

IMPACT OF COLONIAL AND MODERN DEVELOPMENT INITIATIVES ON FOREST SOCIETY AND ECOLOGY: A STUDY

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Abstract

The forest is a dynamic space representing a site for hunt, exile, hermitage and conquest all throughout history. It is an ecosystem in itself and harbours a biodiversity. The impact of development initiatives on forest society and ecology is a key area that needs attention. This paper makes a comparative analysis of the impact of these development initiatives on the realm of the forests both in colonial and present times. It studies the relevance of this topic in school curriculum and pedagogy. It analyses the topic from interdisciplinary perspectives and finds out the extent to which such environmental concerns are integrated in subject-teaching and the nature of interdisciplinary teaching in schools through a survey conducted for school teachers. Finally, the paper suggests measures to include this theme in school curriculum on the basis of data collected from survey conducted for students.

KEYWORDS: *Forest, development initiatives, comparative analysis, interdisciplinary, school curriculum, pedagogy.*

INTRODUCTION

The forest as a cultural space has always been central to Indian civilisation. It has been a site for exile, conquest, hunt as well as a zone of setting up hermitages all throughout ancient history. Further, the forest is the home and primary source of livelihood for the many women and tribal communities residing within it. During the pre-British days, these groups enjoyed their traditional rights over forests and forest products without hindrance. However, the nineteenth century witnessed major changes in forest society and ecology with the advent of colonialism. The various development projects resulted in the acquisition of forest land from the indigenous communities thus leading to forced displacement. Moreover, the cutting down of trees for extracting timber destroyed the rich biodiversity of the forests leading to deforestation. The concern is that these issues of displacement and ecological degradation have only become intense in present times. This paper analyses the impact of colonial and post-colonial development initiatives on forest society and ecology. The analysis is done by interrelating strands of history, environmentalism and gender studies.



NEED OF THE STUDY

The impact of development initiatives on forests is a global concern that needs attention. There has not been much research on the comparative aspects of the impact of colonial and modern development initiatives on forest society and ecology. Further, the need to include this theme in school curriculum has not been addressed by the existing literature. Thus, this paper stands necessary and relevant as it not only shows the importance of this theme in school curriculum and pedagogy but also argues for its inclusion on the basis of results gathered from surveys.

OBJECTIVES

1. To interpret the impact of colonial initiatives on forest societies and ecology.
2. To show how development in modern times means displacement for tribal communities and destruction for the environment.
3. To demonstrate the interdisciplinary nature of the study by establishing the interrelation between disciplines such as history, environmental science and gender studies.
4. To observe the relevance of the topic in school curriculum and pedagogy.
5. To suggest measures for the inclusion of the topic in school curriculum.

METHODOLOGY

The methodology is qualitative in nature. This paper is based on secondary data compiled from various books and journal articles. A survey has been conducted for school students to find out their overall awareness on the topic. Further, a survey has also been conducted for school teachers to find out whether such issues are integrated in their subject teaching and to explore the nature of interdisciplinary teaching- learning in school. The data collected from the surveys has been graphically represented.

REVIEW OF LITERATURE

Gadgil & Guha (1992) in *This Fissured Land: An Ecological History of India* has critically analysed the link between colonialism and environmental degradation. The historians consider colonial forestry as an ecological watershed in India. They conclude that the state takeover of forest lands led to the curtailment of customary rights as well as ecological decline. Shiva (1989) in *Staying alive: Women, Ecology and Development* found a new dimension to relate the concern of ecology with gender issues. She shows women as the victims of modern science and development. The main argument presented here is that women's subsistence economy based on the forest was replaced by the commercial economy of the British, thus impacting their economic interests. Skaria (1999) in *Hybrid histories: Forests, frontiers and Wildness in Western India* discusses the colonial perceptions of forests. The author observes that forests were perceived as an untamed, wild and unproductive space in colonial times. Colonial forestry, as the author puts it, would often last as a project of taming wildness and civilising it. Saravanan (2003) in *Colonial commercial forest policy and tribal private forests in Madras presidency: 1792-1881*, highlights the colonial forest policy vis a vis the tribal private forests in the Madras Presidency during the late eighteenth and early nineteenth centuries. The author argues that colonial intervention in these forests led to the common property and occupation rights of the tribals being usurped. Thaha (2009) in *Forest policy and Ecological*



Change: Hyderabad state in Colonial India has done an in-depth analysis of the impact of colonial forest policy on the Hyderabad state forests. He contends that the Hyderabad forests under British control witnessed a transition from being a property of people to being the property of state. The author's extensive use of twentieth century newspaper reports reveal that the people were living in a miserable condition due to the denial of access to natural resources. Rangarajan (2006) in *Environmental issues in India*, analyses colonial forest policy and discusses the social impact of colonial forestry. Further, the work also draws a connection to the present times and shows that how modern development such as dams and mines entail denudation of forest land and displacement of people. The historian concludes that ecological costs of colonialism are evident to this day. Haeuber (1993) in *Development and Deforestation: Indian Forestry in Perspective* describes the ecological implications of the development policies of post-colonial India. The central argument presented by the author is that ecological issues such as deforestation have become intense in post-independent India and that in itself is a legacy of colonialism. The author agrees that Indian forests are required for raw material generation and fulfilment of industrial demand. However, he contends that in the pursuit of these demands, little or no attention is paid to the needs of the rural population and their access to forest products is curtailed. Kothari (1996) in *Whose Nation? The displaced as victims of development* contends that 'development' in present times does not mean progress for all sections of the society and is not compatible with the goals of creating equity and social security. The author shows that how the resettlement of those displaced by development projects has been minimal. Singh (2020) in *Development induced displacement: Issues and Indian experiences* shows the impact of developmental initiatives in present times. The author argues that in the name of 'national interest', many people have been displaced from their habitat and their needs have been overlooked by the state. Guha (2013) in *Development or Destruction* shows the social and environmental costs of development projects undertaken in post-independent India. Ramachandra Guha discusses the impact of construction of mega dams in the Narmada Valley on local livelihoods, arguing that it led to large scale displacement. This paper stands different from the existing literature as it makes a comparative analysis of the impact of development initiatives on forest society and ecology in colonial and contemporary times. The existing literature does not mention the need to include this theme in the school curriculum. Thus, to focus on this area, a survey has been conducted for school students to find out their overall awareness on the topic. Further, a survey has also been conducted for school teachers to find out whether such issues are integrated in their subject-teaching, to explore the nature of interdisciplinary teaching-learning in school and its relevance in pedagogy. Suggestions have accordingly been made for the inclusion of this theme in the school curriculum. This paper builds and works upon these areas as these have not been explored by the present literature.

RESULTS AND DISCUSSION

The research brings to light the local histories of indigenous forest communities under colonial rule. It shows the interrelation between history and environmentalism. Further, a comparative analysis of the impact of colonial and contemporary development projects on the realm of forests reveals some interesting facets. The colonial inroad into the interiors of the forest was driven both by political and economic objectives. The destruction of forests was often meant to symbolise political victory. Further, clearing of forest lands was often justified as a project



of removing 'wildness' and bringing about 'civilisation' and order. The economic objectives included timber extraction for railway construction and expansion of cultivable land. The focus was often on exploiting natural resources without considering long-term sustainability.

In the present times, human activities continue to impact forests but with different drivers. The contemporary pressures on forests often result from population growth, consumer demands and globalised markets. The available statistics reveal that development in modern times in the form of mega-projects still spells out forced displacement for indigenous communities and environmental degradation. Moreover, a number of indigenous people who have been evicted from forests have not yet been provided any rehabilitation help from the government. For instance, more than 520 Garo indigenous people who were evicted from the Lunding Reserve Forest in Assam in November 2021 did not receive support from state government for rehabilitation. The present scenario also reveals that with economic development comes a growing level of ecological insecurity. Many deforestation alerts have been reported in India as a result of urbanisation, infrastructure development and industrial activities. Also, today's approach to forest management incorporates sustainability and conservation more effectively than colonial times. However, challenges persist even today and despite acts guaranteeing the right of indigenous people, displacement is in common practise.

This topic stands of great relevance to be included in the school curriculum. The school curriculum only provides an outline of colonial forest policy and its ramifications on indigenous societies. For instance, the CBSE curriculum of history of class 9 focuses on the rise of commercial forest policy, the varied motivations behind it, its impact on livelihoods and the emergence of forest rebellion. The curriculum does not connect these colonial initiatives with contemporary developmental initiatives that are leading to displacement of many forest communities. This theme of present-day development and its impact on the domain of forest must be included in the curriculum to help the child connect the chapter to real-life examples and think critically.

A survey was conducted of students studying in different boards from classes IX to XII to discern their awareness on the impact of current development initiatives on forests. The survey received a total of 27 responses. As per [Figure 1](#), it can be observed that 59% of the students are not well aware about the topic. Further, 41% of the students have responded that the curriculum does not integrate environmental issues pertaining to the forests (shown in [Figure 3](#)). Moreover, [Figure 4](#) illustrates an agreement among 63% of the respondents that the curriculum must be updated to include this theme so as to make them aware of recent case studies of development impacting forests. The survey results also brought to light students' opinion on the role of educational institutions in improving awareness about development projects impacting forests in present day scenario. The students suggested that the topic must be integrated in lessons. Also, seminars and workshops must be organised on forest conservation. Further, suggestions were made as to how schools should encourage hands-on activities, field trips as well as student led initiatives such as tree-planting programs to engage students in understanding and addressing the impact of development projects on forests.

This paper also shows the interdisciplinary nature of the topic by correlating subjects such as history, environmental science, economics, geography and economics. It shows the historical



evolution of colonial forest policy that laid the foundation for contemporary ecological challenges. It also highlights the economic motives behind both colonial and modern initiatives such as timber trade and industrialisation. Geography as a subject becomes integrated in this study when one analyses the impact of development initiatives on landscapes such as forests and studies patterns of deforestation and habitat loss. Further, environmental science is intrinsically connected with the topic as the paper has analysed the ecological consequences of developmental initiatives and stressed the need for more sustainable practices. The interrelation of different academic disciplines makes this study interdisciplinary in nature.

In this light, a survey was conducted for school teachers to know whether such environmental concerns are integrated in their subject-teaching and to explore the overall nature of interdisciplinary teaching-learning in schools. The questionnaire was responded by 14 teachers across different subjects. From [Figure 5](#), it can be observed that 93% of the respondents do correlate concepts from different subjects in the teaching-learning process. Further, 71% of the respondents mentioned that their subject does integrate environmental concerns to some extent (shown in [Figure 8](#)) and that the curriculum encourages student participation in field trips and hands on activities. The responses showed an agreement among teachers that interdisciplinary teaching is effective in enhancing students' understanding (shown in [Figure 6](#)) and helping them make cross-curricular connections (as observed in [Figure 7](#)). Moreover, [Figure 11](#) illustrates that 63% of the teachers find interdisciplinary teaching effective in increasing student engagement on a topic and help them connect their theory to real-world examples and go 'beyond the curriculum' (shown in [Figure 12](#)). Teachers also opined that interdisciplinary teaching-learning would be an intrinsic part of near future's classrooms keeping in mind the National Educational Policy, 2020. It would enable themselves as teachers to be more creative in their approach, stay updated with different disciplines and work collaboratively with teachers across all disciplines to enhance the quality of education.

Further, an enriching discussion with the teacher-trainees brought forth their perspectives on the topic. Most of them held that the topic holds vital importance as a global concern as the forest is not only a bare land but an ecosystem in its whole. They agreed on the necessity to make children aware of the importance of sustainable development and the seventeen sustainable development goals that have been adopted by the United Nations-1 as part of its 2030 agenda for ensuring sustainable development. For this, the teacher trainees suggested various activities that could be incorporated in the pedagogical approach to instil environmental awareness in students. This includes day-to-day activities such as practising eco-friendly gardening in school, gifting of seeds and making constructive products out of recyclable materials. It was further suggested that a teacher could use 3D Models or a globe to show the extent of the forest cover that has been denuded. These activities, the teacher-trainees held, would make students aware of the viable day to day alternatives that can be adopted to conserve the environment.

A Graphical Representation of Survey Results

Survey for School Students



A survey was conducted for school students to find out their awareness on the impact of current development initiatives on forest society and ecology. The survey results have been represented in a graphical form whereby X axis represents the survey response options and Y axis shows the percentage of students who have responded.

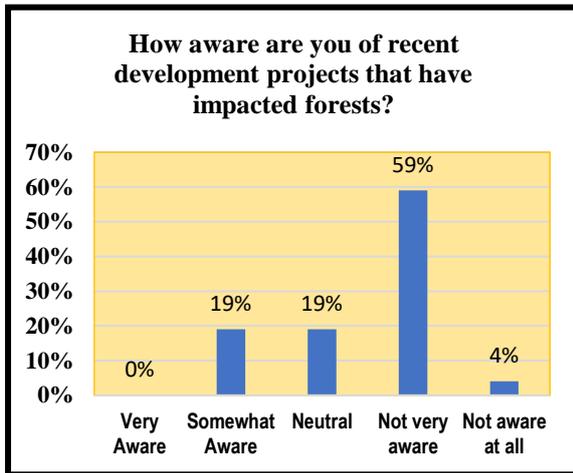


Figure 1

This graph illustrates students' awareness on the topic.

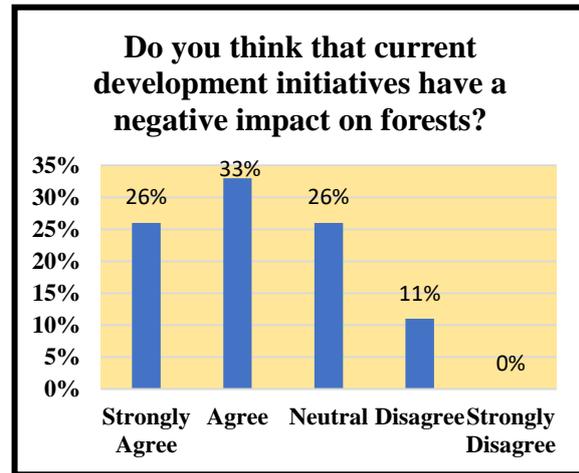


Figure 2

Students' response on the impact of development on forests.

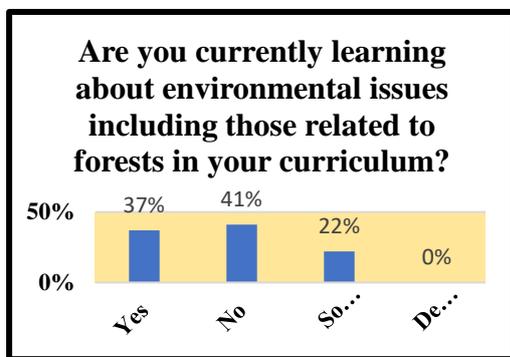


Figure 3

Environmental education in curriculum.

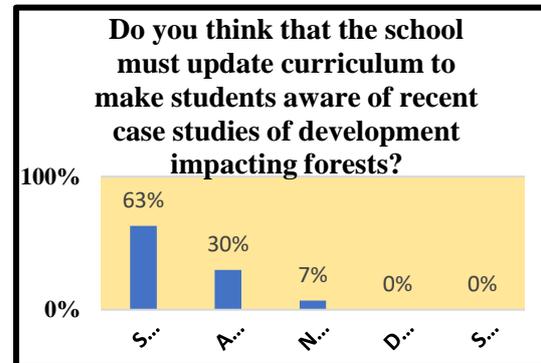


Figure 4

Consensus on the need to update school curriculum.

Survey for teachers

A survey was conducted for school teachers to find out whether environmental concerns are integrated in their subject-teaching, to explore the nature of interdisciplinary teaching-learning in schools and its relevance in pedagogy. The results obtained from the survey have been graphically represented whereby X axis represents the survey response options and Y axis shows the percentage of teachers who have responded.

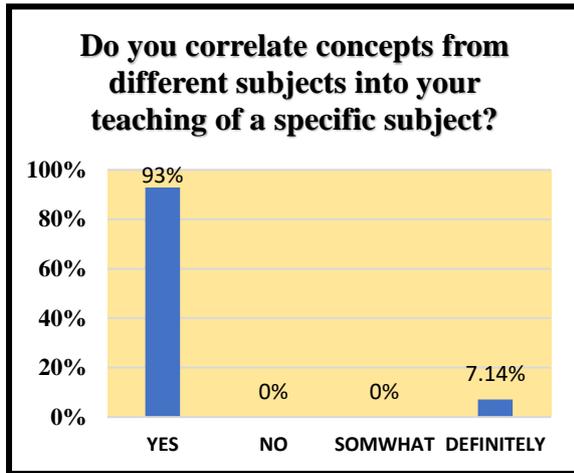


Figure 5

Correlation of subjects in teaching-learning.

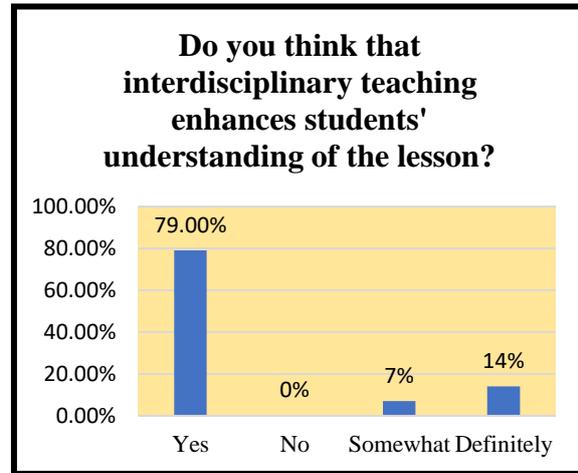


Figure 6

The Role of Interdisciplinary Teaching on Student Understanding.

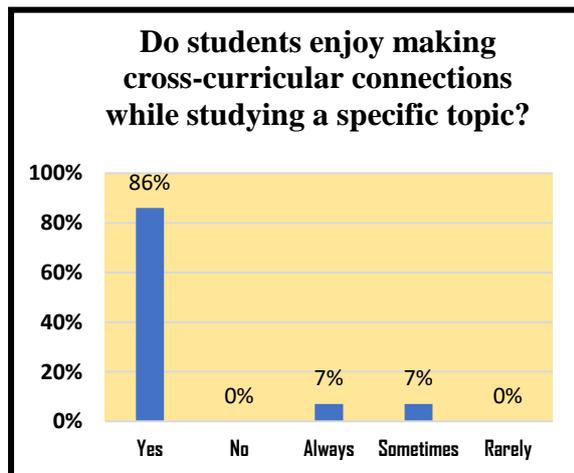


Figure 7

Relevance of cross-curricular connections in learning.

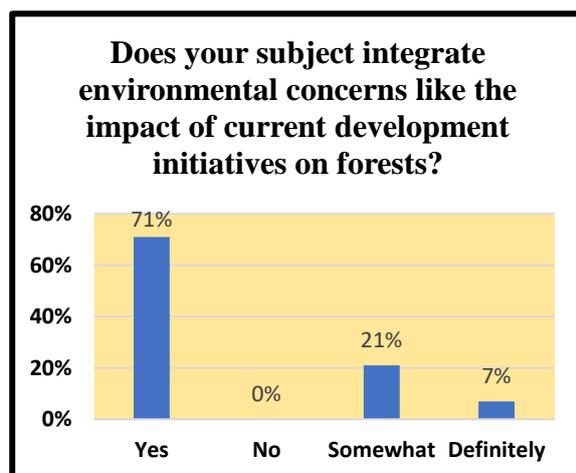


Figure 8

Integration of environmental concerns in subject-teaching.

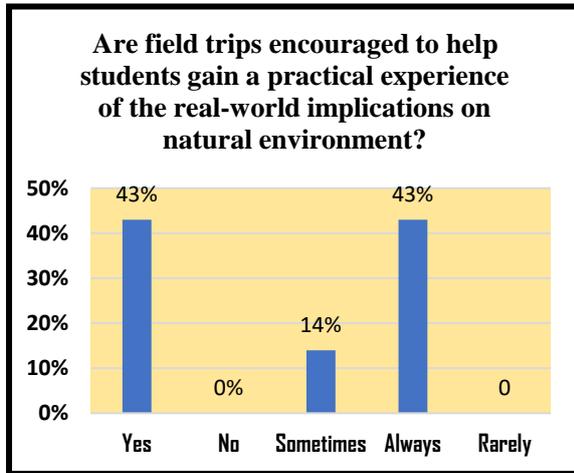


Figure 9

Response on encouragement of field trips in schools.

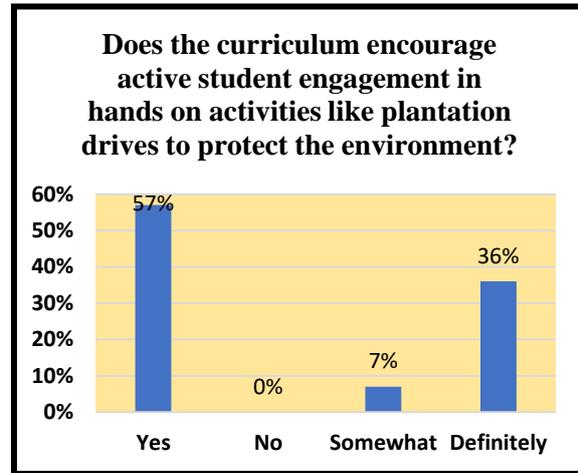


Figure 10

Integration of eco-friendly hands-on activities in the curriculum.

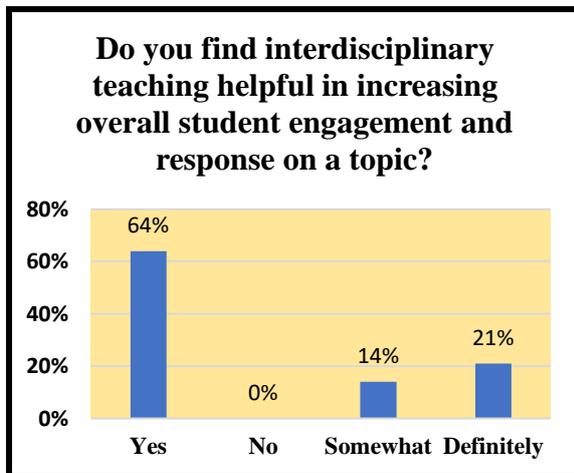


Figure 11

Student Engagement in Interdisciplinary Learning Environments.

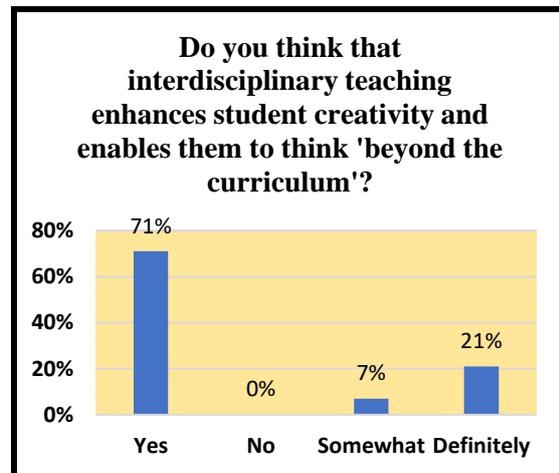


Figure 12

Interdisciplinary teaching's role in fostering creativity.



PEDAGOGY

The present topic stands quite relevant and must be included in school curriculum. It will enable teachers to adopt an educational approach that focuses on teaching both the historical and contemporary dynamics of the impact of development initiatives on forests. Students will then be able to analyse the shift involved from colonial to modern development initiatives. The integration of case studies of those displaced as a result of these development initiatives will enable students to connect with the content better and apply it to real world examples. The incorporation of visual elements such as power point presentations, images and documentaries in the teaching-learning process can make the lessons much more engaging and fruitful for the learners. Moreover, the pedagogical approach involved in the teaching of this topic will encourage critical thinking in students about balancing economic growth with ecological preservation.

Further, teachers can and must adopt an interdisciplinary approach while teaching this topic. Elements from history, geography, economics, environmental science must be integrated to help students think 'beyond the curriculum' and establish cross-curricular connection (shown in Figure-13). Teachers across varied disciplines can also collaborate with each other and organise workshops to enhance the quality of education being imparted. The pedagogy can also involve debates and presentations by students on the theme. It will encourage students to articulate their opinion and actively participate in the teaching-learning process. Further, theory must be supplemented by field trips and practical activities to actively engage students in projects that address contemporary challenges.

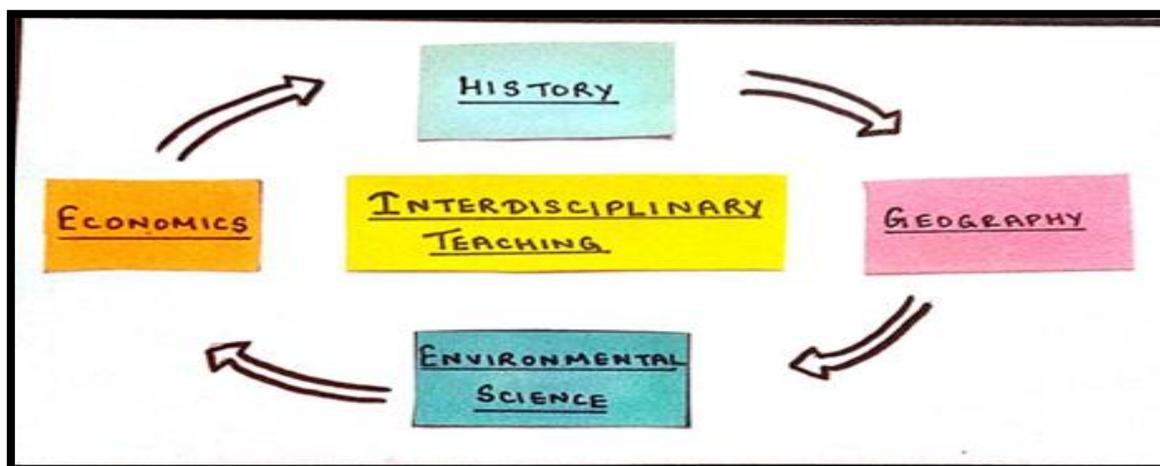


Figure 13

This illustration shows the correlation of subjects to each other in interdisciplinary teaching-learning.

RECOMMENDATIONS

a) Inclusion of the topic in school curriculum: The various boards such as CBSE and ISC can include the theme on the impact of current development initiatives on forests in the school



curriculum. It can be included in Class IX History Book of CBSE Board (Figure 14) wherein there is Chapter IV of Section-II entitled 'Forest Society and Colonialism' (Figure 15). On page 89, a new subtheme can be included under the heading 'Impact of Modern Development Initiatives on Forests' (Figure 16). This would be just after the discussion on colonial initiatives and its impact on forests. The inclusion of this theme will enable students to understand the evolution of forest policies from historical times down to the present. They will be able to apply the theme studied to real-world examples that they observe around them.

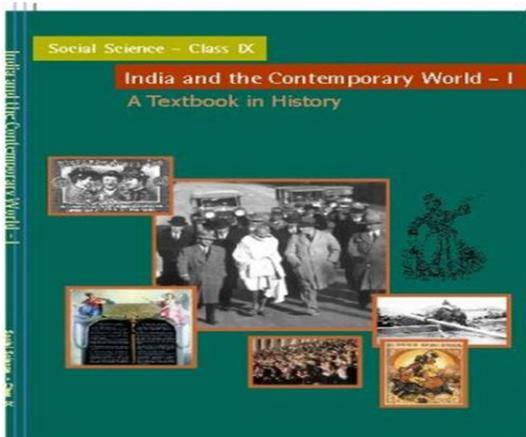


Figure 14

Class IX History Textbook-CBSE



Figure 15

Chapter IV of Section-II entitled 'Forest Society and Colonialism'



Figure 16

Page 89-Inclusion of a new subtheme entitled 'Impact of Modern Development Initiatives on Forests' is suggested.

b) Possibilities and scope for future research: The colonial intervention in the natural landscape of India and the resulting ecological degradation is well-known. However, what is relatively unknown is the fact that it was during this time that forestry education and forest research activities were started by the colonial officials. There were colonial scientists who linked forest protection with local people and took an interest in exploring the flora and fauna of India. Scholarly research on these aspects has been limited. Research along these dimensions supported by archival sources can provide interesting perspectives hitherto not documented.



CONCLUSION

Forests play a crucial role in the Indian social, cultural and natural landscape. They are sacred to some, a source of sustenance for many and sadly an avenue for developmental projects in recent times. The destruction of forests begun during the colonial rule has only increased in present times. The result is around us in the form of environmental degradation and stories of forced displacement of communities. The recurrent problem can be addressed by state initiatives to restrict forcible acquisition of land, ensure proper rehabilitation and check environmental degradation. More importantly, awareness can be instilled among children in school. Environment aspects can be integrated with their school subjects. They will learn to make cross-curricular connection and develop a sense of responsibility towards their environment which is crucial at this need of hour.

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