

National Forest Policy



SUBMITTED TO

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Introduction

Forest is a large area of land that is thickly covered with trees.

It is an ecosystem characterized by dense community of trees



Why conserve forest?

1. Nurtures Soil

2. Absorb Carbon

Second largest carbon sink after ocean as they absorb net 7.6 billion metric tonnes of CO₂ per year between 2001 and 2019 which is 1.5 times USA GHG emissions.

3. Provide food for millions

Over 1.6 billion people depend on forests for food or fuel, and for some 70 million people worldwide forests are home.

4. Natural Aqueducts

One-third of the world's metropolises get all or part of their drinking water from forest-protected areas.

5. Holds 80% of earth biodiversity

They include 2/3 of all plants, 3/4 of all birds, 80% of amphibians and 58% of mammals.





National Forest Policy - 1988

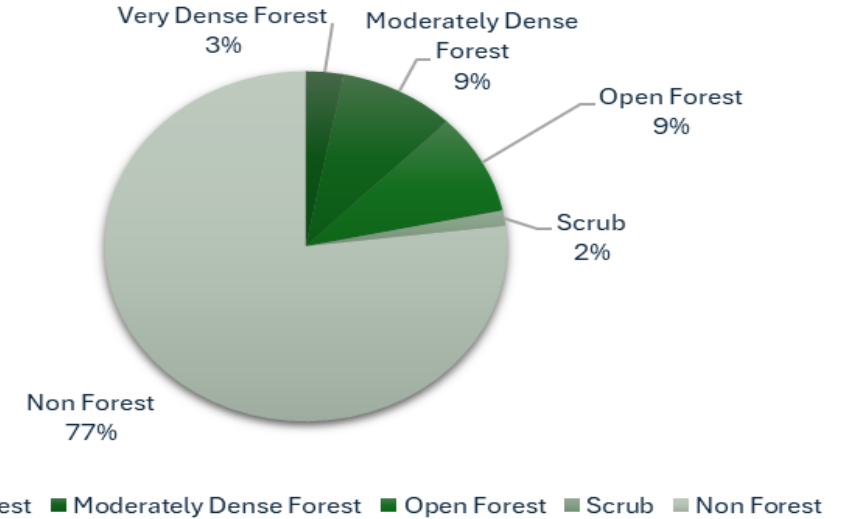
Objectives

1. Maintain environment stability and restoration of ecological balance
2. Conserving Natural heritage which is remaining
3. Soil and water conservation for mitigating floods and droughts
4. Afforestation on all degraded lands
5. Increasing productivity for nation need
6. Efficient utilization of forest produce and maximizing substitution of wood

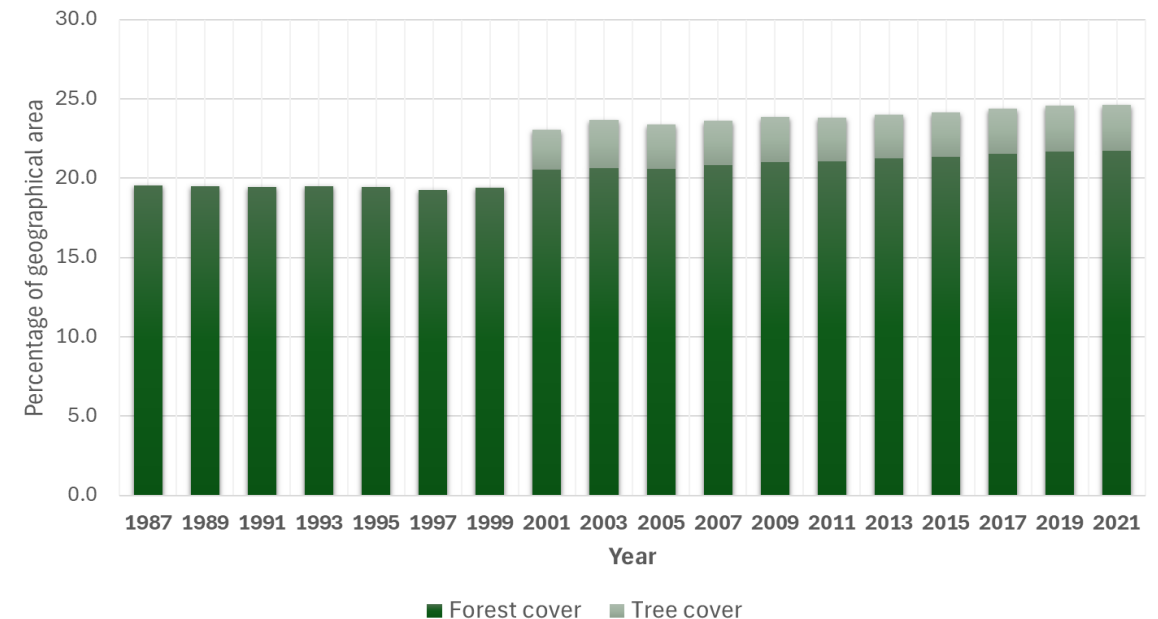
Area under Forests

- National goal of atleast 1/3 of total land area of the country under forest or tree cover
- For hilly and Mountainous regions goal to maintain 2/3 of the area under such cover
- 2021 Forest and tree cover is 80.9 million hectare which is about 24.6 % of geographical area

Forest cover of india 2021



Forest and Tree cover share (%)



Afforestation, Social Forestry & Farm forestry

- Afforestation on degraded lands.
- Plantation of trees along railway lines, roadsides, rivers and canal banks, in and around agricultural fields.
- Power to weaker section - Giving certain ownership rights over tree in return of security and maintenance.

Strategy

Supporting Policies

- National Afforestation plan – launched in 2000
Three levels of implementation by
 1. State Forest Development Agency
 2. Forest Development Agency
 3. Joint Forest Management Committees
- National Mission for Green India – launched in 2014
Implementation levels
 1. Gram Sabha JFMCs at village
 2. Cluster level committees at subdistrict level
 3. Revamped FDAs at district level
 4. Revamped SFDAs at state level
 5. National Governing Council at national level

Management of State forest

- Restriction on projects which interfere with ecological sensitive area like tropical rain forest in Andhra Pradesh, Andaman & Nicobar island etc.
- No forest work without state permission
- Growing demand and services by forest should not be met at expense of cutting but enhancing the productivity.
- Any intervention should be long term research based.

Strategy

Rights and concession

- Encouraging stall feeding, grazing related to forest capacity
- Right protection of tribals , domestic requirements should be provided at reasonable rate.
- Wood substitution encouragement, fuel wood replacement with LPG, solar

Strategy

Forest based Industries

- Raw material should be raised on its own either by relation between individuals and factory who can grow.
- Local requirements of fodder and fuel should not be sacrificed
- Provide employment along with involvement in growing areas to locals
- Price concession for alternate raw material for industries
- Natural forest

Other Areas of Focus

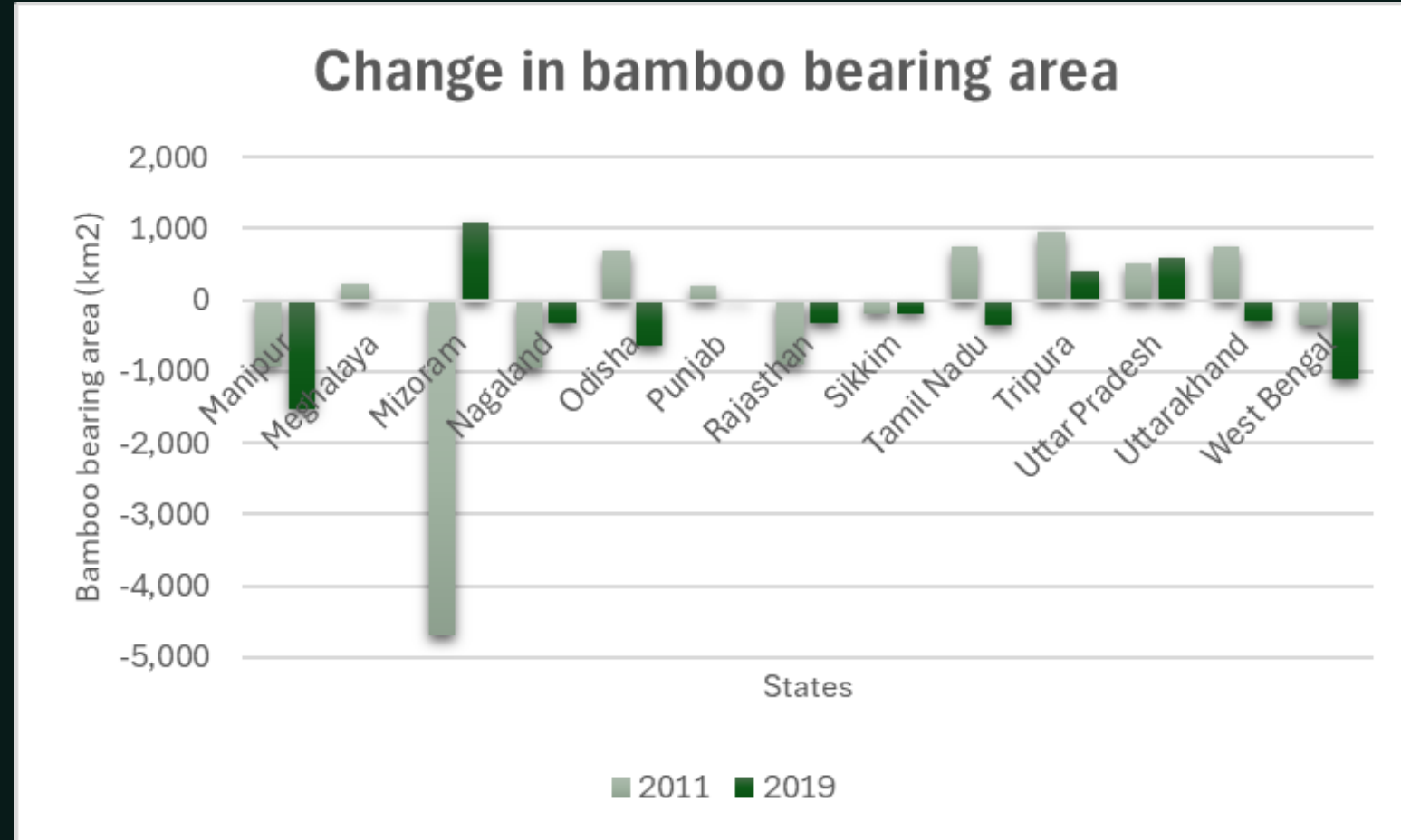
- Activities like mining, dam & reservoirs construction should be consistent with sustained conservation of forest
- Corridors linking the protected areas for genetic continuity of artificially separated sections of wildlife
- Illegal degradation of forest by contractor should be stopped and replacement with tribal cooperation, Labour cooperatives, gov. cooperation
- Avoiding shifting cultivation, rehabilitation by social forestry
- Regularisation of new encroachments and precautions using modern practices
- Setting up of farmers training centre like Krishi Vigyan Kendra for optimum utilisation of their land
- Forest research, financial support for forestry

Policy Actors

- Central Government
The Ministry of Environment, Forest and climate Change (MoEFCC) leads policy formulation
- State Government
They execute policies, monitor afforestation programs and conserve in their states
- Local Communities
JFMCs engage in forest protection, regeneration
- Forest Department
They manage forest and collaborate with other stakeholders
- NGOs
They create awareness campaigns, sustainable practices, community engagements
- Compensatory Afforestation fund management and planning Authority
They manages fund collected for compensatory afforestation due to forest land diversion
- Research Institutions and Academia
They contribute to forestry research, biodiversity studies and sustainable forest management
- International Organisations and Agreements
Organisations like United Nations and agreement like Convention on Biological Diversity influence forest policy

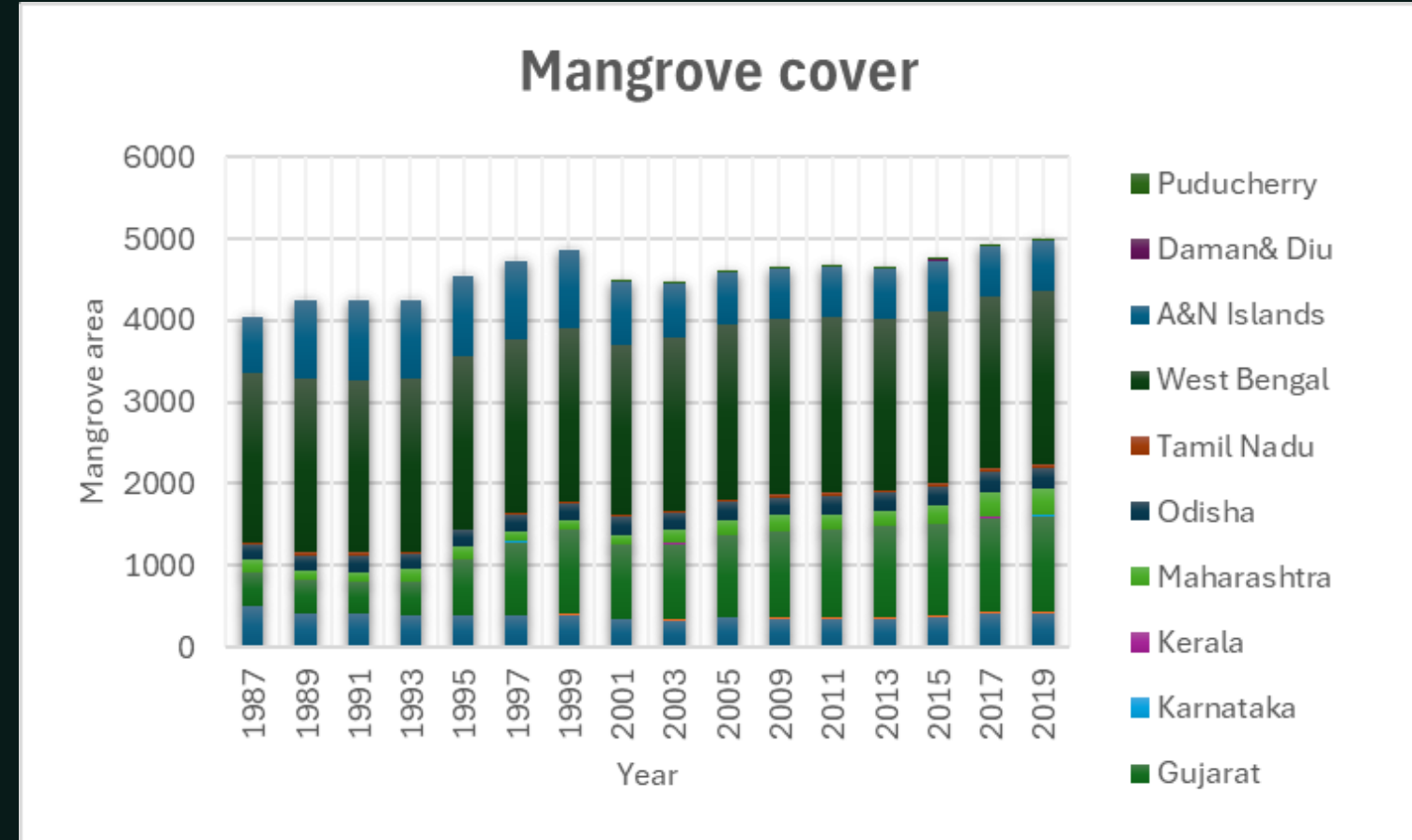
Bamboo Cover

- After 2017 amendment, bamboo is not considered a tree
- Bamboo growing outside forest is no longer under legal restriction
- State specific regulations also influence Bamboo cover
- Bamboo bearing area in Mizoram has shown highest increase as compared to 2019



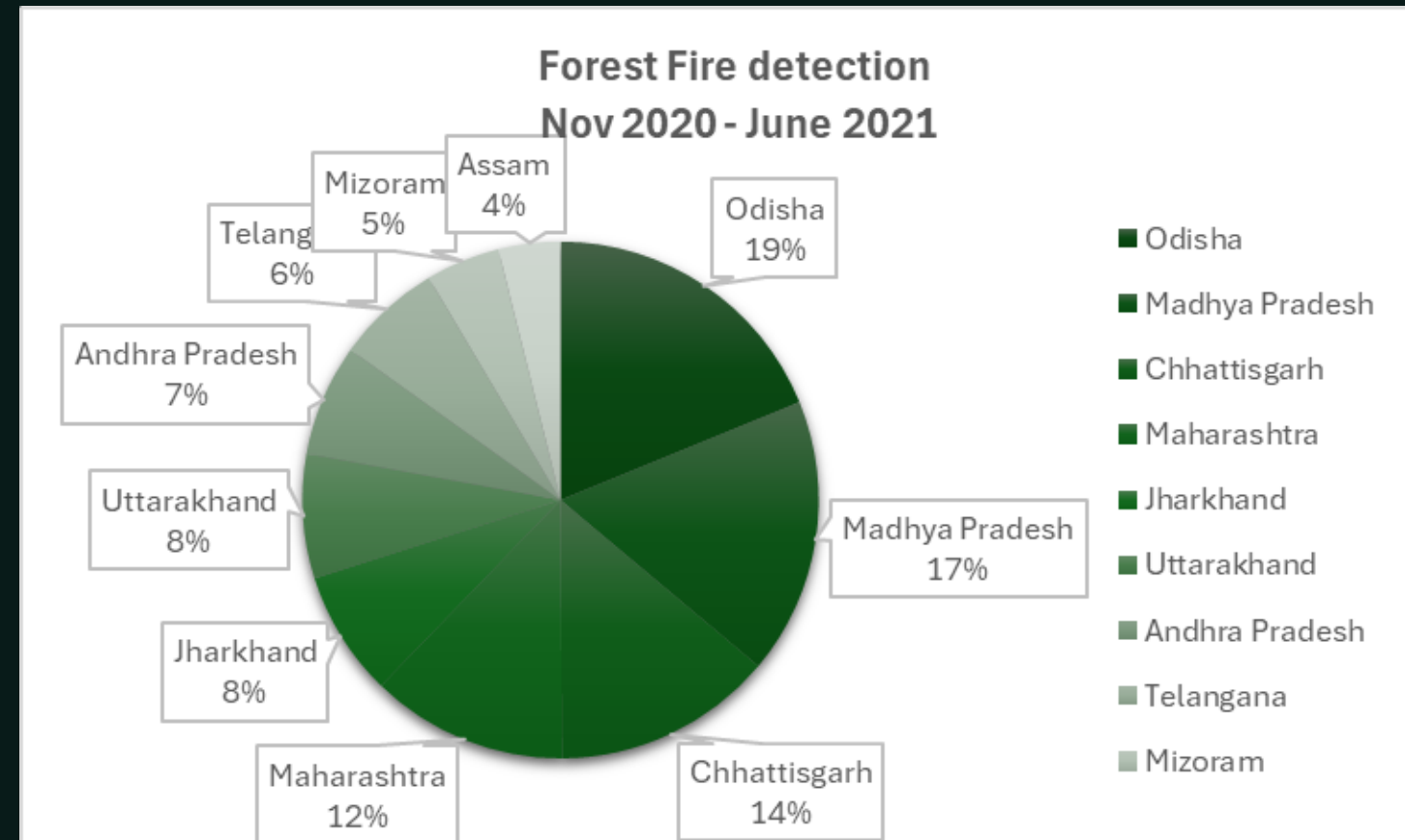
Mangrove Cover

- Maharashtra and Odisha are top performer in mangrove cover gain
- Reason being natural regeneration, plantation in suitable areas like river banks etc



Forest Fire detection

- States under North eastern region shows higher tendency of forest fire in terms of frequency
- Forest survey of India analysis say that about 10.66 % of forest cover is under extremely to very high fire prone zone



Regression Analysis

Source

This study was done in eastern district Purulia.
A unique location of having about 14.59 % of protected forest area.

About 10% of total households were selected from six districts

Dependent variable – Income from Non-Timber Forest product

Research question

In what way do multiple factors (including community distance from the forest and market) determine the level of forest dependency of the forest dwellers in a protected forest region of eastern India?

Table 1 The villages under study with their location

Range	Village	Location	Distribution of total samples according to population (%)
Ajodhya	Silingda	Core	39
	Babnijara	Core	7
	Jilingora	Core	10
	Dungridi	Fringe	25
Matha	Bansare	Fringe	4
	Surkidoba	Fringe	15

Table 2 Variables used in multiple linear regression (MLR) models

<i>Dependent</i>		
	Income from NTFP	Total annual income from NTFP
<i>Independent</i>		
1	Age	The age of the respondents is broadly divided into four categories: 1 ≤ 20, 2 = 20–40, 3 = 40–60 and 4 = 60 <
2	Education	Formal education of the respondents (in years)
3	Household type	Primarily divided into three categories: 1 = single, 2 = nuclear and 3 = joint
4	Land ownership	Household land ownership in rural areas in bigha (0.33 acres)
5	Household size	Number of members in the household
6	Cultivated land	Land cultivated by households in Bigha
7	Working population	The ratio of the working population to household
8	Female ratio	The ratio of females in Household
9	Income from agriculture	Total annual income (INR) from agriculture of household (log value)
10	Income from wage work	Total annual income (INR) from wage work of household (log value)
11	Distance (village-forest)	Distance between the village and the forest (in km)
12	Distance (forest-market)	Distance between the forest and the village market (in km)

Regression Analysis

Income from Non- Timber Forest product depends highly on following factors

- Distance between forest and village market
- Distance between village and forest
- Working population ratio
- Female ratio
- Household type

Distance between forest & village market and Income from NTFP are negatively correlated

Distance between forest & village and income are positively correlated

$$\begin{aligned}
 Y_{(\text{Income from NTFPs})} &= \beta_0 + \beta^1 * \text{Age} + \beta^2 * \text{Education} \\
 &+ \beta^3 * \text{HouseholdType(Dummy)} \\
 &+ \beta^4 * \text{Land ownership} + \beta^5 * \text{Household size} \\
 &+ \beta^6 * \text{Cultivated land} + \beta^7 * \text{Working population} \\
 &+ \beta^8 * \text{Female ratio} + \beta^9 * \text{Income from agriculture} \\
 &+ \beta^{10} * \text{Income from wage work} \\
 &+ \beta^{11} * \text{Distance between forest and villages} \\
 &+ \beta^{12} * \text{Distance between forest and village market} + \mu
 \end{aligned}$$

<i>R</i>	<i>R</i> square	Adjusted <i>R</i> square	Std. Error	Change statistics		
				<i>R</i> Square	<i>F</i> Change	Sig.
0.574	0.330	0.242	0.4038	0.330	3.761	0.000

	<i>B</i>	Std. Error	<i>t</i>	Sig.	VIF
(Constant)	3.25	0.802	4.824	0.000**	
Household type	0.137	0.121	1.135	0.260	1.203
Household size (number)	-0.011	0.040	-0.243	0.735	1.742
Cultivated land (*0.33 acres)	-0.031	0.044	0.58	0.954	1.921
Education (years)	-0.024	0.007	-1.221	0.156	1.435
Age of respondents (years)	0.037	0.042	0.484	0.629	1.130
Land ownership (*0.33 acres)	-0.012	0.144	-0.084	0.954	1.921
Working population (ratio)	0.353	0.232	1.522	0.130	1.677
Female ratio	0.154	0.310	-0.117	0.864	1.169
Income from wage (log)	0.102	0.063	1.614	0.110	1.307
Annual income from agriculture (log)	0.030	0.052	0.531	0.958	1.677
Distance between the village and forest (km)	0.386	0.872	3.256	0.051*	1.411
Distance between the forest and the village market (km)	-0.69	0.701	-6.214	0.039*	1.624

Challenges

1. Forest Land diversion for non forestry purpose
2. Provisions of only partial management under JFM with limited rights
Unlike forest rights act, JFM guideline are not legally binding. This results in less community engagement without legal accountability.
3. Cumbersome process for claiming community rights under Forest rights act
As of 2021 claims there were over 169,645 Community Forest Rights claim submitted but only 100,946 were approve. Also, CFR is applicable in very few protected areas (10/ 52 tiger reserves)
4. Absence of definition of forest
5. Demand for Timber, fuel food, fodder

Improvements

- Multistakeholder engagement
Strengthen mechanisms to engage all stakeholders
- People's Participation
Strengthen JFM programs which have positively impacted forest management
- Biodiversity Conservation
Emphasize on preservation of biodiversity and genetic resources
- Forest Product demand
Meeting demand while ensuring sustainable utilisation
- Cultural heritage
Building forest in co-existence of cultural heritage
- Add frameworks related to climate change mitigation and adaption, forest hydrology

Thank you

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