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# **Analytical Study of the Distribution of Communication Facilities in Deoli Tehsil**

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**ABSTRACT:** Communication is a vital part of our lives. The development of communication has progressed alongside human civilization. Since the beginning of society, communication has been associated with all social beings in one form or another. No human family, society, or group in the world can exist normally and survive without mutual conversation, interaction, or dialogue. The communication process continuously operates throughout human life. In this context, a study has been conducted on Deoli Tehsil, which is one of the seven tehsils of Tonk district in the state of Rajasthan. Deoli Tehsil comprises 170 inhabited settlements where the distribution patterns of communication facilities such as post offices, telephone services, courier services, and Common Service Centres (internet) have been analyzed. Additionally, the study also evaluates the level and quantity of communication facilities required based on the minimum population of a settlement. In the study area, the service-provided and inter-zonal boundaries have been delineated according to the prescribed method, and a plan has been proposed to provide communication facilities in areas where they are currently unavailable.

**KEYWORDS:** Communication, Social Beings, Human Civilization, Dialogue, Human Family

## **I. INTRODUCTION**

The present research paper provides an analytical study of the distribution of communication facilities available in Deoli Tehsil of Tonk district. The 170 inhabited settlements in the study area have been considered as units of analysis. To analyze communication facilities, the locations of post offices and courier services were taken as Centres, and circular areas with fixed radius were drawn to define the serviced areas. Any settlement within these circles was considered part of the serviced area, while those outside were marked as unserved. Finally, the research paper offers suggestions to provide communication facilities to the unserved areas.

## **II. OBJECTIVES**

1. To study the distribution of communication facilities available in the tehsil.
2. To determine the minimum population level required for communication facilities.
3. To delineate serviced and inter-zonal areas within the tehsil.
4. To propose a plan to provide services to inter-zonal areas in the tehsil.

## **III. METHODOLOGY**

This study is based on secondary data obtained from the Tonk District Census Handbook 2011 and information from the Head Post Office and Telecommunications Department of Tonk District. The determination of the minimum population for communication facilities is based on the Richmond method.

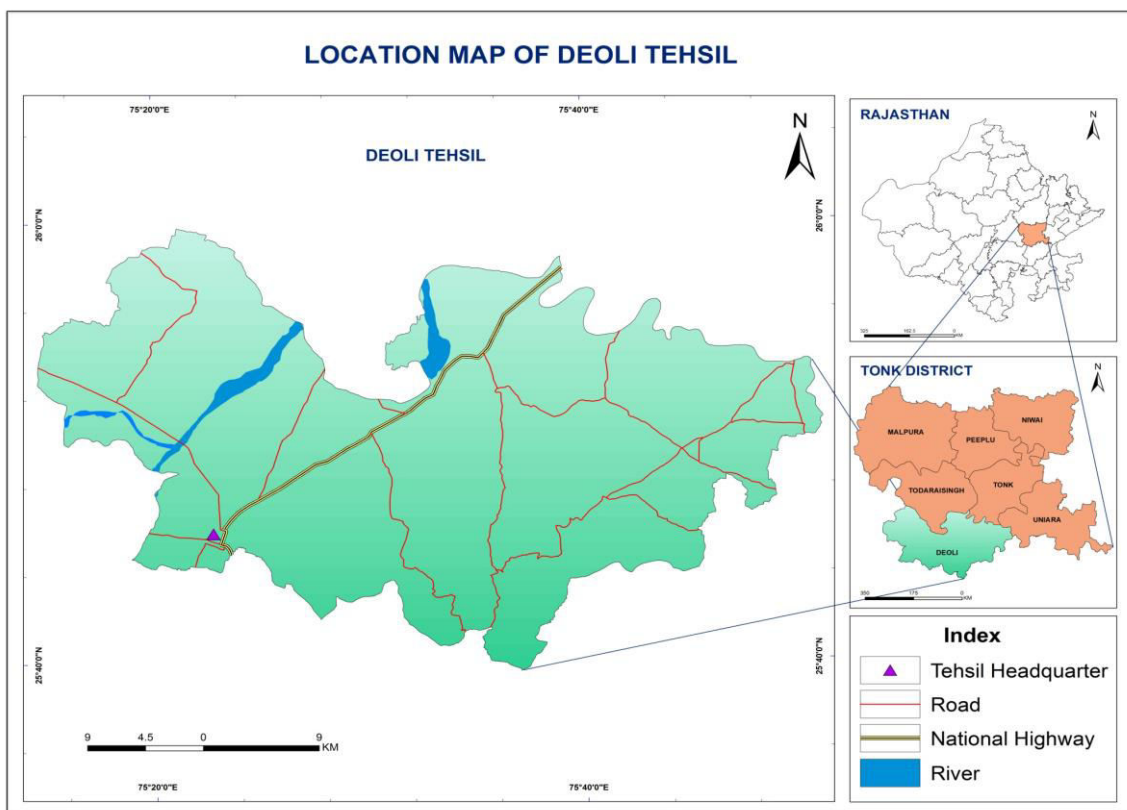
In this study, certain assumptions were made regarding the reach and distance of communication facilities, such as:

- Post offices can provide services within a 3-kilometre radius.
- Courier services can cover an 8-kilometre radius.

Based on these assumptions, circles with radius of 3 and 8 kilometres were drawn from the respective service Centres and adjusted according to settlement boundaries. Settlements within the circles were considered serviced, while those outside were considered unserved.

IV. STUDY AREA

Deoli Tehsil is located at the southern edge of Tonk district between latitudes 25°44' to 25°58' North and longitudes 75°10' to 75°52' East. Its southern boundary touches Jahazpur Tehsil, while Kekri Tehsil lies to the west. The northern boundary is shared with Todaraisingh, Uniara, and Tonk tehsils, and Hindoli Tehsil forms the eastern boundary. The tehsil spans an area of 1228.35 square kilometres and, according to the census, has a population of 214408.



V. DISTRIBUTION PATTERN

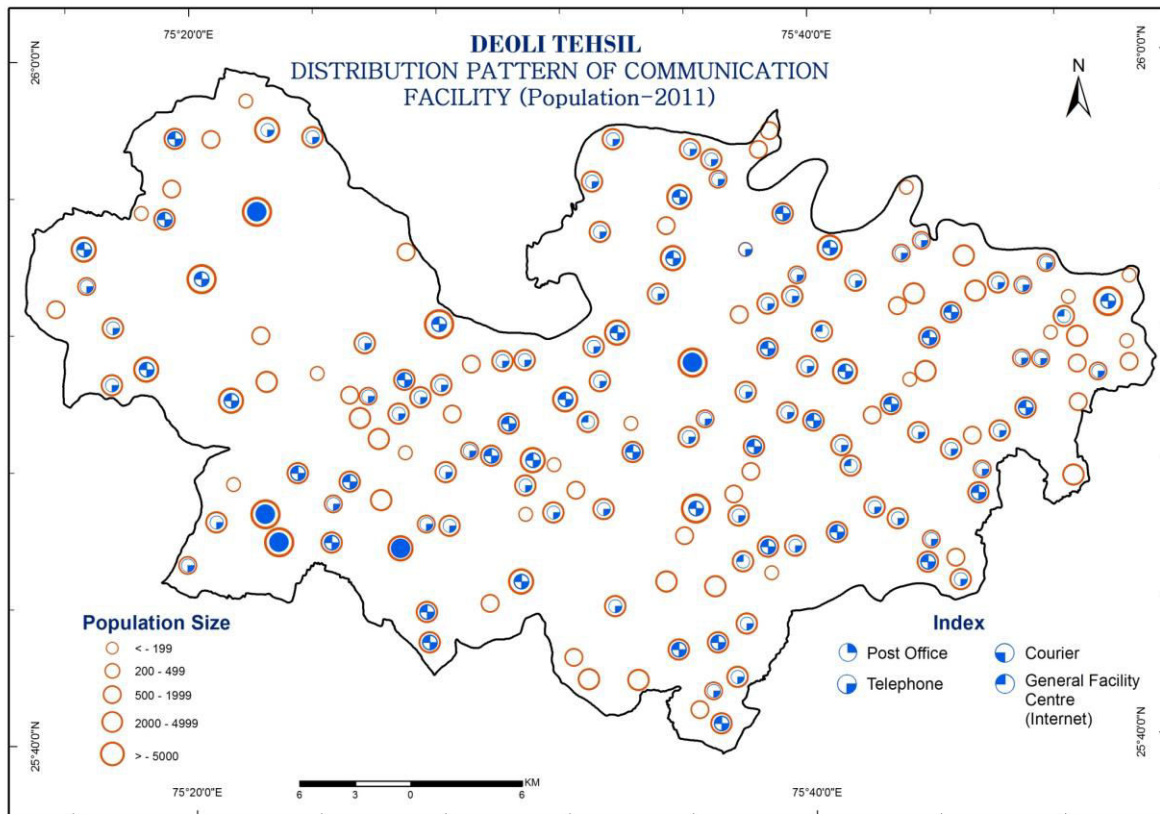
Communication facilities play a significant role in building the fundamental infrastructure of modern India. They pave the way for the economic development of villages and provide new opportunities for growth. Postal services are an ancient means of communication. From Table 1, it is evident that none of the 149 settlements with a population of fewer than 2,000 have postal facilities. Among the 13 settlements with populations between 2,000 and 4,999, only Panwar has access to this facility. Of the 8 settlements with populations exceeding 5,000, only 4—Dooni, Deoli, Nasirda, and Deoli Urban Centre—have postal services available.

Table1 Deoli Tehsil: Distribution of Communication Facilities (2011)

Population Pattern	Total Population	Number of Post Offices	Number of Telephones	Number of Courier Services	Number of Common Service Centres/ Internet Cafés
0-199	16	00	00	00	00
200-499	45	00	17	00	00
500-1999	88	00	68	00	30
2000-4999	13	01	13	01	12

5000 and above	08	04	08	04	08
<b>Total</b>	<b>170</b>	<b>05</b>	<b>106</b>	<b>05</b>	<b>50</b>

106 habitations in the tehsil are benefiting from telephone services. In the study area, none of the 16 habitations with a population of fewer than 200 have this facility. Seventeen habitations with a population size between 200 and 499, sixty-eight habitations with a population size between 500 and 1999, all thirteen habitations with a population size between 2000 and 4999, and all eight habitations with a population of more than 5000 are utilizing this service. Out of the total 170 habitations in the tehsil, only five habitations—Dooni, Deoli, Nasirda, Panwar, and the Deoli urban Centre—have access to courier services. The remaining 165 habitations in the tehsil are deprived of this facility. In the study area, habitations with a population of fewer than 500 do not have Common Service Centres (CSCs). This service is available in thirty habitations with a population size between 500 and 1999, in twelve habitations with a population size between 2000 and 4999, and in all eight habitations with a population size of more than 5000. The average distance to post offices in the entire tehsil is 15.25 kilometres, the average distance to telephone service is 3.31 kilometres, and the average distance to Common Service Centres is 4.82 kilometres.



### VI. MINIMUM POPULATION LEVEL FOR COMMUNICATION FACILITIES

The minimum population requirement for communication facilities in Deoli Tehsil has been determined based on the Richmond Method. This method also indicates how many post offices, telephone services, courier service Centres and common service Centres are needed in each habitation of the tehsil according to its minimum population. It outlines the current availability of these facilities and the additional requirements for post offices, telephone services, courier service Centres and common service Centres as clearly presented in Table 2.

**Table2 Deoli Tehsil: Proposed, Current, and Required Number of Communication Facilities with Minimum Population**

Communication Facility	Minimum Population	Proposed Number of Communication Facilities	Current Number of Communication Facilities	Required Number of Communication Facilities
Post Office	8,000	26	05	21
Telephone	875	245	106	139
Courier Service	8,000	26	05	21
Common Service Centre/Internet Caf�	4,250	50	50	00

### VII. DISTRIBUTION OF COMMUNICATION FACILITIES

To identify the serviced and underserved areas in the study region, a method of drawing circles with service Centres as the Centre was used. Settlements within these circles were considered serviced, while those not included in any drawn circle were considered underserved areas. Settlements included in two or more circles were marked as fully serviced areas.

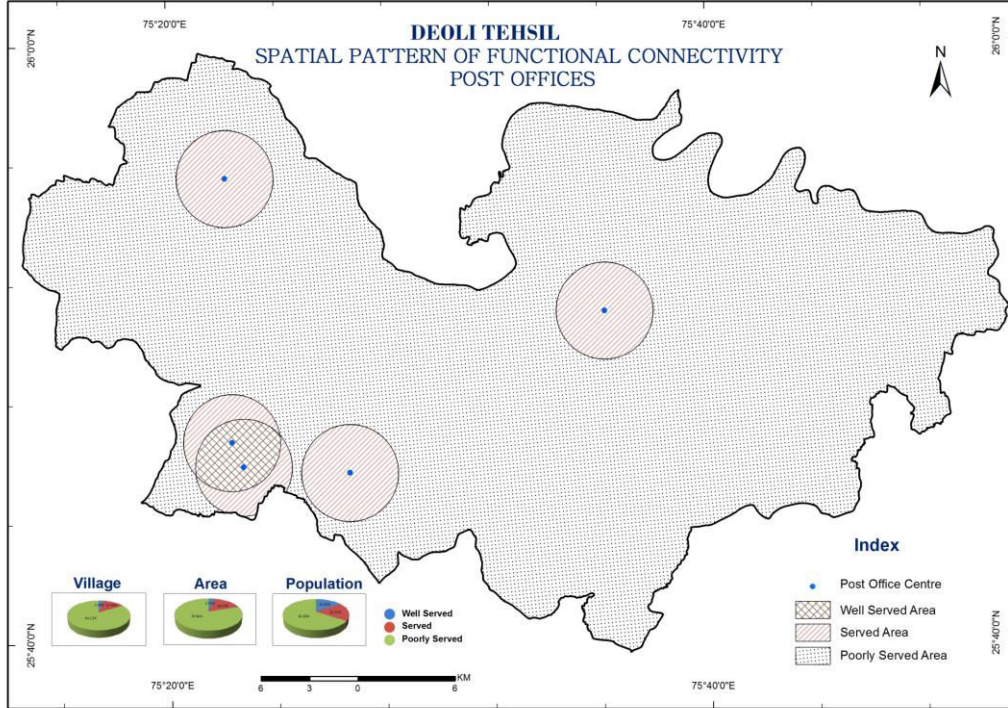
**Table3 Deoli Tehsil: Expansion of Communication Facilities**

Communication Facility	Radius of Communication Facility (in kilometres)
Post Office	03
Courier	08

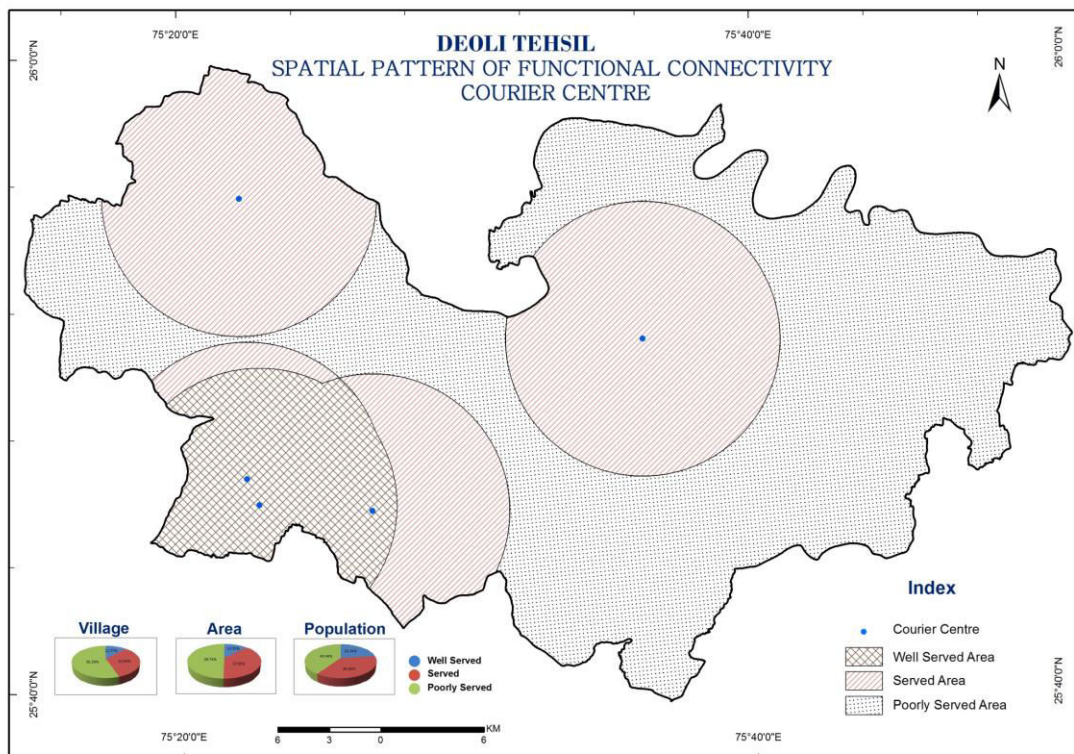
**Table4 Deoli Tehsil: Communication Facilities and Number of Habitations**

Area	Communication Facility (Number of Habitations)	
	Post Office	Courier
Service Provided	22	56
Inter-Zone	143	94
Fully Serviced Area	05	20

From Table 4, it is evident that out of the total 170 settlements in the tehsil, only 05 settlements have access to postal services. A post office located in any settlement can provide its services to an area within a radius of 03 kilometres. While 05 settlements are fully serviced by postal services, 143 settlements are minimally serviced by this facility.



Out of the 170 settlements in the study area, only 05 have courier service facilities. A courier service centre can serve areas within an 08-kilometre radius around it. 20 settlements in the tehsil are fully benefiting from this service, while 94 settlements are minimally serviced.



### VIII. SUGGESTIONS

Communication is uniquely human, using language to transfer meaning between individuals, groups, or the public to meet needs. It brings people together and is essential for sharing information to ensure common understanding and action in society. The analysis of the distribution of communication facilities in the study area reveals that out of 170 populated settlements, most have access to telephone and general service Centres. However, there is a lack of postal and courier services in most settlements. Therefore, these facilities should be provided in underserved areas because, without communication, human society cannot be formed.

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