FOREST RESOURCE IN MAHARASHTRA WITH SPECIAL REFERENCE TO MARATHWADA AND VIDHARBHIA REGION

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Introduction

Resource satisfies the individual human needs and achieve the social objectives. It also refers to the positive interaction between man and nature. Man is the most important and integral part of resource creation, as he situated on the top of the hierarchy of resource, consumption. The satisfaction of human being can convert anything or a substance into resource. A thing or substance is not considered as a resource when it fails to give satisfaction to human beings. Earlier consciousness about resource was a part of both individual and society (Singh, 2007).

When human beings began community life to attain security, individuals started to gather wealth and power for future resource creation. The resources can be defined as means of attaining given ends i.e., individual needs and social objectives (Singh, 2007).

Forests provide renewable raw material, energy, maintain biological diversity, mitigate climate change, protect land and water resources, provide recreation facilities, improve air quality and help alleviate poverty. At the same time forests are affected by fire, grazing, pest and invasive species and are also the primary targets for agricultural and urban expansion. The forest wealth in our country is extremely diverse as a result of the huge variation in the topography of the country. Due to the impact of biotic pressure on our forests, many forest areas spread across the country has been depleted and degraded which is a serious concern (Singh, 2007).

Resources and Development' is the outcome of a new venture in the same direction. It attempts to provide a comprehensive frame work for a co-ordinated and balanced development of the entire region on its resource potentials and man power. The basic objectives of this study are to provide a better standard of living and employment to the people of the region through the optimum utilisation of land and irrigation potentials, proper arrangements for agricultural credit, livestock improvement, and provision of better health and education development of transport system without disturbing the equilibrium of regional ecosystem. In order to achieve these goals, the approach to micro level planning has been resorted to here using the strategy of growth centres as development policy instruments (Pathak 1990).

Study Region

In India the state of Maharashtra lies in the Western and Central part of the country. The state has long coastline along the Arabian sea. Maharashtra has five Central reasons based on geographical political historical and cultural sentiments these are 1. Konkan 2. Pune division 3. Khandesh 4. Marathwada 5. Vidarbh.

Marathwada is having 8 districts viz. Aurangabad, Bid, Hingoli, Jalna, Latur, Nanded, Osamanabad and Parbhani. The total geographical area of marathawada is 64813 Km2. Vidarbha has 11 districts viz. Akola, Amaravati, Bhandara, Buldhana, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Washim and Yawatmal with 97404 km² area. Maharashtra has a long tradition of having statutory bodies for planning at the district level. To govern the rural areas for effective local self-governance, there are 35 Jilha Parishad 351, Panchayat samiti and 27906 Gram Panchayats. Urban areas are govern through 26 municipal corporations, 219 municipal councils, 7 Nagar Panchayats and 7 cantonment boards. Vidarbh region consists of Amravati and Nagpur division.
Objective
To study forest cover in Marathwada and Vidharbha region of Maharashtra

Data Base and Methodology
The research article is based on secondary data collected from various books, government report, research articles, journals and websites and analyzed by the researcher accordingly. Main data source is India State of Forest Report, 2009, Forest Survey of India.

Forests in Maharashtra

Maharashtra forests are rich and diverse in flora and fauna. There are about 3500 flowering plant species covering 1200 genera and 150 families. One of the valuable tree species Teak (Tectona grandis) is found to occur over an area of approx. 10.18 thousand km², and Bamboo (Mainly Dendrocalamus strictus) over 10.10 thousand km² area. Among the non-wood forest products, Bamboo and Tendu leaves constitute the important resource.

The Forest cover in the State, based on interpretation of satellite data of October-December 2006, is 50,650 km², which is 16.46 % of the State’s geographic area. The State has 8,739 km² very dense forest, 20,834 km² moderately dense forest and 21,077 km² open forest. The forest cover of the State is shown in following figure: (ref: India State of Forest Report, 2009, Forest Survey of India, Dehradun). According to India's 2013 forest survey report, thus obtained and published by the Government of India suggests the top five states with largest area under forest cover: Madhya Pradesh: 7.75 million hectares, Arunachal Pradesh: 6.73 million hectares Chhattisgarh: 5.6 million hectares, Maharashtra: 5.06 million hectares, Odisha: 5.03 million hectares. The seven north-eastern States of India have nearly 25% of the country’s forest cover. At the beginning of 20th century about 30% of land in India was covered with forests but by the end of 20th century the forest cover was reduced to 19.4%. The tropical forest cover in India, is now only reduced to coastal Western Ghats and northern India.

Marathwada consists of 8 tehsils viz. Aurangabad, Bid, Hingoli, Jalna, Latur, Nanded, Osmanabad, and Parbhani. The total Geographical area of Marathwada region is 64813 km². As per the geographical area, highest area is of Bid district 10693 km², followed by Nanded 10528 km². Hingoli district having lowest geographical area 4686 km². Total forest Cover in Bid district is 175 km². Bid district having have highest geographical area but ranks 4th in forest cover. Aurangabad district with geographical area 10107 km² having 19 km² very dense forest, 101 knot moderately dense forest, 437 km² Open forest. Total forest cover in Aurangabad district is 557 km² compared with geographical area to 5-51 percent.Percentage of forest cover to total geographical area is 5.51 in Aurangabad, 1-66 percent in Bid, 2.43%. In Hingoli, 0.841. Jalna, 0.07 Y. in Latur, 8.68 4. In Nanded, 0.57%. Osmanabad, 0.791%. In Parbhani district. Total geographical area of Marathwada region 1564813 km², having 30 km² very dense forest, 581 &m² modem dense forest, 12.62 kro² open forest. Total forest cover of Marathon region is 1923 km² which is 20.53% of total Geographical area (Table-1).

Vidarbha region having 11 district with 97404 km² Geographical area. Gadachiroli district having highest forest cover 70.05%, followed by Chandrapur 35.60%, Gondia 35.08%, Amravati 26.10%, Bhandara 24.83%, Nagpur 20.45%, Yavatmal 19.8%, Wardha 13.62%, Washim 6.4%, Buldhana 6.10% and Akola 5.97%. Gadachiroli District having dense forest Gadachiroli district having 40000 412 km area with 4733 km² dense forest 3396 km² moderately dense forest and 1966 km² open forest total forest cover of Gadachiroli district is 10095 km² (70.05% of total geographical area).Akola District having lowest forest cover in vidarbha region Akola District geographical area is 5319 km² with 11 km² very dense forest 90 km² moderately dense forest 250 km² open forest. The total forest cover of Akola District is 30022 km² that is 5.97% of total geographical area (Table-2).

CONCLUSION

The National forest policy has recommended 33% forest area for plain sand 67% for hills (India State of Forest Report, 2009, Forest Survey of India). Forest cover of Maharashtra is 50650 km² i.e. 16.46% of the
geographical area. Bid district of Marathwada region having highest geographical area (10693 km<sup>2</sup>) and ranks 4<sup>th</sup> in forest cover (175 km<sup>2</sup>). In Vidarbha region Gadachiroli district has highest forest cover 70.05% of total geographical area.

References
http://mahenvis.nic.in/Pdf/Forests_.pdf
https://egyankosh.ac.in/bitstream/123456789/66168/1/Unit5.pdf
https://fsi.nic.in/documents/annualreport.pdf
R.K.Pathak (1990): Environmental planning resources and development, Ghugh Publications Allahabad
### Table 1: District-wise Forest Cover in Marathwada

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>District</th>
<th>Geographic area (G.A.)</th>
<th>Forest Cover</th>
<th>Percent to Geographical Area</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very Dense Forest</td>
<td>Moderately Dense Forest</td>
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<tr>
<td>1</td>
<td>Nanded</td>
<td>10,528</td>
<td>60</td>
<td>434</td>
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<td>Aurangabad</td>
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<td>3</td>
<td>Hingoli</td>
<td>4,686</td>
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<td>10</td>
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<td>4</td>
<td>Bid</td>
<td>10,693</td>
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<td>13</td>
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<td>5</td>
<td>Jalna</td>
<td>7,718</td>
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<td>16</td>
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<td>6</td>
<td>Parbhani</td>
<td>6,355</td>
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<td>4</td>
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<tr>
<td>7</td>
<td>Osmanabad</td>
<td>7,569</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Latur</td>
<td>7,157</td>
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<td>0</td>
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<td></td>
<td>Total</td>
<td>64813</td>
<td>80</td>
<td>581</td>
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</table>

Source: *India State of Forest Report, 2009, Forest Survey of India*.

### Table 2: District-wise Forest Cover in Vidharbha

<table>
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<tr>
<th>Sr.No</th>
<th>District</th>
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<th>Forest Cover</th>
<th>% to geographical area</th>
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<td></td>
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<td>Very dense forest</td>
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<td>5,390</td>
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<td>Bhandara</td>
<td>3,588</td>
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<td>4</td>
<td>Buldana</td>
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<td>Chandrapur</td>
<td>11,443</td>
<td>1,342</td>
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<td>Gadchiroli</td>
<td>14,412</td>
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<td>7</td>
<td>Gondia</td>
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<td>884</td>
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<td>372</td>
<td>953</td>
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<td>Wardha</td>
<td>6,309</td>
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<td>10</td>
<td>Washim</td>
<td>5,184</td>
<td>5</td>
<td>113</td>
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<td>11</td>
<td>Yavatmal</td>
<td>13,582</td>
<td>123</td>
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<td>Total</td>
<td>97,404</td>
<td>8288</td>
<td>10641</td>
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</table>

Source: *India State of Forest Report, 2009, Forest Survey of India*.
DIGRAM :- DISTRICT-WISE FOREST COVER IN MARATHWADA AND VIDHARBHA

District-Wise Forest Cover in Marathwada

- X AXIS - DISTRICTS
- Y - % OF AREA TO GEOGRAPHIC AL AREA

Districts:
- Aurangabad
- Bid
- Hingoli
- Jalna
- Latur
- Nanded
- Osmanabad
- Parbhani

District-Wise Forest Cover in Vidarbha Region

- X AXIS - % OF AREA TO GEOGRAPHICAL AREA
- Y AXIS - DISTRICTS

Districts:
- Akola
- Amravati
- Bhandara
- Buldhana
- Chandrapur
- Gadchiroli
- Gondia
- Nagpur
- Wardha
- Washim
- Yavatmal

Values:
- Akola: 5.97
- Amravati: 26.1
- Bhandara: 24.83
- Buldhana: 6.1
- Chandrapur: 35.6
- Gadchiroli: 70.05
- Gondia: 35.08
- Nagpur: 20.45
- Wardha: 13.62
- Washim: 6.4
- Yavatmal: 19.18