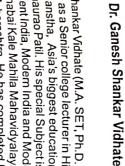
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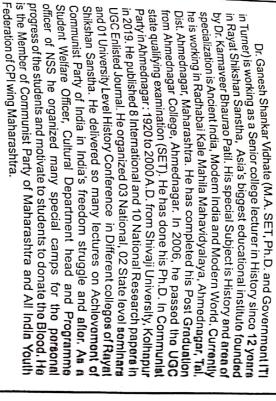
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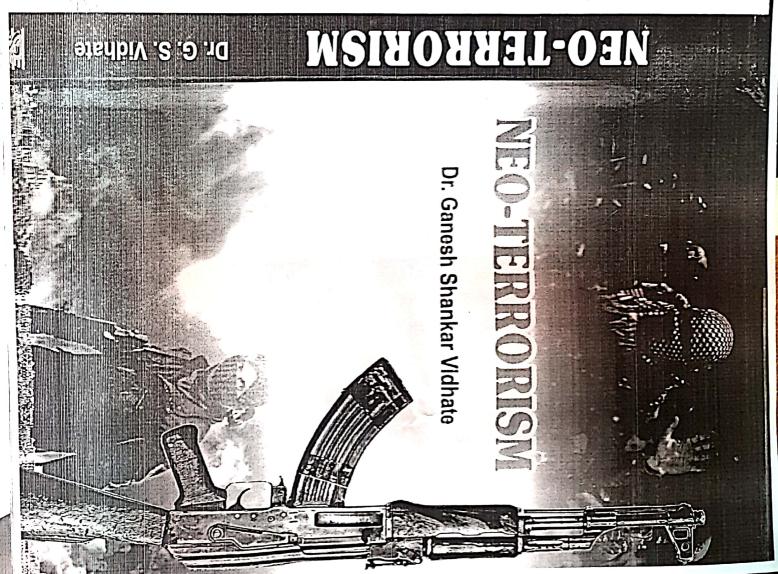




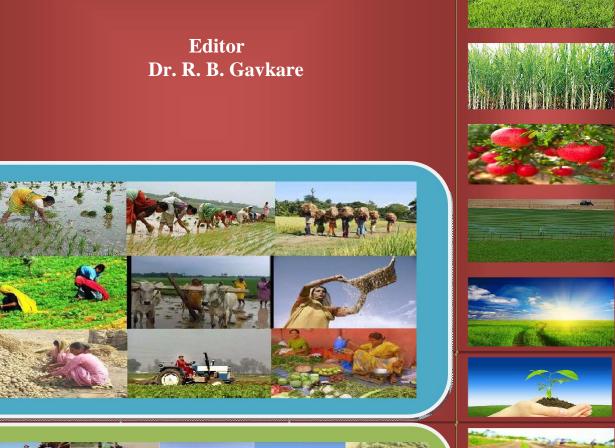




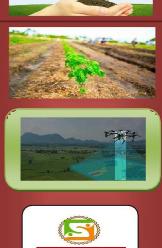




## Agriculture and Rural Development: Spatial Issues, Challenges and Approaches







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## Editorial.....

I am very happy to present this book of the Interdisciplinary International online conference on "Agriculture and Rural Development: Spatial Issues, Challenges and Approaches." I sincerely hope that the purpose of the online conference has been served through discussion of issues by the resource persons and participants of this online conference. The Department of Geography of Shri. Sant Damaji Mahavidyalaya, Mangalwedha has always been actively organizing different academic and co-curricular activities that would help to enhance the knowledge of students and researchers. The Department of Geography is greatly honored in hosting the Interdisciplinary International online conference on this theme. This online conference aimed at providing a platform to academicians, researchers, students and stakeholders to discuss varied issues regarding agriculture and rural development. This online conference will be an excellent opportunity for the participants to interact and exchange ideas and to discuss new development in these disciplines. I also know that fast development is significantly linked with self-sufficient in agricultural production. In order to be self-sufficiency in agricultural produce, there has been widespread use of chemical fertilizers and pesticides which have adversely affected the environment by polluting natural resources like water, air and soil. This present seminar will give an insight into International and national level policies, issues, challenges, planning, management and utilization of resources for development of agriculture.

I have received research papers covering the various disciplines in geography, Spatial Issues and Challenges in Agriculture and Rural Development, Agriculture and Rural Development Scenario, Modern Techniques in Agriculture, Global-National Problems of Rural Development, Agriculture and Rural Development Policies., Approaches of Rural Development., Scope of Agro Tourism, Role of Dairy Farming in Rural Development., Business Geography.

This Interdisciplinary International online Conference "Agriculture and Rural Development: Spatial Issues, Challenges, and Approaches." Directorate-General for Agriculture and Rural Development to provide background evidence and analysis of the predominantly economic dimensions of the global challenges facing Indian and World agriculture in the Conference address the environmental and social dimensions and part of the preparatory stage of the Impact Assessment related to the modernization and simplification of the Common Agricultural Policy. While a wealth of information is available, this review focuses on evaluations and other studies carried out for/by the Indian/World Institutions, as well as data emanating from pan-India or international sources.

I express my Sincere, thanks Dr. Pravin Saptarshi (Visiting Faculty, Salisbury University, USA), Dr. T. N. Lokhande (Professor, Dept. of Geography, K. B. P. Mahavidyalaya, Pandharpur & BOS Chairman, PAHS University, Solapur), Dr. D. S. Gaikwad, Dr. P. M. Honrao, Mr. Santosh P Mane sir who was has taken great efforts to make this total work a successful one. I am also grateful to the management of our institution for their warm support and an encouragement. I am thankful to the all my staff members and all these helped in this grand event to make it successful.

In this Book I have included various articles on a number of relevant issues. I would like to declare that financial responsibility of the facts, figures and opinions expressed in the research papers and articles lies with the concerned authors. I have taken almost care to avoid printing mistakes in this Book. However, I apologize for any mistakes that may have occurred unknowingly. Once again I express my sincere gratitude to all of them who have helped me directly or indirectly for the outcome of this book successfully.



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# Environmental Protection: A Need for an effective motivation in People's participation

### Dr. Raviprakash D. Thombre

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#### Abstract

Environment has attracted the attention of social enlightened class of people, environment scientists and also policy makers in the developing as well as in developed countries. Worldwide discussion is going on through seminars, conference and workshop emphasizing the need for environmental protection for the welfare of mankind. It has been perceived the environmental protection and maintenance of ecological balance is the basic issue for the harmonious existence of human beings. The nature will take revenge on human society through floods, droughts, irresponsible manner. Hence, maintenance and protection of environment is a primary obligation of mankind towards and future generation.

**Key Words:** Environment, Protection, Remedial measures

#### **Introduction:**

The interaction between population and environment is very complex and dynamic. This complicated and environment interrelationship is not yet fully understood or spelt out at micro level nor is the spatio temporal variations over the nation or the globe understood in its entirety. More change has occurred in the environmental movement during the past 30 years then in its previous history.

The term environment etymologically means surrounding environment is a complex of many variables which surrounds man as well as living organisms. The sum of all these living and non-living factors make the environment. According to ecologists population has been defined as a collective group of organism of the same species or other groups within which induvial may exchange genetic information occupying a particular space.

#### **Manmade Hazards to Environment**

The man-made hazard or damages to environmental resources are in the form of denudation of forestresource pollution in water resource and pollution to open space. Among all the denudation of the forest resource has been the most heinous and self-destructive act of mankind because the forest resource help to maintain soil fertility protects the land from floods, absorbs excess carbon ejected by industries, and conserve the ground water resources. The forest resources are the source of supply of the food to marine resources providing shelter to wildlife which are the part and parcel of the ecosystem of the land. The area under forest has been lost in our country due to various reasons such as encroachment of forest land for cultivation, cutting of the forest wood for fuel purpose by the explosive growth of population and utilization of forest wood at an increasing rate by the wood based industries.

State wise Forest Area Lost in India

States	Forest Area lost (in thousand
	hectares )
Andrapradesh	202.2
Assam	72.6
Bhihar	67.6



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Gujrat	180.4
Jammu & Kashmir	90.8
Karnataka	308.4
Kerala	189.0
Madhya pradesh	180.0
Maharashtra	215.5
Orissa	109.3
Rajessthan	85.8
Tamilnadu	65.5
Uttar Prdesh	221.8
West Bengal	324.8
Total	2,314.6

Source: Fuel wood Famine in India Facts for you May 1989Vol. 10-11

It is observed that the flood prone area in country increased from about 30 million hectares at the end of 1960's to about 40 million hectares by the late 1970's and more therefore. It is estimated that the minimum area of forest required maintaining good ecological balance is about 33 percent of total geographical area. At present it is only 22.19 percent in India which is very low as compared to the forest area in countries like Japan (61.8%), Finland (70.09%), Thailand (77.2%), Former U.S.S.R.(33.9%), U.S.A (32.8%), The per capita Forest land is 0.11 hectares as against the world average of 1.08 hectares.

The incidence of both drought and floods are due to the growing deforestation and denudation of forest area. In our country out of 69 million hectares of officially notified forest. Even these forests are being lost at the rate of at least 1.7 million hectares per annum. It is estimated that the present annual consumption in the form of firewood,227 lakh tonnes in the form of timber and 52 lack tones consumed for industrial purpose. The Gap is widening to increase in growth of population.

**Industrial Demand for wood Timber** 

Sr. No	Source of Demand	Requirement of Timber (in million cubic meters)
1	Pulp and Paper	6.57
2	Plywood and veneer	1.72
3	Fiber board, particle and chip board	0.27
4	Match industry	0.44
5	Sports goods industry	0.03
6	Railway sleeper	0.51
7	Agricultural implements, Bullock carts and Temporary rural construction	5.48
8	Furniture	0.37
9	Housing	2.50
10	Packing	6.87
11	Others mine props,trucks and bus bodies	3.01
	Total	27.77

**Source:** The State forest report Government of India Ministry of Environment Forest, Forest survey of India Reproduced by Jaya Chatterji Environmental up gradation –An integrated approach, The Indian journal of public Administration 1989 vol. XXXV, No 3 p 509.

In India about 131.1 million hectares of land has been reported as waste land. Strict policy measures rules and regulation to combat the deforestation menace will have their own constrains since the people involved in forest denudation will adopt their own intelligent



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means to escape from these regulation trap. Promotional and rewarding methods fetch better result than the regulatory and punitive action by the Government.

#### State-wise Extent of waste Land in India

(in million hectares)

	Non -forest waste	Forest waste land	Total
State and Union	land		
territories			
Andhra Pradesh	7.68	3.73	11.42
Assam	0.94	0.80	1.73
Bihar	3.90	1.56	5.46
Gujrat	7.15	0.68	7.84
Haryana	2.40	0.07	2.48
Himachal Pradesh	1.42	0.53	1.96
Jammu& Kashmir	0.53	1.03	1.57
Karnataka	7.12	2.04	9.17
Kerala	1.05	0.23	1.28
Madhya pradesh	12.95	7.20	20.14
Maharashtra	11.56	2.84	14.40
Manipur	0.01	1.42	1.44
Meghalaya	0.82	1.10	1.92
Nagaland	0.51	0.88	1.39
Odisha	3.16	3.23	6.38
Punjab	18.01	1.93	19.94
Tamil Nadu	3.39	1.01	4.40
Tripura	0.11	0.87	0.97
Uttar Pradesh	6.64	1.43	8.06
West Bengal	2.18	0.36	2.54
Union Territories	0.89	2.72	3.61
Total	93.69	35.89	129.58

Source: Waste Land Development, Indian Journal of Public Administration July, September 1989, Vol XXXV, No 3, P.498

Hence to overcome the present deficiency of wood and avoid indiscriminate exploitation, there is an urgent need for the effective waste land management towards the growth of forests. To fulfill the task effective participation of people and industrialists is necessary. The calls for the development of three types of forests and effective motivation of people and industrialists through promotional measures of Government.

Farm Forests: Growing forest under the category of farm forestry is very important to meet the fuel and fodder requirements of rural household to carry on their agriculture and allied activities.

- 1. Trees to supplements food items to rural household.
- 2. Trees provide fodder to cattle's.
- 3. Trees to meet the other household requirements like wood for the house construction, fuel wood etc.

There is a need for an intuitional support to initiate and encourage the rural folk to venture into the above type of forestry.

The institutions can follow the following four steps

- 1) Assessment of private waste land and where trees can be grown.
- 2) Educating the farmers about the advantages of growing different types of plants in their land.



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- 3) Supply of necessary seedling and sapling to the rural households as a part of theirdevelopment plan.
- 4) Rewarding those farers annually or once in three years who maintain and grow the farmforests in efficient manner.

With the help of NGO's, Agriculture department and Health department, theabove task will not be difficult for institutions like Gram panchyats.

#### **Ecological Forests**

Growing forest to maintain ecological balance should ne entrusted to the forest department. The department has to assess the land where public ecological forests can be grown. While planning to grow ecological forest, preference will be given to fast growing varieties and alsothose varieties which are not used for commercial purpose.

#### Conclusion

Population and environmental more rational than those now in existence are crucial to thesaving to this planet which is our home forever.

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