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India

District wise Parentage of Fallow Land in Uttar Pradesh during 2010 - 11

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Abstract

In this paper District wise Parentage of Fallow Land in Uttar Pradesh during 2010 - 11 was calculated and mapped. Study is based on secondary data collected from official website of Government of India. District wise Parentage of Fallow Land was classified in five categories based on Natural Breaks (Jenks) scheme. First with 1.14 to 2.88 percent, second with 3.07 to 4.77 percent, third with 5.36 to 8.59 percent, fourth with 8.88 t0 13.60 percent *and fifth 14.66 to 20.07 percent. Result shows seventeen districts belong to first category, ten districts belong to second category, eighteen districts belong to third category, nineteen districts belong to fourth category and six districts belong to fifth category.*

Key words: *GDP, Natural Breaks, Uttar Pradesh*

1. Introduction

This category includes all that land which was used for cultivation but is temporarily out of cultivation. Fallow land is of two type's viz., current fallow and fallow other than current fallow. Fallow of one year is called 'current fallow' while that of 2 to 5 years is classified as 'fallow

other than current fallow'. Fallow land is left uncultivated from 1 to 5 years to help soil recoup its fertility in the natural way depending upon the nature of soil and the nature of fanning. There have been Varying trends in the extent of current fallow but it has recorded an increase from 10.68 million hectares in 1950-51 to 14.79 million hectares in 1999-2000. But there had been a sharp decline in fallow lands other than current fallows from 17.4 million hectare in 1950-51 to 11.18 million hectare in 1960 61. [1]

In view of the concern to provide food security to the burgeoning millions in India, there is a need to close the prevailing gap between potential and actual yields in the major farming systems in the country. The area under cultivation in India, in proportion to its geographical area, is among highest in the world- 143 million hectares as compared to a total of 328.6 million hectares [2], so instead of harnessing more land, emphasis need to be given on improving the productivity of land currently under agriculture through measures which can help farmers overcome technological, financial, institutional and management constraints. This would involve optimization of productivity of farmers land through effective planning and increased flow of financial and managerial resources to villages. [3]

In 1950-51, fallow lands accounted for about 24 thousand hectares comprising of 17445 thousand hectares of land other than current fallows and the remaining 10679 thousand hectares of current fallows . While in 1982-83 about 23636 thousand hectares of land was classified as fallow land which was about 7.8% of total represented area. Andhra Pradesh occupied 15.48% of the total fallow land of the country while Punjab accounted for only 0.01% of the fallow land.[4]

Land is left fallow for a variety of reasons, namely - poor condition of farmers, inadequate supply of water, silting of canals and rivers, extreme weather conditions, soil erosion and low rate of returns. In many regions, land is left uncultivated as a normal crop rotation. This is an inefficient use of productive natural resources. Sometimes the land possessed by farmers is encroached and the farmer is unwilling to invest in it. The poor encroachers are generally unable to develop the degraded land due to financial constraints and tend at most one crop under zero purchased input conditions.[5]

2. Materials and Methods

2.1. Study Area

Uttar Pradesh, with a total area of 243,290 square kilometres, is India's fourth largest state in terms of land area. It is situated on the northern spout of India and shares an international boundary with Nepal. The Himalayas border the state on the north but the plains that cover most of the state are distinctly different from those high mountains. The larger Gangetic Plain region is in the north; it includes the Ganges-Yamuna Doab, the Ghaghra plains, the Ganges plains and the Terai. The smaller Vindhya Range and plateau region is in the south. [6]

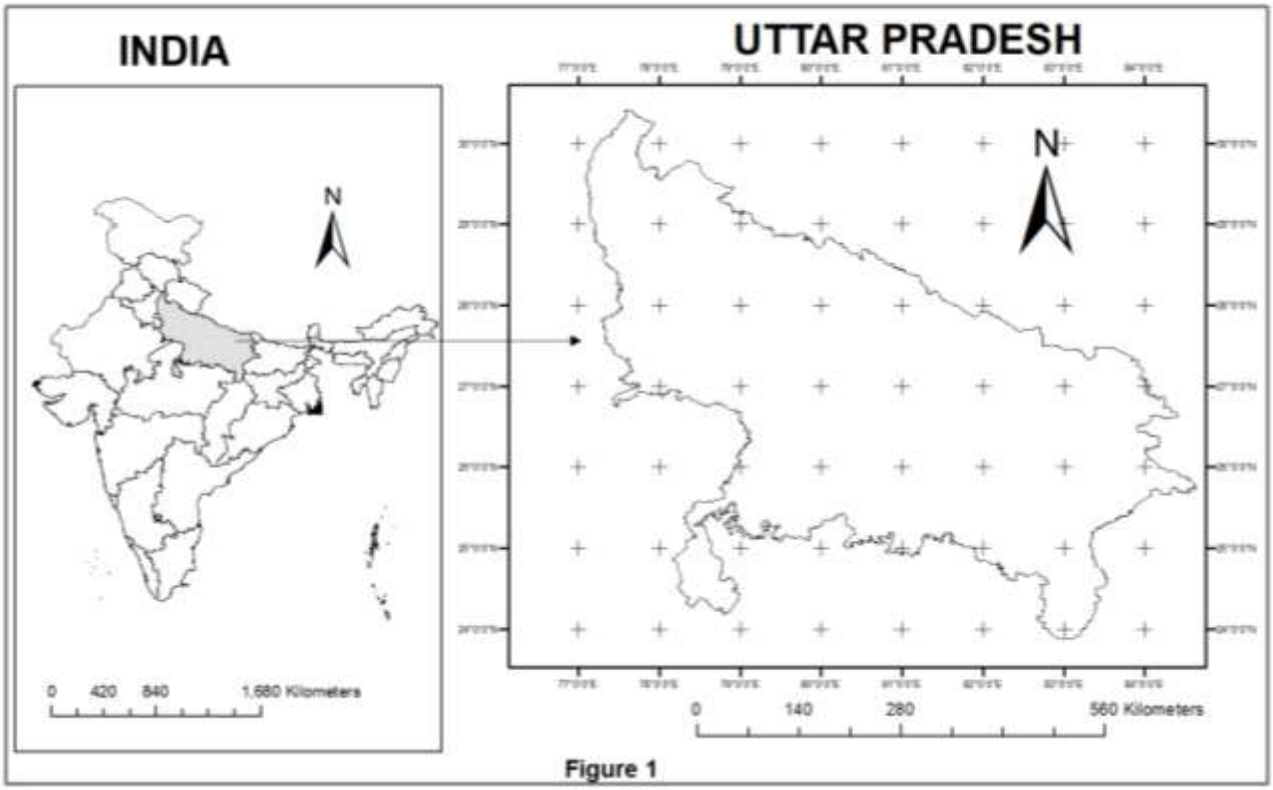

Figure 1

2.2. Materials

Data: Secondary data collected from official website of government of India.

Software: ArcGIS 10.1, Excel

2.3 Methodology

Study is based on secondary data collected from official website of Government of India. District wise Parentage of Fallow Land was classified in five categories based on Natural Breaks (Jenks)

scheme. First with 1.14 to 2.88 percent, second with 3.07 to 4.77 percent, third with 5.36 to 8.59 percent, fourth with 8.88 t0 13.60 percent and fifth 14.66 to 20.07 percent.

3. Result

Result shows seventeen districts belong to first category (Table 1), ten districts belong to second category (Table 2), eighteen districts belong to third category (Table 3), nineteen districts belong to fourth category (Table 4) and six districts belong to fifth category (Table 5).

Table 1 Parentage of Land not available for cultivation 2011 - Uttar Pradesh

SN	Districts	**Land not available for cultivation in %**
1	Sant Kabir Nagar	1.14
2	Kushinagar	1.24
3	Bulandshahr	1.32
4	Bijnor	1.42
5	Rampur	1.44
6	Maharajganj	1.80
7	Meerut	1.90
8	Shravasti	1.91
9	Jyotiba Phule Nagar	1.99
10	Muzaffarnagar	2.01
11	Pilibhit	2.21
12	Balrampur	2.42
13	Hathras	2.50
14	Mathura	2.75
15	Baghpat	2.76
16	Lalitpur	2.81
17	Moradabad	2.88

Source : https://data.gov.in

Table 2 Parentage of Land not available for cultivation 2011 - Uttar Pradesh

SN	Districts	**Land not available for cultivation in %**
1	Aligarh	3.07
2	Basti	3.33
3	Badaun	3.73
4	Chandauli	3.74
5	Lakhimpur Kheri	3.95
6	Bahraich	3.96
7	Bareilly	4.14
8	Siddharth Nagar	4.66
9	Deoria	4.74
10	Shahjahanpur	4.77

Source : https://data.gov.in

Table 3 Parentage of Land not available for cultivation 2011 - Uttar Pradesh

SN	Districts	**Land not available for cultivation in %**
1	Firozabad	5.36
2	Gonda	5.71
3	Mahoba	5.78
4	Ballia	5.83
5	Ghazipur	5.84
6	Chitrakoot	5.85
7	Agra	5.97
8	Kaushambi	6.17
9	Banda	6.23
10	Jalaun	6.27
11	Sant Ravi Das Nagar	6.30
12	Hamirpur	6.59
13	Ambedkar Nagar	7.07
14	Ghaziabad	7.60
15	Etawah	7.72
16	Etah	7.92
17	Kannauj	8.53
18	Auraiya	8.59

Source : https://data.gov.in

Table 4 Parentage of Land not available for cultivation 2011 - Uttar Pradesh

SN	Districts	**Land not available for cultivation in %**
1	Mau	8.88
2	Gorakhpur	8.88
3	Sitapur	9.28
4	Sonbhadra	10.03
5	Azamgarh	10.04
6	Jhansi	10.17
7	Hardoi	10.19
8	Mirzapur	10.35
9	Faizabad	10.62
10	Kanpur Dehat	10.73
11	Mainpuri	10.94
12	Sultanpur	11.30
13	Fatehpur	11.67
14	Unnao	11.67
15	Kanpur	11.83
16	Bara Banki	11.92
17	Farrukhabad	12.63
18	Lucknow	13.56
19	Jaunpur	13.60

Source : https://data.gov.in

Table 5 Parentage of Land not available for cultivation 2011 - Uttar Pradesh

SN	Districts	**Land not available for cultivation in %**
1	Saharanpur	14.66
2	Varanasi	15.26
3	Allahabad	18.32
4	Rae Bareli	18.56
5	Pratapgarh	19.44
6	Gautam Buddha Nagar	20.07

Source : https://data.gov.in

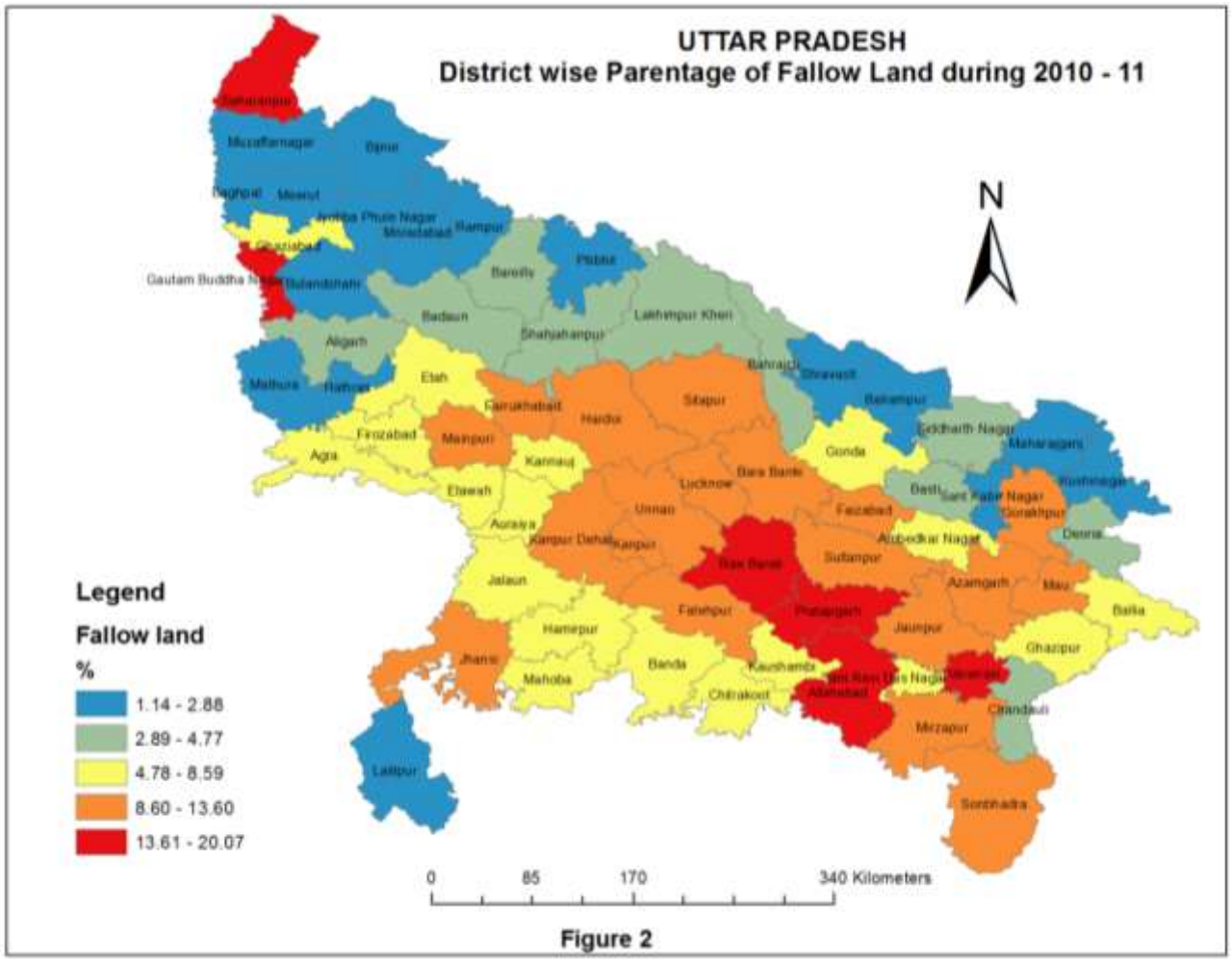
UTTAR PRADESH
District wise Parentage of Fallow Land during 2010 - 11
N
Legend
Fallow land
%
1.14 - 2.88
2.89 - 4.77
4.78 - 8.59
8.60 - 13.60
13.61 - 20.07
0
85
170
340 Kilometers

Figure 2

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