



## An Exploratory Study on Recent Inclusive Approach under MGNREGS for Underprivileged Women, Tribal Community & Smallholders Becoming Self-reliant (Atmanirbhar) in Jharkhand State in India.

Prem Shankar <sup>1</sup>, Prem Bhaskar <sup>2</sup> & Dr. Arvind Hans

<sup>1</sup> Research Scholar, Department of Business Administration, Usha Martin University, Ranchi (Jharkhand)-835103, India  
Email: premshankarpradan@gmail.com

<sup>2</sup> Research Scholar, Department of Business Administration, Usha Martin University, Angara, Ranchi- 835103 (Jharkhand), India Email: bhaskarpradan@gmail.com

<sup>3</sup> Associate Professor, Head of Department, Business and Commerce, Usha Martin University, Angara, Ranchi-835103, Jharkhand (India) Email: arvind@umu.ac.in

### ARTICLE INFO

### ABSTRACT

#### Article History:

Received:	August	20, 2021
Revised:	September	25, 2021
Accepted:	October	15, 2021
Available Online:	October	20, 2021

#### Keywords:

Horticulture Orchard, MGNREGA, Rural Jharkhand, Small Holders, Tribal Women.

#### JEL Classification Codes:

O15, O47, R13

MGNREGA enacted in 2005 as a social safety net based on right based framework to provide unskilled wages and employment to the needy households has gradually incorporated innovative schemes for creation of long-term durable assets to enhance the livelihoods of the participating households and making them self-reliant. This paper attempts to explore the impact of Horticulture initiative on small holders, underprivileged women & Tribal Households, which was initiated by Government of Jharkhand in 2016. Initially the scheme was named as Birsa Munda Baagwani Yojana (BMBY) but in the year 2020 it was renamed as Birsa Harit Gram Yojana (BHG) and made more comprehensive.

The exploratory study of the impact of Horticulture is based on literature review of relevant published papers, reports, and related reference documents. The secondary data has been accessed from the official website of MGNREGA for further analysis. A questionnaire-based interview of sampled beneficiaries of Horticulture Scheme from two Districts of South Chhotanagpur division of Jharkhand has been conducted for primary information. Case studies have been incorporated for creating support evidence for the study.

The study reveals that the Horticulture Scheme under MGNREGA, "Birsa Munda Baagwani Yojana" (BMBY) has significant impact on the life of unskilled workers who became the beneficiaries of this scheme. BMBY has ensured the inclusion of women beneficiaries as 72.56% women respondents claimed to get the access to this Scheme. Inclusion of Scheduled tribe and schedule caste to this scheme is significant. From both category the coverage is 83.76%. It has accommodated the marginal landholding households to be the beneficiaries. 43.59% respondents belong to such categories who got the benefit of the scheme. Provision of associated training and support from NGOs, CBOs and Administration have increased the coverage and inclusion of the marginal section and also ensured the technical assistance to most of the beneficiaries. BMBY has been effective in stopping distress migration in half of the respondent's

*family. Almost one fourth respondents accepted that this income has helped them repay their loans. Almost 50% beneficiaries facing difficulties in selling mangoes from their orchard. One-fifth of total respondents are clueless about the market price of mangoes. A major income of the involved families has come from intercropping in their Horticulture orchard and it has created the additional avenues to retain the people in the village. Whereas almost 40% beneficiaries have not been able to take intercropping.*

*Findings of the study will help the policy makers, program implementers to incorporate the required changes in the program for its coverage and sustainability. The report will add information and knowledge to the existing one.*



© 2021 The Authors, Published by AIRSD. This is an Open Access Article under the Creative Common Attribution Non-Commercial 4.0

---

Corresponding Author's Email: [premshankarpradan@gmail.com](mailto:premshankarpradan@gmail.com)

## INTRODUCTION

The Government of India has been bringing various programs to address the issues related to poverty and unemployment in the country. During the eleventh five-year plan of the Government of India, the decision was taken to raise the level of socio-economic status of rural India. The planning initiative got its result when the landmark legislation passed by the parliament of India and got notified on 7th September 2005 as National Rural Employment Guarantee Act (NREGA). It gives the right to every interested rural person above 18 years to get registered and demand 100 days of guaranteed wage-earning employment. In the first phase of implementation, 200 rural districts of India started from 2nd February 2006. It was extended to an additional 130 rural Districts in 2007-08 and finally got notified effect from 1st April 2008 for entire rural districts of India. In 2009, it got amended as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

Since then, it has been the largest wage-earning opportunity for rural masses in India under the Government program. It mainly focuses on enhancing the livelihood security of rural households by providing a guarantee of at least 100 days of wage employment in a financial year to each registered household of rural India. It is provided to the adult members of the household who are voluntarily willing to do unskilled manual work in the village. It is different from all the wage employment programs run earlier as it is a right based and demand-driven program. Dr. Darshana Das reports in her study that the initiative of implementing schemes by the Ministry of Rural Development, Government of India under MGNREGA to enhance the socio-economic status of rural masses has been one of the pertinent and effective initiatives. It is also paving a path for empowering women in various aspects of rural India. MGNREGA is one of the initiatives by the government that goes beyond its objective of poverty alleviation by employing rural working mass, it ensures empowering rural women. The provisions under this act and the scale of operation with flexibilities allow women to earn without gender discrimination. Being inclusive is another favouring aspect for women, as it specifies ensuring women beneficiaries a minimum of one-third of women registered and demanded work. It has provisions like worksite facilities of child care is another support for women to work under it.

The state government and Panchayati Raj Institutions play a crucial role in planning, implementing, and monitoring all the schemes under MGNREGA. The Effective States and Inclusive Development Research Centre (ESID) reports in their study, 'Success and failure in MGNREGA implementation in India verify, there is a variation in the provision of employment works under the act between the states. The effectiveness of the implementation of MGNREGS depends on the supply of work, political competition, local power relations, the commitment of the state and its capacity, and the role of lower-level authorities determine the difference in the supply of work. The state government also keeps adding to the central allocation of 100 workdays and other benefits under the project. It also gets various newly crafted schemes to make it more effective for their respective rural households.

Jahangir A Bhat and Dr. Pushpender Yadav writes in the paper MG-NREGA: - A pathway for achieving sustainable development that the schemes taken under MGNREGA revitalize the natural resources in addition to addressing the causes of chronic poverty like drought, deforestation, soil erosion, floods, poor rural connectivity, etc. Further, they report that it addresses the issues related to climate change, food security, water security, energy security, and manages urbanization. MGNREGA is not only effective against unemployment but is effective for the betterment of overall sustainability. It includes the sustainability of the economy, agriculture, forest, income, health, and many more ideals and principles of sustainable development.

### **Small holders in Agriculture**

A study of the World Programme of Census of Agriculture (WCA) 2000 reports that the Asia and Pacific region has the smallest size of holdings in the world. The average holding size in Asia is only one hectare. Whereas, in India, 86.2% of total farmers hold less than two hectares of land, so they are smallholders and marginal farmers.

Agriculture is a primary source of livelihood for most of the rural people in Jharkhand. Jharkhand's total geographical area is 7.9 million hectares, out of which nearly 2.6 million hectares are cultivated. Most of the farmers are small and marginal in Jharkhand, about 83% of operational holdings are less than 2 hectares, and about 70% of farm households in Jharkhand own less than one hectare of land, out of which, about two-thirds of the land is under cultivation and rest are mostly not suitable for cultivation. In reality, the landholdings get further fragmented, and the number of small land holding families are increasing because of distribution of land among family members. The state falls under the Agro-climatic region known as the eastern plateau and hills region. It lacks a perennial river, so Agriculture is dependent on the monsoon. The rural families of Jharkhand traditionally have been cultivating crops like Paddy, few pulses, minor millets, and oilseeds like Niger, linseed, and rapeseed cover almost 92% of the cropped area. The productivity of these crops is relatively low.

Smallholders' cultivation is aimed to fulfil the primary need of the family and it banks on engaging family labour for production and family consumption first, and input investment is also based on limited financial resources available at household. Women in small and marginal families farming play a crucial role, whereas they do not hold land ownership due to the traditional social system of asset ownership distribution.

Scheduled Tribe does reasonably better in terms of land ownership among all disadvantaged social categories, but the quality of land they hold is probably lower. Even after accounting for the quantity and quality of land owned by underprivileged classes, their access to information, marketing, credit, input and services provided publicly are inferior.

## **Horticulture a vocation for smallholders**

Horticulture is modern agriculture methods of growing perennial fruits and their management. The promotion of horticulture is one of the contributors to the requirements of employment generation programs, poverty alleviation and assuring the country's nutritional security. Employment generation happens not only in the orchard field but also in Agro-industries. It is a vocation where significant research has happened and successfully influenced the policy requirements for its development in India. India has a wide range of soil, climatic conditions, a strong network for research and development for high-yielding varieties, proven technologies, and financial support under various government programs for horticulture. Even small and marginal farmers of India can venture into horticulture as a vocation for their upliftment.

Saeed Ahmad and Malik Mohsin Abbas in his paper on "Establishment and Management of Modern Orchards" refer (Bal 2007), which describes detailed information of management practices such as training, pruning, fruit thinning, and nutrition of plants, weed management, insect pest management and protection of orchard plants. Establishment of a fruit orchard is a long-term investment, and any fault or carelessness at early stages can affect productivity and net returns over a long period. Therefore, expertise and knowledge about planting and post-planting care are mandatory for successful fruit production. Every fruit cannot be grown successfully in all types of climates and soil. The proper combination of climate and soil is the most important factor in succeeding in the fruit plantation. The selection of a suitable kind of fruit for a particular region is the primary requirement in the development of an orchard. After the selection of site, an indication of actual places for fruit plants in the field at the proper plant to plant and line to line distance is referred to as layout. The layout plan is the first step in the establishment of a successful fruit orchard.

The commercial orchards should be planted in localities where such crops have already established themselves as commercial enterprises.

## **About Birsa Munda Baagwani Yojana (BMBY)**

Birsa Munda Baagwani Yojana, instituted under Category – A works of MGNREGA in Jharkhand. It is designed to strengthen the positive synergy between MGNREGA and agriculture & allied rural livelihoods. Specifically, owing to the Climate of Jharkhand being subtropical, it is suitable for general horticulture. Mango plantation is an activity for creating long-term assets, which can provide income to the beneficiaries in 3-4 years of gestation, and can sustain for 25 to 30 years. Jharkhand is familiar with horticulture. The activity is women-friendly too. Perhaps, for all these reasons, the Horticulture Scheme was launched in Jharkhand, whose main objective was to create a long-term asset for the people from the wastelands.

## **Model of Mango Plantation under MGNREGA:**

An acre of mango plantation, under MGNREGA, is estimated with three years of support, and recently the State Plantation Advisory Committee has decided to support the activity for up to five years. It has provision of 112 grafted mangoes of Amrapali and Mallika variety in one acre of land along with 96 to 100 high-value timber plants in the border of the

orchard as a wind-breaker plant. Apart from the input material of planting mango saplings, the horticulture scheme has provision for fencing, watering and interculture operation which not only ensures the protection of plants from grazing but also provides round the year wages to the beneficiary. Additionally, the scheme gives the flexibility to develop live-fencing and cattle-proof trench (CPT), which is required to protect the plantation from cattle.

Coverage of BMBY:

The pilot of 'Birsa Munda Baagwani yojana', Horticulture Scheme under MGNREGA was started in the year 2016 covering 4 districts, and gradually it was scaled up in all 24 districts of the state in 2018-19. As per nrega.nic.in, till 2019 total 7741 beneficiaries with 5972.35 acres of individual land are covered under the scheme.

### **Self-reliance of rural smallholders**

Self-reliance is nothing but relying on Self-Power and Resources. At one end, it looks so simply but in the context of the poor, weaker section of society, and people with limited resources struggle for self-reliance. The small and marginal holders among rural masses, tribes, women are the most struggling community in India for self-reliance. Government policies and programs are the hope for them towards making themselves a self-reliant community.

Mahatma Gandhi is portrayed mainly as the leader of freedom fighters of India, but he has always been advocating Grassroot self-reliance i.e., Atmanirbhar Rural Area. Now in the recent past, many countries like Thailand, Tanzania, Nepal, etc., and India are discussing and putting the Gandhian Model of Grassroot Self-Reliance in their developmental policies. Mahatma Gandhi's concerns and association for the poor, underprivileged, and downtrodden of the society are known to everyone. His thoughts were always for the betterment of the poor masses in society and the reconstruction of the rural milieu where they stay. He wanted to give rural masses enough self-respect and self-confidence to assert their economic and political rights. In Gandhian thoughts, the village has always been the nucleus of economic growth. He emphasized the integrated rural development in the local self-reliance concept i.e., the local area economy be self-reliant.

Dr. Subhasis Mandal, a Principal Scientist of ICAR, presented during July 2020 at a National conference on Agriculture Resource Management for Atmanirbhar Bharat with small holders' perspective - "self-reliance agriculture is essential for other sectors (industry and services) too". He further presented that 32 out of 37 states and UTs having average landholdings below two hectare, and small and marginal farmers constitute around 40% of the marketable surplus.



What hinders small holder's self-reliance in Rural India are:-

- ✓ Economies of scale - farm size and income
- ✓ Farmer's distress - high input cost
- ✓ Climate, production, policy and market - risk and uncertainty
- ✓ Financial inclusion and Viable vocation - Capital inadequacy
- ✓ Lab to land technology - access to technology
- ✓ Market linkages - disposal of marketable surplus
- ✓ Grassroots institutions - effective functional aggregation of farmers

### Rural Jharkhand and Tribal women of Jharkhand

Jharkhand is the 28th state of India. It got separated from the state of Bihar in the year 2000. The meaning of Jharkhand is a land full of Jhar (bushes), the forested geography. Jharkhand's geography is part of the Chhotanagpur plateau. The landscape is undulating and hilly. It has been almost two decades since Jharkhand was a separate state for generating opportunities and development for various Tribal communities residing in the region. Many developmental initiatives have been taken since then and the economy is improving, but small, marginal, and women especially from the economically weaker community are yet to get their due in pursuit of development. Jharkhand is the habitat of 30 notified Scheduled tribes. Santhal (34%), Oraon (19.6%), Munda (14.8%) and Ho (10.5%)<sup>1</sup> are majority in numbers. Jharkhand is home to 9 primitive tribal groups (PVTGs). All of them live with different socio-cultural practices, yet they are identified as Scheduled tribes of Jharkhand together.

The customary systems and laws of tribal communities in Jharkhand “include the social norms which extend to regulate the whole community system, including the livelihood

<sup>1</sup> Census of India, 2011

resources they use for their subsistence. The customary laws of the tribal groups in Jharkhand, help them to use for the governance and management of their resources. The important aspect of these communities to be realized is that their social practices have embodied democratic social practices, egalitarianism, and an eco-centric culture”<sup>2</sup>.

Tribal community perceived aborigine, regressive, unskilled, engaged for bodily work. Being a woman of a tribal community adds another complicated dimension to the perception. Womenfolk in these communities play a vital role in the livelihood & sustainability of families. Tribal women work at farm fields, collecting forest products and firewood, grazing cattle, bringing things of daily use for the household from the market in addition to routine household chores. Yet, they are not allowed to participate directly in the traditional governance system of respective tribes. Women are never considered leaders of their village and society. Even after India gained independence and a separate state of Jharkhand was formed for the betterment of the tribal, no shift in the role played by women in tribal societies at large is evident.

The livelihood of the forested and forest fringe families is based on rainfed monocropping agriculture, NTFP collection, keeping small ruminants, and working as seasonal migrant laborers across the country for brick kilns and construction works mainly. Almost all the villages in the entire state across Jharkhand are having mostly landscapes with very undulating topography. They have limited strips of the cultivable piece of land. Limited irrigation facilities are another big constraint to bank upon agriculture for round the year livelihood engagement for the families in the villages.

The soil of Jharkhand has low water retention capacity and is by and large acidic with low fertility. The land type of Jharkhand is found to be suitable for horticulture, especially for Mango, Litchi, Cashew-nuts, and other similar hardy fruits plants.

Lack of employment opportunities in villages pushes distress migration for a large number of youths across the state. A study done by JSLPS in the year 2015 found that “only one-fourth of the households in rural Jharkhand have an annual income of above Rs 75000 and more than half of the households have an annual income of less than Rs 50000”.

The same study also reveals that only 5.3% of women legally own some fixed asset or property in their study area.

From the rural livelihood framework which includes natural, human, physical, financial, and social assets, an average rural household of Jharkhand is in a disadvantaged position concerning access and control of assets.

### **Significance of study**

The study will help generate evidence of impact on ground for Birsa Munda Baagwani Yojana (BMBY) under MGNREGS in Jharkhand. Currently the scheme is being implemented under Birsa Harit Gram Yojana (BHG Y). It will help Government and policy makers to improvise the program for further course of action needed. The facilitating and implementing agencies and bodies will get the impact status and direction of change in engagement methodology. The knowledge domain of MGNREGA will be contributed from the findings of the study too.

---

<sup>2</sup> On the future of Indigenous Traditions- the case of Adivasis of Jharkhand, India, Mundu Bineet J, (Autum 2006), University of Tromso, Norway.

## **Objectives of study**

1. To assess the impact of horticulture activity named Birsa Munda Baagwani Yojna (BMBY) taken under MGNREGS in Jharkhand.
2. To gather the responses of the beneficiaries and understand the impact of the BMBY Scheme under MGNREGS in two districts (Gumla and Khunti) of Jharkhand.
3. To examine the direct and indirect benefits and impact of BMBY Scheme under MGNREGA on women, Scheduled Tribes, small and marginal holders in these districts.

## **METHODOLOGY**

The exploratory study of the impact is based on literature review of relevant published papers, reports, and related reference documents from the Government of Jharkhand. The secondary data is also accessed from MGNREGA MIS. A questionnaire-based interview of sampled beneficiaries for primary information has been conducted. Case studies are also done for creating support evidence for the study.

### **Reference period and geography of the study**

The reference period for this study is during 2016 and 2017, as the BMBY horticulture orchard scheme was initiated in the year 2016 by the government of Jharkhand in four districts namely Khunti, Gumla, Pakur, and Latehar.

### **Sampling Design**

The initial phase of the scheme was done in four districts of Jharkhand. This exploratory study is focusing on two of the first phase districts of implementation; Gumla and Khunti.

Total 1407 beneficiaries were sanctioned for the BMBY horticulture orchard Scheme for Khunti and Gumla districts of Jharkhand during the year 2016 and 2017.

Sample Size using convenient sampling of 322 beneficiaries of BMBY from Gumla and Khunti districts, whose contact numbers were collected from various sources.

Due to prevailing COVID restrictions and pandemic situations it is decided to interview respondents over phone. For capturing the questionnaire-based interview responses and data, the KoBo tool box has been used. The data captured in the KoBo toolbox was retrieved in excel sheet and analysed using Stata software.

### **Data Analysis:**

Out of 322 samples, responses could be generated from 117 respondents. Other respondents are not able to get connected over the phone either for poor network situation or change of respondents' phone numbers.

Table -1 Respondents (primary source)

District	No of Respondent	Percentage
Gumla	77	65.82
Khunti	40	34.18
Total	117	100.00

Data shows that 65.82% respondents are from Gumla and 34.18% respondents are from Khunti district.

**Table-2** Outreach of MGNREGA in Gumla and Khunti (secondary source MGNREGA MIS)

Financial Year__	Gumla		Khunti	
	2015-16	2016-17	2015-16	2016-17
Job Card	181644	190110	103863	110326
Person Days	2260880	2805669	1438756	1492894
Total Expenditure (lakh)	5507.56	6510.12	3039.57	4015.12

**Table-3 and 4** (Gender and Marital Status of Respondents)

Gender	No. of Respondent	Percentage
Male	47	40.17
Female	70	59.83
Total	117	100.00

Marital status	No. of Respondent	Percentage
Married	108	92.31
Unmarried	7	5.98
Widow/Widower	2	1.71
Total	117	100.00

59.83% respondents are female beneficiaries whereas male respondents are 40.17 %. Almost all respondent is married and only 5.98% are unmarried and only 1.71% respondents are widow or widower.

**Table 5 & 6 Educational qualification and Social Category of Respondents:**

Educational qualification	No. of Respondent	Percentage
Graduation and above	9	7.69
Matric	32	27.35
Non-Matric	37	31.62
Illiterate	39	33.34
Total	117	100.00

Category	No. of Respondent	Percentage
General	4	3.42
OBC	15	12.82
SC	3	2.56
ST	95	81.20
Total	117	100.00

From data it is evident 33.34% of the respondents are illiterate, and 31.62% are non-matric. Whereas 81.2% respondents belong to Scheduled Tribe, 2.52% from Scheduled Caste, 12.82 % from OBC, and 3.52% from general category.

**Table 7 & 8: Sources of Livelihood and Land holding**

Main source of livelihoods	No. of Respondent	Percentage
Agriculture & wages	113	96.58
Services & Remittance	2	1.71
Petty Business	2	1.71
Total	117	100.00

Land holding in (Acres)	No. of Respondent	Percentage
More than 5 Acre	20	17.09
3-5 Acre	46	39.32
1-3 Acre	46	39.32
Less than 1 Acre	5	4.27
Total	117	100.00

Data in Table 7 reveals that dominant livelihood source for all the respondents are agricultural and wages. Whereas 78.64% respondents hold land ranging from 1 to 5 acres.

#### Other information from primary data

- 72.56 % Horticulture orchard schemes were sanctioned in the name of women beneficiaries.
- Role of NGOs and CBOs was noticeable in providing information and awareness about the Scheme. As data reveals that 84.62% respondents got the information about

Horticulture orchard schemes from NGO/CBOs, whereas 11.97% got informed by Gram Sabha, and 3.42% by block administration.

- Timely payment of wages and material under BMBY to beneficiary was ensured for 74.36% respondents.
- Training received and linkage with stakeholder's facilitation reported by 88.89% respondents, other did not get such support.
- 42% responded share that they are able to sell the mango easily in local market, and 3.28 % sold at their farmgate. Whereas 13.93% beneficiaries sold their produce in local market with difficulties.
- 29.55% respondents shared that they could sale their produce on expected price whereas 50% could not sell as per their expected price.
- 20.45% respondent shared that they can't say about the price realization of the mango as they are not sure about the market price.
- 63.56% respondents claimed that they did the intercropping in the mango orchard during non-fruiting years and gained income.
- 53.7% respondent said that after taking Horticulture orchard no one migrates from their family, whereas 46.3% responded that still there is migration happening from their family.
- 50.85% respondents shared that the income from horticulture orchard under MGNREGA has helped in improving education, health and nutrition intake of the households whereas 34.74 respondents are not sure about it.
- 32.2% respondents accepted that due to income gained from horticulture orchard they have been able to repay their loan, whereas 67.8 % respondents said no.
- 94.92% respondents shared that Horticulture orchard has helped increase their social status.

## **LIMITATIONS**

The study has certain limitations that may be correlated with the finding and recommendations. The study is limited to Khunti and Gumla districts only whereas the first phase of the program was implemented in Latehar and Pakur districts also. The decision of conducting an interview based on a questionnaire was done over phone under covid restrictions. The contact numbers were availed from various sources and only a limited number of beneficiaries could be contacted to complete the interview. Due to prolonged covid situation only two cases were captured from the field. The failure cases under scheme could not be captured.

## **FINDINGS:**

The study reveals that BMBY has significant impact on the life of unskilled workers who have got the long-term durable assets. BMBY has ensured the inclusion of women beneficiaries as 72.56% women respondents claimed this. Inclusion of Scheduled tribe and schedule caste to this scheme is significant. From both category the coverage is 83.76%.

It has accommodated the marginal landholding households to be the beneficiaries. 43.59% respondents belong to such categories who got the benefit of the scheme.

Provision of associated training and support from NGOs, CBOs and Administration have increased the coverage and inclusion of the marginal section and also ensured the

technical assistance to most of the beneficiaries. BMBY is effective in stopping distress migration in half of the respondent's family.

BMBY has impacted the life of the half of the respondents in improving education, health and nutrition need of the family. Almost one fourth respondents accepted that this income has helped them repay their loans. Hence BMBY has paved the way for economic self-dependence in rural areas for the marginal section of society.

The Scheme has helped almost all families enhancing their identity and social recognition and thus enhanced their social status in the villages.

Almost 50% beneficiaries facing difficulties in selling mangoes from their orchard. One-fifth of total respondents are clueless about the market price of mangoes.

A major income of the involved families has come from intercropping and it has created the additional avenues to retain the people in the village. Whereas almost 40% beneficiaries have not been able to take intercropping

## **RECOMMENDATIONS**

Training and capacity building of all the beneficiaries with the help of NGOs/CSOs/CBOs may be ensured enhanced effectiveness of the scheme. For marketing arrangement of the produce from Orchard is identified biggest gap in the scheme so adequate arrangement of such assurance may help the beneficiaries get better economic gain.

Intercropping in the Horticulture orchard for more than 60% of the families has been economically attractive which requires to further explore the possibilities of all the beneficiaries of the scheme. The role of Traditional Gram Sabha in ensuring the inclusion of large number of small and marginal families may be explored.

## **REFERENCES**

1. Ambily, A. S. (2017). Study on Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Women Empowerment with reference to Kerala. *Journal of Advance Research in Dynamical and Control Systems*, 74-82.
2. Das, D. D. (2020). Empowerment of Rural Women through MGNREGA - A Study of MGNREGA implementation in Barpeta Development Block of Barpeta district of Assam. *Journal of critical reviews*, 334-339.
3. Bhaskar, P. (2021). The collective enterprises of the tribal women- Successful, Sustainable, Sinewy: A study of women Cooperatives in Jharkhand. In D. D. Nilkant, D. V. Agrawal, & S. B. K, *Management and Sustainability Rethinking Social Innovation and Bussiness Ethics in Sustainability Development* (pp. 124-134). Eureka Publications.

4. Singh, K. M., Meena, M. S., Singh, R. K., Abhay, K., & Anjani, K. (2013). *Rural Poverty in Jharkhand, India: An empirical study based on panel data*. Munich: Munich Personal RePEc Archive.
5. Bhat, J. A., & Yadav, D. P. (2015, March). MG-NREGA: - A Pathway for Achieving Sustainable Development. *IJETMAS*, pp. 339-347.
6. Mandal, S. (2021, January 29). Self-reliance and Profitability Challenges of Agriculture in India-the Small-holder Perspectives. *ResearchGate*.
7. Sharan, R., K, S. P., & Sahu, S. P. (1999). Present status of Traditional System of Governance among the tribes of Bihar. *Social Change*, 287-301.
8. Gosalia, S. (1979). The Gandhian model of self-reliance in the Indian economy. *Intereconomics*, pp. 80-83.
9. Dev, S. M. (2012). Small farmers in India: Challenges and Opportunities. *IGIDR*, 2-37.
10. Bisht, I. S., Rana, J. C., & Ahlawat, S. P. (2020). The future of smallholder farming in India: Some sustainability considerations. *MDPI*, 1-25.

#### **Book/Report**

11. Ahamad, S., & Abbas, M. M. (n.d.). Establishment and Management of Modern Orchards. *University of Agriculture Faisalabad, Pakistan*, 161-193.
12. Chadha, D. K. (2001). *The report of working group on Horticulture Development for the tenth five year plan*. New Delhi: Government of India.
13. Mundu, B. J. (Nov, 2006). *On the Future of Indigenous Traditions- The Case of Adivasis of Jharkhand, India*. Tromso, Norway: University of Tromso.
14. Anonymous. (2015). *Baseline Survey Report on Livelihood in Jharkhand*. Ranchi: JSLPS.

#### **Website**

15. [www.mnregaweb4.nic.in/netnrega/MISreport4.aspx](http://www.mnregaweb4.nic.in/netnrega/MISreport4.aspx) Date of access 1st May,2021.