

Towards achieving the Twelfth Plan target of green cover[†]

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This article attempts to detail options for apportioning and achieving the target set for the 12th plan of increasing green cover by the states and suggests a new scheme along with five options to assist the Centre and the State Governments in achieving their forest cover targets.

Keywords: Afforestation, core indicators, green cover, revenue generation, targets, trading.

OF the 25 core indicators¹ set for the 12th Plan (2012–17), increase in green cover by 1 m ha (as measured by satellite imagery) every year, i.e. 5 m ha, leading to an increase of 1.52% in forest cover of the national geographical area (NGA) of the country along with improvement in the quality of forests is listed at no. 21.

During the 10th and the 11th Five-Year Plans, the target set of increase in green cover to 25% of GA and by 5% respectively, could not be achieved due to inadequate resources and lack of involvement of states in planning and efforts to achieve the target. This article details options for achieving the green cover of 5 m ha and a mechanism of forest trading to augment finances.

Afforestation options to achieve the 12th Plan target

Four options are being proposed to achieve the target of increase in green cover (Box 1). It is, however, vital to evaluate the options and choose the best after due consultations with the states. A process of evaluating the four options for achieving the target is also detailed. Figure 1 indicates the afforestation targets assigned to the states for all the four options. Table 1 details the calculation/methodology used to arrive at the afforestation target.

Option-1

According to this option, the 12th Plan target of 5 m ha of green cover increase, i.e. 1.521% of NGA has been distributed among the states as per their current contribu-

tion² to the national forest cover (NFC). Madhya Pradesh followed by Arunachal Pradesh, Chhattisgarh, Maharashtra and Odisha in that order are the top five states which are required to increase green cover by 5623.02, 4874.23, 4043.24, 3665.45 and 3535.55 sq. km respectively.

Option-2

The 12th Plan greening target has been distributed only among states with less than twice the national average (N.Avg) of forest cover (FC). States with twice the N.Avg of FC, i.e. N.Avg + twice the 12th Plan target assigned, have been excluded. Madhya Pradesh followed by Chhattisgarh, Maharashtra, Odisha and Andhra Pradesh in that order are required to add green cover of 7595.57, 5461.61, 4951.28, 4775.82 and 4408.96 sq. km respectively.

Option-3

The green cover target is distributed in inverse proportion to the current contribution of a state to NFC. States with

Box 1.

- Option-1 Target of 1.521% distributed state-wise as per current contribution to the national forest cover (NFC).
- Option-2 Target of 1.521% distributed among states with less than twice the national average of forest cover (FC), i.e. states with twice the national average + twice the 12th Plan target of FC, i.e. 42.04% + 3.042% = 45.082% are excluded.
- Option-3 Target of 1.521% distributed state-wise – inversely proportional to current contribution to NFC. States with twice the national average of FC, and Union Territories (UTs) to be excluded.
- Option-4 Target of 1.521% distributed among states as per option-3 and other states to continue with average afforestation recorded in the 11th Plan.

[†]The views expressed are those of the authors and not the official views of the Planning Commission.

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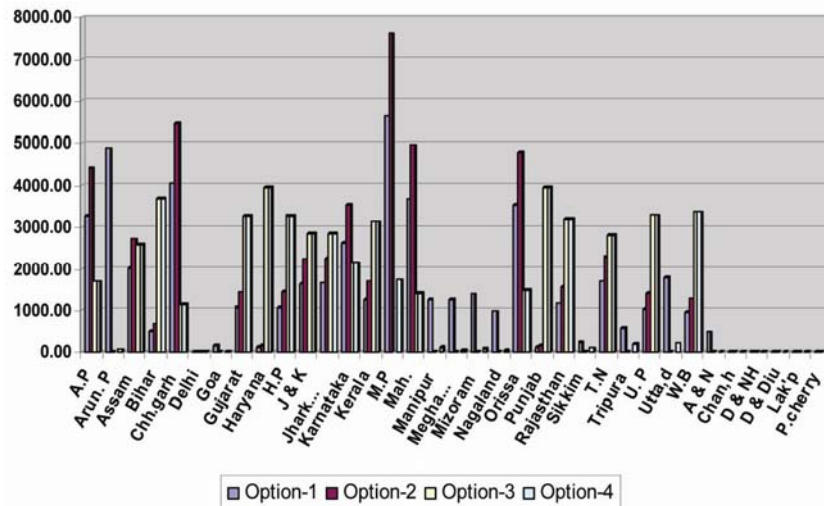


Figure 1. Areas to be greened state-wise under the four options.

twice the N.Avg of FC, and Union Territories (UTs) are excluded. Delhi has been exempted and is to afforest target assigned in option-2. Haryana followed by Punjab, Bihar, West Bengal and Uttar Pradesh in that order are required to add green cover of 3942.14, 3937.42, 3671.66, 3351.78 and 3281.22 sq. km respectively.

Option-4

According to this option, the green cover target has been distributed among states with less than twice the N.Avg. of FC in inverse proportion to their current contribution to the NFC. States with twice the N.Avg of FC are to continue with average afforestation recorded during the 11th Plan.

Financial support currently in place

Following are the central schemes/financial mechanisms currently in place in the forestry sector which support afforestation efforts.

Green India Mission

The National Mission for Green India (GIM) is one of the eight missions under the National Action Plan on Climate Change (NAPCC). GIM proposes greening not merely focusing on carbon sequestration targets, but on multiple ecosystem services, especially biodiversity, water, biomass, etc.

The GIM aims at increasing both forest and tree cover by 5 m ha as well as increasing the quality of forest cover by another 5 m ha, i.e. 10 m ha in 10 years spanning over the 12th and 13th Five-Year Plans with a projected total cost of Rs 46,000 crores starting from 2012–13 with an

annual requirement of Rs 4600 crores. The GIM is proposed to be partly funded through convergence with different schemes like Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), Compensatory Afforestation and Management Authority (CAMPA), National Afforestation Programme, Integrated Forest Management Scheme and 13th Finance Commission Award. The current outlay is equal to Rs 8500 crores with combined finance available under state/UT schemes, including funding under CSS of Ministry of Environment and Forests (MoEF), Government of India (GoI), Ministry of New Renewable Energy (MNRE), MoA, CAMPA and 13th Finance Commission Grant related to the forestry sector. Additional funds in the light of current financial constraints seem to be a daunting task. The total funds available are too meagre to support the 12th Plan target of an increase of 5 m ha. The Gross Budgetary Support (GBS) is less in relation to what is needed.

In the 12th Plan, currently a provision of Rs 2000 crores has been made for implementation of GIM.

The 13th Finance Commission

The 12th Finance Commission recognized that the entire nation has the responsibility to maintain the forests as a national wealth, and recommended a grant of Rs 1000 crores spread over the period 2005–10, over and above the regular allocations for maintenance of forests. The Planning Commission in the 11th Plan Mid-Term Evaluation recommended 'increasing the allocation for the forestry sector to at least 5% of annual state and central sector outlay in the 12th Plan'. However, the allocation for the environment, forests and wildlife sectors has remained below 1% and forest and wildlife sectors received only 0.4% to 0.5% of the overall 11th Five-Year Plan allocation. The 13th Finance Commission recognized the

Table 1. Methodology to arrive at the afforestation target state-wise under the four options

State/Union Territory	Geological area (sq. km)	Total FC (sq. km)	FC % of state geo-logical area	Percentage contribution to NFC	Option-1 12th Plan affected target % state-wise – 1.521%	Area (sq. km) to be affected by states (option-1)	Option-2 percentage affected target for states < twice the national average incl of other states	Area (sq. km) to be affected by states in 12th Plan (option-2)	Option-3 percentage affected for states < twice national average inversely proportional to % NFC	Area (sq. km) to be affected by states in the 12th Plan (option-3)	Option-4 percentage affected target for states < twice national average incl of other states	Area (sq. km) to be affected by states in the 12th Plan (option-4)
Andhra Pradesh	275,069	45,102	16.4	6.528	0.0993	3,263.95	0.1341	4,408.94	0.0514	1,688.90	0.0514	1,688.90
Assam	83,743	67,353	80.43	9.7486	0.1483	4,874.23	0.0823	2,707.03	0.0788	2,589.72	0.0788	2,589.72
Bihar	94,163	27,692	35.3	4.0081	0.0610	2,004.02	0.0202	665.12	0.1117	3,671.66	0.1117	3,671.66
Chhattisgarh	135,191	55,870	41.33	8.0866	0.1230	4,043.24	0.1661	5,461.61	0.0344	1,131.47	0.0344	1,131.47
Delhi	1,483	177	11.94	0.0256	0.0004	12.80	0.0005	17.29	0.0000	0.00	0.0000	11.38
Goa	3,702	2,151	58.1	0.3113	0.0047	155.65	0.0000	0.00	0.0000	0.00	0.0000	6.22
Gujarat	196,022	14,620	7.46	2.1161	0.0322	1,058.03	0.0435	1,429.19	0.0994	3,267.11	0.0994	3,267.11
Haryana	44,212	1,594	3.61	0.2307	0.0035	115.35	0.0047	155.81	0.1199	3,942.14	0.1199	3,942.14
Himachal Pradesh	55,673	14,668	26.35	2.123	0.0323	1,061.48	0.0436	1,433.85	0.0993	3,264.75	0.0993	3,264.75
Jammu & Kashmir	222,236	22,686	10.21	3.2835	0.0499	1,641.73	0.0675	2,217.64	0.0867	2,850.80	0.0867	2,850.80
Jharkhand	79,714	22,894	28.72	3.3137	0.0504	1,656.83	0.0681	2,238.04	0.0864	2,839.04	0.0864	2,839.04
Karnataka	191,791	36,190	18.87	5.2381	0.0797	2,619.01	0.1076	3,537.76	0.0654	2,149.89	0.0654	2,149.89
Kerala	38,863	17,324	44.58	2.5075	0.0381	1,253.73	0.0515	1,693.54	0.0952	3,128.34	0.0952	3,128.34
Madhya Pradesh	308,245	77,700	25.21	11.2462	0.1711	5,623.02	0.2311	7,595.57	0.0426	1,401.95	0.0426	1,401.95
Maharashtra	307,713	50,650	16.46	7.331	0.1115	3,665.45	0.1506	4,951.28	0.0426	1,401.95	0.0426	1,401.95
Manipur	22,327	17,280	77.4	2.5011	0.0380	1,250.53	0.0000	0.00	0.0000	0.00	0.0000	121.62
Meghalaya	22,429	17,321	77.23	2.507	0.0381	1,253.48	0.0000	0.00	0.0000	0.00	0.0000	44.84
Mizoram	21,081	19,240	91.27	2.7848	0.0424	1,392.38	0.0000	0.00	0.0000	0.00	0.0000	75.34
Nagaland	16,579	13,464	81.21	1.9488	0.0296	974.39	0.0000	0.00	0.0000	0.00	0.0000	34.04
Odisha	155,707	48,855	31.38	7.0712	0.1076	3,535.55	0.1453	4,775.82	0.0454	1,493.68	0.0454	1,493.68
Punjab	50,362	1,664	3.3	0.2408	0.0037	120.40	0.0049	162.63	0.1198	3,937.43	0.1198	3,937.43
Rajasthan	342,239	16,036	4.69	2.321	0.0353	1,160.48	0.0477	1,567.58	0.0972	3,194.19	0.0972	3,194.19
Sikkim	7,096	3,357	47.31	0.4859	0.0074	242.95	0.0694	2,281.40	0.0856	2,815.52	0.0856	2,815.52
Tamil Nadu	130,058	23,338	17.94	3.3779	0.0514	1,688.93	0.0426	1,401.91	0.0998	3,281.22	0.0998	3,281.22
Tripura	10,486	8,073	76.99	1.1685	0.0178	584.24	0.0386	1,270.21	0.1020	3,351.78	0.1020	3,351.78
Uttar Pradesh	240,928	14,341	5.95	2.0757	0.0316	1,037.83	0.0426	1,401.91	0.0998	3,281.22	0.0998	3,281.22
Uttarakhand	53,483	24,495	45.8	3.5454	0.0539	1,772.67	0.0386	1,270.21	0.1020	3,351.78	0.1020	3,351.78
West Bengal	88,752	12,994	14.64	1.8807	0.0286	940.34	0.0386	1,270.21	0.1020	3,351.78	0.1020	3,351.78
Andaman & Nicobar Islands	8,249	6,662	80.76	0.9643	0.0147	482.14	0.0000	0.00	0.0000	0.00	0.0000	12.92
Chandigarh	114	17	14.91	0.0025	0.0000	1.25	0.0001	1.69	0.0000	0.00	0.0000	2.88
Dadra & Nagar Haveli	491	211	42.97	0.0305	0.0005	15.25	0.0006	20.60	0.0000	0.00	0.0000	2.17
Daman & Diu	112	6	5.36	0.0009	0.0000	0.45	0.0000	0.00	0.0000	0.00	0.0000	0.17
Lakshadweep	32	26	81.25	0.0038	0.0001	1.90	0.0001	0.00	0.0000	0.00	0.0000	0.21
Puducherry	480	44	9.17	0.0064	0.0001	3.20	0.0001	4.32	0.0000	0.00	0.0000	0.52
Total	3,287,263	690,899	100	100	1.5210	49,999.27	1.5210	49,998.84	1.5210	49,999.58	1.52	52,605.20

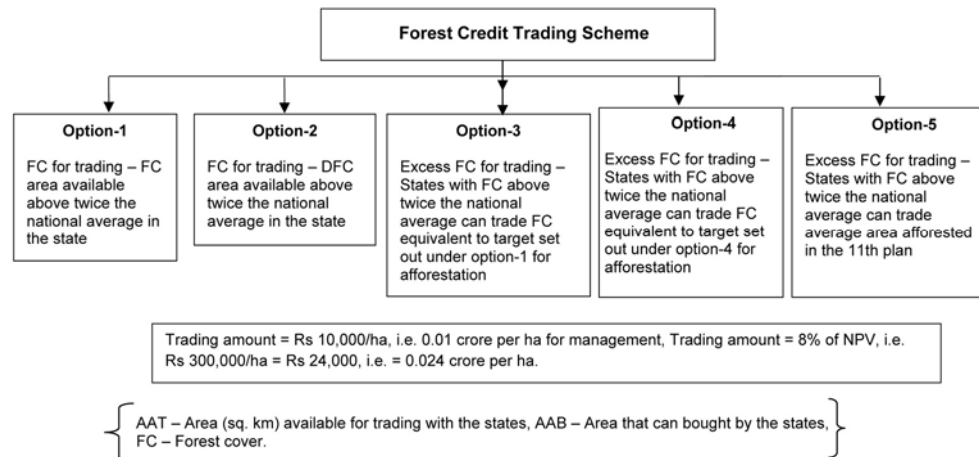


Figure 2. Forest Credit Trading Scheme with recommended options.

paramount need of taking this grant further and recommended a grant of Rs 5000 crores spread over 2010–15.

External aid for funding afforestation

The tendency of the states generally is to reduce the funding to forestry in lieu of grants like CAMPA, 13th Finance Commission, etc. In many of the states, funding from Central Government and externally aided projects remained the main plan resources for afforestation. The State Governments need to use External Assistance, CAMPA funds, 13th Finance Commission Funds, etc. to augment the frugal allocation for the sector.

National afforestation programme

The scheme titled ‘National Afforestation Programme’ (NAP) has been formulated by merger of four 9th Plan centrally sponsored afforestation schemes of the MoEF, with a view to reducing multiplicity of schemes with similar objectives, ensuring uniformity in funding pattern and implementation mechanism, avoiding delays in availability of funds to the field level and institutionalizing people’s participation in project formulation and its implementation. The scheme is operated by the National Afforestation and Eco-Development Board (NAEB), MoEF as a 100% central sector/centrally sponsored scheme.

Funds available under NAP amount to Rs 2500 crores (12th Plan).

Intensification of Forest Management Scheme

The objective of the scheme is to supplement efforts of the state/UT Forest Departments towards forest protection and management and improving forest health. The allocation for the IFM scheme is Rs 600 crores in the 12th Plan.

A total of approximately Rs 2050 crores per year, excluding state allocation if any and externally aided project funding which could be state-specific, is the central financial resources available per year for all the states during the 12th Plan.

New financial mechanism

Forest Credit Trading Scheme

The proposed Forest Credit Trading Scheme (FCTS) would assist the State Governments to achieve their respective forest cover targets in order to attain the 12th Plan target of an increase in forest cover of 5 m ha. It will also meet to some extent the year-on-year request of hill states to compensate or recognize the ecological services rendered by the states to the country. The FCTS (Figure 2) would act as an innovative approach and a bottom-up mechanism for increasing the forest cover. FCTS could strengthen and propagate the idea of providing incentives to the states through trading rather than mere compensation.

Options proposed

Five options are being proposed under the FCTS. However, it is vital to discuss this with the states and evaluate them as to which option is the best and implementable at the national level. The present article enables understanding the evaluation and options and the final proposed option for the implementation of the FCTS.

Option-1: The total area of FC more than twice the national average tradable according to this option is 54,201 sq. km. Based on the trade value calculated for management of forest (O&M) and 8% of NPV (Table 2), the revenue that would be generated yearly is Rs 542.01 crores and Rs 1300.83 crores respectively.

Table 2. Area and revenue generation under 5 FCTS options

State/Union Territory	Geo-logical area (sq. km)	FC area above twice national average (option-1)	O&M Rs 0.010 crore/sq. km pa. as price of trading	Revenue gen. Rs 0.024 crore/sq. km pa. as 8% of NPV	DFC above twice national average that can be traded (option-2)	O&M of Rs 0.010 crore/sq. km pa. as price of trading	Revenue gen. Rs 0.024 crore/sq. km pa. as 8% of NPV	Affected area as per. option-1 for trading by states with more than twice the national average (option-3)	O&M of Rs 0.010 crore/sq. km pa. as price of trading	Revenue gen. Rs 0.024 crore/sq. km pa. as 8% of NPV
Andhra Pradesh	275,069									
Arunachal Pradesh	83,743	23,806.74	238.07	571.36	19,884	198.84	477.23	4,874.23	48.74	116.98
Assam	78,438									
Bihar	94,163									
Chhattisgarh	135,191				1,681					
Delhi	1,483									
Goa	3,702	280.10	2.80	6.72	66	0.66	1.59	155.65	1.56	3.74
Gujarat	196,022									
Haryana	44,212									
Himachal Pradesh	55,673									
Jammu & Kashmir	222,236									
Jharkhand	79,714									
Karnataka	191,791									
Kerala	38,863				356	3.56	8.54			
Madhya Pradesh	308,245									
Maharashtra	307,713									
Manipur	22,327	5,583.70	55.84	134.01	428	4.28	10.27	1,250.53	12.51	30.01
Meghalaya	22,429	5,567.65	55.68	133.62	2,135	21.35	51.23	1,253.48	12.53	30.08
Mizoram	21,081	8,886.00	88.86	213.26	305	3.05	7.32	1,392.38	13.92	33.42
Nagaland	16,579	4,864.43	48.64	116.75	805	8.05	19.33	974.39	9.74	23.38
Odisha	155,707									
Punjab	50,362									
Rajasthan	342,239									
Sikkim	7,096	74.74	0.75	1.79	343	3.43	8.24	243.95	2.43	5.83
Tamil Nadu	130,058									
Tripura	10,486	2,575.80	25.76	61.82	1,013	10.13	24.31	584.24	5.84	14.02
Uttar Pradesh	240,928									
Uttarakhand	53,483	175.78	1.76	4.22	2,043	20.43	49.03	1,772.67	17.73	42.54
West Bengal	88,752									
Andaman & Nicobar Islands	8,249	2,376.96	23.77	57.05	3,106	31.06	74.54	482.14	4.82	11.57
Chandigarh	114									
Dadra & Nagar Haveli	491		0.00	0.00	4	0.04	0.09	15.25	0.15	0.37
Daman & Diu	112									
Lakshadweep	32	9.40	0.09	0.23	5	0.05	0.12	1.90	0.02	0.05
Puducherry	480									
Grand total	3,287,263	54,201.28	542.01	1300.83	32,175	304.93	731.84	12,999.81	130.00	311.99

(Contd)

Table 2. (Contd)

State/Union Territory	Geological area (sq. km)	Afforestation area as per option-4 for trading by states with twice the national average (option-4)	O&M by states Rs 0.010 crore/sq. km pa. as price of trading	Revenue gen. Rs 0.024 crore/sq. km pa. as 8% of NPV	Area for trading by states with twice the national average (option-5)	O&M by states Rs 0.010 crore/sq. km pa. as price of trading	Revenue by Rs 0.024 crore/sq. km pa. as 8% of NPV
Andhra Pradesh	275,069						
Arunachal Pradesh	83,743	66.61	0.67	1.60	66.6	0.666	1.599
Assam	78,438						
Bihar	94,163						
Chhattisgarh	135,191						
Delhi	1,483						
Goa	3,702	6.22	0.06	0.15	6.2	0.062	0.149
Gujarat	196,022						
Haryana	44,212						
Himachal Pradesh	55,673						
Jammu & Kashmir	222,236						
Jharkhand	79,714						
Karnataka	191,791						
Kerala	38,863						
Madhya Pradesh	308,245						
Maharashtra	307,713						
Manipur	22,327	121.62	1.22	2.92	121.6	1.216	2.919
Meghalaya	22,429	44.84	0.45	1.08	44.8	0.448	1.076
Mizoram	21,081	75.34	0.75	1.81	75.3	0.753	1.808
Nagaland	16,579	34.04	0.34	0.82	34.0	0.340	0.817
Odisha	155,707						
Punjab	50,362						
Rajasthan	342,239						
Sikkim	7,096						
Tamil Nadu	130,058	101.55	1.02	2.44	101.6	1.016	2.437
Tripura	10,486	186.57	1.87	4.48	186.6	1.866	4.478
Uttar Pradesh	240,928						
Uttarakhand	53,483	212.98	2.13	5.11	213.0	2.130	5.111
West Bengal	88,752						
Andaman & Nicobar Islands	8,249	12.92	0.13	0.31			
Chandigarh	114						
Dadra & Nagar Haveli	491	2.17	0.02	0.05			
Daman & Diu	112						
Lakshadweep	32	0.21	0.00	0.01			
Puducherry	480						
Grand total	3,287,263	865.07	8.65	20.76	849.77	8.50	20.395

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Option-2: As a second option the total area of dense forest cover (DFC)³, above twice the national average (24.60%) tradable is 32,175 sq. km. Based on the trade value calculated for management of forest (O&M) and 8% of NPV (Table 2), the revenue that would be generated per year is Rs 304.93 crores and Rs 731.84 crores respectively.

Option-3: States with FC above twice the national average can trade FC equivalent to target set out under option-1 for afforestation. The total area tradable according to this option is 13,000. Based on the trade value calculated for management of forest (O&M) and 8% of NPV (Table 2), the revenue that would be generated yearly is Rs 130 crores and Rs 311.99 crores respectively.

Option-4: States with FC above twice the national average can trade FC equivalent to target set out under option-3 for afforestation, i.e. target distributed inversely to the states' contribution to the national average of FC. The total area tradable according to this option is 865.07 sq. km. Based on the trade value calculated for management of forest (O&M) and 8% of NPV (Table 2), the revenue that would be generated yearly is Rs 8.65 crores and Rs 20.76 crores respectively.

Option-5: This option would be based on the average afforestation undertaken by the states during 2009–12. States with FC above twice the national average can trade area equivalent to average afforested area during the said period. The total area tradable according to this option is 849.77 sq. km. Based on the trade value calculated for management of forest (O&M) and 8% of NPV (Table 2), the yearly revenue that would be generated is Rs 8.50 crores and Rs 20.395 crores respectively.

As can be seen from option-1 (Table 3), 11 states and 2 UTs hold forest cover above twice the national average plus twice the 12th Plan target and these could trade with the remaining 24 states and UTs with forest cover deficit. Arunachal Pradesh has the highest excess FC of 23,806 sq. km while Lakshadweep has the lowest of 9.04 sq. km. The total excess forest cover of 54,201 sq. km under option-1 is available for trading and 11 states/UTs qualify for selling their forest cover. The 24 states with below twice the national average forest

cover could buy FC available and raise the remaining through afforestation.

For option-2 and option-4, the number of states which can sell is 14 and 11 respectively, whereas the number of buying states is 21 and 24 respectively. However, in option-2, DFC available for selling is 32,175 sq. km and in option-4, it is 865.07 sq. km.

For option-3 and option-5, the number of states that could sell (Table 4) is 12 and 9 respectively, less than the other three options. Among the options discussed (Table 5), to enable achieving the target set of 5 m ha increase in FC, the suggestion is to consider option-3 on the basis of area to be traded, revenue (NPV) on selling and on contribution to national forest cover currently. It is suggested that option-5 could also be tried for just trading.

Discussion

Currently the regulatory mechanism does not allow for forest trading. For establishment of a trading mechanism a national-level benchmarking to make forest trading a

Table 4. Buying and selling states on the basis of option-3

Prospective buying states	Prospective selling states/UTs
Andhra Pradesh	Arunachal Pradesh
Assam	Goa
Bihar	Manipur
Chhattisgarh	Meghalaya
Delhi	Mizoram
Gujarat	Nagaland
Haryana	Sikkim
Himachal Pradesh	Tripura
Jammu & Kashmir	Uttarakhand
Jharkhand	Andaman & Nicobar Islands
Karnataka	Dadra & Nagar Haveli
Kerala	Lakshadweep
Maharashtra	
Punjab	
Rajasthan	
Tamil Nadu	
Uttar Pradesh	
West Bengal	
Chandigarh	
Daman & Diu	
Puducherry	
Madhya Pradesh	
Odisha	

Table 3. States selling and buying under the five options

Option	No. of states/UTs selling	No. of states/UTs buying
1	11	24
2	13	22
3	11	24
4	11	24
5	11	14

Table 5. Area traded and revenue generated

	Area traded (sq. km)	Management cost (Rs crore)	8% of NPV (Rs crore)
Option-1	54,201	542.01	1300.83
Option-2	32,175	304.93	731.84
Option-3	13,000	130.00	311.99
Option-4	865.07	8.65	20.76
Option-5	849.77	8.50	20.36

national norm is also necessary. Once the scheme is established, it is expected that private institutions and land owners would also take part in the process and the overall buying–selling mechanism. Considering that the states have to attain the target set and owing to the lack of funds available to attain the target, FCT would be an attractive and easier mechanism for at least partly meeting the FC targets. The FCTS could be a policy instrument for the states to ensure that the targets for the 12th Plan are achieved.

Limitations

There are several practical limitations to the proposal. Many a times, the states do not agree with the Forest Survey of India's accounting. The primary emphasis has to be data based on satellite imagery. The primary assumption and the most critical issue that emerges out in the FCTS is data reliability and sensitivity.

The FCTS has to be a mechanism offering incentives to the states for participation, implementation and compliance. To ensure implementation and policy instrument sustainability, careful consideration and framing of trading structures is critical. Revenue generated that meets the 'needs' of a state or cost of afforestation for forest-deficit states will foster on-going participation. The FCTS has to be implemented to mobilize new and additional financial resources for forests in order to enhance their contribution to human well-being at the local, regional and national levels. There would be a need of an effective and regular monitoring and assessment mechanism of forests. On implementation of the FCTS, the options table would need to be re-worked to keep the data and trading amount updated.

The State Forest Departments could act as the nodal agency entrusted with the task of monitoring the trading mechanism between states. The mechanism should be assessed, not just by the resources it would mobilize or projects that would be initiated and implemented, but ultimately whether or not it has achieved its forest outcome goals. It is critical for the mechanism for forest financing to be 'performance focused'. Performance needs to be defined as the sum of implementation, compliance, enforcement and effectiveness.

For the FCTS to deliver on its goals, it would be significantly important that the incentives are appropriately aligned and the key stakeholder states, local communities and private landholders see it in their interest to act together. It is vital to encourage forest-rich states to make a public commitment and trade their forests with the forest-poor states for sustainable management of their own forests through the additional revenue generated.

Conclusion

In the light of the above, the proposal for forest trading would require several actions before it is implemented because of the following unique characteristics:

- It would be a non-legally binding instrument.
- Besides, the State Governments, the FCTS would also involve local communities, private land-holders to include their forest cover in the overall FC accounting base and participate in the trading process.
- It would require an ongoing assessment of effectiveness and an adaptive management process for utilizing the revenue generated in line with the forest cover targets components.

A new trading scheme that acknowledges the forest cover and financial realities on the ground, would mobilize new and significant resources for forests. With a bold, innovative and collaborative forest-trading mechanism, the national forest community would benefit truly from such a complementary scheme. The core of the mechanism lies in 'trading'. To ensure implementation and mechanism sustainability, critical consideration has been given to estimation and evaluation of the various options and the best possible option on the basis of revenue generated and expenditure to be incurred by the deficit states has been devised. This is because trading amount ought to be appropriated; only then would it be acceptable among the states to attain their forest cover goals. It is hoped that this trading mechanism would provide 'windows of opportunity' to bring about a real and meaningful change in forest cover scenario of the country.

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