

Roots Under Threat: A Case Study of Farming Communities in the Western Ghats During Environmental Policy Reforms

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ABSTRACT

This case study examines the lived experiences of farming communities in India's Western Ghats following the introduction of the Western Ghats Ecology Expert Panel (WGEEP) recommendations in 2010. Drawing upon the story of Rajan, a multi-generational farmer living in Kerala's mountainous regions, this paper sheds light upon the intricate human components of environmental protection policies. This paper uncovers the overwhelming socioeconomic and cultural impacts upon indigenous farm villages when the implementation of protection projects neglects to account for farm community livelihoods adequately. The findings highlight the critical conservation need that respect traditional ecological knowledge and gives precedence to community involvement in environmental policy.

Keywords: Western Ghats, Environment Protection, Sustainable Development, Kerala, Gadgil Committee

1 Introduction: The Western Ghats and its People

The Western Ghats, some 1,600 kilometers long and running along India's west coast through six states, is one of the globe's hotspots of biodiversity and a UNESCO World Heritage Site. Another truth exists, however, beyond the ecological richness: the mountains are populated with people whose histories, economies, and customary practices have been inextricably linked to the land for generations.

"These hills not only feed us—they are us," says Rajan, a 58-year-old farmer and seventh-generation to work the same land in Kerala's highlands. "My grandfather's grandfather gave life to the black pepper vines that now enable my children to study." For Rajan and thousands more like him, the Western Ghats are not a distant ecological marvel but the very underpinning of life. Their mode of agricultural production—cultivation of cardamom and black pepper under a canopy of forests has long harmonized people and nature. Such modes of cultivation, honed over generations, are not just economic pursuits but a part of culture.

1.1 The Gadgil Committee and Its Recommendations

In 2010, responding to increasing alarm over Western Ghats' degradation, the Western Ghats Ecology Expert Panel (WGEEP) was formed by the Indian government under the chairmanship of noted ecologist Dr. Madhav Gadgil. Following extensive scientific evaluation, the panel suggested that areas in the Ghats be divided into three Ecologically Sensitive Zones (ESZs) with resultant limitations to development. The committee's motivations were certainly altruistic to save one of the planet's biodiversity hotspots. The committee report painstakingly chronicled threats to the area: mining activities, deforestation, and unplanned development and their ripple effects in the form of landslides, floods, and the extinction of species. But the report's significance to the community was much more complicated than anyone had expected.

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2 The Human Story: Rajan's Narrative

2.1 The land that defines us

"I planted ten pepper vines there when my firstborn child was born," Rajan reminisces. "Those pepper vines financed his degree in engineering twenty years later. Such are the plans we make here—the land and the life happen at the same time."

Farmers like Rajan have built a deep understanding of their world over generations. They are able to forecast monsoon patterns by reading various insects, understand which slopes are susceptible to soil loss, and have cultivated farming practices that help preserve soil fertility without fertilizer chemicals. Their particular skill in shade-grown farms is centuries' worth of environmental adjustment.

"We don't have to have scientists show us how to take care of these hills," Rajan says with a mixture of pride and frustration. "My people have taken care of this land for seven generations. If we were to hurt this land, we would be destroying ourselves."

2.2 The Day Everything Changed

The villagers received the news of the Gadgil Committee proposals in a notice by the government, posted at the village administrative office. The report, replete with technical jargon and ecological designations, labeled much of their agricultural land ESZ- 1 or ESZ-2—the highest levels of restriction.

"I do not read English very well," Rajan confesses, "but our village secretary told us what that meant: no more farming like we have always known. No construction of new houses for our children. No extension of our fields."

What the government officers considered to be measures of ecological protection, Rajan and his community regarded as a survival threat.

"They say that our farms are 'encroachments,'" he explains, sweeping an arm to take in pepper vines that have fed his family for generations. "How are we encroaching upon our heritage? My grandfather lies under this jackfruit tree. This soil contains the blood and toil of our forebears."

2.3 The Deepening Crisis

When word got around of the recommendations, farm communities all over the Ghats fell under a cloud. Village gatherings, previously devoted to communal farm timetables and ceremonial arrangements, were now preoccupied with the uncertainty of the future. Agricultural loans, secured against the worth of land, now looked tenuous since property values fell in expectation of new curbs.

"My neighbor Mathew had borrowed this money to meet the expenses of his daughter's marriage," Rajan says. "The bank is now threatening him because they say the land will be valueless if declared ESZ-1. Where will he go? Whom will he work with at the age of sixty with no new skill?"

The incident crystallized a basic dichotomy of environmental governance: those de- signing policies to conserve hardly ever incur their immediate economic burdens.

2.4 From Whispers to Protest

What were initially whispered fears in village tea stalls became concerted resistance. Some farmers, never having crossed their district, went to the capitals of states, with hand-painted banners: "We Protected These Hills Before Your Laws" and "Our Children Need Land, Not Rules."

Rajan, a man who had never been involved in politics, found himself speaking to crowds. "I don't object to saving the environment," he would tell anyone willing to listen. "I object to saving trees at the cost of destroying families that have nurtured them for generations."

Local politicians were quick to seize the political potential of the farmers' misery. They portrayed the matter as one of environmental ideology imposed by the urban elite upon vulnerable rural people—a message that not only appealed to voters directly impacted by the ESZ designations but to a much wider group.

2.5 The Media Battleground

With protests escalating, coverage became polarized by the media. National dailies ran sensationalized headlines of "anti-environment riots" and paid minimal attention to the more subtle historical connection between their community and the environment. "They photograph our protest banners but not our agricultural practices," Rajan remarks. "They never feature the way we use intercropping to keep the soil fertile or the way we collect rainwater in monsoons. They only call us 'encroachers' and 'anti-environment.'"

Environmental organizations, meanwhile, released statements emphasizing the critical importance of implementing the Gadgil Committee recommendations to prevent ecological catastrophe. Their communications frequently omitted mention of affected communities or dismissed their concerns as short-sighted.

"They talk like we don't reside here," Rajan says. "Like the forests were in some kind of isolation, without individuals relying upon them and taking care of them."

2.6 The False Dichotomy

The increasingly contentious dispute exposed a deep-seated misunderstanding within environmental governance: that human well-being and nature protection are mutually exclusive. This protection vs. production dichotomy overlooks the intricate, interdependent relationships that have established themselves over centuries between people and the land.

"Our pepper flourishes under the tree canopy," Rajan explains. "We require the trees. We require good soil. We require clean water. Why should we destroy what sustains us?"

For farmers such as Rajan, environmental destruction is not a distant threat but a very immediate threat to survival. Opposition to the Gadgil recommendations came not because of a lack of concern with environmental protection but because of not being included in the process and a lack of appreciation of their current environmental guardianship.

"We should have been the first ones to be consulted," Rajan maintains. "Not the last to know what happens to the choices made in our lives."

2.7 Pursuing Middle Ground

With the escalation of the conflict, there emerged voices of scientists and policymakers that advocated for strategies that would be supportive of both community requirements and conservation imperatives. Such voices promoted amendments to the ESZ framework that would identify customary agricultural practices as suitable with some conservation objectives.

"We don't want to damage the planet—we want to carry on living just like generations before us, taking care of this earth that takes care of us," Rajan says. "Is that so much to ask?"

The Western Ghats case highlights an essential dilemma confronting conservation efforts worldwide: Can environmental protection be a success without ensuring the well-being and engagement of the people living in the area? The experience of farmers such as Rajan indicates that strategies that ignore the human factors can generate resistance that ends up negating ecological objectives.

The ongoing tension between conservation mandates and community rights in the Western Ghats illustrates the necessity of environmental governance that combines science with indigenous ecological knowledge. Sustainable solutions must emerge from genuine dialogue between all stakeholders, particularly those whose lives are most directly affected by conservation policies.

"These are not mere soil and trees," Rajan considers. "They are the past and the future of my people and their children. Any answer that loses sight of this fact will fail both the people and the land."

The experience of Western Ghats' farm communities reminds us that not only is environmental protection a technical issue, but a profoundly human one. As more and more people are turning to concerted efforts all around the world to confront climate change and biodiversity depletion, experiences like those of Rajan provide a teaching that high- lights the interconnectedness of environmental and social justice.

In Rajan's words: "When you protect the farmer, you protect the land. When the farmer is threatened, the land is threatened. We cannot be separated—our story is one."

3 Discussion Questions

1. In what ways can conservation planning processes be restructured to effectively integrate community concerns and traditional ecological knowledge?
2. What are the ethical considerations of applying environmental limitations that compromise age-old livelihoods?
3. In what way can the seeming antagonism between environmental protection and people's well-being be shifted to become a source of holistic solutions?
4. How should current conservation plans incorporate traditional land-use practices?
5. How could compensation or alternative livelihood schemes be designed to meet the issues of impacted communities by new environmental regulations?
6. What lessons can the Western Ghats case offer for conservation initiatives in other regions with indigenous or traditional communities?

4 Lesson Plan

4.1 Overview

The lesson draws upon the case study "Roots Under Threat: A Case Study of Farming Communities in the Western Ghats During Environmental Policy Reforms" to analyze the intricate relationship between environmental protection and indigenous people's livelihoods. Students will analyze the controversy from several different perspectives with a focus on the everyday life of farmers.

4.2 Learning Objectives

After this lesson, students will be able to:

- Examine the conflicts between environmental protection and community rights
- Assess the function of indigenous ecological knowledge in contemporary conservation practices
- Evaluate the process of environmental policy implementation
- Formulate and describe possible alternatives that meet both ecological and social justice considerations
- Apply environmental justice concepts to everyday life

4.3 Grade Level

This lesson can be applied to:

- High school environmental science or social studies (grades 11-12)
- Undergraduate programs in environmental studies, sustainability, geography, or social ecology

4.4 Duration

90 minutes (can be expanded to multiple sessions)

4.5 Materials Required

- One copy of the case study "Roots Under Threat" per student
- Discussion question handouts
- Simulation activity role assignment cards
- Whiteboard/projector equipment
- Post-It notes or an online co-authoring tool
- Optional: Maps of the Western Ghats

4.6 Preparation

- a) Assign the case study to be read by students before class
- b) Prepare role cards to use in the simulation activity
- c) Develop discussion question handouts
- d) Arrange the classroom for group discussions

4.7 Lesson Structure Introduction (10 minutes)

- Start with a presentation of a Western Ghats map and a photo of a typical spice farm located there.
- Ask the class: "What would occur if land is reserved to be protected but has been settled by and cultivated by people for many generations?"
- Ask students to summarize their preliminary thinking and to say that today we will be addressing this question by way of a real case study in India.
- Introduce the main issue at stake: environmental protection of the Western Ghats vs. survival of the indigenous farming population.

4.8 Knowledge Check (15 minutes)

Start by doing a quick quiz or discussion to confirm that students have read and comprehended basic facts of the case study:

- What is the Western Ghats, and why are the Western Ghats ecologically important?
- Who is Rajan, and what is he to this land?
- What was the Gadgil Committee, and what were its recommendations? — What was the response of farm communities to these suggestions?

Clear up any misconceptions of the case study's factual content.

4.9 Perspective Analysis (20 minutes)

1. Split the students into small groups of 3-4.
 2. Assign each group one of the perspectives below to examine:
 - Traditional farmers (such as Rajan)
 - Environmental scientists (such as Dr. Gadgil)
 - Government officials
 - Media personnel
 - Environmental campaigners
 - Local elected members
1. Every group should discuss and write down:
 - What are the top concerns and issues of this group?
 - What is most valued by them in this case?
 - Which solutions could they suggest?
 - What could they misinterpret about others' standpoints?
 2. Let each group present their analysis to the class. 5.10 Role Play Simulation (25 minutes)
 1. Form new teams with at least one representative of each view.
 2. Inform each group that they will role-play a community public forum discussing the Western Ghats policy.
 3. Assignment: Every group should write a compromise proposal that considers both community interests and environmental protection.
 4. Requirements of proposals:
 - Should have specific environmental protection and community welfare provisions
 - Should include what will happen to current farms
 - Shall develop a process of decision-making for future land use.
 - Should include the inclusion of traditional knowledge

4.10 Presentation and Critique (15 minutes)

1. Every group makes its compromise proposal to the class.
2. Other students can provide questions or give feedback after each presentation.
3. The class decides on the proposal that is most plausible and just.

4.11 Reflection and Relationship (15 minutes)

1. Individual writing prompt: Based on this case study, what areas should environmental policies that influence indigenous peoples' communities be guided by? How could these areas translate to environmental concerns in your region?
2. Reflect in small groups or pairs.
3. Develop a list of "Best Practices for Just Environmental Policy" together in class based on what we have learned from the case study.

4.12 Conclusion (5 minutes)

1. Key takeaways of the lesson
2. Relate the case study to universal issues of environmental justice.
3. Preview homework or extension activities.

4.13 Evaluation

- Group discussion and simulation participation
- Level of perspective analysis
- Contribution to the proposal of a compromise
- Reflection writing
- Optional: Follow-up essay discussing lessons learnt from the Western Ghats case

4.14 Extension Activities

- Research Project: Ask students to research a similar environmental justice controversy in a different region and compare and contrast with the Western Ghats case.
- Policy Brief: Students prepare a comprehensive policy recommendation for the Western Ghats, combining both science and indigenous knowledge.
- Media Analysis: Analyze coverage of environmental conflicts to detect bias in the way various stakeholders are portrayed.
- Local Application: Find a local issue related to conservation and examine community voices included or excluded from decision-making.

4.15 Homework Assignment

Ask students to write a 1- to 2-page response to the following question: Imagine that you are a policy advisor responsible for overhauling the Western Ghats protection plan. Draft a memo describing your strategy to strike a balance between ecological protection and communal rights. Your memo should draw on particular components of the case study and include at least three tenets of environmental justice.

4.16 Adaptations and Modifications

For younger students: Reduce the viewpoints and concentrate more on the contrast between livelihood and the environment. - For more advanced students: Include economic factors and have them calculate the approximate cost of various solutions. - For interdisciplinary approaches: Integrate GIS mapping exercises or study of pertinent environmental law.

For online learning: Apply digital collaborative tools to the perspective-taking analysis and simulation exercises.

Further Reading: UNESCO data concerning the Western Ghats, Full text of the Gadgil Report