

Understanding the Functions and Classification of Market Centres in Rural India: A Case Study

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ABSTRACT

The market centres perform the functions as service centers, helps in increasing the socio- economic and political contacts in the surrounding area. The functions of markets are largely depends upon the threshold population, transacted commodities, administrative character and the transportation links between the market and its hinterland. On the basis of varying functions and numerous characteristics of market centres, they can be further classified into different types, so as to understand the peculiar nature of the market centres in any spatial unit. This paper aims to analyse the function and classification of market centres of the study area on the basis of several variables which are closely related to the spatial development of market centres, such as, number of shops, estimated participants, transacted commodities, market function, and trade area.

Keywords: Function, Classification, Rural Markets, Shops, Estimated Participants, Transacted Commodities, Market Function, Trade Area

The typology is considered to be necessary in the analysis of spatial development of market centres. The problem of such a study of market centres has been much experienced because of the numerous characteristics of market centres and the variety of functions they perform. The study helps to understand the real nature of market centres. One of the most important concepts in the study of market centres is the concept of typology i.e. to arrange the market centres in different groups on the basis of their characteristics. The study of classification of market centres seems an important aspect of marketing geography. It makes easy to understand the nature of commodities transacted, nature of exchange system, the nature of consumers and traders movement in the existing markets. Numerous scholars in India as well as abroad have classified the market centres based on size of population engaged in trade and commerce, location or nature of settlement in which market is held, trade area, commodity, attendance

and nature of transaction (Khan, 1991). According to Smith (1975), classification and understanding are closely intertwined; some understanding of properties and relationships within a set of phenomena is needed before classification can be attempted, and classification should itself advance such understanding.

OBJECTIVES, DATABASE AND STUDY AREA

Taking into consideration the above facts, an effort has been made to assess the typology of rural market centres by classifying them on the basis of estimated participants, number of shops, number of transacted commodities, market function as well as trade area of the market. The study is based on primary data collected through field survey using random sampling technique. Out of the total 286 rural markets of the district, 30 rural markets (10 percent markets) which are spread all over the study area have been undertaken for the detailed

field work, on the following basis: (i) accessibility, that is, along the road or away from the road (within 10-15 km) (ii) Nature of the market, that is, daily or periodic.

The Aligarh district in North Indian state of Uttar Pradesh is selected as study area. It is located in north western part of Ganga Yamuna doab and forms a part of Agra division and lies between 27° 27' N to 28° 11' N latitudes and 77° 27' E to 78° 38' E longitudes. The total area of the district is 3,650 sq km, which supports a population of 3,673,849. Administratively, the district has been divided into five tehsils (sub-divisions) and twelve development blocks. It has total 1170 inhabited villages and 24 town areas.

DISCUSSION

(i) Based on Number of Shops

In rural markets, there are generally three kinds of shops, viz., temporary, permanent and itinerant, and all these have crucial importance for the classification of market centres. In the present case, all such kinds of shops have been added up to classify market centres of the district. The number of shops is an important and basic variable for the classification of the market centres as it reflects their functional magnitude (Khan, M.M. *et al.* 2018). On the basis of total number of shops in the market, the selected rural markets have been classified. The classification of markets has been undertaken to exhibit the large variation in the total number of shops in the 30 selected markets. Thus, the markets were categories as small size (up to 100 shops), medium size (101-200 shops) and large size (more than 200 shops) as shown in table 2 and fig.1.

Table 1: Block wise Total Number of Shops in Selected Rural Markets, 2017

Sl. No.	Development Block	Selected Rural Markets	Total Shops
1	Tappal	Tappal	500
2		Jartauli	70
3		Goraula	50
4	Chandaus	Chandaus	450
5		Pisava	550
6	Khair	Gomat	200

7		Shivala	110
8		Bhanauli	40
9	Jawan Sikanderpur	Jawan	300
10		Sunamai	50
11	Lodha	Roravar	800
12		Lodha	150
13		Sikandarpur Bhukarawale	45
14	Dhanipur	Panaithi	175
15		Kalai	65
16	Gonda	Nagla Sabal urf Gonda	500
17		Nagla Darvar	135
18	Iglas	Hastpur Chandfari	150
19		Sathini	90
20	Atrauli	Kazimabad	400
21		Jirauli Dhoom Singh	425
22		Narauna Akapur	350
23	Bijauli	Bijauli	170
24		Barhaul	100
25		Narupura Katka	80
26	Gangiri	Dhansari	50
27		Rajmau	75
28		Barla	200
29	Akrabad	Akrabad	450
30		Gopi	300
Total			7,030

Source: Based on Field Survey, 2017.

Table 1 and 2 shows that the number of shops in the rural markets ranges from 40 in Bhanauli to 800 in Roravar. Among the total 30 selected markets, 11 markets (36.66 per cent) fall in category of small size markets while 8 (26.66 per cent) fall in medium category and the rest 11 markets fall in large category.

Table 2: Classification of Selected Rural Markets Based on Total Number of Shops, 2017

Small size Market (≤ 100 Shops)	Medium size Market (101-200 Shops)	Large size Market (> 200 Shops)
Barhaul	Gomat	Roravar
Sathini	Barla	Pisava
Narupura Katka	Panaithi	Tappal
Rajmau	Bijauli	Nagla Sabal urf Gonda

Jartauli	Lodha	Akrabad
Kalai	Hastpur	Chandaus
	Chandfari	
Goraula	Nagla Darvar	Jirauli Dhoom Singh
Sunamai	Shivala	Kazimabad
Dhansari		Narauna Akapur
Sikandarpur		Jawan
Bhukarawale		
Bhanauli		Gopi

Source: Based on Field Survey, 2017.

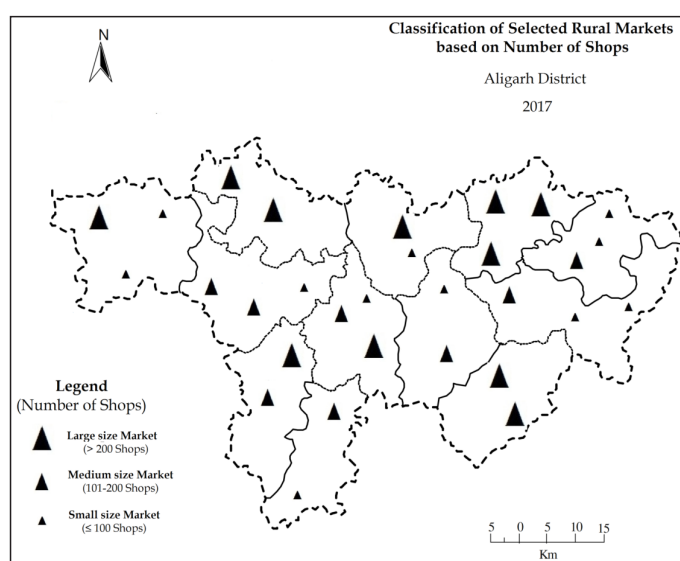


Fig. 1

(ii) Based on Estimated Participants

Market assemblage is an important indicator for the classification of market centres. The congregation, therefore, becomes an important indicator of the type of a market centre. The importance of a market centre can also be judged by the number of the people who visit a market. Rural markets are organized to facilitate the activities of market users, i.e. buyers and sellers who visit different markets held in a region (Amani and Khan, 1993). So, they are the important components of market, who assemble for exchange process.

The number of market participants in rural markets is estimated on the basis of counting their number in a grid (size of area) 5×5 metres. Each market is divided into various grids and finally total grids are multiplied

by number of market participants counted in one grid to get total attendance of the selected markets. On the basis of total participants in the market, the selected rural markets have been classified in three categories as small (up to 500 participants), medium (501-1,000 participants) and large markets (more than 1,000 participants) (Fig. 2). The classification of markets has been undertaken to illustrate the large variation in the total estimated participants.

Table 3: Block wise Estimated Participants in Selected Rural Markets, 2017

Sl. No.	Development Block	Selected Rural Markets	Estimated Participants
1	Tappal	Tappal	2,800
2		Jartauli	375
3		Goraula	300
4	Chandaus	Chandaus	2,580
5		Pisava	3,110
6	Khair	Gomat	980
7		Shivala	550
8		Bhanauli	190
9	Jawan Sikanderpur	Jawan	1,520
10		Sunamai	200
11	Lodha	Roravar	4,500
12		Lodha	650
13		Sikandarpur Bhukarawale	250
14	Dhanipur	Panaithi	960
15		Kalai	250
16	Gonda	Nagla Sabal urf Gonda	2,950
17		Nagla Darvar	700
18	Iglas	Hastpur Chandfari	750
19		Sathini	440
20	Atrauli	Kazimabad	1,600
21		Jirauli Dhoom Singh	2,250
22	Bijauli	Narauna Akapur	1,900
23		Bijauli	650
24		Barhaul	480
25	Gangiri	Narupura Katka	380
26		Dhansari	300
27		Rajmau	360
28		Barla	950

29	Akrabad	Akrabad	2,100
30		Gopi	1,000
Total			36,025

Source: Based on Field Survey, 2017.

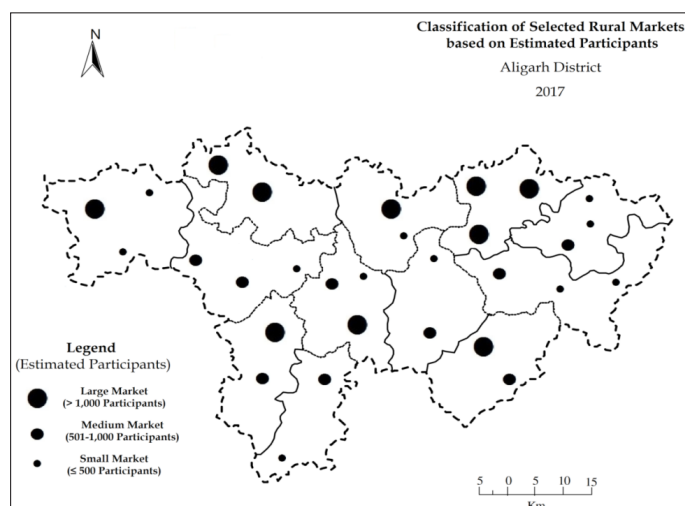


Fig. 2

Table 3 and 4 shows that the markets which have up to 500 participants are categorized as small markets. They share 36.66 per cent (11 markets) of 30 selected rural markets. There are 9 (30 per cent) medium markets, having participants between 501-1,000 persons and the remaining 10 markets with more than 1,000 participants are categorized as large markets. They are Jawan (1,520 participants), Kazimabad (1,600 participants), Narauna Akapur (1,900 participants), Akrabad (2,100 participants), Jirauli Dhoom Singh (2,250 participants), Chandaus (2,580 participants), Tappal (2,800 participants), Nagla Sabal urf Gonda (2,950 participants), Pisava (3,110 participants) and Roravar (4,500 participants).

Table 4: Classification of Selected Rural Markets Based on Estimated Participants, 2017

Small Market (≤ 500 Participants)	Medium Market (501-1,000 Participants)	Large Market (> 1,000 Participants)
Barhaul	Gopi	Roravar
Sathini	Gomat	Pisava
Narupura Katka	Panaithi	Nagla Sabal urf Gonda

Jartauli	Barla	Tappal
Rajmau	Hastpur Chandfari	Chandaus
Goraula	Nagla Darvar	Jirauli Dhoom Singh
Dhansari	Lodha	Akrabad
Sikandarpur	Bijauli	Narauna Akapur
Bhukarawale		
Kalai	Shivala	Kazimabad
Sunamai		Jawan
Bhanauli		

Source: Based on Field Survey, 2017.

(iii) Based on Transacted Commodities

A commodity serves an important basis for the classification of the typology of market centres. It is an essential element of the markets. The size and status of the market depends upon the number, volume, nature and specialization of commodities (Dixit, 1984). In the present study, selected markets of the district are classified on the basis of major commodities traded at the rural market centres of the district. The major commodities transacted in the rural markets has been categorized into 30 types, viz., (1) food grains, (2) oilseeds, (3) vegetables, (4) fruits, (5) meat & fish, (6) dairy products, (7) grocery items, (8) sweet and savory snacks, (9) earthen wares, (10) wooden items, (11) iron items, (12) electrical items, (13) electronic goods, (14) mobiles, (15) durable goods, (16) agricultural implements, (17) fertilizers & seeds, (18) clothes/garments, (19) footwear, (20) cosmetics/ladies items, (21) jewellery, (22) stationery items, (23) medicines, (24) handicrafts, (25) building materials, (26) sanitary wares, (27) livestock, (28) bicycles, (29) bikes, and (30) tractors.

Table 5: Block wise Number of Transacted Commodities in Selected Rural Markets, 2017

Sl. No.	Development Block	Selected Rural Markets	No. of Commodities
1	Tappal	Tappal	29
2		Jartauli	10
3		Goraula	08
4	Chandaus	Chandaus	27
5		Pisava	28
6	Khair	Gomat	18
7		Shivala	08

8		Bhanauli	09
9	Jawan	Jawan	22
	Sikanderpur		
10		Sunamai	07
11	Lodha	Roravar	23
12		Lodha	18
13		Sikandarpur	09
		Bhukarawale	
14	Dhanipur	Panaithi	26
15		Kalai	07
16	Gonda	Nagla Sabal urf Gonda	27
17		Nagla Darvar	16
18	Iglas	Hastpur Chandfari	18
19		Sathini	12
20	Atrauli	Kazimabad	22
21		Jirauli Dhoom Singh	24
22		Narauna Akapur	20
23	Bijauli	Bijauli	09
24		Barhaul	13
25		Narupura Katka	08
26	Gangiri	Dhansari	09
27		Rajmau	07
28		Barla	16
29	Akrabad	Akrabad	24
30		Gopi	22

Source: Based on Field Survey, 2017.

On the basis of the major commodities traded, rural markets of the district are grouped into three categories, i.e. small markets (≤ 10 commodities), medium markets (11-20 commodities) and large markets (> 20 commodities) (Table 5 & 6 and fig. 3).

Table 6: Classification of Selected Rural Markets Based on Transacted Commodities, 2017

Small Market (≤ 10 Commodities)	Medium Market (11-20 Commodities)	Large Market (> 20 Commodities)
Jartauli	Narauna Akapur	Tappal
Bhanauli	Gomat	Pisava
Sikandarpur	Lodha	Chandaus
Bhukarawale		
Bijauli	Hastpur Chandfari	Nagla Sabal urf Gonda
Dhansari	Nagla Darvar	Panaithi

Goraula	Barla	Jirauli Dhoom Singh
Shivala	Barhaul	Akrabad
Narupura Katka	Sathini	Roravar
Sunamai		Jawan
Kalai		Kazimabad
Rajmau		Gopi

Source: Based on Field Survey, 2017.

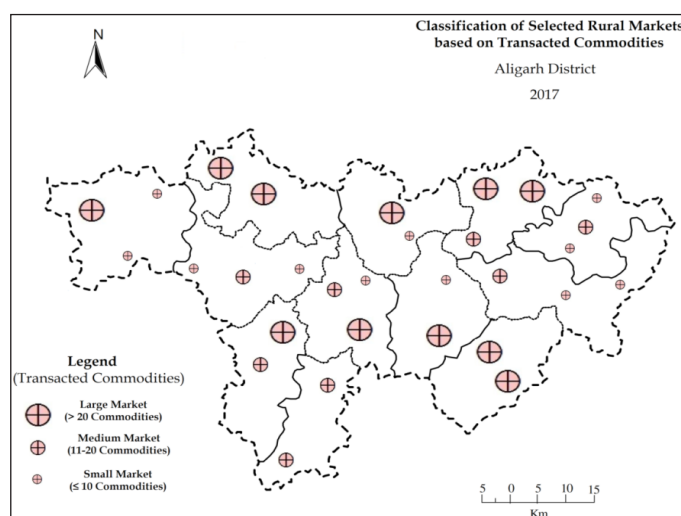


Fig. 3

(iv) Based on Market Function and Exchange Orientation

The type of function is a very important aspect in the study of markets. Hodder (1965) has classified market centres according to their function in the distribution chain as, the feeder markets, the bulking centres, the major markets and the large trade centres. In the present study, selected rural markets of the district are classified on the basis of function and exchange orientation as, 'weekly markets' (*haat*) which performs market business only on the fixed day/days of the week, 'retail periodic markets' which met on the fixed day/days of the week but also perform market business on other days of the week though on a very small scale and, 'retail daily markets' which have no periodic meetings and function throughout the week but only with retailing facilities. As evident from table 7 and 8, daily markets predominate in the district having a share of 93.33 per cent to total

rural markets. The bi-weekly markets share 30.00 per cent rural markets of the district with transaction business throughout the week and serve relatively larger population for a larger number of goods and services. The weekly *haats* share merely 36.66 per cent of the rural markets in the district but attracts a large number of rural population for their specialized nature of goods and commodities, like food grains, oil seeds, vegetables, meat and fish and livestock.

Table 7: Typology of Selected Rural Markets Based on Market Function and Exchange Orientation, 2017

Sl. No.	Development Block	Selected Rural Markets	Daily (Retail Permanent Markets)	Bi-weekly (Retail Periodic Markets)	Weekly (Haats)
1	Tappal	Tappal	1		1
2		Jartauli	1		1
3		Goraula	1		1
4	Chandaus	Chandaus	1	1	
5		Pisava	1	1	
6	Khair	Gomat	1		
7		Shivala	1		1
8		Bhanauli	1		1
9	Jawan Sikanderpur	Jawan Sikanderpur	1	1	
10		Sunamai	1	1	
11	Lodha	Roravar	1		
12		Lodha	1		
13		Sikandarpur Bhukarawale	1		1
14	Dhanipur	Panaithi	1		
15		Kalai			1
16	Gonda	Nagla Sabal <i>urf</i> Gonda	1	1	
17		Nagla Darvar	1	1	
18	Iglas	Hastpur Chandfari	1		
19		Sathini	1		
20	Atrauli	Kazimabad	1		
21		Jirauli Dhoom Singh	1		
22		Narauna Akapur	1	1	

23	Bijauli	Bijauli	1	1	
24		Barhaul	1	1	
25		Narupura Katka	1		1
26	Gangiri	Dhansari	1		
27		Rajmau			1
28		Barla	1		1
29	Akrabad	Akrabad	1		1
30		Gopi	1		
Total		30	28	09	11

Source: Based on Aligarh District Census Handbook, Census of India, 2011 & Field Survey, 2017.

Table 8: Classification of Selected Rural Markets Based on Market Function and Exchange Orientation, 2017

Daily (Retail Permanent Markets)	Bi-weekly (Retail Periodic Markets)	Weekly (Haats)
Tappal	Chandaus	Tappal
Jartauli	Pisava	Jartauli
Goraula	Jawan Sikanderpur	Goraula
Chandaus	Sunamai	Shivala
Pisava	Nagla Sabal <i>urf</i> Gonda	Bhanauli
Gomat	Nagla Darvar	Sikandarpur Bhukarawale
Shivala	Narauna Akapur	Kalai
Bhanauli	Bijauli	Narupura Katka
Jawan Sikanderpur	Barhaul	Rajmau
Sunamai		Barla
Roravar		Akrabad
Lodha		Gopi
Sikandarpur Bhukarawale		
Panaithi		
Nagla Sabal <i>urf</i> Gonda		
Nagla Darvar		
Hastpur Chandfari		
Sathini		
Kazimabad		

Jirauli Dhoom
Singh
Narauna Akapur
Bijauli
Barhaul
Narupura Katka
Dhansari
Barla
Akrabad
Gopi

Source: Based on Field Survey, 2017.

(v) Based on Market Trade Area

Market trade area is the reflection of market size, range of goods and services dealt in a particular market. The extent and potentiality of demand of commodities from tributary region, determine the origin and development of market centres. Thus, the market area and the size of the market are interdependent (Ali, 2007). Stine (1969) was the first to give the theoretical phenomena of

periodic marketing on the basis of range of goods. The circular complementary area, if they are tangentially drawn, leave necessarily an unreserved area, then overlapping of area exist. To overcome the above problem, a hexagonal geometrical shape of trade area was claimed.

In the present study, the trade area of 30 selected rural markets is computed based on the average distance travelled by consumers and traders in a given market (Table 9 & 10 and Fig. 4). The travelling distance by consumers and traders is the best expression of centrality of rural market centre. The market trade area of a selected market is computed on the basis of following formula:

1. **Market Trade Area** = πr^2
where, r is radius of market area, and π is equal to 3.14
2. Radius of Market Area (r) = (Mean travelled distance by traders + Mean travelled distance by consumers) / 2

Table 9: Market Trade Area of Selected Rural Markets Based on Mean Distance Travelled by Traders & Consumers, 2017

Sl. No.	Development Block	Selected Rural Markets	Mean Distance Travelled by Traders (Km)	Mean Distance Travelled by Consumers (Km)	Radius of Market Area (r) (Km)	Market Trade Area (πr^2) (Km ²)
1	Tappal	Tappal	4.96	9.89	7.43	173.34
2		Jartauli	2.61	2.12	2.37	17.64
3		Goraula	2.62	1.88	2.25	15.90
4	Chandaus	Chandaus	5.96	10.14	8.05	203.48
5		Pisava	5.59	8.46	7.03	155.18
6	Khair	Gomat	2.44	4.37	3.41	36.51
7		Shivala	2.72	2.43	2.58	20.90
8		Bhanauli	2.83	2.06	2.45	18.85
9	Jawan Sikanderpur	Jawan Sikanderpur	3.74	5.70	4.72	69.95
10		Sunamai	2.52	2.56	2.54	20.26
11	Lodha	Roravar	3.74	7.50	5.62	99.18
12		Lodha	2.86	3.24	3.05	29.21
13		Sikandarpur				
		Bhukarawale	1.94	2.73	2.34	17.19
14	Dhanipur	Panaithi	3.59	3.88	3.74	43.92
15		Kalai	2.64	1.86	2.25	15.90

16	Gonda	Nagla Sabal urf Gonda	5.78	9.89	7.84	193.00
17		Nagla Darvar	3.74	5.74	4.74	70.55
18	Iglas	Hastpur Chandfari	2.77	3.51	3.14	30.96
19		Sathini	2.43	2.73	2.58	20.90
20	Atrauli	Kazimabad	3.08	5.37	4.23	56.18
21		Jirauli Dhoom Singh	4.03	9.32	6.68	140.11
22		Narauna Akapur	5.60	7.86	6.73	142.22
23	Bijauli	Bijauli	3.23	2.81	3.02	28.64
24		Barhaul	2.45	2.83	2.64	21.88
25		Narupura Katka	2.33	2.54	2.44	18.69
26	Gangiri	Dhansari	2.17	2.42	2.30	16.61
27		Rajmau	2.44	2.44	2.44	18.69
28		Barla	3.00	3.74	3.37	35.66
29	Akrabad	Akrabad	3.95	6.48	5.22	85.56
30		Gopi	2.70	4.96	3.83	46.06
Average			3.34	4.71	4.03	51.00

Source: Based on Field Survey, 2017.

Table 10: Classification of Selected Rural Markets Based on Trade Area, 2017

Small-size Market (≤ 50 Km ²)	Medium-size Market (51-100 Km ²)	Large-size Market (> 100 Km ²)
Gopi	Roravar	Chandaus
Panaithi	Akrabad	Nagla Sabal urf Gonda
Gomat	Nagla Darvar	Tappal
Barla	Jawan Sikanderpur	Pisava
Hastpur Chandfari	Kazimabad	Narauna Akapur
Lodha		Jirauli Dhoom Singh
Bijauli		
Barhaul		
Shivala		
Sathini		
Sunamai		
Bhanauli		
Narupura Katka		
Rajmau		
Jartauli		
Sikandarpur		
Bhukarawale		
Dhansari		
Goraula		
Kalai		

Source: Based on Field Survey, 2017.

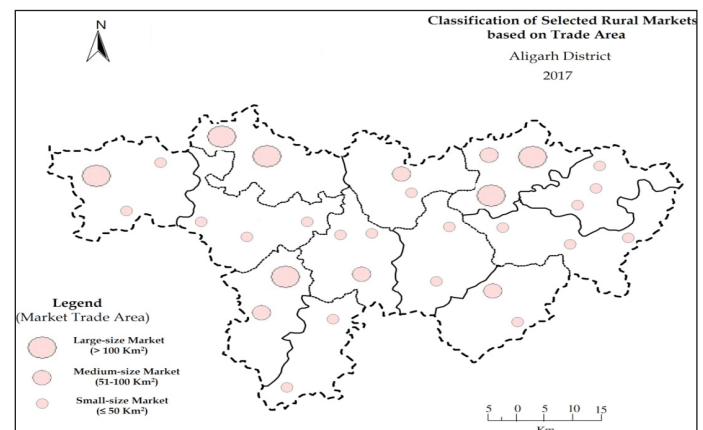


Fig. 4

CONCLUSION

The characteristics and typology of rural markets is directly based on the spatio-temporal as well as the socio-economic conditions of the region. It is concluded that on the basis of their essential characteristics, the rural markets can be classified into various regional types. The policies for the development of rural markets must be based on classification of the vital characteristics of the various market centres. The differences between the defined types are significant and must be incorporated

into designing and projecting policies and planning for rural market development at local levels.

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