

# **Future forest of Ranchi, state capital of Jharkhand with special reference of Jan Van Yojna of Jharkhand: Analysis of the action plan and suggestions for the implementations.**

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## **Abstract**

Jharkhand is a land of biodiversified forest having total forest resource area of 33.81%. In the Indian constitution, Forest is the subject of concurrent list. The State government of Jharkhand has launched an ambitious welfare plantation scheme on private land known as “JanVan Yojana” in the year 2016. The objective of the scheme is to increase the green cover, maintain the environmental balance, conservation of the underground water, to reduce the pressure on notified forest, to increase the farmer’s/beneficiaries’ income as well as to increase forest cover in the state by people’s participation. Under this scheme, there is a provision of planting timber yielding plants and fruit yielding plants in block plantation or linear afforestation on the ridge of the field. The current study was carried out to investigate to analyze the change in the forest cover of the capital by the implementation of the scheme after its launch. The primary as well as secondary data of the beneficiaries’ shows that the scheme has not been implemented properly

because least applicants have been approved as well as there has been a steady decline in the number of beneficiaries in consecutive years of yojana implementation. The reasons behind the inappropriate implementation are lack of knowledge among beneficiaries about economic values of the fruit and timber yielding crops and their participation in adoption of the scheme, lack of skills/ training and irrigation system, lack of awareness regarding the yojana, lack of canvassing and publicity of the scheme among beneficiaries as well as less funding approved for the scheme implementation and untimely distribution of planting material. Therefore, in addition to launch, it is also necessary to follow up the reports and develop a better action plan for implementation of the scheme, to increase the forest cover area of the Ranchi.

**Keywords: Jan Van Yojana, Social forestry on private land, Jharkhand, Ranchi, Forest Cover, Action Plan**

### **Introduction**

Forests cover one-third of the earth's land area (FAO 2015) and provide a range of benefits to the society. These benefits include fuel and industrial needs, food security and improved livelihoods, soil and water conservation, climate amelioration etc. In India after agriculture, Forest is the second largest land use covering 21.67% of the total geographical area of the country (FSI 2019). Forests also play a significant role in maintaining important ecological balance by stabilizing soils and climate and regulating water flows and their constituent products help in sustaining the human life (Daily 1997).

Jharkhand came into existence as the 28<sup>th</sup> state of India on 15<sup>th</sup> November 2000 after being carved out from Bihar. Two separate words “*Jhar*” means “bush” and “*Khand*” means “land” was combined to devise the “Jharkhand” which literally means “Land covered with Forest”. In Indian constitution, Jharkhand is one of the biodiversity rich states and forest is the

subject of “concurrent list”. The total geographical area of the state is 79,716 Km<sup>2</sup>, out of which total forest area is 23,611 Km<sup>2</sup> which is 29.62 % of the state geographical area. However, the national forest policy, 1988 aims at bringing it to 33 % of the geographical area of the country/state under forest and tree cover (Annual Report, Government of Jharkhand, 2019; FSI, 2019) (Table 1 & Fig. 1 & 2). The total percentage forest cover of the state is greater than the country’s percentage forest cover (21.67% and total forest cover of India is 712,249 Km<sup>2</sup>) (Table 2 & Fig. 3). The total forests and tree cover comprised about 33.81% (26956 km<sup>2</sup> = 23611 km<sup>2</sup> forest + 688 km<sup>2</sup> scurb + 2657 km<sup>2</sup> TOF) of the total geographical area of the state (ISFR, 2019) which is equivalent to the required 33% benchmark as per the National Forest Policy 1988.

Ranchi is the state capital of Jharkhand situated at 23° 45’ N latitude, 85° 30’ E longitude and 620 m elevation AMSL with geographical area of 5231 km<sup>2</sup> and its population is 2914253, of which 56.86% rural and 35.76% tribe peoples. The capital city constitutes only 22.85% (1164.49 km<sup>2</sup>, year 2019) (Table 2 & Fig. 4) of forest area with decline of 0.49% from previous year i.e. very low from national forest area target of 33% (Annual Report, GOJ, DoFECC, 2019-20)

Table 1. India vs Jharkhand and Ranchi : Forest cover area (FSI 2001, 2011, 2015 & 2019)

Year	Forest area of India (sq km)	Forest area of India (in Percent)	Forest area of Jharkhand (sq km)	Forest area of Jharkhand (in Percent)	Forest area of Ranchi (sq km)	Forest area of Ranchi (in percent)
2001	675,538	20.55	22,490	28.40	1732	22.50
2011	692,027	23.81	22,977	28.82	1904	24.73
2015	701,673	21.34	23,478	29.45	2076	26.97
2019*	712,249	21.67	23,611	29.62*	1164.49#	22.85

\*The forest cover area of Jharkhand increased from 22490 sq km to 23616 sq km in the period up to 2001-2019 i.e. the forest cover increased to 944 sq km

\*Forest and tree plantations increased by 58 square kilometres compared to 2017

\*In 2019, total forest area of Jharkhand: 23611 sq km of forest, 688 sq km of Shrub, 2657 sq km of Tree out of forests; A total of 26956 sq km i.e. 33.21% of the total geographical area of the state

#Dense Forest 63.04 sq km, medium forest 364.19 sq km, open forest 737.26 sq km

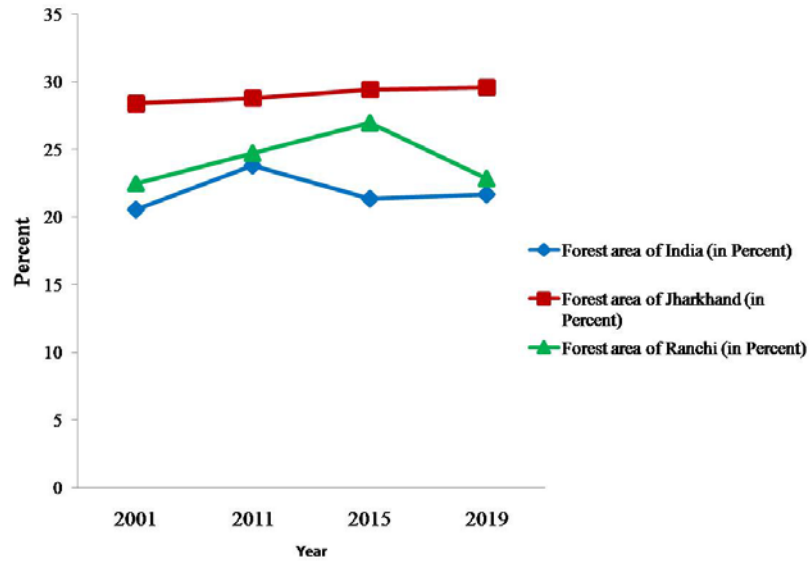
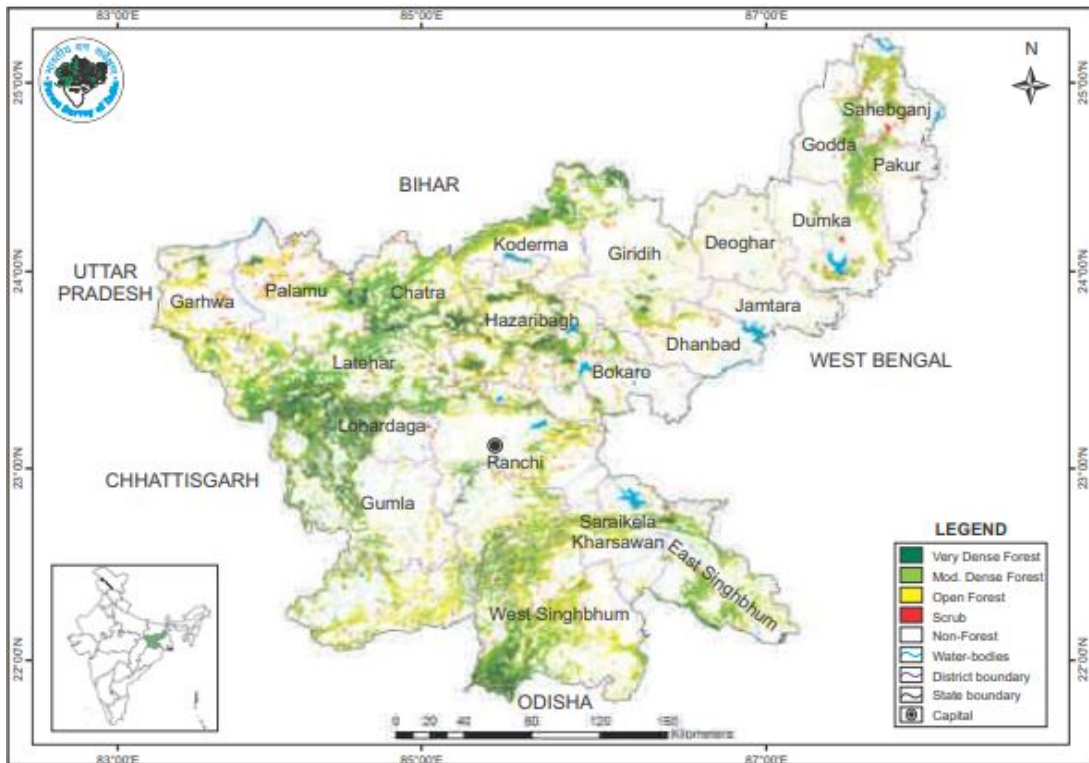


Fig 1. Forest cover area (in percent of geographical area) of India, Jharkhand and Ranchi during 2001-2019



Source ISFR (2019)

Fig 2. Forest Cover Map of Jharkhand

Table 2. Distributions of Forest cover of Jharkhand and Ranchi

Class	Forest Area of Jharkhand (in sq km)	% of Geographical Area	Forest Area of Ranchi (in sq km)	% of Geographical Area
VDF	2,603.20	3.27	63.04	1.24
MDF	9,687.36	12.15	364.16	7.14
OF	11,320.85	14.20	737.26	14.46
Total	23,611.41	29.62	1164.49	22.85
Scrub	688.05	0.86	-	-

VDF Very Dense Forest, MD Moderately Dense Forest, OP Open Forest  
 Source ISFR (2019)

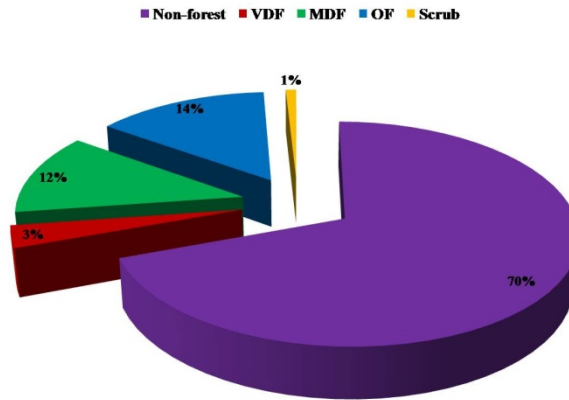


Fig 3. Forest cover of Jharkhand

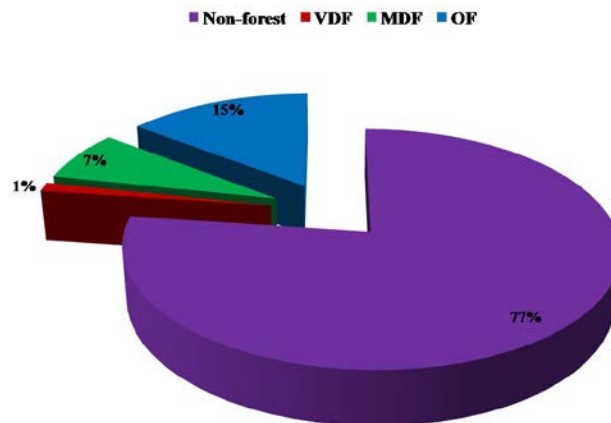


Fig 4. Forest cover of Ranchi

Social Forestry is an idea and a mission which aims at ensuring ecological, economic and social security to the people, particularly to the rural masses especially by involving the beneficiaries right from the planning stage to the harvesting stage (Siddiqui 2002). Social forestry projects aimed at reducing the pressure from the notified forests by afforestation of all the unused and fallow lands including village common lands, the Government wasteland and Panchayat lands. Tree plantations alongside roads, canals, railways, etc., reforestation or rehabilitation of degraded forest areas as well as Farm forestry (tree plantation on private land).

Keeping farm forestry concept in the view and for expansion of forest cover area of the state, the Government of Jharkhand has launched a welfare scheme “Jan Van Yojana” in the year 2016 (Resolution No. 5965, Government of Jharkhand and dt-27.11.2015). The major objectives of the scheme is to increase the green cover and maintain the environmental balance, conservation of the underground water by plantation, to reduce the pressure on notified forest by planting the trees in the private land, to increase the farmers income as well as to increase forest cover in the state by peoples participation (CM JanVan Yojana Booklet, Government of Jharkhand, 2016). Under the scheme, there is a provision of plantation of the 445 numbers of timbers yielding plant species *viz.* Rosewood, Teak, Ghamar, Mahogany, Clonal Eucalyptus and Acacia and 160 numbers of fruit yielding plant species *viz.* Kalmi Mango, Guava, Gooseberry, Litchi, Jackfruit and Beal in one acre of land with a prescribed distance in block plantation or linear afforestation on the ridge of the field. The minimum and maximum limit of planting area for a single beneficiary is 0.5 and 50 acres, respectively. 75% of the total cost incurred over the plantation and their maintenance are borne by the State Government/Forest Department for the first 3 years of the plantation (Resolution no-2005, dated-14.05.2018, GOJ, DoFECC).

The success of any government scheme depends upon the advantages for the beneficiaries and at what level objectives has been fulfilled. Keeping in the view about the objective of the Jan Van yojana, the present study is carried out to analyze the change in the forest cover of the capital by the implementation of the scheme after its launch.

### **Materials and Methods**

The data of beneficiaries' plantation sites of Ranchi were collected from NIC, Ranchi and Van Bhawan (Department of Forest, Environment and Climate change, Government of Jharkhand), Ranchi during year 2016-17 to 2020-2021. Also made on the basis of meeting held with the beneficiaries of Angara and Budmu blocks of Ranchi district and concerned Ground level officers *viz.*, Forest guard (Van Rakshi), Forester (Van Pal) and Forest Rangers (Vanshetr Padadhikari).

### **Results and Discussion:**

Ranchi is the capital city of the Jharkhand, located in the centre on tropic of cancer with 620 m above mean sea level. It is at the southern part of the Chota Nagpur plateau having hilly topography, dense tropical forest and humid subtropical climate situation in VII<sup>th</sup> agro-climatic zone (eastern plateau zone). According to the 2011 census, the total population of Ranchi is 2914253 (14949316 male and 1419316 female), out of which 56.86% and 43.14% populations reside in rural areas and urban areas, respectively. The total tribal population in Ranchi is 35.76%. Tribal's mainly depends on forests and forests products as they have symbiotic relationship with the forests (Saha and Sengupta 2014). Agriculture is main source of livelihood and primary source of income for the majority of rural population of the district.

The data about the beneficiaries' application status for different years are represented in the Table 3. The total number of the applicant applied to avail the scheme benefits during year

2016-17 is 81, in year 2017-18 is 31, in year 2018-19 is 85, in year 2019-20 is 172 and in year 2020-21 is 12 (Table 3). This suggests that the very less number of populations has been applied to avail the benefits with respect to the total population of Ranchi, especially remote, rural and tribal population during the consecutive years of the scheme. Out of total application received, the lowest percent (20.93 %) and highest percent (100%) of applicants availed the benefits of the scheme during year 2016-17 and 2020-21, respectively. The highest numbers of the beneficiaries were in year 2016-17 (74 out of 81 applicant), followed by in year 2018-19 (63 out of 85 applicant), followed by in year 2019-20 (36 out of 172 applicant), followed by in year 2017-18 (12 out of 31 applicant) and finally lowest in year 2020-21 (12 out of 12 applicant) (Table 4). From above data, it can be concluded that the beneficiaries who have been applied for availing the benefit of the scheme could not availed the benefits. This may be due to certain reasons, that the scheme has not been properly popularized and campaigned. It may also due to lack of awareness among the beneficiaries regarding the scheme and lack of beneficiaries' participation for its proper implementation. Approximately 67.74% to 100% of the application were get approved out of total number of application received under the scheme ranges from 12 to 164 during 2016-17 to 2020-21 (Table 3). This is because the government application selection or scrutiny procedure was very complex, lengthy and time taking.

Table 3. Data of Application status under JanVan Yojana, Jharkhand for Ranchi District (Source: <http://janvan.jharkhand.gov.in/>)

S.No.	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Total No. of application</b>	81	31	85	172	12
<b>Approved Application*</b>	78 (96.29)	21 (67.74)	78 (91.76)	164 (95.34)	12 (100)
<b>Pending Application</b>	1	2	6	8	-
<b>Approved Area for Plantation (in Acre)</b>	184	65	144.21	356.29	17.26
<b>Pending Area for Plantation (in Acre)</b>	2	58	47.77	93.19	-

\*Figures in parentheses is the percent of approved application with respect to total number of application received in the year



The numbers of timber yielding plants were 16121, 2379, 9750, 3762 & 1385 and fruit yielding plants were 13850, 1302, 11217, 7703 & 2190 planted during 2016-17, 2017-18, 2018-19, 2019-20 & 2020-21, respectively. The drastic drops in the number of timber yielding plants to 3052, 423 & 2437 and fruit yielding plants to 2399, 853 & 1850 after 3<sup>rd</sup> years of the plantation made in 2016-17, 2017-18 & 2018-19, respectively (Table 4). The decline in the numbers of the planted at beneficiaries' private land from the plantation year to scheme duration benefits year (3 years duration) is may be due to the untimely distribution of planting material by the department to the beneficiaries, lack of plantation and management skills or training among beneficiaries, lack of the irrigation system and lack of knowledge about skilled specific cultural operations like propagation, pruning and harvesting of horticultural and timber crops as well as their economic values among beneficiaries. As the beneficiaries are low income farmers and they cannot able to meet the expenses for the management of the crops because low funding is provided by the department and incentive reimbursed for claimed amount to the beneficiaries is after tedious or complex scrutiny of the claim. Therefore, the low and deferred budget allocated to the beneficiaries is also one of the main reasons for the declining in the numbers of the fruit yielding as well as timber yielding crop.

Table 4. Compiled Data of different parameters of JanVan Yojana, Jharkhand (Source: <http://janvan.jharkhand.gov.in/>)

S.No.	2016-17		2017-18		2018-19		2019-20		2020-21	
	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	1 <sup>st</sup> Year	3 <sup>rd</sup> Year
No. of applicants /	81	NA	31	NA	85	NA	172	NA	12	NA
No. of Beneficiaries*	74 (91.35)	24	12 (38.70)	4	63 (74.11)	24	36 (20.93)	NA	12 (100)	NA
Area for Plantation (in Acre)	147.61	43.03	34.22	7.0	104.64	45.83	38.07	NA	17.26	NA

No. of Fruit Yielding Crops	13850	2399	1302	823	11217	1850	7703	NA	2190	NA
No. of Timber Yielding Crops	16121	3052	2379	423	9750	2437	3762	NA	1385	NA
Amount paid to beneficiaries	11673 43.50	7610 5.20	141990. 00	1971 2.00	98209 .00	55353 .00	11827 4.00	NA	#4281 03.00	NA

\*Figures in parentheses is the percent of number of beneficiaries with respect to total number of application received in the year

#estimated amount, yet not paid due to covid pandemic

Finally, according to the results of the present study, as the number both type of crops decreases in the consecutive year of plantation, the plantation area were decreased significantly due to which there is less expansion in the forest cover area. Apart from the responsibility of the launching any scheme, it is also necessary to follow up the reports and make an improved action plan for the scheme for its better implementation.

### Conclusion

The population growth of both humans and livestock results in high demand of all type of produces as well as leads to the severe decrease in per capita land availability. Growing population and their activities such as fossil fuels consumption by burning, deforestation and livestock’s farming add in the enormous amounts of greenhouse gases which ultimately leads to global warming and climate change. Global climate change and environmental imbalance are most challenges faced by the government and society now a day. To prevail over this situation and for betterment of the society, government has to plan policies and concerned schemes/programme. In this context, Jharkhand government has been introduced a welfare scheme known as JanVan Yojana. But the yojana have not been properly implemented at

beneficiaries' level due to certain reasons which are important to diagnose, in order to make the yojana successful. To implement successfully, the scheme should be properly popularized and campaigned among beneficiaries as well as make them aware about the monetary benefits of the plantation. The beneficiaries should be provided with the training on the plantation, management and skilled specific cultural operations like propagation, pruning and harvesting of horticultural and timber crops as well as also gets adequate funding for the arrangement of the irrigation system and fencing of the land. After that, the scheme will be properly implemented and positive impact such as increase the green cover of the state, maintain the environmental balance, conserve the water, reduce soil erosion, reduction in greenhouse gases, increase farmer's income by increasing the scope of fruit and timber yielding industries as well as helpful in employment generation will occur. Therefore, besides the implementation, it is very much important to follow up the reports and make better action plan for the schemes.

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