

 <p>ISSN NO. 2320-5407</p>	<p>Journal Homepage: -www.journalijar.com</p> <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)</p> <p>Article DOI:10.21474/IJAR01/11722 DOI URL: http://dx.doi.org/10.21474/IJAR01/11722</p>	 <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407 Journal Homepage: http://www.journalijar.com Journal DOI:10.21474/IJAR01</p>
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RESEARCH ARTICLE

IMPACT OF DIFFERENT WELFARE SCHEMES ON SOCIO-ECONOMIC STATUS OF FOREST DWELLERS IN MADHYA PRADESH

Sanjukta Mudgal and Dr. J.V. Sharma

Manuscript Info

Manuscript History

Received: 15 July 2020

Final Accepted: 18 August 2020

Published: September 2020

Abstract

The Parliament, on 29 December 2006, passed a historic legislation called “The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006”, popularly called FRA, 2006, to recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes (STs) and Other Traditional Forest Dwellers (OTFDs). One of the objectives of the Act is to strengthen the conservation regime of the forests while ensuring livelihood and food security of the forest dwellers. While recognizing and vesting various rights in forest dwelling STs & OTFDs several welfare schemes to improve the productivity of forest land recognized and thereby to uplift the socio-economic status of forest dwellers have been carried out. Besides, the development rights provided under Section 3(2) for creation of infrastructure etc. in the villages also play an important role in this direction. A study was conducted to assess the FRA’s impact on socio-economic status of the forest dwellers in Madhya Pradesh considering that the State has got extensive forest areas, large forest dwelling tribal communities, presence of diverse agro-ecological zones, and being pioneer in the implementation of FRA. Survey was carried out in six districts viz. Chhindwara, Mandla, Badwani, Khargone, Shahdol and Sidhhi and the result reveals that different welfare schemes implemented for the benefits of forest dwellers and recognized forest land have created overall positive impacts on their socio-economic status, post implementation of FRA 2006.

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Introduction:-

“The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006” popularly called Forest Rights Act (FRA) was passed by the Government of India on 29 December, 2006 with “Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules notified subsequently under the Act on 01 January, 2008. The Rules were further amended in 2012. The Act vests the forest dependent STs and OTFDs their customary tenurial and access rights over land and resources within the forests over which they have been traditionally dependent. The two major objectives highlighted in the preamble, the soul of the Act are:

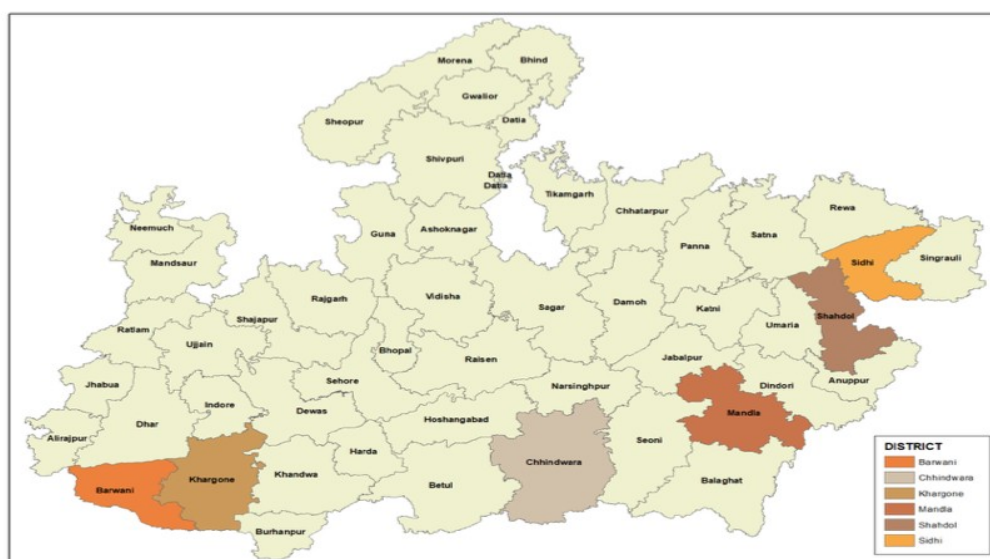
“An Act to recognise and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded; to provide for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.

“WHEREAS, the recognised rights of the forest dwelling Scheduled Tribes and other traditional forest dwellers include the responsibility and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance and there by strengthening the conservation regime of the forests while ensuring livelihood and food security of forest dwelling Scheduled Tribes and other traditional forest dwellers.”

In view of above, the existing rights of forest dwelling STs/OTFDs were to be recognized which would also include their responsibilities and authorities for sustainable use, conservation of bio-diversity, maintenance of ecological balance for strengthening the conservation regime of the forests while ensuring their livelihood and food security. The rights have been grouped into three broad categories viz. Individual Rights (IR); Community Rights (CR) and Conservation of Forest Resources Rights (CFR). Besides, FRA also provides for another category of “development rights” for the forest dwellers wherein, the forest land could be diverted for thirteen different facilities for creation of infra-structure facilities in the villages which may involve felling of trees not exceeding seventy-five trees per hectare. While the State has been implementing the FRA, efforts by different government development departments have also been made to extend the benefits of different development schemes of both State and Centre primarily to forest dwelling STs/OTFDs to improve their socio-economic status.

Purpose Of Study:

Madhya Pradesh has been one of the few states that has performed well in the implementation of FRA. The state has been pioneer in recognising the large extent of forest land (9,34,088 ha. forest area, source: quarterly progress report by Tribal Welfare Department, Madhya Pradesh) in the country over which titles have been distributed. About 2,64,043 individual rights and 29,980 community claims were accepted as against 5,82,927 individual claims and 42,048 community claims received respectfully in the State, status as upto March 2019. Besides, the state has got the largest chunk of recorded forest areas in the country i.e. 94,689 sq km (61,886 sq.km RF; 31,098 sq.km PF; and 1,705 sq.km unclassified forest) which constitute 30.72% of total geographical area of the state (Source: Government of India, 2019, India State of Forest Report, Forest Survey of India, Ministry of Environment, Forests and Climate Change). A sizeable number of tribal populations (1.53 crore i.e. 21.1% population) live in the state (**Census, 2011**) and they belong to 46 recognized groups including three Primitive Vulnerable Tribal Groups (Baiga, Bharia and Saharia). The per capita dependence of people on forests in the state has also been very high. Therefore, as more than ten years have passed since implementation of FRA, a study was carried out with the objective to ascertain “the status of the implementation of Forest Rights Act, 2005 in the state of Madhya Pradesh specifically in the spirit of Land Rights, Use Rights and Forest Protection and Conservation Rights”. One of the Research Questions of the study was to find out whether the FRA has been able to upgrade the socio-economic status of forest dwellers. Present study was made by testing the significant association between responses about execution of ‘various schemes to increase the productivity of the forest land recognized’ and ‘increase in income’ after implementation of FRA, 2006 to understand the impact of different welfare schemes on the socio-economic status of forest dwellers.



Methodology:-

The study was conducted in six representative districts (out of 51 total districts) following a stratified random sampling procedure. The districts selected were Chhindwara, Mandla, Sidhi, Shahdol, Badwani and Khargon chosen from three different geographical regions viz; Mahakoshal; Baghelkhand-Vindhyan region; and Malwa-Nemar region because, the central, eastern and southern parts of the state are rich in forest resources whereas, the northern and western parts are deficient. Besides, the districts were selected based on few criteria viz. where both individual and community rights were settled under FRA; which had more than 15% forest cover; having more than 20% tribal population (Source: Census of India, 2011, India State of Forest Report 2015 & 2017). The same criteria were followed while selecting Blocks. The data through semi-structured questionnaire were collected during 2018-2019. In addition, secondary data were also gathered from Forest and Tribal Welfare departments of Madhya Pradesh for supplementing the results.

The data of total number of forest right claims received, accepted and rejected in Khargon, Chhindwara, Mandla, Sidhi, Shahdol, Badwani districts and whole of Madhya Pradesh was the basis of determining the sample sizes for carrying out study. The proportion of accepted claims (p) to rejected ones (q = 1-p) is calculated and minimum number of respondents (n) at 10 % error and 5% error in the field is presented in the table below by formula:

$$n = z^2 \frac{pq}{E^2}$$

[Source : From the book of Fundamentals of Statistics by D.L. Elhance, published by Kitabmahal, 22-A, Sarojaini Naidu marg, Allahabad, edition 1994 Page No. 21.14, Topic, Estimating sample size for population proportion.]

Table 1:- Number of Sample Points.

Z= 1.96 for 95% Confidence Interval or 5% level of Significance

S.No.	Name	Claims Received	Claims accepted	Ratio (p)	q = 1-p	No. of Sample Points (n=z ² pq/E ² (10%))	No. of Sample Points (n=z ² pq/E ² (5%))
1	Khargon	29635	18766	0.63	0.37	89.22	356.88
2	Chhindwara	14021	7878	0.56	0.44	94.57	378.28
3	Mandla	18166	13076	0.72	0.28	77.48	309.92
4	Sidhi	11259	1981	0.18	0.82	55.70	222.80
5	Badwani	40293	24502	0.61	0.39	91.55	366.20
6	Shahdol	21112	11954	0.57	0.43	94.36	377.42
7	M.P.	624000	250000	0.40	0.60	92.25	368.99

Data Source: Madhya Pradesh Tribal Welfare Department

After designing of the questionnaire, the responses of different respondents in the villages were collected and bundles of each district were analyzed with reference to different research questions based on various associations developed to analyze the result. The number of respondents decided for the study is based on the 5% error. The surveyed data have been analysed following the Chi Square statistical analysis which is commonly used for testing relationships between categorical variables.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where,

1. χ^2 = Chi-square
2. \sum = The sum of
3. O = Observed values
4. E = Expected values

For a given cell, the expected value is calculated as follow:

$$E = \frac{\text{row sum} \times \text{column sum}}{\text{grand total}}$$

The method has been to evaluate the Tests of Independence by using a cross tabulation process for which following has been developed:

Null hypothesis (H₀):

There is no association between the two variables at 5 % level of significance in particular districts in the state of Madhya Pradesh which means the row and the column variables of the contingency table are independent.

Alternative hypothesis (H₁):

There is a significant association between the two variables at 5 % level of significance in particular district and the state of Madhya Pradesh which means the row and column variables are dependent. For each cell of the table, we have to calculate the expected value under null hypothesis.

So at 5% level of significance χ^2 cal is made by formula mentioned above and χ^2 tabulated is taken from χ^2 table for a particular degree of freedom and decision rule is made as follows:

If $\chi^2 \text{ cal} < \chi^2 \text{ tabulated}$ then Null hypothesis accepted it means the row and the column variables of the contingency table are independent and there is no association.

If $\chi^2 \text{ cal} > \chi^2 \text{ tabulated}$ then Null hypothesis Rejected it means the row and the column variables of the contingency table are dependent and there is significant association.

The test is also appropriate as the sampling method has been the random stratified, variables under study are each categorical, the sample data is displayed on a contingency table, and the expected frequency of each cell is at-least 5. Accordingly, the two variables to answer the research question using a Chi-Square analysis have been: whether any improvement in the income status was reported after implementation of FRA, and whether various developmental works have been carried out to increase the productivity of the piece of forest land on which the individual claims were recognized. The results were analysed by comparing the observed pattern of responses with the expected ones, considering the variables truly independent of each other. The association studied were between responses about various schemes to increase the productivity of the forest land recognized and increase in income after implementation of FRA, 2006.

Results and Analysis:-

The results of all sampled six districts viz Badwani, Chhindwara, Khargon, Mandla, Shahdol, Sidhi and whole of the Madhya Pradesh have been shown in the Tables below wherein, the association of implementation of various schemes in these districts to "Increase the productivity of the forest land recognized (schemes for agriculture productivity, irrigation and others) with the responses of "Increase in income after implementation of FRA, 2006" (Yes/No) have been analyzed, with the observed values shown without brackets and expected responses in small brackets:

Table-2:-District: Badwani.

Responses about various schemes to Increase the productivity of the forest land recognized Vs Increase in income after implementation of FRA, 2006			
Schemes to increase the productivity of the forest land recognized	Increase in income after implementation of FRA, 2006		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	5 (8)	6 (3)	11
Irrigation (Wells dug under Kapildhara scheme, Diesel/Electric pumps etc.)	28 (24)	5 (9)	33
Others	7 (9)	5 (3)	12
Total	40	16	56
$\chi^2 \text{ cal} = 8.35$, Degree of freedom = $(3-1)*(2-1) = 2$ $\chi^2 \text{ tabulated} = 5.991$			

Result: Null hypothesis is rejected, it means there is significant association between Responses about Various schemes to Increase the productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Badwani district.

The significant value in Badwani district is due to increase in income after implementation of FRA, 2006. From the significant response value of 28 under irrigation facilities it is evident that the land productivity has been improved after government's intervention. The secondary data collected from State Tribal Welfare Department reveals that in Badwani district, out of 24502 title holders, 14704 have been provided with assistance for digging of wells under KapilDhara scheme; Diesel and Electric pumps have been provided to 12232 title holders; 5469 have been benefitted under BhoomiShilp Yojna etc. The combined efforts have brought out improvements in the socio-economic conditions of forest dwellers.

Table-3:-District: Chhindwara

Responses about various schemes to Increase the productivity of the forest land recognized Vs Increase in income after implementation of FRA, 2006

Schemes to increase the productivity of the forest land recognized	Schemes to increase the productivity of the forest land recognized		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	55 (50)	9 (14)	64
Irrigation (Wells dug under KapilDhara scheme, Diesel/Electric pumps etc.)	11 (13)	6 (4)	17
Others	13 (16)	7 (4)	20
Total	79	22	101

$\chi^2 \text{ cal} = 6.4$, Degree of freedom = $(3-1)*(2-1) = 2$ $\chi^2 \text{ tabulated} = 5.991$

Result: Null hypothesis is rejected, it means there is significant association between Responses about Various schemes to Increase the productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Chhindwara district.

The significant value in Chhindwara district for increase in income after implementation of FRA 2006 is due to significant response value of 55 under agriculture productivity. It is evident in the secondary data taken from State Tribal Welfare Department that in Chhindwara district out of total 7878 title land holders 2628 enjoy the benefits of BhoomiShilp scheme, 965 have been benefitted under KapilDhara, and 652 individuals have been supported by other schemes. In the district, implementation of different welfare schemes for FRA beneficiaries has brought out positive results due to improvements in the land productivity because of application of fertilizers, improved seeds, construction of farm embankments/boundary mounds etc. on the land of individual title holders.

Table- 4: District: Khargone

Responses about various schemes to Increase the productivity of the forest land recognized Vs Increase in income after implementation of FRA, 2006

Schemes to increase the productivity of the forest land recognized	Schemes to increase the productivity of the forest land recognized		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	5 (8)	7 (4)	12
Irrigation	25 (19)	5 (11)	30
Others	6 (9)	8 (5)	14
Total	36	20	56

$\chi^2 \text{ cal} = 11.34$, Degree of freedom = $(3-1)*(2-1) = 2$ $\chi^2 \text{ tabulated} = 5.991$

Result; - Null hypothesis is rejected, it means there is significant association between Responses about Various schemes to increase the productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Khargone district.

The significant value in Khargone district is due to increase in income after implementation of FRA 2006. This has been due to significant response value of 25 in irrigation facilities. It is evident in the secondary data gathered from State Tribal Welfare Department that, in Khargone district 18037 title land holders have been benefitted with construction of 5120 wells under Kapildhara schemes and diesel and electric pumps provided to 1331 beneficiaries which is about 26% of total title holders. In this district FRA application was effective due to the irrigation facilities provided in individual's lands.

Table-5:-District: Mandla.

Responses about Various schemes to Increase the productivity of the Forest land recognized Vs Increase in income after implementation of FRA, 2006

Various schemes to Increase the productivity of the Forest land recognized	Increase in income after implementation of FRA, 2006		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	29 (24)	5 (10)	34
Irrigation	11 (12)	6 (5)	17
Others	8 (11)	8 (5)	16
Total	48	19	67

$\chi^2 \text{ cal} = 6.44$, Degree of freedom = $(3-1)*(2-1) = 2$ $\chi^2 \text{ tabulated} = 5.991$

Result; - Null hypothesis is rejected it means there is significant association between Responses about Various schemes to Increase in productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Mandla district.

The significant value in Mandla district is due to increase in income after implementation of FRA 2006. This has been due to significant response value of 29 in agriculture productivity. It is evident in the secondary data collected from State Tribal Welfare Department that in Mandla district 9841 title landholders enjoy 7142 Bhoomi Shilp under Government schemes, and other schemes also supported 1911 individuals. In this district the agriculture land productivity has gone up due to application of various fertilizers and seeds by individuals beneficiaries.

Table-6:-District: Shahdol.

Responses about Various schemes to Increase the productivity of the Forest land recognized Vs Increase in income after implementation of FRA, 2006

Various schemes to Increase the productivity of the Forest land recognized	Increase in income after implementation of FRA, 2006		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	7 (7)	8 (8)	15
Irrigation	6 (5)	5 (6)	11
Others	7 (8)	9 (8)	16
Total	20	22	42

$\chi^2 \text{ cal} = 0.62$, Degree of freedom = $(3-1)*(2-1) = 2$ $\chi^2 \text{ tabulated} = 5.991$

Result; - Null hypothesis is accepted, it means there is no association between Responses about Various schemes to Increase in productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Shahdol district.

There is no significant value in Shahdol district in increase in income after implementation of FRA, 2006. This has

been due to poor response value in agriculture productivity, irrigation and others. It is evident in the secondary data from State Tribal Welfare Department that, in Shahdol district 11954 title land holders enjoy 1168 wells, 1235 BhoomiShilp, 511 diesel/electric pumps and 84 other schemes' benefits. In this district the socio-economic status has not improved due to the poor agriculture land productivity, poor availability of various fertilizers and seeds, insufficient irrigation facilities and supply of diesel pumps etc. to individual title holders.

Table-7:-District: Sidhi.

Responses about Various schemes to Increase the productivity of the Forest land recognized Vs Increase in income after implementation of FRA, 2006

Various schemes to Increase the productivity of the Forest land recognized	Increase in income after implementation of FRA, 2006		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	6 (6)	5 (5)	11
Irrigation	7 (7)	6 (7)	13
Others	9 (9)	8 (8)	17
Total	22	19	41

χ^2 cal = 0.0, Degree of freedom = (3-1)*(2-1) = 2 χ^2 tabulated = 5.991

Result; - Null hypothesis is accepted it means there is no association between Responses about Various schemes to Increase in productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in Sidhi district.

There is no significant value in Sidhi district regarding increase in income after implementation of FRA 2006. This has been due to poor response value in agriculture productivity, irrigation and others. It is evident in the secondary data, collected from State Tribal Welfare Department, that in Sidhi district 1331 title land holders enjoy 250 wells, 650 BhoomiShilp, 26 diesel/electric pumps and 100 benefits under other schemes. In this district the socio-economic status has not been so effective due to the poor agriculture land productivity, poor availability of various fertilizers and seeds, insufficient irrigation facilities, poor supply of diesel/electric pumps etc to individual title holders.

Table-8:-Madhya Pradesh.

Responses about Various schemes to Increase the productivity of the Forest land recognized Vs Increase in income after implementation of FRA, 2006

Various schemes to Increase the productivity of the Forest land recognized	Increase in income after implementation of FRA, 2006		Total
	Yes	No	
Agriculture productivity (leveling of land, bounding, hybrid seeds, fertilizers etc.)	107 (99)	40 (48)	147
Irrigation	88 (82)	33 (39)	121
Others	50 (64)	45 (31)	95
Total	245	118	363

χ^2 cal = 12.73, Degree of freedom = (3-1)*(2-1) = 2 χ^2 tabulated = 5.991

Result; - Null hypothesis is rejected it means there is significant association between Responses about Various schemes to Increase in productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA productivity of the forest land recognized for cultivation and Increase in income after implementation of FRA in the state of Madhya Pradesh.

The significant value in the state of Madhya Pradesh is due to increase in income after implementation of FRA 2006. The significant response value of 107 in agriculture productivity, 88 in irrigation contributes more towards positive responses compared to **No values** of 40 and 33. It is evident in the secondary data, from State Tribal Welfare Department, that in the state of Madhya Pradesh 226313 title holders enjoy 54965 construction of wells under KapilDhara scheme, 57721 BhoomiShilp, 24366 diesel/electric pumps and 19455 under other schemes. In the State

Government's intervention for uplifting the socio-economic status of FRA beneficiaries has been quite effective due to the improvements in agriculture land productivity, providing irrigation facilities and supply of various fertilizers and seeds to individual title holders.

Discussions:-

Implementation of different welfare schemes by the State Government for FRA beneficiaries has helped in enhancement of their socio-economic status in Madhya Pradesh. As a database of beneficiaries, who are mostly underprivileged and marginalized, was available state-wide due to the implementation of FRA, 2006, it has become useful for the state welfare departments to identify the eligible beneficiaries to extend benefits of different government schemes which aim at improving their socio-economic conditions. Barring a few districts viz. Sidhi and Shahdol, positive response has been received from forest dwellers from all other places. As different welfare schemes of both State and Center have included FRA title holders as one of the eligible groups to get scheme benefits, forest dwellers at many places have been benefitted under schemes viz. KapilDhara, BhoomiShilp, providing Diesel/Electric Pumps, improved seeds, crop loans etc. specifically for better agricultural output. In addition, other scheme benefits viz. PM AawasYojna(PMAY), UjjawalaYojna, construction of toilets under Swachha Bharat Mission etc. has also been provided to FRA beneficiaries across the State. A visible improvement in the socio-economic status of titleholders could be noticed. The beneficiaries in Forest Villages particularly have been benefitted a lot after the Co-operative Banks started recognizing their titles of forest land for seed/crop loans. They have also been given financial assistance for procuring either Diesel/Electric Pumps, assistance under PM AawasYojna etc. In most of the cases beneficiaries were found receiving hybrid seeds from Agriculture Department although, only a few beneficiaries reported an increase in crop output during interview but, a proper orientation and awareness campaign among forest dwellers could promote proper and successful use of hybrid seeds.

The result for Badwani, Chhindwara, Khargone, Mandla and state of Madhya Pradesh has shown significant association between various responses about various schemes to increase the productivity of the forest land recognized and increase in income after implementation of FRA 2006. The farm embankment, boundary mounds under land development works at many places have helped in prevention of soil erosion and in-situ conservation of required nutrients in the soil. In addition, the construction of KapilDhara wells on the un-irrigated land of poor forest dwellers, other irrigation facilities viz. Diesel/Electric pumps, construction of Tanks etc have helped growing different kinds of food grains and vegetables, particularly in Badwani and Khargone districts. In Chhindwara and Mandla, the significant improvement in socio-economic status is mainly due to land improvement works under BhoomiShilp projects of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). The enhanced agriculture productivity due to these schemes have resulted improvement in income of individual dweller in whole of Madhya Pradesh. Focused government intervention is highly essential in Sidhi and Shahdol as there has been very poor implementation of different schemes in these districts.

The secondary data (Source: Tribal Welfare Department, Madhya Pradesh) reveals that benefits under different welfare schemes have been provided to FRA beneficiaries and the same can be assessed from the Table below:

Table-1:- Different individual welfare schemes.

S No.	District/State	No. of Individual Title holders	FRA Beneficiaries				
			Construction of well under KapilDhara Scheme	BhoomiShilp	Diesel/Electric Pumps	AawasYojna	Other Schemes
1	Badwani	24004	14704	5469	12232	5856	0
2	Khargon	18037	5120	3366	1331	3139	85
3	Chhindwara	7294	965	2628	726	2109	652
4	Mandla	9841	1633	7142	940	3750	1911
5	Shahdol	11954	1168	1235	511	1499	84
6	Sidhi	1331	250	650	26	406	100
7	Madhya Pradesh	226313	54965	57721	24366	61009	19455

Source: Data as on 31.03.2019, from State Tribal Welfare Department.

Many were sanctioned with financial assistance for construction of houses under PM AwaasYojna. The Gas Chullah supplied under PM UjjalaYojna to FRA beneficiaries have been quite useful and reduced burden on nearby forests but, still people want to get free cylinders every-time they go for refill. Large number of beneficiaries reported to have been sanctioned with construction of Toilets under Swachh Bharat Mission.

In addition to welfare schemes, the forest areas have also been diverted for different infrastructure development works under thirteen listed developmental activities under Section 3(2) of FRA. A total of 1272 ha forest areas have been diverted, without any diversion formalities, under Forest (Conservation) Act, 1980. Different infrastructure development works viz. extension of transmission lines, construction of culverts and approach roads, CC roads, school buildings, PDS Shops, Community Centers, Skill development training centers, construction of Ponds, drinking water facilities, rain water harvesting structures, Veterinary centers, Aangawadi centers, Model school buildings, High school buildings, Primary Health Centers etc. must have contributed to the socio-economic improvement of villagers of those villages where these works have been undertaken in the State, including six sample districts.

Table 2:- Infrastructure Development Works (Data Source: Madhya Pradesh Tribal Welfare Department).

S.No	District/State	Forest Area diverted (in ha.)	Infrastructure development works
1	Badwani	132.2886	Transmission lines, culverts and approach roads, CC Road, school building, PDS Shop, Community Centers, Skill development training centers, construction of Ponds, drinking water facilities, rain water harvesting structures, Veterinary centers, Aangawadi centers, Model school building, High school building, Primary Health Centers, percolation tank, Drinking water tank etc.
2	Khargon	149.955	
3	Chhindwara	57.481	
4	Mandla	39.236	
5	Shahdol	20.875	
6	Sidhi	10.903	
7	Madhya Pradesh	1271.698	

Conclusion:-

Although, many developmental works have been carried out for improving the productivity of the land under cultivation by FRA beneficiaries, and also many infrastructural development works have been executed by the State Government yet, a lot needs to be done for overall improvement in socio-economic status of forest dwellers. There appears to be gaps between planning and its implementation. A lot of coordinated and holistic approach is needed to improve the productivity of the forestland recognized for cultivation. Since the database of beneficiaries and the geo-coordinates of the forestland under occupation are available statewide, **comprehensive micro-plans** can bring out overall improvements in the socio-economic status of FRA beneficiaries. Extension trainings on multiple cropping, soil & moisture conservation works, agro-forestry models of growing crops, Vermi-composting etc. could be emphasized for bringing improvements not only in the status of individual forest dwellers but also enriching the fertility status of the soil under occupation. All FRA beneficiaries may be provided with Gas Chullah and clean fuel under UjjwalaYojna, which could improve health of rural women and children and also reduce burden on forests and environment. As most of the forest dwellers still do not have pucca houses in their names, financial assistance under PMAY could be provided and they can also be integrated with other social welfare schemes. The Micro, Small and Medium Enterprises (MSME) known for promoting economic growth and enhancing equitable development should cover more and more forest dwellers providing employment opportunities through self employment schemes and encouraging youth to go for small forest based enterprises at their home which may change the whole picture of rural economy.

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