective in geographical study of market centres. The market centres can be graded and grouped in hierarchical order in study region. In order to determine hierarchy of market centres for present study, six indicators have been chosen, namely, number of stalls, market attendance, market duration, market fee, transport and administrative status for obtaining composite index. In this method, each indicator is equally weighted assigning a maximum weightage of one. On the basis of composite index, centrality index has been computed. Finally, hierarchical order of market centres has been determined and attempt has here made to computed the trade area by for analyzing the hierarchy of market centres. The present study has identified Daund and Yawat are first order markets, both have efficient network of roads and railways. Therefore, attract maximum number of villagers. While Kedgaon, Patas and Warwand these three market centres have identified as second orders market and they exhibit rural

characters and slowly moving towards urban. Small rural markets, namely, Rahu, Kurkumbh, Ravangaon and Khadki have ranked third orders market centres in study region. In present study the attempt has made to identify rural development regions on the basis of factors contributing in marketing. It starts of economic, demographic and transport characters of the study, central part has developed and north and south parts have comparatively less developed. In Daund taluka 66 villages included in developed region, 24 villages included in this region are found in the process of change in development and 13 villages are included in backward category. Rural development generally refers to the process of improving the quality of life and economically wellbeing of people. All nine weekly market centres have located in developed region due better availability of infrastructure, irrigation, road and rail connectivity, electricity, primary health centres and education.

7.2 Suggestions

1. Permanent shades for commodity stalls should be constructed in Khadki, Rahu, Ravangaon, Kedgaon and Patas market centres.
2. During market day more frequency of buses should be increased in Patas, Kedgaon, Rahu, and Yawat market centres from the surrounding villages on market day.
3. The drainage should be closed by cement pipes in Patas weekly market centre for better selling and buying.
4. Local P.D.C. Bank should provide the capital at low interest to sellers for increasing selling and purchasing of commodities.
5. The location of Kedgaon market lies in unhealthy place. Hence it is suggested that the location of Kedgaon weekly market should be shifted near Supe-Shirur state highway (SH-64).
6. It is proposed to begin as weekly market centres in Pargaon village this village has 5974 population. So that local and surrounding nine villages can involvement in selling and buying at Pargon.
7. The Grampanchyat should construct platforms for shops in market area in Patas, Warwand and Kurkumbh weekly market centres.

7.4 Concluding remarks

Markets are key function in the economy of any region. Market functions and their role in the economy are highly dynamic in nature. The weekly markets are tools for rural development, The settlements with the weekly market must have led to the development of rural economy. However, there is an need to improve or develop the potential weekly market, these centres act as the centres of exchange of commodities and provide the maximum opportunities for mobilization of local resources and generate employment to surrounding area. Such study has much potential and may attract alteration of expert from various fields like administrators and agriculturists in general, market geographers in particular for further study and to prepare plan for overall development of rural area in Daund taluka. Thus, there is an ample scope for research, exploration and experiments in marketing field.

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Appendix-A

Villages and Their Characteristics

Sr. No.	Name of Villages	House Holds	Population 2011	Villages Area in Hectares	Population Density	Distance from Daund
01	Takli	307	1461	857.00	1.70	53
02	Panwali	201	858	809.00	1.006	53
03	Vadgaon Bande	304	1564	1118.00	1.39	56
04	Koregaon Bhiwar	266	1294	896.00	1.44	45
05	Walki	559	2765	1402.00	1.97	53
06	Telewadi	369	1792	694.00	2.58	35
07	Patethan	360	1776	1037.00	1.71	48
08	Devkarwadi	350	1799	795.00	2.26	48
09	Mirwadi	395	2179	1203.00	1.81	54
10	Dahitane	340	1607	978.00	1.64	50
11	Rahu	2032	10234	3994.00	2.56	43
12	Pilanwadi	806	3690	1110.00	3.32	53
13	Tambewadi	267	1335	302.00	4.42	45
14	Undwadi	445	2183	900.00	2.42	30
15	Ladkatwadi	283	1324	499.00	2.65	46
16	Nathachiwadi	637	3226	634.00	5.08	35
17	Pimpalgaon	1040	5125	1357.00	3.77	35
18	Delwadi	718	3542	836.00	4.23	47
19	Ekeriwadi	403	2085	558.00	3.73	38
20	Khutbav	950	4741	1388.00	3.41	31
21	Nandur	222	933	350.00	2.66	52
22	Boratewadi	196	993	439.00	2.26	51
23	Khamgaon	1171	5813	1990.00	2.92	39
24	Kamthwadi	272	1458	326.00	4.47	30
25	Kasurdi	548	2757	570.00	4.83	32
26	Jawajebuwachiwadi	324	1452	397.00	3.65	42
27	Sahajpurwadi	653	3232	829.00	3.89	46
28	Boribhadak	758	3330	704.00	4.73	48
29	Dalimb	537	2725	1224.00	2.22	60
30	Boriaindi	611	3013	2130.00	1.41	50
31	Tamhanwadi	140	666	280.00	2.37	48
32	Bharatgaon	450	2338	1686.00	1.38	46
33	Yawat Station	802	4058	1325.00	3.06	38
34	Yawat gaon	2994	13988	2656.00	1.50	36
35	Bhandgaon	811	4014	2087.00	1.92	32

36	Wakhari	485	2601	1487.00	1.74	30
37	Khor	638	3490	2551.00	1.36	35
38	Pimpalachiwadi	139	627	281.00	2.23	36
39	Galandwadi	413	2089	657.00	3.17	35
40	Pargaon	1677	8258	3046.00	2.71	37
41	Nangaon	513	3479	766.00	4.54	37
42	Ganesh Road	388	2113	622.00	3.39	36
43	Amoni Mal	174	937	562.00	1.66	32
44	Hatwalan	428	2049	1685.00	1.21	25
45	Kadethawadi	571	2866	1350.00	2.12	18
46	Dapodi	839	4547	1202.00	3.78	32
47	Khopodi	163	909	440.00	2.06	34
48	Handalwadi	217	1218	516.00	2.36	35
49	Deshmukh Mala	177	1008	451.00	2.23	34
50	Kedgaon Station	1338	6357	332.00	19.14	28
51	Nimbalkar Vasti	271	1575	655.00	2.40	32
52	Dhumalicha Mala	320	1750	294.00	5.95	34
53	Kedgaon	752	3494	519.00	6.73	31
54	Boripardhi	2586	13529	1572.00	8.60	34
55	Warwand	2631	12702	4350.00	2.92	21
56	Deulgaon Gada	582	3044	2470.00	1.23	26
57	Padvi	711	3521	5986.00	0.58	25
58	Kusegaon	558	2831	2014.00	1.40	22
59	Roti	211	1014	914.00	1.10	21
60	Hingnigada	378	1888	1686.00	1.11	27
61	Wasunde	368	1727	1413.00	1.22	27
62	Kangaon	1243	6395	3781.00	1.69	25
63	Gar	250	1344	542.00	2.47	12
64	Betwadi	459	2257	560.00	4.03	8
65	Navingar	326	1546	411.00	3.76	13
66	Patas	4149	19069	4807.00	3.96	15
67	Birobawadi	440	2186	950.00	2.30	10
68	Girim	1108	5956	2626.00	2.26	8
69	Nanwji	366	1770	894.00	1.97	5
70	Sonwadi	707	3976	1018.00	3.90	3
71	Malwadi	114	566	413.00	1.37	3
72	Gopalwadi	1515	7213	931.00	7.74	4
73	Lingali	1155	5757	621.00	9.27	8
74	Mergalwadi	288	1776	1279.00	1.38	7

75	Masanarwadi	377	2103	395.00	5.32	6
76	Khorodi	620	3551	1810.00	1.96	6
77	Alegaon	130	548	320.00	1.71	7
78	Deulgaon Raje	865	3918	1620.00	2.41	10
79	Wadgaon Dearekar	366	1599	572.00	2.76	16
80	Pedgaon	263	1239	1213.00	1.02	17
81	Shirapur	479	2069	1520.00	1.36	15
82	Kurkumbh	1264	5335	1182.00	4.51	10
83	Pandharewadi	713	3053	1610.00	1.89	12
84	Jiregaon	417	2077	2169.00	0.95	19
85	Kauthadi	260	1318	1022.00	1.28	17
86	Malad	1095	3533	2525.000	1.39	13
87	Kadamwasti	443	2192	432.00	5.07	8
88	Boribel	571	2537	3116.00	0.81	18
89	Kalewadi	478	2123	657.00	3.23	17
90	Hingni Berdi	348	1416	826.00	1.71	14
91	Malthan	1007	4113	2713.00	1.51	21
92	Lonarwadi	372	1604	1560.00	1.02	11
93	Gadewadi	278	1391	535.00	2.60	20
94	Ravangaon	853	4242	1452.00	2.92	20
95	Nandadevi	446	2172	1264.00	1.71	22
96	Khadki	1397	6408	3388.00	1.89	32
97	Chincholi	538	2536	2566.00	0,98	35
98	Gawadebagade Wasti	176	891	830.00	1.07	41
99	Watluj	411	1927	943.00	2,04	38
100	Naygaon	98	380	441.00	0.86	37
101	Rajegaon	970	4207	3006.00	1.39	32
102	Khanote	636	2833	1489.00	1.90	53
103	Daund	11802	56436	1343.00	42.02	Zero

Source: District Census Handbook, Pune District (Provisional), 2011 and Tahsil Office Daund.

Appendix-B
Questionnaire For Sellers

- 1 Name of the Market Center:- -----
- 2 (a) Market day: ----- (b) Market time: -----
- 3 Name of seller Shri/Smt:-
 - a) Village : ----- b) Tahsil: -----
 - c) District: - ----- d) Education: -----
 - e) Religion: ----- f) Caste: -----
 - g) Age: ----- h) Sex: -----
 - i) Language: -----
- 4 Place of product /home base : -----
- 5 Distance from home base / place of product : -----
- 6 Why you have come to this market?
 - a) ----- b) -----
- 7 What is the attraction of this market?
 - 1) ----- 2) -----
- 8 By which means you bring your commodity?
 - 1) ----- 2) -----
- 9 What commodities brought for selling? And in which quantity?
 - 1) ----- () 2) ----- ()
 - 3) ----- () 4) ----- ()
 - 5) ----- () 6) ----- ()
- 10 Are you selling commodities?
 - a) Full time b) Part time
- 11 If full time, what is the reason?
 - 1) ----- 2) -----
- 12 Are you local seller or outside seller?
 - a) Local seller b) Outside seller
- 13 If outside seller, what is the distance of your village from market center?
 - 1) Distance from market in km.
 - 2) Place of coming to market in km.
- 14 Which kind of goods you sell?

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- | | Market place | Market day |
|----|--|---------------------------------|
| | a) ----- | a) ----- |
| | b) ----- | b) ----- |
| | c) ----- | c) ----- |
| 28 | If you are irregular seller, Give reasons? | |
| | a) ----- | b) ----- |
| 29 | How many rupees do you spend for traveling ? | |
| | a) Rs. ----- | |
| 30 | How much money you spend every day for purchasing goods for selling? | |
| | 1) Rs.----- | |
| 31 | Is it yourself only? Or is there any partner in this business. | |
| | 1) Myself only | 2) My partner |
| 32 | How much tax you pay to Grampanhcayat or other authority for installing this business on market day? | |
| | a) Grampanhcayat Tax in Rs. ----- | b) Other authority in Rs. ----- |
| 33 | Which are the problems you face to sell commodities in this market? | |
| | a) ----- | b) ----- |
| 34 | Are you satisfied with weight and measurements? | |
| | a) Yes | b) No |
| 35 | Are you satisfied with the grading the commodities? | |
| | a) Yes | b) No |
| 36 | Are you satisfied with prices? | |
| | a) Yes | b) No |
| 37 | List of commodities satisfied with prices? | |
| | a) ----- | b) ----- |
| | c) ----- | d) ----- |
| | e) ----- | f) ----- |
| 38 | Are you satisfied with mode of payment and time? | |
| | a) Yes | b) No |

39 Information of family members:-

Sr. No.	Name	Relation with Family Holder	Married / Unmarried	Age	Male/ Female	Education	Occupation	Income

40 Annual income of family (Rs.) : -----

41 Main source of income: -----

42 Acquired Agricultural land:

a) Productive Land

b) Unproductive Land

43 Type of Agriculture:

a) Irrigated

b) Unirrigated

44 Irrigation facilities:

a) Canal irrigation

b) River irrigation

c) Wells irrigation

d) Tube wells irrigation

e) Tank irrigation

f) others

45 Name of Instruments/Tools used for Agriculture:-

a) -----

b) -----

c) -----

46 Types of fertilizers used for Agriculture:-

a) Chemical fertilizer

b) Organic fertilizer

47 Which seeds used for agriculture?

a) Hybrid

b) Traditional

48 Various instruments available in your home:

Sr. No.	Items	Total	Sr. No.	Items	Total
1	Cot		8	Tape-recorder / DVD	
2	Cupboard		9	Mixer	
3	Chair		10	Telephone/ Mobile	
4	Table		11	Two/ Four-Wheeler	
5	Fan		12	Gas / Stove	
6	T.V.		13	Computer	
7	Radio		14	Other	

49 Is the needs of family gets completed by agricultural production?

a) Yes

b) No

50 Do you suggest any suitable suggestions for better?

a) -----

b) -----

51 Any other, If any?

1) -----

2) -----

Signature of Sellers. -----

Appendix-C

Questionnaire For Buyers

- 1 Name of Market Centre: -----
- 2 (a) Market day ----- (b) Market time -----
- 3 Name of buyer shri/Smt:-
 - a) Village: ----- b) Tahasil: -----
 - c) District: ----- d) Education: -----
 - e) Religion: ----- e) Caste: -----
 - g) Age: ----- h) Sex: -----
 - i) Language: -----
- 4 From which category you belong?
 - a) Full time b) Part time
- 5 Are you local buyer or outside buyer?
 - a) Local buyer b) Outside buyer
- 6 If outside buyer, what is the distance of your village from market center?
 - a) ----- km.
- 7 What goods are you purchasing?
 - a) ----- b) ----- c) -----
 - d) ----- e) ----- f) -----
- 8 Which are the sources of getting money for buying?
 - a) ----- b) ----- c) -----
- 9 Are you buying goods?
 - a) For entire week b) For a day
- 10 Are you visiting to nearby market center?

Market center	Market Day	Distance (km.)
a) -----	-----	-----
b) -----	-----	-----
c) -----	-----	-----
d) -----	-----	-----
- 11 If yes, for which purpose do you visit this center?
 - 1) ----- 2) -----

- 12 If you are outside buyer, are you visiting every week to this market center?
1) Every week 2) None
- 13 Why you select this market center then other?
1) ----- 2) ----- 3) None
- 14 How much money do you spend on weekly market for buying goods?
1) Rs ----- 2) Rs. None
- 15 Which items are more important for you to buy in this market?
a) ----- b) ----- c) -----
d) ----- e) ----- f) -----
- 16 Do you purchase commodities for yourself or for neighbor also?
a) For my family b) For neighbor
c) For both my family and neighbor
- 17 In case for neighbor, which items do you purchase
a) ----- b) ----- c)----- d) None
- 18 What means of transport you use for coming to this market place?
a) On foot b) Bicycle c) Motor cycle d) Truck/Tempo
e) S. T. Bus f) Railway g) Other
- 19 How many rupees do you spend for traveling? Rs. -----
- 20 Do you visit this market individual or with other persons?
a) Individual b) With other persons
- 21 How many times do you visit this market within month?
a) One b) Two c) Three
- 22 Do you face some problems in marketing?
1) ----- 2) -----
- 23 Information of family members:-

Sr. No.	Name	Relation with Family Holder	Married / Unmarried	Age	Male/ Female	Education	Occupation	Income

- 24 Annual income of family (Rs.) : -----
- 25 Main source of income:-
- 1) ----- 2) -----
- 3) ----- 4) -----
- 26 Acquired Agricultural land:-
- a) Productive land b) Unproductive land c) Both types
- 27 Types of Agriculture:-
- a) Irrigated b) Unirrigated
- 28 Types of Irrigation facilities:-
- a) Canal irrigation b) River irrigation c) Wells irrigation
- d) Tube wells irrigation e) Tank irrigation f) others
- 29 Name of Instruments/Tools used for Agriculture:-
- 1) ----- 2) ----- 3) -----
- 30 Types of fertilizers used for Agriculture:-
- a) Chemical fertilizer b) Organic fertilizer
- 31 Which seeds used for agriculture?
- a) Hybrid b) Traditional
- 32 Is any types of soil testing has done?
- a) Yes b) No
- 33 How is your house?
- a) Hamlet b) Flat c) Cottage d) Bungalow

- 34 Various instruments available in the home:

Sr. No	Items	Total	Sr. No.	Items	Total
1	Cot		8	Tape-recorder / DVD	
2	Cupboard		9	Mixer	
3	Chair		10	Telephone/ Mobile	
4	Table		11	Two/Four-Wheeler	
5	Fan		12	Gas / Stove	
6	T.V.		13	Computer	
7	Radio		14	Other	

- 35 Is the needs of family get completed by agricultural production?
a) Yes b) No
- 36 Commodities purchase from different agencies
a) Farmers b) Sellers c) Producers
- 37 Purpose of the visit to this market
a) Single purpose b) Multi purpose
- 38 Temporal choice of markets
a) Only one market b) Two markets c) Three markets
- 39 Do you have any suitable suggestions for better market?
a) ----- b) ----- c) -----
- 40 Any other, If any?
1) ----- 2) -----

Signature of Buyers -----

Appendix-D

Service Area And Population of Weekly Market Centres In Daund Taluka

Sr. No	Market Centres	Service Villages	Service Area (in hectares)	Population including Service Area of Market Centre	House Holds	Total Number of Sellers	Total Number of Buyers
1	Patas	9	19954	40268	8340	470	5620
2	Kedgaon	13	11779	41040	8210	800	8532
3	Rawangaon	6	10640	16059	3527	270	1800
4	Rahu	7	10023	22197	4537	269	2450
5	Warwand	8	15263	43406	8471	420	4620
6	Kurkumbh	6	9921	17043	4117	370	3260
7	Yawat	24	23468	68771	14102	1110	10560
8	Khadaki	7	12663	19182	4226	250	1625
9	Daund	23	23822	114569	23312	730	7635
Total		103	137533	382535	78842	4679	46102

Source: Fieldwork, Tahsil Office, Daund and Pune District Census (Provisional) 2011.

Appendix-E

Indicators and Their Weightages

(A) Number of Shops	Weightages	(B) Market Duration	Weightages
Below50	0.1	One hour	0.1
50 – 250	0.2	Two hour	0.2
250 – 450	0.3	Three hour	0.3
450 -650	0.4	Four hour	0.4
650 – 850	0.5	Five hour	0.5
850 – 1050	0.6	Six hour	0.6
1050 -1250	0.7	Seven hour	0.7
1250 – 1450	0.8	Eight hour	0.8
1450 -1650	0.9	Nine hour	0.9
Above1650	1.0	Ten hour	1.0
(C) Market Attendance	Weightages	(D) Market Fees (Rs.)	Weightages
Below -1000	0.1	Below -100	0.1
1000 – 2000	0.2	100 – 200	0.2
2000 – 3000	0.3	200 – 300	0.3
3000 – 4000	0.4	300 – 400	0.4
4000 – 5000	0.5	400 – 500	0.5
5000 – 6000	0.6	500 – 600	0.6
6000 – 7000	0.7	600 – 700	0.7
7000 – 8000	0.8	700 – 800	0.8
8000 – 9000	0.9	800 – 900	0.9
Above – 9000	1.0	Above – 900	1.0
(E) Transport	Weightages	(F) Administrative Status	Weightages
Cart track	0.1	Annual fair	0.1
Kaccha road	0.2	Annual fair / urs	0.2
Paccha road	0.3	Weekly market (3 hour)	0.3
Nodal road	0.4	Weekly market (6 hour)	0.4
Minor district road	0.5	Weekly market (9 hour or more)	0.5
Major district road	0.6	Bi-Weekly market	0.6
State highway	0.7	Tri-Weekly market	0.7
Railway (meter gauge)	0.8	Daily market	0.8
Railway (broad gauge)	0.9	Regulated market (class-II)	0.9
National highway	1.0	Regulated market (class-I)	1.0

Source : Computed by Researcher

Appendix-F

Villages and Indicators of Rural Development

Sr. No.	Name of Villages	Population	Area of Villages	Literacy	Irrigation	Transport	Infrastructure
1	Takli	1.70	0.62	0.39	0.85	0.66	0.54
2	Panwali	1.06	0.59	0.21	1.13	0.66	0.67
3	Vadgaon Bande	1.39	0.81	0.40	0.85	0.66	0.54
4	Koregaon Bhiwar	1.44	0.65	0.35	1.13	0.66	0.67
5	Walki	1.97	1.01	0.72	1.13	0.66	0.81
6	Telewadi	2.58	0.50	0.38	0.85	0.66	0.54
7	Patethan	1.71	0.75	0.43	0.85	0.66	0.67
8	Devkarwadi	2.26	0.58	0.48	0.85	0.99	0.67
9	Mirwadi	1.81	0.87	0.55	0.85	0.99	0.81
10	Dahitane	1.64	0.71	0.38	1.13	0.99	0.67
11	Rahu	2.56	2.90	2.47	1.41	0.99	1.74
12	Pilanwadi	3.32	0.81	0.83	1.13	0.99	0.81
13	Tambewadi	4.42	0.22	0.33	0.85	0.66	0.67
14	Undwadi	2.42	0.65	0.52	0.85	0.99	0.81
15	Ladkatwadi	2.65	0.36	0.38	0.85	0.99	0.81
16	Nathachiwadi	5.08	0.46	0.88	1.13	0.99	0.94
17	Pimpalgaon	3.77	0.99	1.31	1.13	0.99	0.94
18	Delwadi	4.23	0.61	1.00	0.85	0.99	0.94
19	Ekeriwadi	3.73	0.41	0.53	0.56	0.99	0.67
20	Khutbav	3.41	1.00	1.19	0.85	0.99	0.81
21	Nandur	2.66	0.25	0.24	1.13	0.99	0.67
22	Boratewadi	2.26	0.32	0.26	0.85	0.99	0.94
23	Khamgaon	2.92	1.45	1.49	1.13	0.99	1.07
24	Kamthwadi	4.47	0.24	0.28	0.85	0.66	0.67
25	Kasurdi	4.83	0.42	0.66	1.13	1.32	0.94
26	Jawajebuwachiwadi	3.65	0.29	0.36	0.85	0.99	0.81
27	Sahajpurwadi	3.89	0.60	0.22	0.85	0.99	0.67
28	Boribhadak	4.73	0.52	0.80	1.13	0.99	0.94
29	Dalimb	2.22	0.89	0.69	0.85	0.99	1.07
30	Boriaindi	1.41	1.55	0.78	1.13	0.99	1.21
31	Tamhanwadi	2.37	0.20	0.17	1.13	0.99	0.67
32	Bharatgaon	1.38	1.23	0.58	0.85	0.66	0.67
33	Yawat Station	3.06	0.97	1.06	1.41	1.99	1.47
34	Yawat gaon	1.50	1.92	3.48	1.41	1.99	1.60
35	Bhandgaon	1.92	1.52	1.11	1.13	1.32	1.21

36	Wakhari	1.74	1.08	0.61	1.13	0.99	1.07
37	Khor	1.36	1.85	0.82	0.56	0.99	0.94
38	Pimpalachiwadi	2.23	0.20	0.16	0.56	0.66	0.81
39	Galandwadi	3.17	0.48	0.57	0.85	0.99	0.94
40	Pargaon	2.71	2.21	2.20	1.13	0.99	1.21
41	Nangaon	4.54	0.56	0.93	1.13	0.99	1.07
42	Ganesh Road	3.39	0.45	0.59	0.85	0.66	0.94
43	Amoni Mal	1.66	0.41	0.26	0.85	0.66	0.81
44	Hatwalan	1.21	1.23	0.56	1.13	0.66	0.94
45	Kadethawadi	2.12	0.99	0.76	1.13	0.66	1.07
46	Dapodi	3.78	0.87	1.03	1.13	0.99	0.94
47	Khopodi	2.06	0.32	0.22	1.13	0.66	0.81
48	Handalwadi	2.36	0.38	0.32	1.13	0.66	0.81
49	Deshmukh Mala	2.23	0.33	0.29	1.13	0.66	0.81
50	Kedgaon Station	19.14	0.24	1.76	1.13	1.99	1.74
51	Nimbalkar Vasti	2.40	0.48	0.41	1.13	0.33	0.67
52	Dhumalicha Mala	5.95	0.21	0.49	1.13	0.33	0.67
53	Kedgaon	6.73	0.37	1.62	1.41	2.32	1.88
54	Boripardhi	8.60	1.14	3.09	1.13	1.32	1.33
55	Warwand	2.92	3.16	3.30	1.69	1.99	1.88
56	Deulgaon Gada	1.23	1.79	0.78	0.85	0.99	1.33
57	Padvi	0.58	4.35	0.97	0.85	0.99	1.21
58	Kusegaon	1.40	1.47	0.76	0.56	0.66	1.07
59	Roti	1.10	0.66	0.28	0.56	0.99	0.94
60	Hingnigada	1.11	1.23	0.46	0.56	0.99	0.81
61	Wasunde	1.22	1.02	0.45	0.56	0.99	0.81
62	Kangaon	1.69	2.75	1.73	0.85	0.99	0.94
63	Gar	2.47	0.39	0.35	1.13	0.99	1.07
64	Betwadi	4.03	0.41	0.57	0.85	0.66	0.81
65	Navingar	3.76	0.30	0.38	1.13	0.66	0.81
66	Patas	3.96	3.50	4.75	1.41	1.99	1.88
67	Virobawadi	2.30	0.70	0.54	1.13	1.32	0.94
68	Girim	2.26	1.91	1.47	1.13	0.99	0.81
69	Nanwji	1.97	0.65	0.50	1.13	0.99	0.94
70	Sonwadi	3.90	0.74	1.06	0.85	0.66	1.07
69	Nanwji	1.97	0.65	0.50	1.13	0.99	0.94
70	Sonwadi	3.90	0.74	1.06	0.85	0.66	1.07
71	Malwadi	1.37	0.30	0.14	0.56	0.66	0.81
72	Gopalwadi	7.74	0.67	2.11	1.13	0.66	0.94

73	Lingali	9.27	0.45	1.59	0.85	0.99	0.81
74	Mergalwadi	1.38	0.93	0.47	1.09	0.99	0.94
75	Masanarwadi	5.32	0.29	0.54	0.85	0.99	0.94
76	Khorodi	1.96	1.32	0.72	0.85	0.66	0.81
77	Alegaon	1.71	0.23	0.13	0.85	0.66	0.94
78	Deulgaon Raje	2.41	1.18	0.99	1.13	0.99	1.33
79	Wadgaon Dearekar	2.76	0.42	0.41	0.85	0.99	0.94
80	Pedgaon	1.02	0.89	0.30	0.85	0.66	0.81
81	Shirapur	1.36	1.11	0.55	0.85	0.66	0.81
82	Kurkumbh	4.51	0.86	1.47	1.13	1.66	1.60
83	Pandharewadi	1.89	1.17	0.79	1.13	1.32	0.94
84	Jiregaon	0.95	1.58	0.51	0.56	0.66	0.67
85	Kauthadi	1.28	0.74	0.32	0.56	0.66	0.67
86	Malad	1.39	1.84	0.94	1.13	1.32	1.07
87	Kadamwasti	5.07	0.31	0.51	1.13	0.99	1.21
88	Boribel	0.81	2.27	0.72	0.85	0.99	1.07
89	Kalewadi	3.23	0.48	0.55	0.85	0.99	0.94
90	Hingni Berdi	1.71	0.60	0.37	0.85	0.66	0.81
91	Malthan	1.51	1.97	1.10	0.85	0.66	0.94
92	Lonarwadi	1.02	1.13	0.40	0.85	0.66	0.81
93	Gadewadi	2.60	0.39	0.35	1.13	0.99	0.94
94	Ravangaon	2.92	1.06	1.11	1.13	1.66	1.48
95	Nandadevi	1.71	0.92	0.55	0.85	0.90	0.67
96	Khadaki	1.89	2.46	1.68	1.13	1.66	1.33
97	Chincholi	0.98	1.87	0.64	1.13	0.99	1.07
98	Gadebagade Wasti	1.07	0.60	0.22	1.13	0.99	0.94
99	Watluj	2.04	0.69	0.46	0.85	0.66	0.81
100	Naygaon	0.86	0.32	0.09	0.85	0.66	0.81
101	Rajegaon	1.39	2.19	1.06	0.85	0.99	1.21
102	Khanote	1.90	1.08	0.72	0.85	0.66	0.94
103	Daund	42.02	0.98	16.54	1.41	1.99	1.87
Total		-	100	100	100	100	100

Source : Tahsil Office, Daund and District Census Handbook, Pune District (Provisional) 2011.

Photographs



Photo-1. Vegetable Commodity Stalls in Patas Market

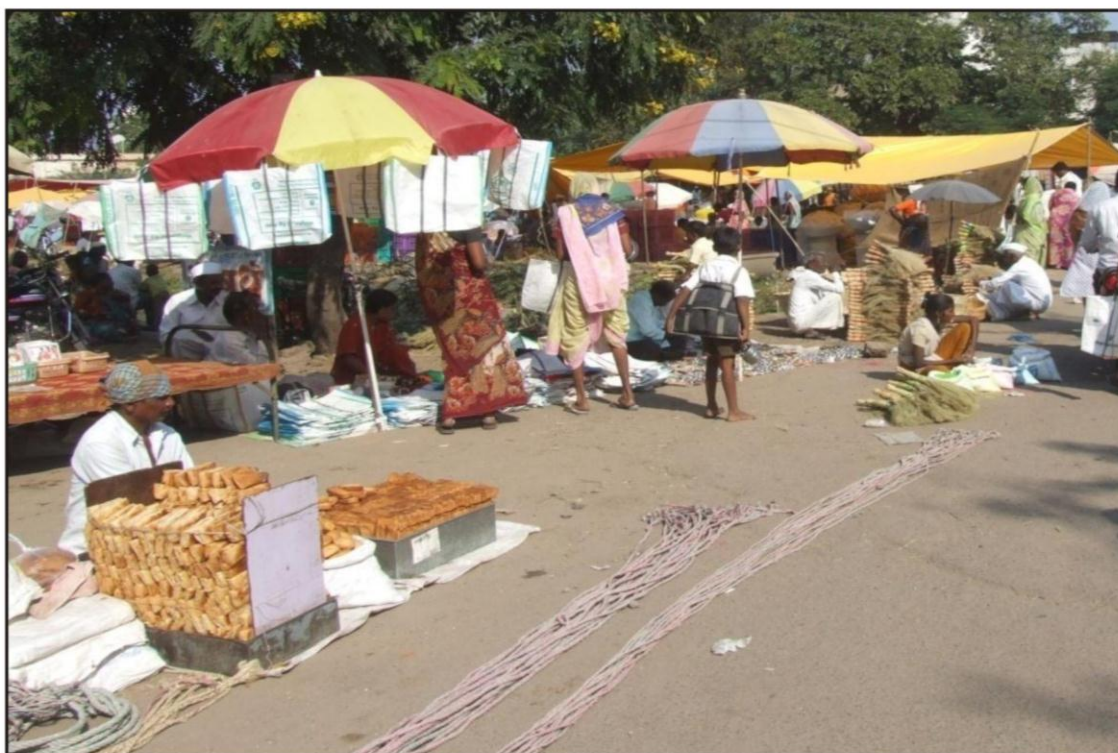


Photo-2. Food and Non-food Commodity Stalls in Patas Market



Photo-3. Cloth Stalls in Kedgaon Market Centre



Photo-4. Vegetable Commodity Stalls in Kedgaon Market Centre



Photo-5. Food Commodity Stalls in Ravangaon Market Centre



Photo-6. Mixed Commodity Stalls in Ravangaon Market Centre



Photo-7. Cloth Stalls in Rahu Market Centre



Photo-8. Non-food commodity Stalls in Rahu Market Centre



Photo-9. Vegetables and Fruit Stalls in Warwand Market Centre



Photo-10. Cloth Stalls in Warwand Market Centre



Photo-11. Vegetable Commodity Stalls in Kurkumbh Market Centre



Photo-12. Food and Non-food Commodity Stalls in Kurkumbh Market Centre



Photo- 13. Live Stock Market in Yawat



Photo-14. Fruits and Vegetables Commodity Stalls in Yawat Market Centre



Photo-15. Non-food Commodity Stalls in Khadki Market Centre



Photo-16. Vegetables Commodity Stalls in Khadki Market Centre



Photo-17. Vegetables Stalls in Daund Market Centre



Photo-18. Grains Stalls in Daund Market Centre