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Landuse and cropping pattern of Madhubani district

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Abstract

In this research paper an attempt has been made to trace out the changing land use pattern of Madhubani district and its impact on the cropping pattern of the study area. As Hunt 1953 claimed that land use survey is a means of carrying Economic Geography into the field and apart from the land use map there is no other way of showing the distribution of all other significant activities in their true spatial context Besides, it is only the exercise of our power of intuition, observation and discrimination that we can acquire a deeper understanding of land-use pattern and their inter-relationship with the cropping pattern on the face of the earth (Singh j. and Dhillon, S.S. 1994, p 349) as a land use survey shows the static distribution of constantly changing pattern.

Keywords: Land-use Pattern, Cropping Pattern, Power of intuition, spatial context, Economic Geography.

1. Prologue

This research article throws light on the different factors affecting the changing the land use pattern of Madhubani district and its consequent impact on the cropping pattern of the study area. Hunt (1953) has rightly claimed that land use survey is a correct means of carrying Economic Geography as Agricultural Geography into the field and he opined that apart from the land-use map, there is no other way of showing the distribution of all other significant activities in their true spatial context. Land- use survey is the only exercise of our power of intuition, observation and discrimination that we can acquire a deeper understanding of the land-use pattern and their inter relationship with the cropping pattern on the study area (Singh J. and Dhillon, S.S., 1994, P.349)

2. Objectives of Research

The major objectives of this research include:

- (i) To trace out the land use pattern of the study area and
- (ii) To throw light on the impact of land use pattern on the study cropping pattern with the help of model of land suitability evaluation and classification survey.

3. Research Hypothesis:

The term hypothesis can be defined as a preposition or tentative solution or answers or generalization which are get to be tested and the hypothesis derived from the theories is termed as research hypothesis (Das, DKL 2005).

In the words of MC Guigan (1996):

"A hypothesis is a testable statement of a potential relation between two or more variable"

In this research the following hypothesis have been elaborated and tested:

- (i) The changing human activities in the study area have been dominant factors influencing the land use pattern of the study area.
- (ii) The changing land use pattern shows their inter relationship with the cropping pattern of Madhubani district.

4. Land-use Pattern

Land use analysis is an important aspect geographical studies in in agricultural geography because land use pattern are recognised as necessary tools for the preparation of land capability, land classification and cropping pattern of the area which is turn provide guidelines for the regional planning, Development and future orientation of agriculture. (Singh J. & Dhillon, S.S. 1994 p 344)

The pattern of Land-Use Madhubani District During 2009- 10 to 2012 -13 has been shown in the following Table, 1

Table 1: Madhubani district: land use pattern, 2009-2012-13

| S. L. | Classification of total Area | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|-------|-------------------------------|---------|---------|---------|---------|
| 1 | Forest | | | | |
| 2 | Barren and Uncultivable Waste | 9675 | 7500 | 6800 | 6461 |
| 3 | Land put to non agri- use | 145533 | 149251 | 153375 | 154527 |
| 4 | Cultivable waste | 4057 | 3745 | 3392 | 3963 |
| 5 | Permanent Pasture | 6045 | 5768 | 5777 | 5862 |
| 6 | Miscellaneous Tree Crops | 28407 | 27500 | 26521 | 25921 |
| 7 | Other fallows | 8828 | 5052 | 4373 | 4328 |
| 8 | Current Fallows | 43944 | 44582 | 45603 | 46493 |
| 9 | Net sown area | 617125 | 620520 | 613680 | 614834 |
| 10 | Area sown more than once | 226251 | 217224 | 212630 | 239155 |
| 11 | | | | | |

Source: District Statistical Office Madhuibani, 2014

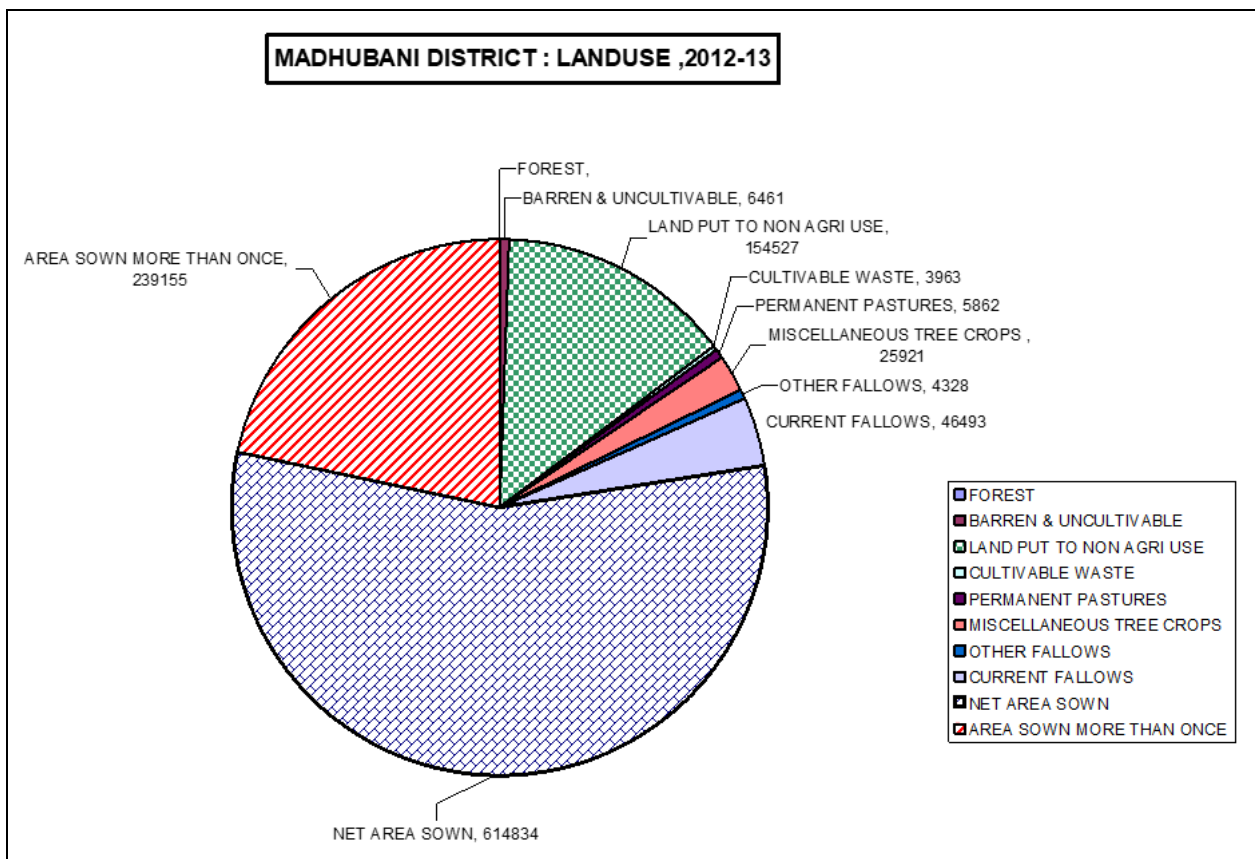


Fig 1: The land-use pattern in 2012-13 may be seen in the following Diagram

5. Cropping Pattern

To demarcate the agricultural regions of Madhubani district, the nature of the seasonal harvest and their relative significance have been graded in hierarchical order. By using this yardstick, rice constitutes 66.36 per cent of the total net sown area of the district. In all eighteen anchals of the district, it ranges from 52 to 88 per cent of the total cropped area (Table 1). In the second category, sixteen anchals have rabi and in the third category fifteen anchals. The aghani rabi-bhadai-grama region comprises of the acnhals of Rajnagar, Jhanjharpur, Andhratharhi, Phulparas, Bisfi, Madhwapur, Khajauli, jainagar, Basopatti, Babu Barhi, whereas Madhubani, Pandaul, Laukah, Laukahi,

Benipatti, Harlakh and Ladania comprise aghani-bhadai-rabi-garma, and Madhepur anchal is associated as aghani-grama-rabi-bhadai region. Table shows the percentage of total cropped area under various crops.

An analysis of the cropping pattern reveals that there is a great diversity in cropping in the study area. Except a few, crops have no fixed growing time and can be grown in any season of the year. Rice, mung and maize can be included in this rank. The relative importance as regards their area coverage fluctuates from one season to another, i.e. maize is the main crop on bhadai season but in garma season it ranks to low.

The ranking of crops may be viewed

Table 2: Madhubani district: ranking of crops and cropping pattern, 2012-13

| 1 | Anchals | Percentage of total cropped area | | | |
|----|--------------|----------------------------------|---------|----------|----------|
| | | R. 88.9 | P. 10.8 | Ma. 5.6 | W.5.2 |
| 2 | Laukahi | R. 88.8 | | | |
| 3 | Laukaha | R.. 79.30 | p. 8.0 | | |
| 4 | Babu- Barhi | R. 75.6 | W. 6.6 | P. 5.0 | |
| 5 | Phulparas | R. 74.00 | W. 6.9 | P. 6.8 | |
| 6 | Andhratharhi | R. 74.00 | W. 6.9 | P. 6.8 | |
| 7 | Ladania | R. 74.00 | W. 6.0 | Ma. 5.6 | |
| 8 | Madhepura | R. 66.9 | W. 6.1 | | |
| 9 | Madhwapur | R. 65.3 | P. 14.9 | W. 6.5 | Ma. 5.6 |
| 10 | Basopatti | R. 65.2 | P. 10.8 | W. 8.1 | Ma. 5.2 |
| 11 | Khajauli | R. 60.4 | P. 9.5 | W.7.5 | M. 6.8 |
| 12 | Bisfi | R. 58.8 | P. 15.3 | W. 10.5 | 0.73 |
| 13 | Pandaul | R. 58.2 | Ma. 7.9 | S. 7.5 | P. 7.5 |
| 14 | Benipatti | R. 55.9 | P. 11.2 | Ma. 10.9 | W. 6.5 |
| 15 | Rajnagar | R55.5. | W. 11.6 | Ma. 7.9 | P. 7.8 |
| 16 | Jhanjharpur | R. 54.00 | p. 13.9 | W. 10.00 | Ma . 6.0 |
| 17 | jainagar | R. 52.7 | P. 16.1 | W. 9.2 | |
| 18 | Madhubani | R. 52.6 | P. 12.3 | S. 12.7 | Ma. 7.6 |

Note: R = Rice, P = Pulse, Ma = Marua, M = maize, S = Sugarcane, O = Orchard.

Crops having less than 5 per cent ratio in T. A.C. have not been considered.

6. Epilogue

From the above analysis, it is clear that the changing Land-use Pattern has a clear cut impact on the ranking of Madhubani District. Thus, this research paper is very much relevant for the researchers in Agricultural Geography and allied disciplines of Social Science.

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