

Vol 4 Issue 8 Feb 2015

ISSN No :2231-5063

International Multidisciplinary
Research Journal

Golden Research
Thoughts

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RNI MAHMUL/2011/38595

ISSN No.2231-5063

Golden Research Thoughts Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

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GRT **SHAPE ANALYSIS OF RURAL SETTLEMENT IN SOME REGION OF JALGAON DISTRICT**

Nandkishor N. Shinde¹ and Dadasaheb S. Gajhans²

¹Department of Geography, B. R. Barwale College, Jalna.

²Departments of Geography, M. S. S. College, Jalna.

Abstract:-Shape, itself speak enough of the whole trend and type of humanization of earth. In nature the best occupancies of shape is through a geometrical shape with more than four sides. The morphological studies rural settlements which having various forms completely depends upon the geographic pattern of villages. Therefore the pattern of villages under various aspects which related to many physico-cultural factors. Many researcher tried to analyze shape versus pattern by qualitative or classical method but according to globalization and recant trends a new quantitative approach provide additional tool for determination of shape more precisely and suitable. Therefore present study was undertaken to analyze the shape of villages by quantitative methods and Miller's formula adopted by Hagget has been also used for calculating shape indices of some region of Jalgaon area.

Keywords:Shape analysis, rural settlements, quantitative method etc.

INTRODUCTION

The movement for earning the living through hunting, collection, gathering on through primary production are limited in that very closed space but later on it become territory for particular occupying group of peoples to bounded by space of village within which the rights obligation of shelter are defined. In the most of countries such boundaries are defined and recorded to be produced on maps cartographically. These boundaries of rural area having regional variation in size, area and space of village can be studied under two sub heads 1)External layout and 2)Internal plan, both are closely associated with physical and cultural factors. The development taking part in space, area determines the shape and form of the village (Singh, 1994). By keeping these few things in mind, present study was undertaken to analyze the shape of villages belonging to certain parts of Jalgaon region.

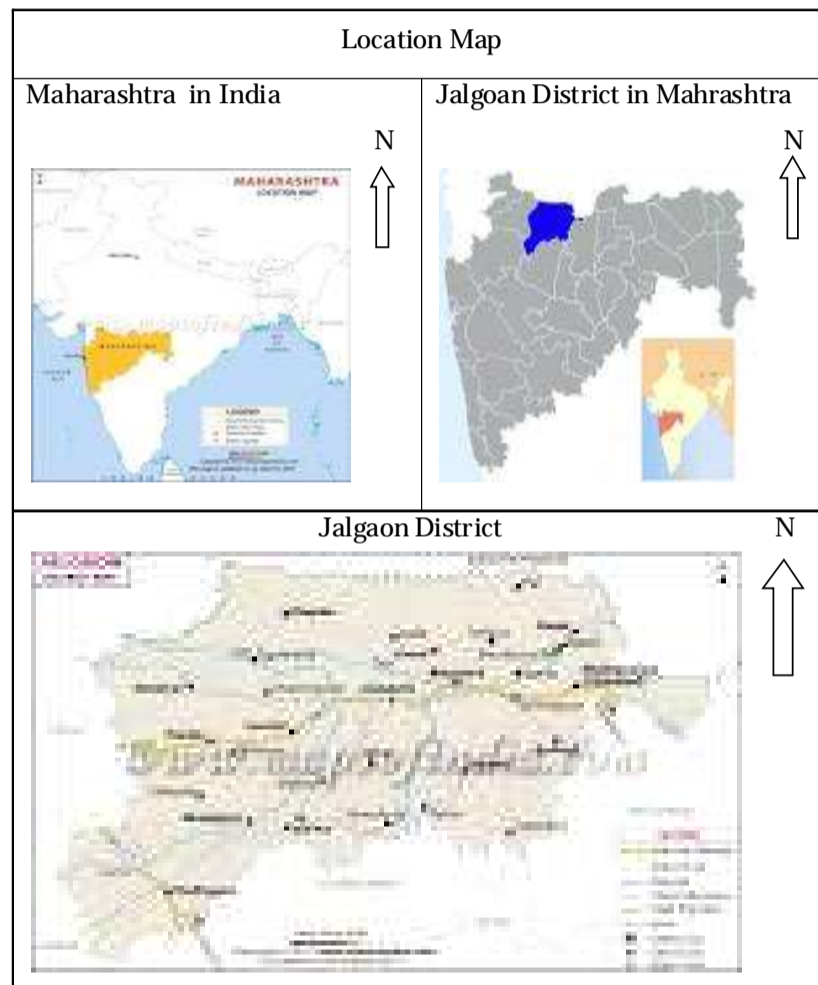
Objectives:

The present study was carried out to determine shape indices of rural settlements of certain area of Jalgaon district by adopting new quantitative / geometrical technique

Study Area:

Jalgaon district is located in Northern part of Maharashtra state in between 21° 05' North latitudes to 75° 40' East longitudes. According to the 2011 census, Jalgaon district has 11,765 sq.kms area with 4,224,442 population settled in 1480 villages and 17 towns (Map. 1)

Fig. 1 Map of study area:



RESEARCH METHODOLOGY:

The study is based on secondary sources of data collected from District Census handbook of Jalgaon district and for analysis of villages area district map have been used. For the analysis of shape indices of all 1480 villages of study region, Miller's formula adopted by Hagget as follows.

$$S = \frac{A}{\pi r^2} \text{ or } \frac{4A}{\pi L^2} \text{ or } 1.27 \frac{A}{L^2}$$

Where A = area of the village/county in km²

L = long axis of village drawn as straight line connecting to axis.

Here shape index ranges from 0.0 to 1.0. if s=0.0 it represent elongated shape, if 0.4 to 0.54 the triangular, 0.55 to 0.64 is square and 0.65 to 0.84 hexagonal and 0.85 to 1.0 is circular shape Singh (1994) and Ranadive (2013).

RESULT & DISCUSSION:

Christaller model of distribution of centers in any uniform space, gives idea of hexagonal spatial distribution of settlements. This quantitative method of shape analysis is based on the elementary packing theory having efficiency of movement and efficiency of boundaries.

The concept of measurement of shape and boundaries were from Thompsons work (1917) followed by Miller's (1953) in case river basin study. The same formula was fatherly used by Hagget(1965) for the shape analysis of Brazil.

Shape analysis of Jalgaon district showed varied range as shown in table no.1. Similar findings were previously recorded by many researcher in different parts of countries like Rasheed (1972) in Bangladesh, Rana & Singh (1975), Singh (1980) from Gorkhpur U. P., Ranadive (2013) from Kolhapur, Maharashtra.

Table No. 1 : Shape Index of villages

Tehsil Wise Village Shape Index Range	Jalgaon	Chopda	Yawal	Raver	Edlabad	Bhusawal	Total	%
Less than 0.10	02	02	01	01	00	01	07	1.21
0.11-0.20	14	18	14	19	15	14	94	16.34
0.21-0.30	17	21	18	22	16	20	114	19.82
0.31-0.40	16	25	14	23	13	23	114	19.82
0.41-0.50	12	20	10	22	16	19	99	17.21
0.51-0.60	05	14	15	11	09	07	61	10.60
0.61-0.70	04	04	03	07	04	08	30	5.21
0.71-0.80	02	03	02	03	03	04	17	2.95
0.81-0.90	05	02	05	03	02	03	20	3.47
0.91-1.00	09	02	05	02	01	00	19	3.37
Total	86	111	87	113	79	99	575	100

Source : Author Observation.

The tabulated figures clearly showed that 83.79% villages between the shape index 0.11 to 0.60 (table no. 1). 3.37% villages having circular shape on contrary 1.21% Villages have same what elongated shape.6.42% villages forming hexagonal arrangement where as 33.02% having triangular type of shape index.

CONCLUSION:

From the present investigation it reveals that most of village of study region having a dominance from circular to triangular shape index frequently. Beside this, 3.37% villages displayed circular shape of rural settlement belonging to six tahsil having 575 villages

REFERENCES :

- Hagget P.(1965): Location Analysis in Human Geograpy, (Edward Arnold, London),p.339.
- Miller V.C.(1953): A Quantitative Geomorphic study of Drainage Basin Characteristics in the Clinch Mountain Area Virginia and Tennesse, Office Navel Research Geographic Branch, NR 389-042.Technical Report 3.
- R. Y.Singh (1994): Geography of Settlement: Rawat Publication, Jaipur, 2010.
- Ranadive A.N.(2013): Shape Analysis of rural settlements in Man basin, Research Front, Vol. 1(03) pp. 17-22.
- Rasheed K.B.S.(1972): An Examination of the Shape of the Administrative district of Bangladesh, Geografiska Annaler B.54,pp.104-108.
- Singh, U.P.(1980): Geographic Dimension of Rural Settlements in Gorakhpur district (U.P.) Ph.d.Thesis Submitted to Banaras Hindu University,pp.102-138.
- Thompson, Darcy W. (1917): On Growth and Form Cambridge University 101 -125.



Nandkishor N. Shinde
Department of Geography, B. R. Barwale College, Jalna.

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Golden Research Thoughts
258/34 Raviwar Peth Solapur-413005, Maharashtra
Contact-9595359435
E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com
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