Assessment of the Convergence Activities under Mahatma Gandhi NREGA in Odisha

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PMGSY	Pradhan Mantri Gram Sadak Yojana
NADEP	National Agriculture Development Program
IWMP	Integrated Watershed Management Program
MoWR	Ministry of Water Resource
ICAR	Indian Council for Agricultural Research
SGSY	Swarnjayanti Gram Swarozgar Yojana
NAP	National Afforestation Program
JE	Junior Engineer
IHHLs	Individual Household Latrines
NBA	Nirmal Bharat Abhiyan
DRG	District Resource Group
BRG	Block Resource Group
VRG	Village Resource Group
SF	Small Farmer
MF	Marginal Farmer
HH	Household
GPs	Gram Panchayats
MWC	Mission Water Conservation
SC	Schedule Caste
ST	Schedule Tribe
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
SORs	Schedule of Rates
BPGY	*Biju Pucca Ghar Yojana*
SHGs	Self-help Groups

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Chapter I

Background and Context of Convergence under MGNREGA in Odisha

1.1 Introduction

In the past few decades, India has witnessed resurgent growth. However, the impact of the increased growth has failed to reach all sections of the society, especially the rural poor. Rural employment opportunities have failed to keep pace with the growing population leading to severe livelihood crises amongst the poor. It is on this backdrop, the National Rural Employment Guarantee Act (NREGA) was introduced in 2005 by the Government of India. The act was later renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The mandate of the act is to provide livelihood security to the households in rural areas of the country by providing at least 100 days of guaranteed wage employment in a financial year to each rural household, whose adult members volunteer to do unskilled manual work at the prescribed minimum wage. In rain hit areas, there is a provision of 150 days of employment per beneficiary household. Right to work is justifiable in nature and MGNREGA is a milestone towards giving this right to the citizens of India.

The first phase of MGNREGA came into effect from 2nd February 2006 covering 200 districts of the country. Subsequently, it was extended to additional 113 districts with effect from 1st April, 2007 and other 17 districts from 15th May, 2007. All the remaining districts of the country, except those which are fully urbanized, have been notified under MGNREGA since 1st April, 2008 (GoI, 2013).

The program is generally guided by welfare motives, providing an alternative source of livelihood for the poor in the absence of regular employment opportunities. It is considered as breakthrough legislation in the history of India's development initiatives and one of the largest employment generation programs of the world. MGNREGA aims to make minimum livelihood opportunity a legal right. It is one of the largest poverty alleviation programs India has ever introduced, which acts as a strong safety net for the poor. Empowerment of the poor is at the core of the program through a right-based law, time bound guarantee, labor-intensive work, participatory planning, women's participation, work-site facilities, transparency and accountability through social audits. The act carries with itself certain other unique features like wage payment within 15 days and unemployment allowance. The act mandates 33 percent

participation among women. It also gives strength to decentralization by assigning a pivotal role to the *Panchayati Raj* Institutions (PRI) in planning and implementation of the projects with a special thrust on convergence of various anti-poverty and livelihoods initiatives (GoI, 2013).

While the primary aim of the Act is to ensure minimum employment to rural households, the secondary focus is to improve natural resource management. These include works like drought proofing, rainwater harvesting, soil conservation, afforestation, and pond and tank construction. Apart from encouraging sustainable use of resources, these works also help in mitigation of and adaptation to climate change and in turn, improve productivity and leads to better quality of life. As these activities are mostly carried out by various other government agencies through convergence with MGNREGA, such schemes are set to be implemented in more effective ways.

1.2 Rationale for Convergence

More than a decade has elapsed since the inception of MGNREGA in India. In these passing years, the country has achieved several milestones including massiveness of coverage, targeting benefits for the marginalized sections of the people (Jha et al, 2008), sensitizing people regarding employment as their rightful entitlement (Dreze, 2007), arresting distress migration and causing increase in lean season rural wages (Mehrotra, 2008). Ironically, the country has also witnessed conspicuous failures on some critical dimensions. Some major challenges are low employment creation (CAG, 2007; Biswas, 2007), underutilization of funds (www.nrega.nic.in), absence of transparency (Dreze, 2007), administrative delays and poor quality works (Ambasta, 2008). Among all, the most visible challenge has been in respect of creating adequate employment and utilization of funds. Underutilization of funds tends to create a serious setback in achieving the targeted goals.

In India, there exist many rural development programs implemented by various departments and agencies that carry similar goals. However, the conflicting intervention strategies of various departments/agencies and lack of inter-departmental coordination have resulted in wastage of resources, delays, irregularities and malfunctioning with no visible improvements in the outcomes. The proportion of investment in the program is not commensurate with the quantum of assets created or the amount of livelihood generated for the rural poor.

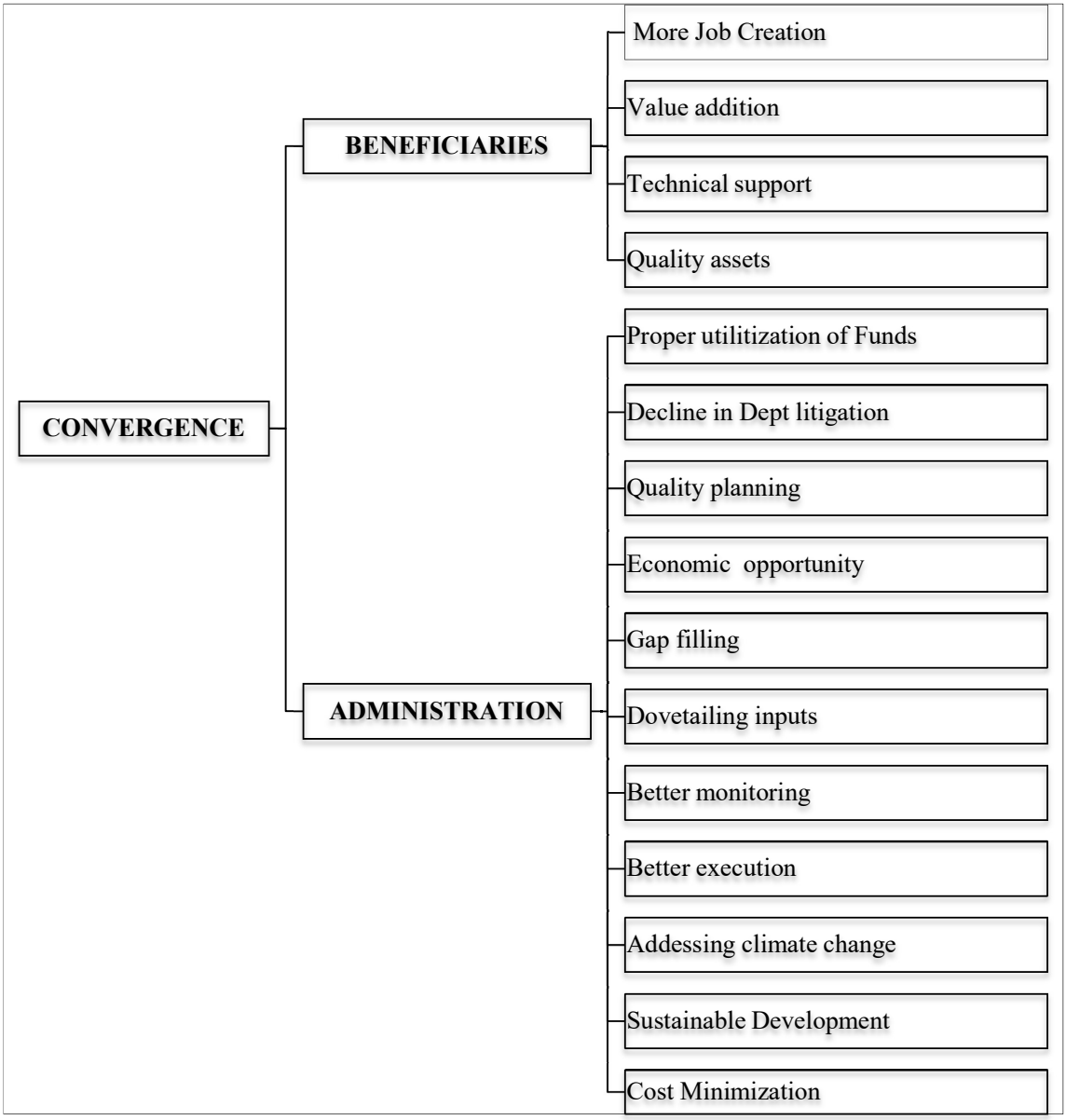
With a view to bring about greater synergy in the implementation of rural development programs, Government of India initiated the process of inter-sectoral convergence in 2009-10.

MGNREGA and agriculture convergence guidelines were issued in 2009. Another operational guideline was issued in February 2013 specifying the need for preparation of a Development Plan to identify works that should be taken up for creating employment opportunities and promote sustainable development. This opened up opportunities for convergence of MGNREGA works with the resources of other programs/schemes available with various other line departments. The primary objective was maximizing returns on public investments for creating durable and productive assets, securing livelihood for rural households and attaining sustainable development. With a view to strengthen the convergence process, the year 2014-15 was declared as the year of convergence by the Ministry of Rural Development (MoRD), Government of India. Consequently, the Government requested all the states to develop a roadmap for convergence.

Having realized limited success from MGNREGA in its original form, the MoRD constituted a task force, which, on the basis of a thorough study, advocated for inter-sectoral convergence and consequently, provided its rationale and modalities (GoI, 2008). According to the task force, convergence initiative can be instrumental towards establishing synergies among different government programs in planning process and implementation so that public investments are optimally utilized. It can enhance economic activities leading to creation of more employment opportunities, strengthen democratic processes, mitigate the effects of climate change and help create conditions for sustainable development of the rural economies. To be precise, the convergence process has three major outcomes for the rural economy, namely creation of durable assets, opportunities for sustainable livelihood options, and aid in natural resource regeneration. MGNREGA should act as a significant entry point for convergence with other rural development programs.

Needless to say, significant public investments are being directed towards strengthening the rural economy and livelihood base of the poor, including the marginalized groups. In order to efficiently address the issue of poverty alleviation, a need to optimize efforts through inter-sectoral convergence gains significance. The primary objective of convergence is to effectively address the issue of poverty alleviation through optimal utilization of limited resources. Convergence of funds from various departments and sources can help create durable community assets (GoI, 2010). Along with the provision of adequate employment generation, food security, social security and provision of basic entitlements can be collectively tackled better when various schemes are converged with MGNREGA (Parasuraman, 2017).

Figure 1.1: Benefits of Convergence



Source: Nayak, et al. (2011), Report on the Monitoring Convergence between NREGS and ongoing Schemes of the other Ministries in Orissa, submitted to the Ministry of Rural Development, Government of India, New Delhi

The convergence initiative is considered as a positive step towards sustainable rural development in many different ways (Figure 1.1). In the context of MGNREGA, it has the potential to meet the large critical unmet needs, introduce diversities into annual action plans, bring several implementing agencies to work together for a common goal, help increase income

levels of the intended beneficiaries, introduce new technologies in the field and improve outcomes from other schemes (GoI, 2008). [1]

Given the decentralized nature of the MGNREGA, it is considered as an ideal platform for introducing the convergence measures with the freedom for variations suiting to local conditions. Under MGNREGA, the use of unskilled labor, at times, results in compromise in the quality of works and their durability. Under convergence, a superior level of workmanship can be guaranteed with a combined use of skilled and unskilled labor. The conditions on non-concrete work under MGNREGA result in several projects getting damaged within a couple of years. For instance, non-concrete bunds are likely to be washed away in the monsoon seasons. The need for convergence is also felt to avoid duplications and to fill the gaps. Without convergence, there are several areas, where more than one line department claim responsibilities. Moreover, the nature of certain works is such that it cannot be completed effectively by one department. In order to overcome these shortcomings, convergence has been introduced.

Keeping in view the need for convergence, the Government of India has undertaken the processes of inter-sectoral convergence bringing different ministries and departments together. In the pursuit of implementing convergence between MGNREGA and other programs, the ministries and organizations that have joined hands with the MoRD are the Ministries of Agriculture (MoA), Environment and Forest (MoEF) and Water Resources (MoWR), Department of Land Resources (DoLR) and Indian Council for Agricultural Research (ICAR). The convergence of different programs like Watershed Programs, National Agriculture Development Program, National Horticulture Mission (NHM), Scheme of Artificial Recharge of Ground Water through Dug well, Accelerated Irrigation Benefit Program, Backward Region Grant Fund (BRGF), *Pradhan Mantri Gram Sadak Yojana* (PMGSY), *Swarnjayanti Gram Swarozgar Yojana* (SGSY), National Afforestation Program (NAP), etc. with MGNREGA is expected to enable better planning and effective investments in rural areas. In recent years, some specific schemes, which have drawn significant attention are vermicomposting, liquid bio manures, poultry shelter, goat shelter, construction of *pucca* floor, urine tank & fodder trough for cattle, fisheries in seasonal water bodies on public land, dug well, plantation of mango, cashew, guava, etc. (GoI, 2013).[2]

[1] The National Rural Employment Guarantee Act 2005 (NREGA), Operational Guidelines 2008, Ministry of Rural Development, Government of India.

[2] The National Rural Employment Guarantee Act 2005 (NREGA), Operational Guidelines 2013, Ministry of Rural Development, Government of India.

1.3 Modes and Modalities of Convergence

Under the convergence initiative, there are provisions for irrigation, horticultural programs, plantation and land development for lands owned by scheduled caste (SC), scheduled tribe (ST), small farmers and marginal farmers, below poverty line (BPL) households and beneficiary families under *Pradhan Mantri Awas Yojana - Grameen* (PMAY-G). Activity-wise convergence may involve conversion of *Kutcha* to *pucca*, convergence of human development schemes like education and health and institutional convergence. The modes of convergence comprise dovetailing of funds, sharing of technical inputs and gap filling (See Table 1.1 for some existing modes of convergence). They can be specified as follows (GoI, 2013):

(a) Drawing funds from other schemes to meet the cost of an identifiable part of the project that could result in enhanced durability of assets created using MGNREGA funds (e.g. while the earth work for a rural road can be taken up under MGNREGA, the funds for laying bitumen layer can be sourced from other schemes like PMGSY).

(b) Funds made available from other schemes as livelihood component for putting to use for livelihood assets created using MGNREGA funds (e.g. there would be provision of seeds and fertilizers from NHM to farmers whose lands have been improved using MGNREGA funds)

(c) Provision of technical inputs from concerned departments (e.g. the inputs could be either in the form of supervision by technical staff during the execution of the works or capacity building for using assets under MGNREGA)

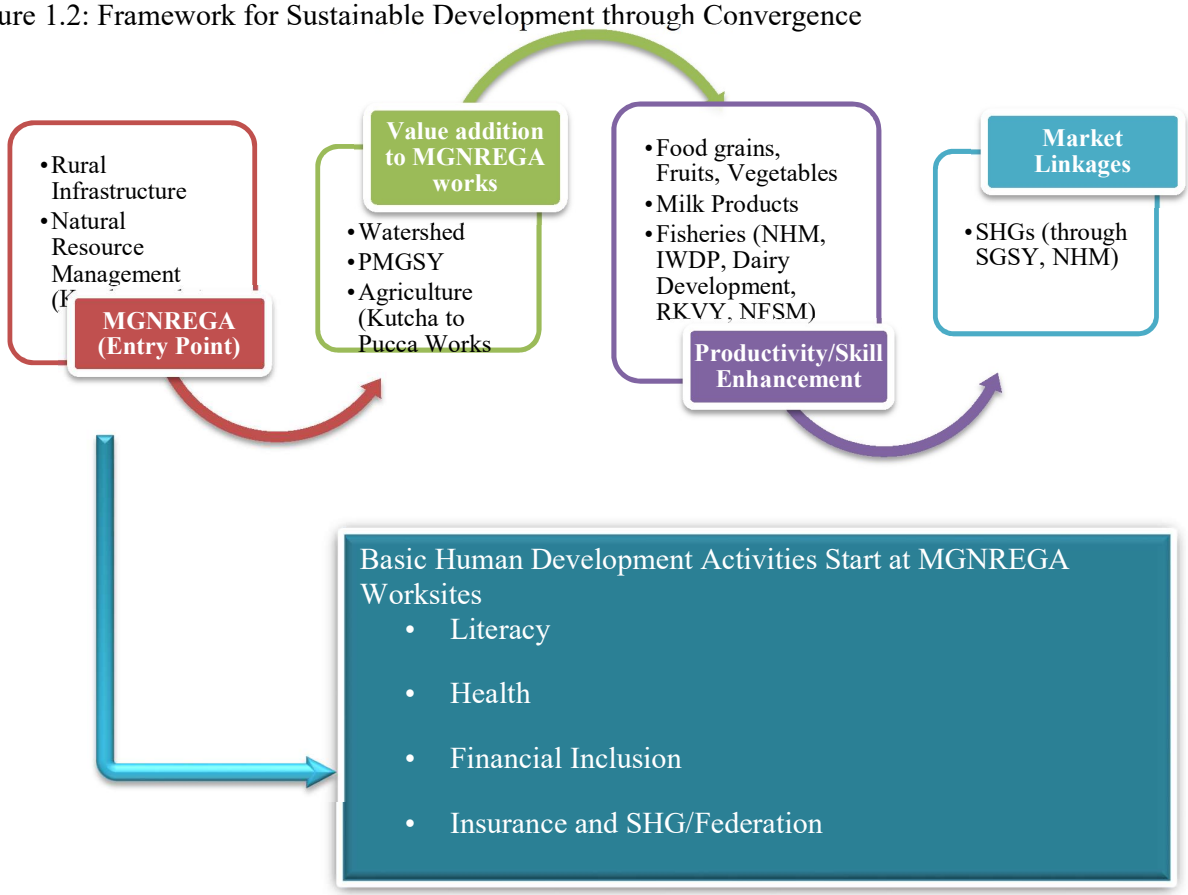
(d) Provision of gap filling indicating fund pooling from different schemes and deploying pooled funds for creation of assets. (e.g. pooling together funds from MGNREGA, BRGF, Finance Commission and own resources of *panchayats* for constructing a concrete village road)

Table 1.1: Some Existing Modes of Convergence

Sector	Convergence Activities	Resources Supported by other Line Agencies	Line Agencies
Horticulture	Pits, Trenches along the boundary, Watering	Saplings/Seedlings for plantation, Fertilizer, Pesticide	Horticulture & Forestry Dept.
Fisheries	Construction of Tanks, Desilting of old tanks	Fingerlings, Manure Artificial feedings, Purchase of net	Fisheries Dept.
Sericulture	Field preparation, Planting, Weeding, Watering	Application of fertilizer & pesticide, Technical assistance, Drip irrigation, Rearing house	Sericulture & Irrigation Dept.
Total Sanitation Campaign (TSC)	Digging for the creation of leach pits	Brick work, Pot	Sanitation Dept.
Field channels & water course	Earth work	Construction of permanent structure	Water resource & Agriculture Dept.
Road	Earth work, Watering & rolling	Interlinking and culvert, Base course, Surface course & gravel road	BRGF, PMGS
Dairy	Fencing, Land development, Fodder	Plantation, Provision of water for cattle, Food supplement and check by veterinary doctor	Dairy and Animal husbandry dept.
Forestry	Contour trench, Pits, Fencing, Watering	Nursery development, Sapling, Fertilizer, Pesticide	Forestry dept.
Agriculture	Land development, Field ponds	Seeds, Tool and equipment for agriculture, Fertilizer, Technical inputs	Agriculture Dept.

Source: MGNREGA Operational Guidelines, Annexure 36, Ministry of Rural Development, GoI, New Delhi.

Figure 1.2: Framework for Sustainable Development through Convergence



Source: Report of the task force on convergence, Ministry of Rural Development, Government of India, New Delhi, September, 2008

In order for the convergence to be carried out, the following modalities should be adhered to by the implementing agencies (GoI, 2013): [3]

- Only job card holders to be employed for MGNREGA component
- Muster rolls to be maintained on work site
- All relevant data to be uploaded in MIS
- Social audits to be done regularly through *gram sabhas*
- Wage payments to be made through accounts in banks/post offices
- The cost of material component of projects including the wages of the skilled and semi-skilled workers not to exceed 40% of the total project costs at the *gram panchayat* (GP) level.
- As far as practicable, only manual labor to be used
- No Contractors to be engaged in the execution of works

[3] The National Rural Employment Guarantee Act 2005 (NREGA), Operational Guidelines 2013, Ministry of Rural Development, Government of India.

The framework of convergence is such that MGNREGA work becomes a subset of any other works permissible under it. The convergence helps in value addition to MGNREGA works for creation of rural durable assets through consolidation and expansion. The latter, in turn, will help improve overall productivity. The provision of market linkage and capacity building are other necessary tools to achieve sustainable rural development (Figure 1.2).

In operational terms, convergence between programs should be at the levels of (a) planning, (b) work execution and (c) management (institutional arrangements). In all these, institutional linkages among PRI functionaries, *gram sabha* members, government functionaries, professional institutions, etc. are crucial. While decentralized planning is at the core of the convergence, the coordinating role of different line departments in the execution of the work is equally important to get maximum impact. This requires proper institutional arrangements for ensuring proper coordination at the district, block and village level so that managerial difficulties do not hamper the progress (GoI, 2013).[4]

1.4 Scope for Asset Creation under Convergence

Different convergence measures have the mandate to create different types of durable rural assets for sustainable livelihood generation and improvement in the quality of life.

Water Conservation and Water Harvesting

The Mission Water Conservation (MWC) has been set up by the Ministry of Rural Development under the Draft Natural Resource Management (NRM) Framework of MGNREGA, which fits into the overall agenda of *Pradhan Mantri Krishi Sinchayee Yojana* (PMKSY). There is an effort to ensure tangible drought proofing outcomes across the country. The three flagship programs, namely MGNREGA, PMKSY and Integrated Watershed Management Program (IWMP) carry common objectives of water conversation and management, water harvesting, soil and moisture conservation, groundwater recharge, flood protection, land development, command area development and water management. Under the MWC guidelines, convergence among the above-mentioned flagship programs has been made mandatory. In the identified 2264 water stressed blocks, 65 percent of the MGNREGA expenditure is required to be undertaken in NRM activities. Major NRM works under MGNREGA are de-siltation, renovation of water harvesting structures, strengthening of embankments, dug well, lift irrigation, farm pond, check dam, artificial recharge of well, development of wasteland, land levelling and shaping, land reclamation, afforestation,

[4] The National Rural Employment Guarantee Act 2005 (NREGA), Operational Guidelines 2013, Ministry of Rural Development, Government of India.

plantation, and horticulture. MWC Framework is expected to improve planning processes of the MGNREGA and enhance the impact of assets being created under MGNREGA, especially on rural livelihood.[5]

Land Development

Under land development activities, the roles of the MGNREGA are construction of bunds, land levelling and reclamation. Under the convergence with National Food Security Mission (NFSM) of Ministry of Agriculture (MoA), the activities that are planned to be taken up are nutrient management, integrated pest management, farm mechanization and crop demonstration. Similarly, MGNREGA is associated with construction of pond. Fish culture is taken up under the convergence with *Rashtriya Krishi Vikas Yojana* (RKVY).

The other works that may be taken up on individual land are irrigation facilities comprising ground water recharge structures, construction of *diggi*, tank, farm pond, water hose and tank cum dug well, land development facilities like construction of contour, soil cover on wasteland by transporting silt from nearby tank, and horticulture, plantation for sericulture and nursery. Land development activities are done both on individual and public land.

Fisheries

Under fisheries sector, works under MGNREGA comprise construction of tanks and desilting of old tanks. The activities with the resources drawn from other line departments are fingerlings, manure, and artificial feedings. There are also measures to develop inland fisheries and aquaculture and waterlogged areas, productively utilize the inland saline or alkaline water for aquaculture and develop fodder.

Rural Sanitation

MGNREGA having amended its schedule has taken up rural sanitation related works viz. individual households latrines (IHHL), school toilets and *anganwadi* toilets with a view to abolish open defecation. IHHL works can be taken up either under convergence with *Nirmal Bharat Abhiyan* (NBA) or independently under MGNREGA as per the choice of the beneficiaries. When IHHLs are taken up in convergence with NBA, the MGNREGA components constitute INR 5400. If IHHLs are taken up independently under MGNREGA, the amount is enhanced from INR10,000 to INR12,000 per IHHL including the wage and material cost (GoI, 2015).

[5] SAKSHAM, Mission Water Conservation under MGNREGA, An Introduction, Ministry of Rural Development, Government of India, 2017

1.5 Rationale behind the Study

Ever since the introduction of convergence under MGNREGA, different states have undertaken a host of measures. To name a few, there have been attempts to dovetail funds under other schemes with that of MGNREGA to meet the cost of an identifiable part of a project resulting in enhanced durability of assets created under MGNREGA or improved livelihood opportunities. Some line departments are reported to have provided technical expertise to improve the quality of the assets created under MGNREGA. There have also been efforts to provide capacity building to the beneficiaries. In all, there have been concerted efforts to create durable community assets and improved employment opportunities in rural areas. While the measure seems to be a welcome effort, there are reported cases of difficulties in implementation, lack of cooperation among the line departments, confusions and apprehensions among the beneficiaries and other stakeholders.

It is, in this context, important to make a detailed assessment of convergence measures. It is necessary to understand the inter-sectoral dynamics and underlying factors that may have been promoting or hindering the processes of convergence. As the primary goal of the convergence is to improve the livelihoods of the intended beneficiaries including the creation of durable assets, it may be pertinent to examine the impact of convergence on sustainable rural livelihood. It is also equally pertinent to identify the models of best practices for replication, cases of failure of convergence and the possible reasons thereof, and suggest measures for better outcomes. The present study intends to undertake the study on such aspects in Odisha.
In this context, the following pertinent research questions arise:

(1) Are the sectors and departments/agencies well prepared and suitable for convergence in the face of conflicting interests and existing compartmentalization of roles and responsibilities?
(2) Where the room for convergence exists, which type of convergence is practiced?
(3) Are convergence measures implemented on desired lines and should convergence plans being made area specific based on local needs and conditions?
(4) What factors determine the success/failure of convergence initiatives?
(5) What are the impacts of convergence?
(6) Does convergence create synergistic impact in terms of technological upgradation, more employment creation, income transfers, better coordination, forward and backward linkages and better utilization of allocated funds?

The present study, thus, attempts to address *inter alia* the above questions and explore mechanisms of convergence in Odisha.

1.6 Objectives of the Study

The objectives of the present study are:

a) To examine the processes and procedures of convergence;
b) To identify and analyze the factors determining household participation in convergence;
c) To assess the impacts of convergence under individual land on beneficiary households;
d) To identify the best and worst practices of convergence; and
e) To design an institutional framework and operational norms for an effective convergence process.

1.7 The Scope of the Study

The present study intends to undertake the study on convergence aspects in the state of Odisha. The rationale for choosing Odisha for the said purpose arises from its persistent poverty and the government's concerted efforts to eradicate the same. Having felt the urgent need to raise the socioeconomic conditions of the poor towards realization of the objectives of 'social inclusion', the central government in its convergence initiatives had inducted as many as five different districts of the state in the very first phase of implementation in the year 2009-10. The districts were Mayurbhanj, Ganjam, Malkangiri, Bolangir and Bargarh. All the other districts were covered in due course of time. Odisha has had the problem of unemployment and perennial seasonal migration of unskilled workers to the urban areas within and outside the state. Introduction of convergence measures under MGNREGA is expected to reduce the seasonal migration quite significantly. Besides, as the scheme aims to improve the quality of the natural resource base and agricultural productivity, Odisha's agrarian economy and natural resource base are likely to get enormous boost in course of the implementation of the program.

Odisha has taken up several efforts of convergence of MGNREGA with various other departments. The convergence initiatives so far undertaken include *inter alia* construction of IHHL through NBA and *Swachh Bharat Abhiyan* (SBA), construction of *Anganwadi* centers, PMAY-G, *Biju Pucca Ghar Yojana* (BPGY), etc. Department of *Panchayati Raj* remains the nodal agency at the state level, which, in connivance with the concerned line departments like Forest and Environment, Water Resources, Agriculture, Fisheries and Animal Husbandry, Handloom and Textile, Rural Development, SC-ST, Works etc., has taken up several measures

of convergence. It is, thus, necessary to know how the convergence process works in the state given such initiatives.[6]

For the present purpose, the convergence initiatives taken up over the individual beneficiaries on their individual lands only have been considered. Needless to say, the major thrust of the convergence measures is to target individual beneficiaries primarily belonging to BPL, SC and ST, and small and marginal farmers. Limiting the scope to these beneficiaries will help us identify the specific interventions the state has undertaken for improving the livelihoods of these beneficiaries. Hence, the convergence schemes implemented on public land is beyond the scope of this study.

1.8 Organization of the Chapters

The remaining chapters of the study are organized as follows. Chapter 2 presents the performance of the convergence activities in Odisha vis-a-vis and across its districts. Chapter 3 outlines the sample selection criteria and provides the profile of the sample. Chapter 4 presents the processes and procedures of convergence in the sample districts of Odisha. Chapter 5 examines the determinants of household participation in convergence program. In chapter 6, the impact of convergence is empirically analyzed in the context of Odisha. Chapter 7 presents the best and worst practices and gives an overview of the lessons learnt. Chapter 8 summarizes the findings, offers implications and concludes the study.

[6]Roadmap on Convergence of MGNREGS with other Schemes in Odisha, Panchayati Raj Department Government of Odisha, FY-2014-15

Chapter II

Performance of Convergence Activities under MGNREGA in Odisha

2.1 Socioeconomic Profile of Odisha and its Districts

Odisha happens to be the least developed state of the country (Rajan, 2013) and it is also home to a very large proportion of poor population (32.59%). According to the 2011 Census, Odisha is the eleventh-most populous state of the country, constituting 3.47 percent to the total population. Over the last decade, the population of the state has grown by 1.4 percent per annum (Table 2.1). The state is predominantly rural (83%) with most of its population engaged in agriculture and allied activities. Ironically, the agricultural sector has failed to create adequate income, thanks to its low productivity. Persistent poverty coupled with uneven interregional and interpersonal incomes remains the most critical challenge for the state.

Table 2.1: Socio-economic Profile of Odisha vis-a-vis India

Indicators	India	Odisha
Population	1,210,854,977	41,974,218
Decadal Rate of Growth of Population (%)	17.64	14.05
Density of Population	382	270
Sex-Ratio	940	979
Literacy (%)	74.04	72.87
Labor Force Participation Rate (2011-12) (%)	52.90	50.30
Schedule Caste (%)	16.63	17.13
Schedule Caste Literacy (%)	66.07	69.02
Schedule Tribe (%)	8.63	22.85
Schedule Tribe Literacy (%)	58.95	52.24
Poverty % (overall)*	21.92	32.59
Rural Poverty (%)	25.70	35.69
HDI**	0.50	0.44

Sources: Census 2011; Report on Employment and Unemployment Survey (2011-12)

*Planning Commission, Government of India, 2011-12; ** IHDI for India's States, 2011, UNDP.

Table 2.2: Socioeconomic Profile of Odisha according its Districts

Districts	Male (%)	Female (%)	SC (%)	ST (%)	Literacy rate (2011 census)	% of total workers to Total Population (2011 census)	No. of females per thousand males (2011 Census)	HDI value *	HDI rank *
Angul	51.50	48.50	18.81	14.10	77.53	39.79	941.00	0.66	6.00
Balasore	50.43	49.57	20.62	11.88	79.79	31.87	953.00	0.56	18.00
Bargarh	51.11	48.89	20.17	18.98	74.62	44.08	976.00	0.57	17.00
Bhadrak	50.60	49.40	22.23	2.02	82.78	28.87	974.00	0.65	8.00
Bolangir	50.24	49.76	17.88	21.05	64.72	41.86	984.00	0.55	21.00
Boudh	50.49	49.51	23.79	12.55	71.61	45.73	984.00	0.54	23.00
Cuttack	51.14	48.86	19.00	3.57	85.50	33.92	938.00	0.70	3.00
Deogarh	50.62	49.38	16.67	35.33	72.57	46.06	980.00	0.67	5.00
Dhenkanal	51.35	48.65	19.62	13.59	78.76	33.42	961.00	0.59	12.00
Gajapati	48.98	51.02	6.78	54.29	53.49	53.11	1031.00	0.43	28.00
Ganjam	50.49	49.51	19.50	3.37	71.09	41.32	998.00	0.55	20.00
Jagatsinghpur	50.83	49.17	21.83	0.69	86.59	31.20	963.00	0.56	19.00
Jajpur	50.71	49.29	23.72	8.29	80.13	27.49	972.00	0.54	22.00
Jharsuguda	51.25	48.75	18.05	30.50	78.86	37.20	946.00	0.72	2.00
Kalahandi	49.91	50.09	18.17	28.50	59.22	46.50	1001.00	0.61	11.00
Kandhamal	49.10	50.90	15.76	53.58	64.13	47.24	1008.00	0.39	29.00
Kendrapara	49.84	50.16	21.51	0.66	85.15	29.82	1014.00	0.63	10.00
Keonjhar	50.32	49.68	11.62	45.45	68.24	39.77	977.00	0.53	24.00
Khordha	51.95	48.05	13.21	5.11	86.88	30.63	902.00	0.74	1.00
Koraput	49.23	50.77	14.25	50.56	49.21	48.32	999.00	0.43	27.00
Malkangiri	49.60	50.40	17.13	57.83	48.54	49.11	997.00	0.37	30.00
Mayurbhanj	49.87	50.13	7.33	58.72	63.17	46.23	980.00	0.64	9.00
Nawapara	49.56	50.44	13.46	33.80	57.35	46.05	1007.00	0.58	14.00
Nawarangpur	52.19	47.81	14.53	55.79	46.43	49.46	991.00	0.44	26.00
Nayagarh	49.52	50.48	14.17	6.10	80.42	33.32	938.00	0.57	15.00
Puri	50.96	49.04	19.14	0.36	84.67	29.98	968.00	0.66	7.00
Rayagada	48.82	51.18	14.41	55.99	49.76	48.03	1028.00	0.44	25.00
Sambalpur	50.69	49.31	18.43	34.12	76.22	45.03	969.00	0.59	13.00
Sonepur	51.05	48.95	25.60	9.37	74.42	43.74	966.00	0.57	16.00
Sundargarh	50.74	49.26	9.16	50.75	73.34	40.36	957.00	0.68	4.00
Odisha	50.54	49.46	17.13	22.85	72.87	38.88	972.00	0.58	111.00

Source: Census of India, 2011; *Orissa Human Development Report, 2004

The extent of poverty is also not uniformly distributed across all the regions and among all social groups. Odisha comprises 30 districts, which are equally distributed across three revenue divisions, namely central, northern, and southern. Ironically, it experiences striking disparities among its districts on poverty both within and across administrative divisions. The rural poverty ratio in the southern region is more than two and half times that of the coastal region. In the northern region, this ratio is more than one and half times that of the coastal region. In southern and northern region of the state, about 88.56 percent of the state's scheduled tribe (ST) and 46.23 percent of the scheduled caste (SC) population reside (GoO, 2004), thus indicating the extent of vulnerabilities associated with such regions and the people inhabited therein. In terms of human development, Odisha is much below India's achievement and is languishing with its low level. The size of the tribal population of the state is very high (22.85%). Adding SC population (17.13%), it can be emphasized that MGNREGA carries enormous significance to the state (Table 2.1).

The districts of Odisha are diverse in terms of several socioeconomic indicators. While some districts are dominated by large tribal population, others are more or less homogenous in population composition. Districts viz. Mayurbhanj, Malkangiri, Nawarangpur, Rayagada, Gajapati and Kandhamal have tribal population constituting more than 50 percent of the total. On the other hand, the tribal population of the coastal districts is below 3 percent. Compared to ST, the SC population is relatively higher mostly in coastal districts. The districts vary significantly in terms of human development with most of the costal districts remaining at the top, while the tribal dominated ones largely relegating to the bottom (Table 2.2). MGNREGA and the convergence measures under it carry critical significance especially in the vulnerable districts.

2.2. Performance of MGNREGA in Odisha

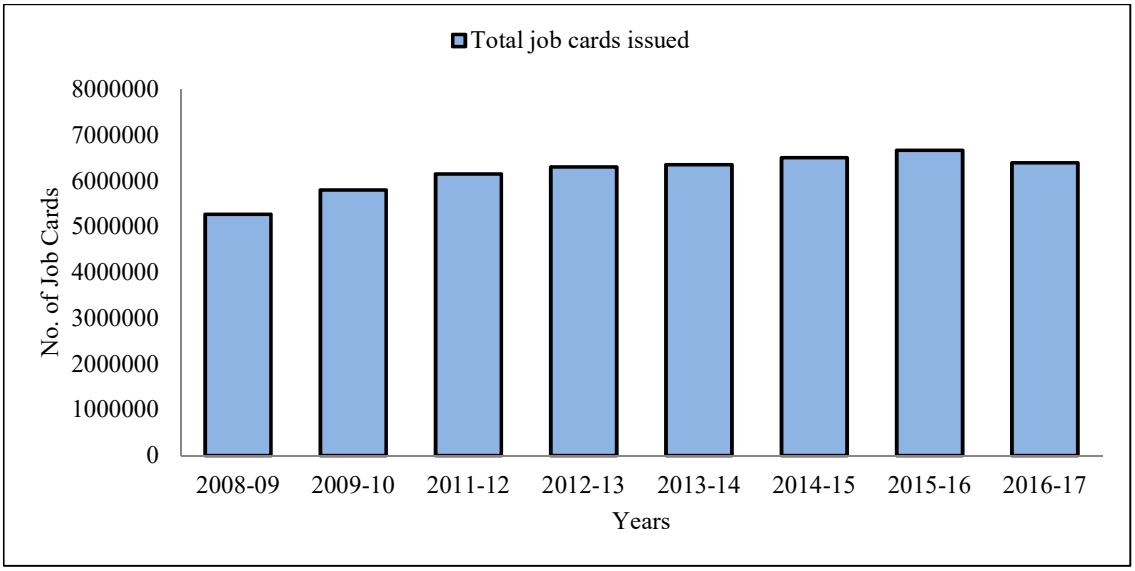
Realizing the significance of MGNREGA and the convergence measures, the central government has constantly tried to prioritize its focus on Odisha. Convergence of MGNREGA with other rural development schemes has been introduced with the main objectives of increasing employment generation and maximizing utilization of funds allocated for such projects in order to achieve sustainable rural development. There is, thus, a need to assess whether the desired objectives have been met in the context of Odisha. Using the secondary data as provided by the Ministry of Rural Development, Government of India (www.nrega.nic.in), the performance of the state is analyzed considering four important

indicators, namely (a) employment status, (b) women's participation, (c) fund utilization, and (d) asset creation.

Employment status

As the main objective of MGNREGA is to effectively generate 100 days of employment per household per annum when demanded, it may be pertinent to probe how far this objective has been achieved. The employment status under MGNREGA can be judged from both demand and supply sides. While issuance of job cards can be considered a supply side indicator exhibiting willingness and capacity of the executing agencies to ensure greater spread and coverage, demand for jobs and the person-days of employment may indicate the incidence of participation in MGNREGA works by the intended beneficiaries. In Odisha, till 2016-17, the total number of job cards issued to the households was over 6.33 million. There has been an increase in the issuance of job cards by about 3.92 percent between 2011-12 and 2016-17 (Figure 2.1). Among all the job card holders, about 47.54 percent belong to the SC and ST households (http://www.nrega.nic.in/netnrega/home.aspx). Interestingly, the number of households demanding jobs seems to have increased in recent years. However, it is still much below a desired level. The proportion of total job card holding households demanding employment has increased from 22.62 percent in 2011-12 to 36.84 percent in 2016-17. As the scheme is demand based, as expected, the total households allotted work is almost equal to the households demanding jobs (Figure 2.3).

Figure 2.1: Year-Wise Total Job Cards Issued in Odisha

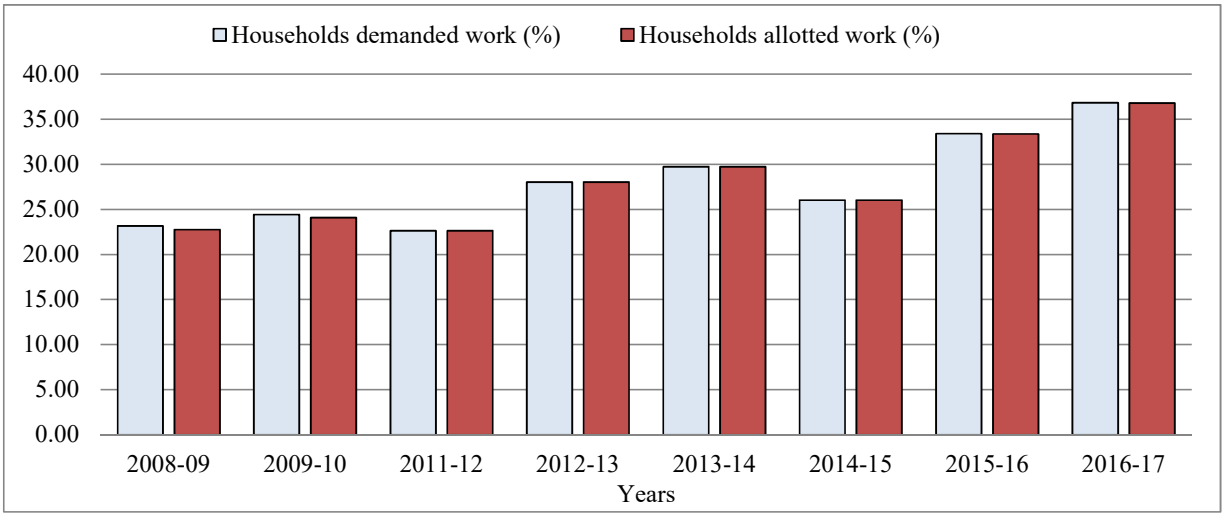


Source: http://www.nrega.nic.in

There have been huge fluctuations in the total person-days of employment generated in the state over the years. In 2013-14, the person-days created were 711 Lakh, which declined to

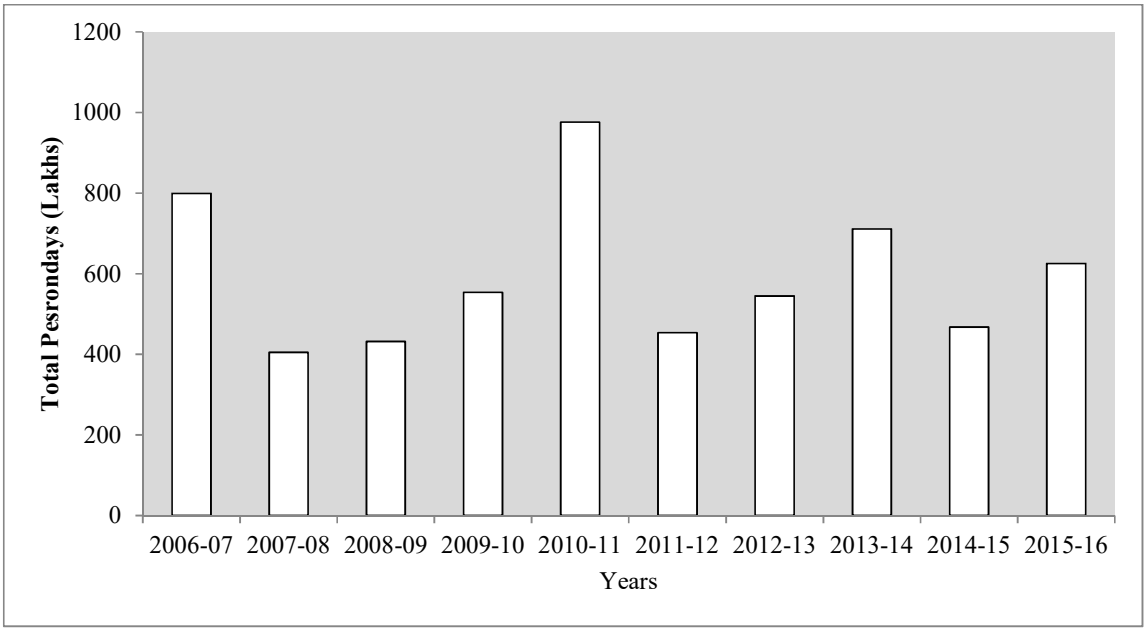
468 Lakh in 2014-15. However, it again recorded a rise to 726 Lakh in 2015-16 (Figure 2.3). It is, however, significant to note that contrary to the expectations that a poorer state like Odisha should be reaching the average days of employment closer to the mandated days under the scheme, in Odisha, the average days of employment has declined from 40 days in 2006-07 to 38 days in 2016-17. Ironically, the national average on this front in 2016-17 (46 days) was much higher than Odisha's average. Though Odisha witnessed a rise in average days of employment in 2015-16 to 45 days, it could not be maintained in 2016-17 (Figure 2.4).

Figure 2.2: Demand for Work and its Allotment in Odisha (%) according to Years



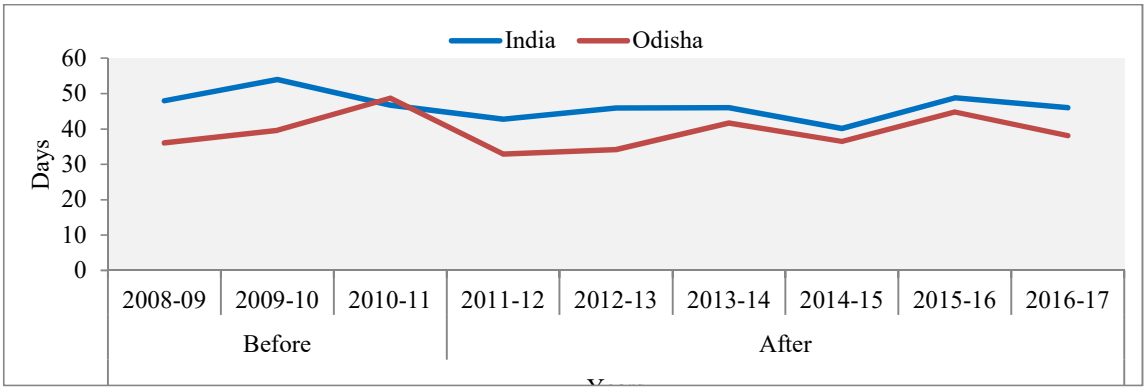
Source: http://www.nrega.nic.in

Figure 2.3: Total Person-days of Employment generated in Odisha



Source: http://www.nrega.nic.in

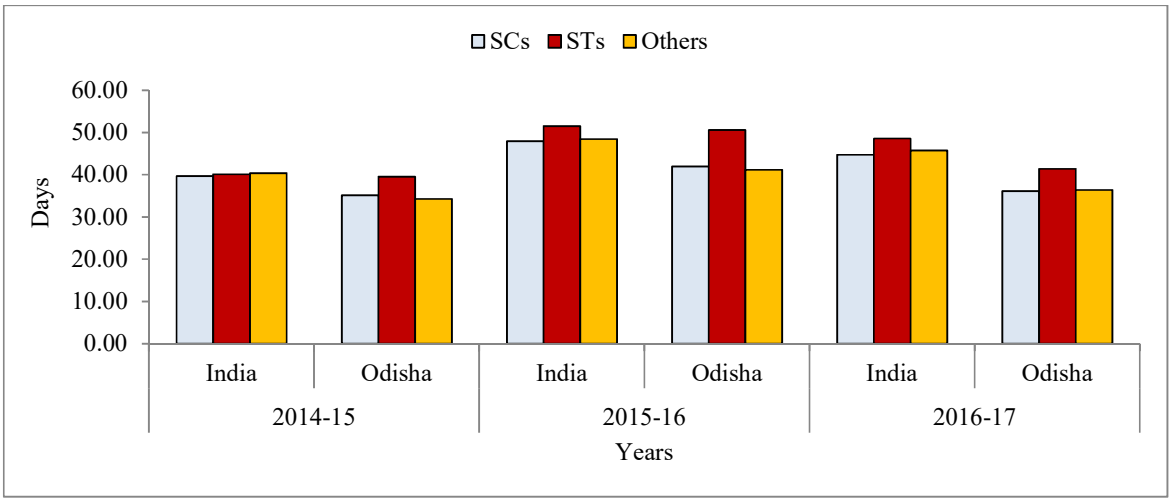
Figure 2.4: Average days of employment provided per household in Odisha vis-à-vis India (Overall)



Source: http://www.nrega.nic.in

It is interesting to note that the employment generation has been relatively higher among the ST beneficiary households compared to their counterparts under SC and other communities. This is, by and large, true both at the national level and in Odisha. However, despite the state having been home to very large ST population, the average days of employment generated for ST households is found to be lower than that at the national level. In 2014-15, Odisha's average employment among ST households was 29.56 against 40.11 at the all-India level. In Odisha, it increased to 50.54 in 2015-16, while at the national level, it was 51.51. However, in 2016-17, there was a significant fall on this to 41.40 for Odisha against India's 48.60 (Table 2.5).

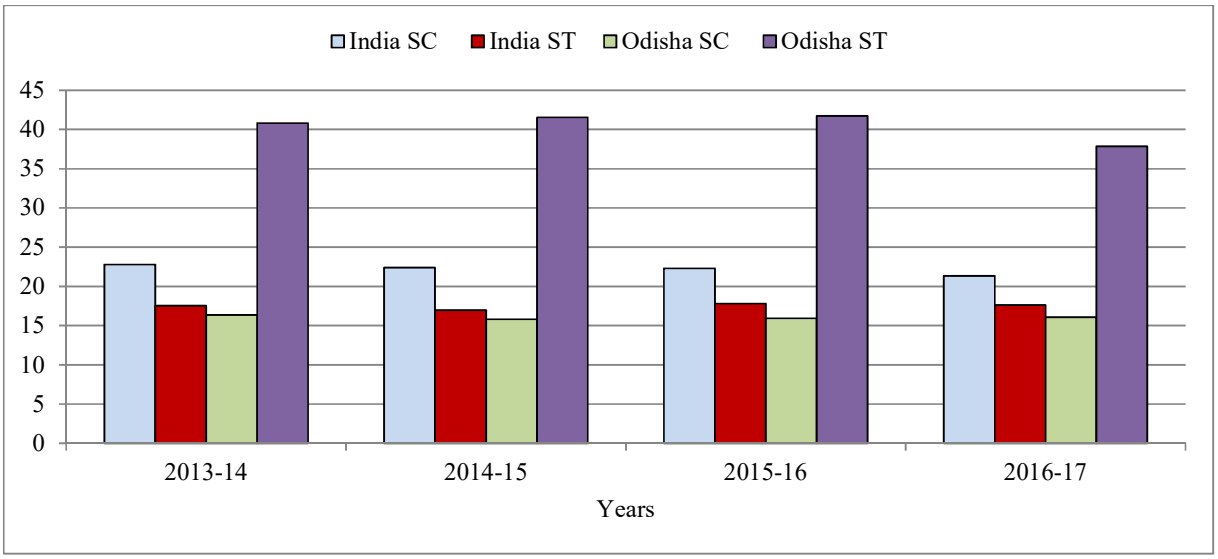
Figure 2.5: Average days of employment provided per household in Odisha vis-à-vis India according to Social Groups



Source: http://www.nrega.nic.in

In terms of employment share, in Odisha, the share of the ST population in total employment generated is much higher than the national average. It was about 42 percent in 2015-16 in Odisha vis-à-vis only 18 percent at the all-India level. However, in 2016-17, the share of the ST population has declined to 38 percent but it still remains much above the national average (18%). With an ST population share of about 22 percent in Odisha, though this rate appears to be impressive, further improvement in their share may be desirable as the incidence of poverty is more among the tribal population. Compared to ST, on the average, the SC participation rate has been about 16 percent in Odisha in last four years (Figure 2.6). Improvement in their share may help improve the socioeconomic status of this yet another vulnerable group.

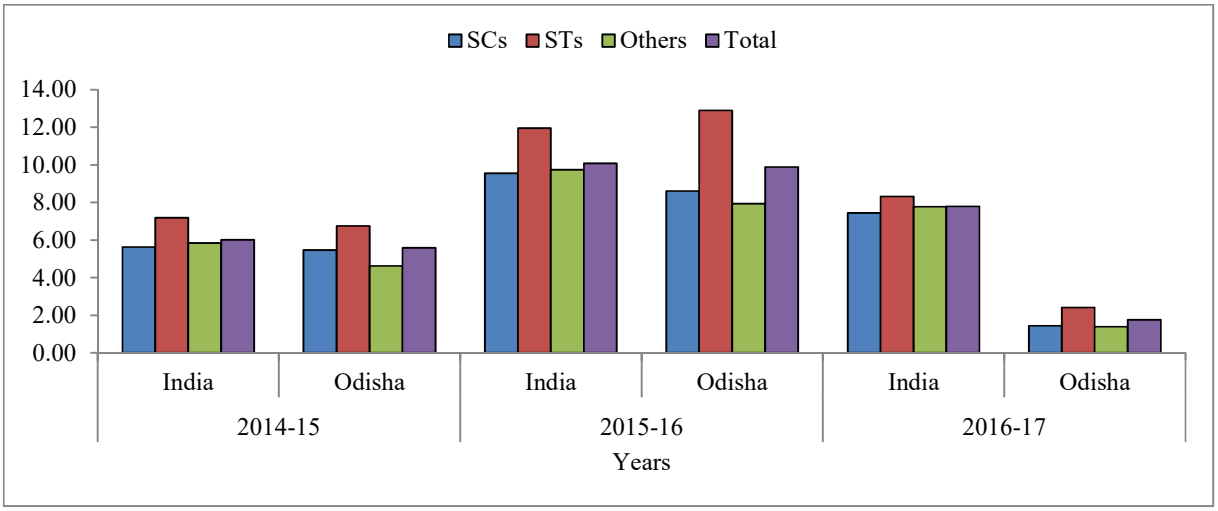
Figure 2.6: Participation Rate among SC and ST in Employment under MGNREGA in Odisha (%)



Source: http://www.nrega.nic.in

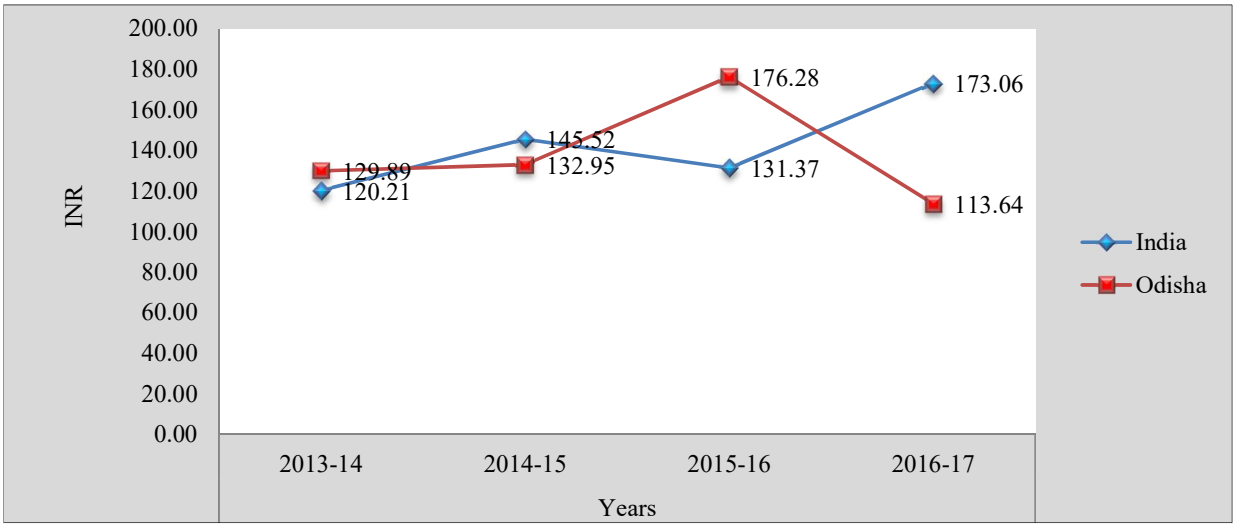
A further probe into employment status in terms of proportions of households having reached 100 days of employment provides the evidence that we are far behind the target both at the national and the state level. Though there was a significant improvement on this front in Odisha in 2015-16 (9.89%) compared to the previous year (5.58%), in 2016-17, the state witnessed a dramatic fall (1.76%). It is, however, interesting to note that similar to the scenarios with respect to average days of employment generated, the ST households, on the average, have greater share of reaching the mandated 100 days of employment in almost all the years. There was a significant improvement in the year 2015-16 (12.89%), which, however, declined to a meager 2.41 percent in 2016-17 (Table 2.7).

Figure 2.7: Households Completed 100 Days of Employment (%)



Source: http://www.nrega.nic.in

Figure 2.8: Average Wage Rate under MGNREGA in Odisha vis-à-vis India (in INR)



Source: http://www.nrega.nic.in

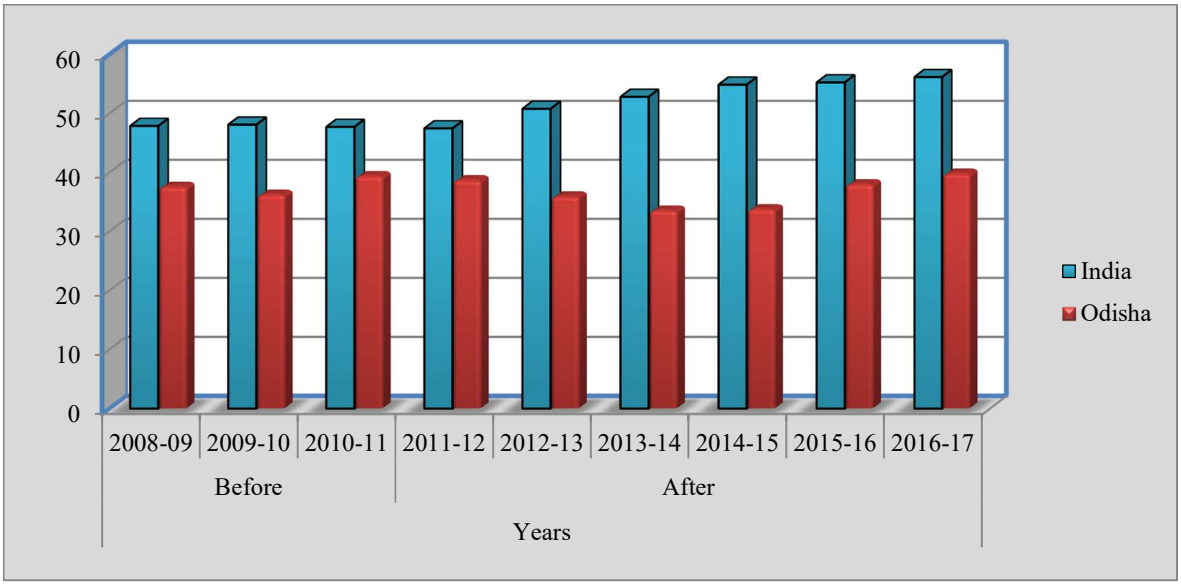
As a corollary to the employment generation is the average wage rate paid to the beneficiaries. It is interesting to find that in Odisha, the average wage rate having witnessed a dramatic rise in 2015-16 (INR 176.28) has declined quite significantly in 2016-17 (INR 113.64) (Figure 2.8). Hence, one cannot get any clear-cut pattern regarding the wage rates.

Women's Participation

The features of the MGNREGA that make it unique with regard to women's participation are: (1) women must constitute at least one-third of the workers under the scheme; (2) men and women must receive equal wages, and (3) since the employment is guaranteed on a household basis, it allows flexibility in work according to availability. One of the objectives of the MGNREGA is to empower women, and the act attempts to look into this aspect by the inclusion of women-friendly clauses like employing women in the worksite closest to their homes, selection of work supervisors, gender sensitive measures like opening bank accounts for wage payments as individual or joint accounts, etc.

Compared to overall employment, there seems to have been some improvements in workforce participation rate among women. It is observed from figure 2.5 that at the national level, women workforce participation rate has experienced an increasing trend, especially in the post-convergence period and more particularly in last three years (from 52.44% in 2013-14 to 56% in 2016-17). In Odisha also, there has been some improvement in women workforce participation rate since 2014-15 (33.78% in 2014-15 to 39.82% in 2016-17), though it is relatively less prominent compared to that at the all-India level (Figure 2.9).

Fig. 2.9: Women's Participation rate under MGNREGA in Odisha vis-à-vis India (%)



Source: http://www.nrega.nic.in

Asset Creation:

As an outcome of convergence, many durable rural assets have been created in the state. The activities leading to creation of rural assets include *inter alia* flood control, rural connectivity, water conservation and water harvesting, renovation of traditional water bodies, drought proofing, irrigation facilities, land development, *Bharat Nirman*, *Rajeev Gandhi Sewa Kendra*, rural drinking water, fisheries and rural sanitation on private and public land.

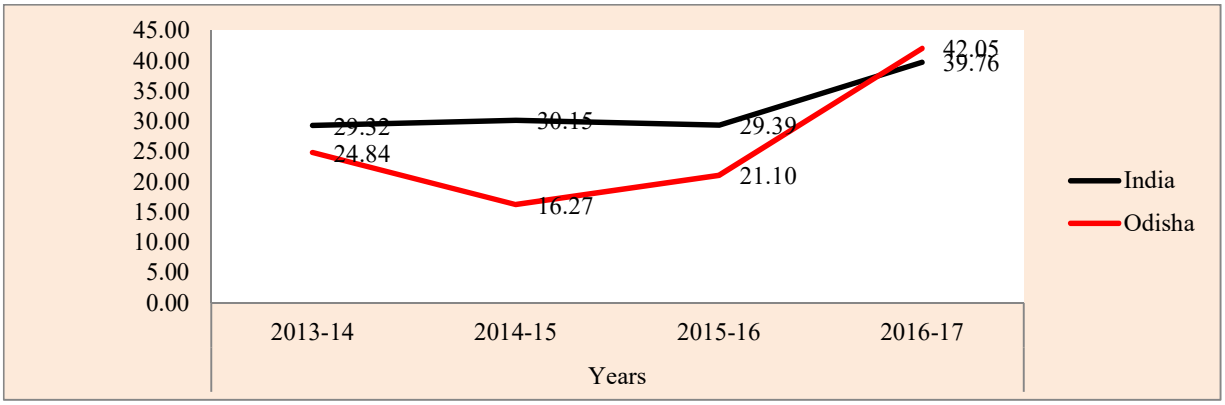
There seems to have been good progress in the creation of many such rural assets. After convergence, the rate of asset creation seems to have increased on both public and private land. In Odisha, there has been a phenomenal jump in the creation of rural assets in 2016-17 compared to the previous years. Among all the schemes, schemes like water conservation and water harvesting, renovation of traditional water bodies, rural connectivity, irrigation facilities for SC/ST/IAY/LR beneficiaries, land development and rural sanitation have been the major focus. However, in rural drinking water project and flood control, though there has been significant progress at the national level, the state does not seem to have made much headway on these works (Table 2.3). The creation of the durable rural assets depends largely on the work completion rates. Interestingly, though there has been much progress in the work completion rate in recent years, a lot needs to be expedited to convert the works in progress to their completion on time. In 2016-17, for instance, only about 42 percent of the works taken up were completed. (Figure 2.9). In all the years except 2016-17, Odisha's performance was worse than the national average.

Table 2.3: Number of Assets created in Odisha vis-à-vis India

India	Flood Control	Rural Connectivity	Water Conservation And Water Herversting	Renovation of Traditional Water Bodies	Drought Proofing	Irrigation Canals	Irrigation Facilities To SC/ST/IAY/ LR	Land development	Other Works	Rajiv Gandhi Seva Kendra	Coastal Areas	Rural Drinking Water	Fisheries	Rural Sanitation	Total
2013-14	93059	407721	235157	108083	170228	176965	261169	257452	61804	3544	122	2701	3771	810375	2592151
2014-15	81551	431174	237449	116760	142907	87602	435783	303852	74783	3356	267	4872	4886	1305116	3230358
2015-16	106236	463951	285226	155733	188508	115488	1085765	308374	95461	5558	233	11803	4941	801577	3628854
2016-17	110590	479937	502381	152010	227805	161435	1990968	492112	100627	7006	511	26591	4289	911350	5167612
Odisha															
2013-14	392	15708	9887	6582	5414	577	7960	9633	4996	572	1	105	47	2712	64586
2014-15	140	9704	4479	3575	5820	364	4648	7317	4080	419	20	51	21	7755	48393
2015-16	196	15594	4932	4394	9011	709	59452	10267	9861	625	0	145	91	9100	124377
2016-17	678	32728	12762	9669	21011	1513	130040	19151	12730	720	1	150	261	8766	250180

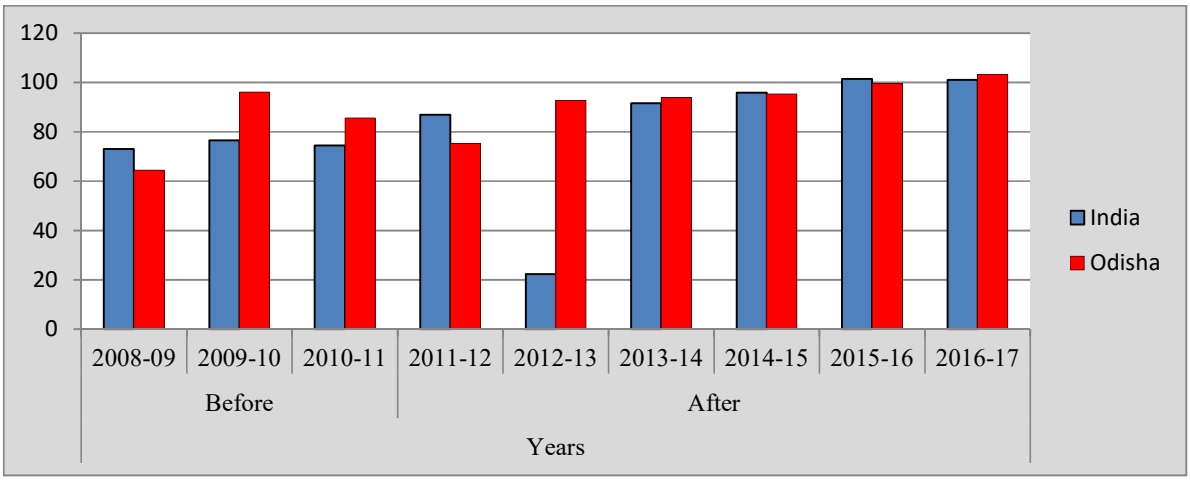
Source: http://www.nrega.nic.in

Figure 2.10: Work Completion Rate under MGNREGA in Odisha vis-à-vis India (%)



Source: http://www.nrega.nic.in

Figure 2.11: Fund Utilization Rate under MGNREGA in Odisha vis-a-vis India (%)



Source: http://www.nrega.nic.in

Fund Utilization

There has been a significant improvement in the fund utilization rate especially since 2014-15 both at the national level as well as in the state of Odisha. Compared to a meager 86 percent utilization rate in Odisha during 2010-11, since 2014-15, the rate of utilization has exceeded 95%, which is very close to the national average. In 2016-17, Odisha witnessed a phenomenal jump in its utilization rate to 103 percent as against 101 percent at the all-India level. These records tend to suggest that possibly the convergence measures are helping the state to undertake more schemes and utilize the funds at a higher rate.

2.3. Performance of Odisha under MGNREGA according to Districts

The previous section provided an overall scenario regarding the performance of Odisha on certain important indicators under MGNREGA. As there seems to exist wide variations across the districts of Odisha in all these indicators, it may be worthwhile to present the scenarios

across the districts. The present section, thus, attempts to make a comparison across districts according to some key indicators.

Table 2.4: Average Person-days of Employment Generated per Household according to Districts of Odisha

District	2014-15				2015-16				2016-17			
	SC	ST	Others	Total	SC	ST	Others	Total	SC	ST	Others	Total
Angul	31.99	37.33	33.43	33.91	30.95	34.76	33.33	33.15	27.27	31.14	29.15	29.15
Balasore	27.87	31.18	28.33	28.59	28.84	32.14	28.47	28.94	26.48	28.19	26.92	26.96
Bargarh	28.46	28.69	26.74	27.64	28.95	28.89	28.01	28.45	27.73	28.37	28.32	28.21
Bhadrak	24.96	23.70	26.83	26.50	26.22	24.96	27.12	26.94	30.47	27.60	30.21	30.24
Bolangir	38.70	40.72	39.30	39.58	53.07	57.27	53.89	54.63	43.36	44.68	43.54	43.79
Boudh	25.93	32.82	27.86	28.12	36.59	42.06	38.35	38.45	29.18	34.06	31.49	31.35
Cuttack	19.42	24.21	19.90	20.09	25.09	28.69	26.57	26.34	23.24	26.18	24.60	24.37
Deogarh	36.53	38.56	35.31	36.66	35.17	39.96	37.19	37.80	36.65	39.20	39.49	38.92
Dhenkanal	31.53	35.06	32.16	32.54	34.19	34.83	34.11	34.25	32.62	33.00	33.10	32.98
Gajapati	29.76	37.45	30.94	35.66	45.56	54.61	44.58	51.40	35.69	41.75	34.63	39.47
Ganjam	45.48	46.94	44.27	44.71	48.96	53.05	49.47	49.59	47.81	51.98	47.24	47.68
Jagatsinghapur	17.38	12.25	15.99	16.31	22.06	19.33	22.88	22.67	25.96	25.88	25.30	25.48
Jajpur	22.68	25.96	23.07	23.18	30.06	32.82	30.32	30.43	23.28	28.41	25.00	24.74
Jharsuguda	34.48	35.27	32.31	34.24	35.14	36.27	33.54	35.24	31.05	31.81	31.76	31.62
Kalahandi	34.67	34.02	34.56	34.38	36.32	39.27	38.59	38.44	28.61	31.02	30.94	30.55
Kandhamal	44.82	43.19	41.92	43.21	59.27	57.73	57.09	57.87	44.02	45.62	44.86	45.12
Kendrapara	19.64	30.27	25.47	24.16	22.28	25.61	26.41	25.43	22.03	22.96	25.66	24.80
Kendujhar	31.03	30.39	33.18	31.71	42.98	48.63	45.55	46.63	34.68	36.69	36.97	36.56
Khordha	31.09	27.17	26.30	27.49	35.84	35.33	33.03	33.82	30.20	24.88	28.63	28.62
Koraput	40.13	44.65	42.38	43.50	48.03	51.16	47.68	49.89	35.79	38.80	37.82	38.16
Malkangiri	31.12	30.92	32.01	31.10	33.73	35.77	35.21	35.22	35.50	35.62	34.50	35.44
Mayurbhanj	44.71	44.21	43.76	44.14	59.60	59.97	60.00	59.93	46.35	47.44	47.67	47.38
Nabarangpur	37.05	41.16	38.21	39.87	46.44	49.60	50.55	49.40	36.48	40.21	39.82	39.58
Nayagarh	30.50	35.44	30.45	30.97	33.04	38.46	35.81	35.68	35.88	36.99	38.95	38.40
Nuapada	32.40	31.74	32.73	32.28	43.53	44.40	42.71	43.54	37.15	39.25	38.67	38.70
Puri	21.44	29.96	22.07	22.03	27.92	27.82	29.06	28.86	28.80	25.35	31.26	30.81
Rayagada	34.47	35.97	33.57	35.20	55.15	54.65	53.25	54.43	46.31	46.58	44.43	46.07
Sambalpur	33.60	34.08	34.92	34.34	43.89	43.58	44.18	43.87	38.61	36.72	38.69	37.90
Sonepur	32.50	33.48	32.48	32.57	36.62	36.34	37.53	37.21	26.67	26.76	28.04	27.63
Sundargarh	46.00	43.82	45.46	44.35	53.09	53.00	54.61	53.32	45.31	44.91	46.08	45.19
Total	35.10	39.56	34.29	36.44	41.97	50.54	41.19	44.78	36.09	41.40	36.41	38.09

Source: http://www.nrega.nic.in

Employment Status

The results tend to indicate that though many districts of Odisha witnessed praiseworthy rise in the average person-days of employment in 2015-16 compared to the previous year, there has

been an unexpected fall in the target in 2016-17. Though it is expected that convergence measures will create greater employment opportunities, results seem to be mixed in the context of Odisha with some districts like Mayurbhanj, Bolangir, Kandhamal, Gajapati, Rayagada, Sundergarh and Ganjam doing relatively well, while districts like Cuttack, Jagatsinghpur, Puri, Kendrapara, Sonepur and Jajpur performing badly on this front. It is, however, interesting to note that most of the districts doing relatively well are basically dominated by tribal population, while those at the bottom are predominantly inhabited by upper caste population. It is also evident that the tribal households, on the average, have achieved relatively greater days of employment (Table 2.4). As the incidence of poverty is higher with the tribal households, the scheme seems to be meeting the needs of the most vulnerable group of the Odishan society.

The MGNREGA carries the mandate to ensure an inclusive development strategy through which all sections of the society can be benefitted, and for this to be effective, it is needed that the workforce working under this wage-employment scheme reflects an adequate representation of weaker sections of the society including women. Accordingly, the rates of participation of the people belonging to SC and ST including women are calculated as a proportion to the total person-days generated. As expected, on the average, the ST participation is recorded to be much higher compared to the SC participation in Odisha. Over the years also, there has been improvement in the share of SC and ST employment in total employment generated in the state.

Turning to compare across districts, we observe, more or less, greater representation of SC and ST in employment especially in those districts where their shares in total population are relatively higher. The districts like Koraput, Malkangiri, Mayurbhanj, Gajapati, Kandhamal, Rayagada and Nabarangpur have high proportions of ST population, and the share of employment among ST have hovered round 55 percent to 77 percent between 2013-14 to 2016-17. In 2016-17, Gajapati recorded the highest share of the ST employment (71%), which was followed by Malkangiri (64%), Koraput (63%), Rayagada (62%), Nabarangpur (61%), Mayurbhanj (57%) and Kandhamal (56%). Similarly, districts like Jajpur, Dhenkanal, Jagatsinghpur, Kendrapara, Ganjam, Jharsuguda, Cuttack, Malkangiri, Khordha, Sonepur and Sambalpur have relatively greater share of the SC population and correspondingly, they also record greater share of these people in MGNREGA employment. In 2016-17, these districts had a minimum share of 20 percent each (Table 2.5). It is also interesting to note that over the years, the relative positions of the districts with respect to the shares of the SC and ST in total employment remain, more or less, same.

Table 2.5: Participation rate among the SC and ST Population under MGNREGA according to the Districts of Odisha (%)

Districts	Participation (%)							
	2013-14		2014-2015		2015-2016		2016-2017	
	SC	ST	SC	ST	SC	ST	SC	ST
Angul	16.53	18.62	15.52	20.13	17.05	18.52	16.69	17.77
Balasore	18.86	12.17	17.07	13.06	18.24	12.34	18.18	9.98
Bargarh	19.18	31.57	20.23	30.13	20.92	28.43	19.79	25.86
Bhadrak	16.29	1	15.49	0.75	16.91	1.06	18.71	0.89
Bolangir	17.14	29.15	16.43	27.43	17.03	27.53	16.75	25.49
Boudh	22.17	14.23	21.6	16.65	21.95	15.08	20.67	15.71
Cuttack	27.4	8.55	23.7	8.72	23.12	6.55	22.37	6.28
Deogarh	16.93	40.01	16.21	37.27	16.09	36.67	15.54	33.37
Dhenkanal	23.04	18.45	21.67	19.55	23.5	17.77	22.6	16.9
Gajapati	6.34	72.57	4.5	77.17	6.44	71.56	6.53	70.71
Ganjam	23.24	6.75	22.02	7.17	22.02	7.03	22.42	7.02
Jagatsinghapur	26.29	0.57	26.3	0.43	23.14	0.44	26.12	0.59
Jajpur	30.65	11.53	28.72	8.81	27.65	7.88	26.78	7.61
Jharsuguda	21.8	52.96	20.78	51.63	22.75	50.35	22.35	48.46
Kalahandi	16.25	37.62	17.28	35.99	16.68	36.94	16.68	35.16
Kandhamal	19.52	57.16	20.37	56.25	19.81	55.61	19.06	56.18
Kendrapara	21.87	0.92	18.53	0.67	20.61	0.64	20.74	0.46
Kendujhar	12.57	47	12.56	40.88	11.84	47.82	12.04	44.32
Khordha	23.63	16.13	25.65	11	21.73	9.6	20.1	7.07
Koraput	11.41	64.53	12.09	64.16	12.96	63.8	12.32	62.94
Malkangiri	22.81	63.93	19.99	66.34	22.18	64.21	21.92	64.42
Mayurbhanj	12.96	58.72	12.86	58.09	12.5	57.65	12	56.79
Nabarangpur	12.4	62.94	12.53	63.5	13.13	60.61	13.05	60.83
Nayagarh	12.86	10.87	13.22	11.91	11.57	8.88	11.76	8.26
Nuapada	14.09	44.43	13.3	40.12	14.61	42.86	13.21	41.26
Puri	17.32	0.72	16.57	1.06	16.57	0.58	15.88	0.52
Rayagada	15.91	61.9	15.05	63.65	16.49	62.41	17.13	61.98
Sambalpur	18.81	43.13	18.56	39.34	18.34	41.8	19.84	38.1
Sonepur	21.25	10.32	20.77	9.11	22.11	9.65	20.84	8.78
Sundergarh	10.01	72	9.99	69.99	9.85	70.42	9.98	69.07
Total	16.35	40.82	15.82	41.56	15.91	41.73	16.09	37.85

Source: http://www.nrega.nic.in

A further probe into the number of participating households completing 100 days of employment provides a poor picture regarding the achievement on this front, not only for the entire state but also for the districts within.

Table 2.6: Percentage of Participating Households Completing 100 days of Employment in Odisha according to Districts

District	2014-15 (%)				2015-16 (%)				2016-17 (%)			
	SC	ST	Other	Total	SC	ST	Other	Total	SC	ST	Other	Total
Angul	3.56	4.63	3.65	3.81	3.27	4.82	4.47	4.31	0.18	0.61	0.32	0.34
Balasore	1.83	2.42	2.01	2.02	2.09	4.87	2.30	2.54	0.41	0.36	0.30	0.32
Bargarh	2.29	2.28	1.54	1.90	3.07	2.99	2.96	2.99	0.81	1.15	0.81	0.90
Bhadrak	1.09	0.00	1.44	1.37	0.86	0.99	0.82	0.83	0.14	0.24	0.24	0.22
Bolangir	5.01	5.41	4.84	5.02	14.26	16.76	14.59	15.10	3.22	3.16	3.14	3.16
Boudh	1.42	3.32	1.86	1.96	6.65	9.09	6.89	7.14	0.05	0.12	0.06	0.06
Cuttack	1.04	0.85	0.66	0.76	1.33	0.86	1.53	1.44	0.28	0.39	0.19	0.23
Deogarh	5.74	6.06	4.55	5.28	4.27	5.67	4.46	4.85	0.66	1.19	0.97	0.99
Dhenkanal	4.28	4.54	2.97	3.55	4.71	6.65	4.87	5.14	0.72	0.85	0.77	0.77
Gajapati	1.86	5.36	3.07	4.69	9.48	13.53	9.65	12.25	1.12	2.73	1.05	2.18
Ganjam	9.48	11.28	8.28	8.74	9.69	12.83	9.43	9.71	2.76	4.77	2.69	2.84
Jagatsinghapur	0.34	0.00	0.56	0.50	0.41	0.63	0.53	0.50	0.11	0.56	0.23	0.20
Jajpur	1.43	0.87	1.44	1.39	3.20	3.84	3.53	3.46	0.36	0.80	0.49	0.47
Jharsuguda	3.80	4.99	2.63	4.06	2.54	2.90	2.50	2.71	0.64	0.62	0.86	0.69
Kalahandi	3.57	2.65	3.35	3.14	6.00	6.66	6.65	6.54	0.65	0.81	0.74	0.75
Kandhamal	12.78	10.29	9.88	10.68	19.28	16.82	17.11	17.37	2.97	5.50	3.17	4.42
Kendrapara	0.43	0.00	1.55	1.28	0.53	0.00	0.66	0.63	0.15	0.00	0.31	0.27
Kendujhar	2.78	3.25	3.98	3.52	8.90	11.83	9.69	10.57	1.65	2.28	1.88	2.03
Khordha	4.40	1.26	2.82	3.01	5.45	5.44	4.64	4.88	1.40	0.26	0.94	0.97
Koraput	5.91	7.65	6.32	7.10	7.56	9.26	7.38	8.58	0.95	1.91	1.24	1.62
Malkangiri	3.24	2.85	3.67	3.04	2.89	3.78	3.52	3.54	1.34	2.01	0.85	1.70
Mayurbhanj	11.20	10.34	10.03	10.36	20.45	20.73	20.88	20.74	2.40	2.77	2.47	2.63
Nabarangpur	3.44	4.64	3.93	4.30	10.35	12.33	13.49	12.35	0.83	1.20	0.84	1.05
Nayagarh	1.94	2.03	1.85	1.88	3.65	6.41	4.30	4.40	0.60	0.92	0.98	0.92
Nuapada	3.69	3.26	4.20	3.75	9.24	9.39	8.81	9.12	1.99	2.25	2.01	2.10
Puri	2.05	4.39	1.61	1.71	1.65	1.08	1.80	1.77	0.26	0.81	0.49	0.45
Rayagada	4.53	5.58	3.49	4.95	16.27	16.21	14.94	15.94	1.17	2.06	0.98	1.67
Sambalpur	4.46	4.41	5.30	4.79	8.70	8.54	8.44	8.53	2.61	2.11	2.57	2.40
Sonepur	3.23	2.57	2.91	2.95	5.99	5.53	5.99	5.94	0.20	0.07	0.06	0.09
Sundergarh	10.91	8.98	10.74	9.51	14.69	14.04	15.70	14.42	3.22	3.11	3.33	3.17
Total	5.46	6.76	4.63	5.58	8.61	12.90	7.94	9.89	1.44	2.41	1.40	1.76

Source: http://www.nrega.nic.in

Table 2.7: District-wise Average Wage Rate (in INR) in Odisha

Districts	2013-14	2014-15	2015-16
Angul	132.02	142.63	164.66
Balasore	134.86	133.56	166.9
Bargarh	124.23	146.18	180.82
Bhadrak	140.13	143.14	154.44
Bolangir	132.01	156.73	166.09
Boudh	116.28	158.28	157.36
Cuttack	131.45	159.36	161.33
Deogarh	122.84	125.22	149.1
Dhenkanal	131.13	161.52	165.24
Gajapati	120.65	142.66	157.1
Ganjam	116.64	97.43	172.72
Jagatsinghapur	135.77	115.45	168.18
Jajpur	130.71	128.89	173.06
Jharsuguda	128.28	143.36	174.2
Kalahandi	133.72	152.6	178.98
Kandhamal	130.26	142.51	180.96
Kendrapara	134.48	146.66	158.39
Kendujhar	131.94	147.73	176.93
Khordha	136.4	129.9	181.25
Koraput	133.74	118.12	183.16
Malkangiri	130.66	87.78	200.19
Mayurbhanj	137.07	136.18	186.57
Nabarangpur	119.29	128.3	175.84
Nayagarh	115.4	150.3	152.91
Nuapada	132.03	161	182.22
Puri	120.07	127.72	152.62
Rayagada	120.73	139.71	158.74
Sambalpur	131.7	146.97	190.49
Sonepur	121.94	157.26	180.11
Sundergarh	136.73	119.1	195.98
Odisha	129.88	132.94	176.27

Source: http://www.nrega.nic.in

In 2016, there was a revision in the minimum wage rate under MGNREGA to INR 174.00. However, not all the districts have reached the minimum wage rate as fixed. Considering 2015-16, one can find that only 13 districts have exceeded or reached the stipulated rate. Among all the districts, Malkangiri (INR 200) followed by Sundergarh (INR 196), Sambalpur (INR 190) and Mayurbhanj (186.57) have maintained a high wage rate. On the other hand, districts like Deogarh (INR 149), Puri (INR 153), Nayagarh (INR 153), Bhadrak

(INR 154) and Gajapati (INR 157) are far below the minimum rate (Table 2.7). The prevailing higher wages in districts like Malkangiri and Mayurbhanj reflect proactive measures on the part of these districts.

Women's Participation

When one looks at the participation rates among women under MGNREGA in Odisha over the years, the overall share of women employment in Odisha seems to have increased from 33.57 percent in Table 2.8: Women's Participation Rate in Odisha according to Districts (%)

Districts	2013-14	2014-15	2015-16	2016-17
Angul	26.45	29.26	34.82	37.96
Balasore	25.16	26.55	35.07	36.21
Bargarh	17.84	19.39	26.49	30.71
Bhadrak	20.21	21.09	28.08	30.88
Bolangir	35.23	36.87	39.54	40.92
Boudh	32.13	24.09	30.62	34.05
Cuttack	14.84	16.86	20.97	23.45
Deogarh	38.24	37.97	43.25	45.66
Dhenkanal	32.19	33.41	36.88	36.55
Gajapati	37.86	37.08	40.68	42.05
Ganjam	46.09	46.05	46.81	48.34
Jagatsinghapur	25.47	29.96	34.49	36.57
Jajpur	14.04	14.43	16.78	20.58
Jharsuguda	20.29	23.08	33.34	35.96
Kalahandi	40.19	41.34	41.24	41.92
Kandhamal	37.43	36.88	41.53	42.17
Kendrapara	16.52	16.37	21.33	25.71
Kendujhar	38.60	37.46	42.00	41.89
Khordha	25.09	26.17	31.03	34.46
Koraput	24.55	24.59	30.52	38.42
Malkangiri	27.46	26.00	34.00	37.10
Mayurbhanj	37.51	37.84	41.22	42.68
Nabarangpur	32.54	31.27	37.53	39.67
Nayagarh	33.42	32.99	35.01	36.75
Nuapada	33.22	35.88	39.08	40.36
Puri	26.46	28.17	33.46	34.72
Rayagada	34.05	35.2	38.38	38.64
Sambalpur	21.34	24.34	33.45	36.29
Sonepur	24.9	28.06	30.22	30.24
Sundergarh	33.31	35.01	40.17	42.13
Odisha	33.57	33.78	38.02	39.82

Source: http://www.nrega.nic.in

2013-14 to 39.82 percent in 2016-17. If we consider the recent years, during 2013-14 and 2016-17, women's participation rates have increased over most of the districts of Odisha. A comparison across districts indicates that in 2016-17, the districts recording greater share of women labor in the workforce were Ganjam (48%), Deogarh (46%) Mayurbhanj (43%), Kalahandi (42%), Kendujhar (42%) Kandhamal (42%), Bolangir (41%) and Nuapada (40%). However, it is important to note that none of the districts has been able to reach 50% participation rate among women. At the extreme bottom were Cuttack and Jajpur with the women employment share falling below 23% (Table 2.8).One can also find greater participation rate among women in tribal dominated districts, though no such clear-cut pattern seems to emerge.

Asset Creation

With regard to the impact of the MGNREGA and the concomitant convergence measures on asset creation in rural areas, it is significant to note that though various durable rural assets have been created in the state, there seems to exist wide variations across districts in terms of the total rural asset base. In 2015-16, Mayurbhanj was way ahead of the other districts with its asset base becoming 18678, which was followed by Ganjam with 11115 assets. In 2016-17, Mayurbhanj (14878) continued to top the list in terms of the number of assets created, Koraput (12893) turned out to be the next best performer on this front. At the bottom were Nayagarh and Boudh, which have failed to create much rural assets (Table 2.9).

Table 2.9: No. of Assets Created in Odisha according to Districts

Districts	2014-15	2015-16	2016-17
Angul	991	3017	5270
Balasore	826	4706	6846
Bargarh	962	3204	5429
Bhadrak	758	2801	3070
Bolangir	1616	3623	7677
Boudh	918	1499	1493
Cuttack	1090	3667	4216
Deogarh	1287	1728	1978
Dhenkanal	679	2949	5961
Gajapati	1236	2266	3354
Ganjam	4185	11115	5533
Jagatsinghapur	1732	2551	2060
Jajpur	1510	3211	3829
Jharsuguda	1684	2345	2413

Kalahandi	759	4627	7380
Kandhamal	4523	3131	3741
Kendrapara	1846	1220	2957
Kendujhar	2329	4894	5775
Khordha	1101	2589	2581
Koraput	1135	7621	12893
Malkangiri	784	3039	5873
Mayurbhanj	2185	18678	14878
Nabarangpur	2323	3347	3166
Nayagarh	358	1296	1676
Nuapada	2296	2419	7236
Puri	1484	3793	5220
Rayagada	1713	2521	9309
Sambalpur	2224	3621	4528
Sonepur	1288	2417	1952
Sundergarh	2571	10482	11625
Total	48393	124377	159919

Source: http://www.nrega.nic.in

Among all the types of assets created, connectivity in rural areas is a major accomplishment in almost all the districts. The other important activities are irrigation facilities, land development, and drought proofing. These are livelihood generation projects, which are carried out on individual lands. In Mayurbhanj, irrigation projects have been large in number. The irrigation facilities include construction/lining of water courses/field channels, dug well, tank cum dug well, farm pond, check dam, and many micro-irrigation projects. Under the land development scheme, activities include horticulture including sericulture on individual land and construction of graded bund, land levelling and shaping, construction of drainage channels, soil cover on wasteland by transporting silt from the nearby tank, and development of waste/fallow land. It is interesting to find that among the best performing districts of Odisha, many are tribal dominated (Mayurbhanj, Sundergarh, and Kandhamal). Hence, the MGNREGA in connivance with convergence measures seems to have been able to reach out to the most disadvantaged groups of the society. On the other side, the districts like Jajpur, Jagatsinghpur and Sundergarh have not been able to complete1/4th of the work taken up. Unless the works are completed, the scope to create durable rural assets and more employment opportunities would remain a far cry.

Table 2.10: Work Completion Rate in Odisha according to Districts (%)

Districts	2013-14	2014-15	2015-16	2016-17
Angul	22.37	14.21	18.98	48.37
Balasore	19.54	10.33	19.73	77.85
Bargarh	34.10	18.98	16.48	29.05
Bhadrak	19.23	10.80	23.28	73.90
Bolangir	15.45	13.47	13.40	34.83
Boudh	19.07	15.30	18.76	71.05
Cuttack	19.48	18.20	24.66	48.20
Deogarh	43.85	25.14	21.15	43.90
Dhenkanal	32.52	13.58	19.69	67.10
Gajapati	30.18	20.60	18.94	47.17
Ganjam	25.32	22.07	22.75	38.17
Jagatsinghapur	22.04	21.65	21.33	23.70
Jajpur	14.80	21.60	21.59	21.73
Jharsuguda	7.82	24.06	26.13	49.40
Kalahandi	24.14	5.42	15.97	63.27
Kandhamal	51.38	34.79	17.42	38.93
Kendrapara	26.95	46.23	12.25	35.70
Kendujhar	14.74	21.25	20.59	51.10
Khordha	11.80	17.82	23.58	55.40
Koraput	17.86	4.73	18.60	31.90
Malkangiri	23.16	9.80	20.28	55.93
Mayurbhanj	22.73	7.81	33.38	58.20
Nabarangpur	17.88	15.49	14.56	47.17
Nayagarh	12.90	5.97	11.81	38.62
Nuapada	22.29	20.79	11.45	51.62
Puri	21.60	21.24	21.15	42.12
Rayagada	26.06	15.58	13.31	52.77
Sambalpur	19.12	31.77	30.23	38.38
Sonepur	8.59	18.36	23.88	39.15
Sundergarh	42.97	17.08	33.75	22.37
Odisha	42.05	21.1	16.27	24.85

Source: http://www.nrega.nic.in

2.4 Conclusion

The preceding discussions regarding the performance of Odisha and its constituent districts clearly indicate that though there have been some improvements on some key parameters, much is still left to be done to reach the desired target. The convergence measures

seem to have been helping the state to achieve better results. One interesting aspect of the performance is with respect to the achievements for the tribal households and also in tribal dominated districts. Women's participation is also on the increase. Though, a large number of rural assets have already been created, poor work completion rate remains a critical area of intervention.

Chapter III

Sample Selection Criteria and Profile of Sample Households

3.1 Introduction

This chapter presents the justification for the selection of the districts on which the present study was conducted and the profile of the sample households. The rationale for choosing Odisha for the present study arises from its persistent poverty and the government's concerted efforts to eradicate the same. With the objective of 'social inclusion', an urgent need was felt to raise the socio-economic conditions of the poor. Working towards realization of this objective, the central government in its convergence initiatives had inducted as many as five different districts of the state in the very first phase of the implementation of MGNREGA. The districts chosen were Mayurbhanj, Ganjam, Malkangiri, Bolangir and Bargarh.

Since the middle of the financial year 2009-10, Odisha has taken up several measures towards convergence under MGNREGA following the guidelines as issued by the MoRD from time to time. The Department of *Panchayati Raj* is the nodal agency at the state level, which, in association with the concerned line departments has initiated several steps in this direction. MGNREGA is converged with Department of Forest and Environment for carrying out activities like digging trenches and undertaking plantation. It is converged with Rural Development Department for construction of IHHL through NBA and SBA. For the construction of *Anganwadi* centers, MGNREGA is converged with Women and Child Development Department. Some other schemes undertaken as part of the convergence program are PMAY-G, BPGY, etc. Works on individual land permissible under MGNREGA are irrigation facilities, horticulture plantation and land development. The works under these facilities taken up in Odisha are farm pond, tank, irrigation facility, construction of contour bund, land leveling & shaping, construction of drainage channels, plantation etc. Besides, Fisheries and Animal Resource Department has taken up measures like construction of poultry shelters, goat shelters, urine tank and food trough for cattle (Government of Odisha, 2014).

3.2 District Selection Criteria

The study is carried out in two districts of Odisha, namely Mayurbhanj and Ganjam. The rationale behind the selection of these two districts for the study is that they are in the list of five selected pilot districts of Odisha where inter-sectoral convergence was initiated in the very first phase. Interestingly, Mayurbhanj and Ganjam are also brought under the ambit of MGNREGA in the very first phase of its implementation. Mayurbhanj is found to have been a leading performer in MGNREGA as well as in convergence initiatives in the state for which it has received appreciation in consecutive years. On the contrary, Ganjam seems to have performed better in some earlier years but has been a laggard one especially in recent years. It is, in this context, important to understand why such variations exist in their performances.

While Mayurbhanj is located in the northern part of the state, Ganjam is located in its southern end. Mayurbhanj district is having large areas of natural resources and forests. It is amongst the most backward districts of the state, where a significant proportion of the people belong to tribal communities. More importantly, Mayurbhanj is the first district in India to have used banks to disburse payments. This is intended towards reducing irregularities and corruption (Vanaik and Siddhartha, 2008). Ganjam is relatively an economically backward district. Ganjam district is also largely populated with SC and other backward classes. It is one of the 19 districts in Odisha currently receiving funds from the BRGF. The study on convergence in these two districts will help us understand the dynamics of convergence that the state is experiencing in these two vital districts in particular and several other similar districts in general. The assessment of the impact of convergence activities and its channels of intervention in these two districts will be helpful for the improvement of convergence programs in the rest of the districts of Odisha.

3.3 Profile of the Sample Districts

Between the two districts under study, Mayurbhanj district is predominantly a rural one. As per the census of 2011, out of a population of 2.52 ml people, 1.26 million are females and 1.27 million are males. The sex ratio is very encouraging for this district with 1006 females per 1000 males, improved significantly from 980 in 2001. The child sex ratio stands at 960 girls per 1000 boys compared to 956 girls per 1000 boys in 2001 census. The average literacy rate for the district is 63.17 percent with male literacy rate of 73.76 percent and female literacy rate of 52.71 percent. The urban population of the district constitutes only 7.66 percent. The district has larger concentration of tribal population as over 58 percent of the people belong to ST (as per 2011 Census). Mayurbhanj is divided into 26 community development blocks, 382 GPs

and 3945 villages, out of which 3718 are inhabited. In as many as 23 blocks of the district, more than 50 percent of the people belong to ST. The forest produce remains one of the major sources of livelihood for the tribal people inhabited in the district. Of the total working population of 1.22 ml, about 44.8 percent are main workers (employment or earning for more than 6 Months), while the remaining are marginal workers (providing livelihood for less than 6 months). Among the main workers, about 31.25 percent are cultivators (owner or co-owner) and 26.50 percent are agricultural laborers (Table 3.1).

Table 3.1.: Socioeconomic Profile of the Sample Districts

Indicators		Mayurbhanj	Ganjam
Total Population (in ml)		2.52	3.53
Male (%)		49.85	50.42
Female (%)		50.15	49.58
Sex Ratio (Per 1000)		1006	983
Rural (%)		92.34	78.24
Proportion of Odisha's Population (%)		6.00	8.41
SC (%)		7.32	19.5
ST (%)		58.71	3.36
Literacy Rate (%)		63.17	71.09
Literacy Rate (%)	Male	73.76	80.99
	Female	52.71	61.13
	Urban	85.89	83.28
	Rural	61.19	67.61
Total Working Population (in ml)		1.22 (48.56% of the total)	1.50 (42.56% of the total)
Main Workers (%)		44.80	60.00
Cultivators (%)		31.25	26.00
Agriculture Labourer (%)		26.50	20.54
Household Industries (%)		6.51	3.83
Other Workers (%)		35.74	49.63
Marginal Workers (%)		55.20	40.00

Source: http://www.censusindia.co.in/district/mayurbhanj-district-odisha-376
http://www.censusindia.co.in/district/ganjam-district-odisha-376

Ganjam district is located in the southern part of the state bordering Andhra Pradesh. As per 2011 census, Ganjam has a population of 3.53 ml out of which 1.78 ml is male and 1.75 ml is females. The adult sex ratio stands at 983 and the child sex ratio stands at 899. Ganjam has an average literacy rate of 71.09 percent, with male literacy at 80.99 percent and female literacy at 61.13 percent. Around 78.24 percent of Ganjam's population live in rural areas. According to 2011 census, about 19.50 percent of its population is from SC and 3.36 percent from ST communities. With 6.9 lakh of SC population, Ganjam records the largest concentration of SC population in the state. Ganjam district comprises of 22 blocks, 3 subdivisions, 12 tahsils, 18 urban local bodies and 475 GPs. Out of the total population of the district, the share of the working population is 42.56 percent. About 60 percent of the working population constitute main workers, while the remaining 40 percent are marginal workers. A further classification among the main workers indicates that the cultivators comprise about 25.98 percent followed by agricultural labourer of 20.54 percent (Table 3.1).

3.4 Sample Selection and Methodology

The study was carried out using both primary and secondary data. Secondary data included basic physical and financial data, and progress reports of the selected districts. Secondary data were mostly gathered from the MGNREGA website and other relevant published sources. Besides, primary data collection involved preparation of survey questionnaires, focus group discussions, field visits, and interviews with district/block/*panchayat* level officials, beneficiaries and other stakeholders. A brief description of the selection of sample areas, sample size and tools for analysis is given as follows:

3.4.1 Sample Design

In order to collect primary data, two different sets of structured questionnaires were developed for the two household categories, the beneficiaries[7] and the non-beneficiaries[8]. Following that, personal interviews were conducted to collect primary data from the sample households. From each sample district, two development blocks were identified based on the criteria like extent of coverage, types of works, amount of expenditure, distance from the district headquarters, etc. Data were collected from 400 beneficiary households and 200 non-beneficiary households. A total of 14 questions from beneficiary household sample and 10 from non-beneficiary household sample were finally dropped due to incomplete information and inconsistency of data. Besides, all the other stakeholders including functionaries at the village, block and district

[7] Beneficiaries are the households who are covered under convergence schemes (on individual land) under MGNREGA
[8] Non-beneficiaries are households covered under MGNREGA but they are not covered under convergence schemes.

levels were interviewed to understand the processes and procedures followed in operationalization of the convergence scheme, pros and cons of various interventions, etc. The physical inspection of the convergence sites were also conducted by the field investigators.

In order to carry out the impact evaluation, it may be desirable to collect baseline data. As it was not possible to acquire baseline data, the study used 'before and after' approach to gather information from the households. Before and after approach is primarily based on memory of the respondents and may invite problems. However, as the convergence scheme was implemented in 2009, no serious memory lapse was expected over this short time lag. An attempt was also made to compare the status of the beneficiary households with that of the non-beneficiaries (control group) to infer possible impact of the convergence on the beneficiaries on certain important impact indicators. The data collection break up is given in table 3.2:

Table 3.2: Number of Beneficiary and Non-beneficiary in Sample Districts

Districts	Blocks	Beneficiary	Non-beneficiary	Total
Mayurbhanj	Bangriposi	89	40	129
Mayurbhanj	Kuliana	106	66	172
Ganjam	Chhatrapur	93	34	127
Ganjam	Hinjilicut	98	50	148
Total		386	190	576

Source: Primary data

3.4.2 Methodology

The study applies both qualitative and quantitative tools. Qualitative tools are pertinent to capture design and implementation arrangements, administrative set up including training, systems and procedures, and management practices to facilitate the convergence at the district and other levels. It involved focus group discussions, meetings with the state, district, block and village level functionaries, etc. Personal interviews with the relevant stakeholders were also conducted. Besides, relevant quantitative tools were applied to analyze the data**.**

Table 3.3: Objective wise Methodology

	Objective	Proposed Methodology
1	To examine the processes and procedures of convergence	1. Study of existing practices, work and information flows among communicating departments 2. Analysing the process map to identify delays, bottlenecks and redundancies
2	To identify and analyze the factors determining household participation in convergence program	1. Identification of factors from the literature 2. Opinion analysis of different stakeholders 3. Logistic regression analysis
3	To assess the impact of convergence on the beneficiary households	1. Primary data collection, focus group discussions 2. Propensity Score Matching (PSM) and regression analysis
4	To identify the best and worst practices of convergence	1. Identification of factors to be used for comparison 2. Qualitative deliberation of best and worst cases
5	To design an institutional framework and operational norms for an effective convergence process	1. Policy suggestions based on the inputs obtained from the other objectives

Table 3.3 presents the objective-wise methodology. As indicated in the table, our first task is to take up a sample region under the ambit of MGNREGA and identify the coordinating departments. In this region, we have attempted to examine the existing practices, work flows and information flows among communicating departments and design a process map indicating the present scenario. This map is critically reviewed to identify delays, bottlenecks and redundancies, if any, in the process of implementation.

Our next task is to identify the factors influencing or deterring the households to participate in the convergence process. Besides, interviews with the key stakeholders have helped us identify the areas helping/hindering the convergence initiatives in the sample areas. For the third objective, the possible impact of the convergence is measured in terms of indicators such as creation of rural assets, employment, income generation, income transfer, quality of life, etc. In order to identify the best and worst practices, we have identified some

key indicators like types of convergence, potential of the schemes to create sustainable livelihood opportunities, process flows leading to success or failure, etc. Finally, based on the results obtained from all other objectives, policy suggestions covering institutional framework and operational norms are made for improving existing practices of convergence.

3.5 Profile of the Sample Households

The profile of the sample beneficiary and non-beneficiary households is presented as follows (Table 3.4):

Beneficiary Households

It can be observed that around 28.8 percent of the beneficiary sample households belong to SC, about 44.8 percent belong to ST and the remaining 26.4 percent are from general caste and OBC. The predominance of ST households in the sample can be primarily observed in Mayurbhanj district (89%), while in Ganjam, there is relatively greater coverage of SC (51.6%) households followed by general caste and OBC (48.4%). It may thus be inferred that there is a predominance of SC and ST households among the sample beneficiaries.

In terms of the possession of BPL card, which is an identity of a household's economic status, the sample presents more or less a similar picture. About 78 percent of the beneficiary households possess BPL cards. Apparently, on the basis of possession of BPL cards, the incidence of poverty seems to be higher with the sample households of the Mayurbhanj district as nearly 96 percent of the sample households possess BPL cards compared to 58 percent in Ganjam. A majority of the beneficiaries are residing in either pucca (54.4%) or semi-pucca houses (17.8%). A similar pattern is observed in Ganjam district [pucca (81.5%) and semi-pucca (9.5%)]. However, in Mayurbhanj, quite a large proportion of the sample households is residing in *kutcha* houses (46.6%).

Sample beneficiary households are primarily having nuclear (75.9%) family structure. The pattern is found to be, by and large, similar in both the districts. About (33%) of the sample beneficiaries are relatively younger in age (31-50). The households belonging to this age group have a high potential to work and are also responsible for providing financial support to their families. The illiteracy rate among the beneficiaries is about 38.5 percent. However, the illiteracy rate among the sample beneficiaries of Ganjam (42.8%) is relatively greater than that among the sample beneficiaries of Mayurbhanj (34.4%). In both the districts, the members of the sample beneficiary households attaining primary level education are much higher than the secondary and tertiary level. The mean year of schooling is, however, higher for beneficiaries (7.32 years) compared to non-beneficiaries (6.83 years).

The data also reveals that the beneficiaries generate more average monthly income (INR 5,319) compared to non-beneficiaries (INR 5,196). The trend is similar in both the districts and the difference is marginal. It is evident that about 35 percent of the beneficiary households are non-farm laborers, while about 34 percent are into other occupations. The next share of occupation goes to farm laborers (20.5%) followed by cultivation (5.5%).

Table 3.4: Profile of the Sample Households

Household Details		Mayurbhanj			Ganjam			Total		
		BF	NBF	Total	BF	NBF	Total	BF	NBF	Total
No. of Households		195	106	301	191	84	275	386	190	576
Caste (%)	Others	4.70	6.70	5.40	48.40	54.10	50.20	26.40	27.90	26.90
	SC	6.30	35.20	16.50	51.60	45.90	49.80	28.80	40.00	32.50
	ST	89.00	58.10	78.10	0.00	0.00	0.00	44.80	32.10	40.60
Family Type (%)	Joint	26.00	12.40	20.90	14.80	27.00	18.50	20.20	18.90	19.80
	Nuclear	69.30	81.90	74.00	82.60	62.40	76.40	75.90	73.20	75.00
	Single	4.70	5.70	5.10	2.60	10.60	5.10	3.90	7.90	5.20
BPL (%)		96.40	96.20	96.30	57.70	59.50	58.30	77.90	79.80	78.60
House Type (%)	*Kutcha*	46.60	92.30	62.80	9.00	59.00	24.20	27.80	77.70	44.30
	Pucca	27.20	1.00	17.90	81.50	37.40	68.10	54.40	17.00	42.00
	Semi-*Pucca*	26.20	6.70	19.30	9.50	3.60	7.70	17.80	5.30	13.70
Age Group (%)	(1-18)	24.70	28.90	26.30	24.03	30.20	26.00	24.37	29.47	26.10
	(19-30)	26.31	24.30	25.60	21.53	21.70	21.60	23.96	23.17	23.70
	(31-50)	31.54	31.90	31.70	34.30	29.33	32.70	32.90	30.76	32.20
	(50<)	17.45	14.90	16.40	20.14	18.77	19.70	18.77	16.60	18.00
Schooling Level (%)	Illiterate	34.36	41.18	36.80	42.82	48.68	44.60	38.49	44.38	40.50
	Primary	41.23	31.62	37.70	34.75	27.63	32.60	38.07	29.92	35.31
	Secondary	14.45	18.62	16.04	15.98	12.83	15.00	15.20	16.15	15.50
	Tertiary	9.96	8.58	9.46	6.45	10.86	7.80	8.24	9.55	8.69
Mean Year Schooling of HH (Age >18 years)		7.77	7.22	7.55	6.93	6.45	6.74	7.32	6.83	7.13
Occupation (%)	Cultivation	5.70	13.00	8.00	5.00	6.00	5.00	5.50	9.40	6.01
	Farm Labor	15.84	2.00	12.00	25.60	14.00	21.26	20.53	9.00	16.90
	Non-Farm Labor	38.10	55.00	42.00	31.40	49.00	38.35	34.97	51.60	40.49
	Self Employed	6.06	6.00	6.00	5.00	5.00	5.39	5.00	5.00	5.60
	Others	34.30	24.00	32.00	33.00	26.00	30.00	34.00	25.00	31.00
Mean of Monthly Income		4370.90	4322.90	4353.93	6276.90	6275.30	6276.40	5318.90	5196.30	5278.19

Source: Own estimates from the primary data

In the case of sample beneficiaries of Mayurbhanj district also, the highest share of occupation is attributed to non-farm laborers (38.1%) followed by others (34.3%). The next share of occupation goes to farm laborers (15.84%) followed by self-employed (6.06%). The

least share goes to cultivation (5.70%). The beneficiary sample of Ganjam district reveals a different picture in terms of occupational structure. About 33 percent of the beneficiary households are engaged in other professions followed by non-farm laborers (31.4%). The share of farm laborers is 25.6 % followed by an equal share of cultivators and self-employed (5%).

Non-Beneficiary Households

Turning to non-beneficiaries, the sample constitutes of 40 percent SC followed by 32.1 percent ST and 27.9 percent other castes. In the case of Mayurbhanj, the proportion of ST non-beneficiary households is much higher (58.1%) than SC (38.2%). In the case of Ganjam, general caste and OBC households have the highest share (54.1%) in the sample compared to SC (45.9%).

In terms of BPL card holding, about 79.8 percent non-beneficiary households are found to be BPL card holders. However, the share of Mayurbhanj (79.8%) is higher than that of Ganjam (59.5%). Around 77.7 percent of non-beneficiary households are found to be residing in *kutcha* houses made up of mud walls and thatched roofs. The pattern is, more or less, similar across the non-beneficiary sample households of both the districts though Mayurbhanj has a much larger share (92.3%).

The non-beneficiary sample households are mostly nuclear families across both the districts. A large share of the members of the non-beneficiary sample constitutes the young working age group (19-50) (54%). Both the sample districts present, more or less, a similar trend. It appears that the incidence of illiteracy is higher with the non-beneficiary households compared to their beneficiary household counterparts. As the mean monthly income of the non-beneficiary sample households is marginally lower than that of beneficiary households, the difference could be attributed to convergence. The occupational structure of non-beneficiary sample households also reveals the predominance of non-farm labor.

Chapter IV

Processes and Procedures of Convergence in Sample Districts of Odisha

The success of a scheme like MGNREGA depends *inter alia* how best the processes and procedures as prescribed in the guidelines are followed. This chapter, thus, discusses the processes and procedures involved in the operationalization of the convergence scheme in the sample district in general and in the sample blocks in particular.

4.1 Processes and Procedures of Convergence

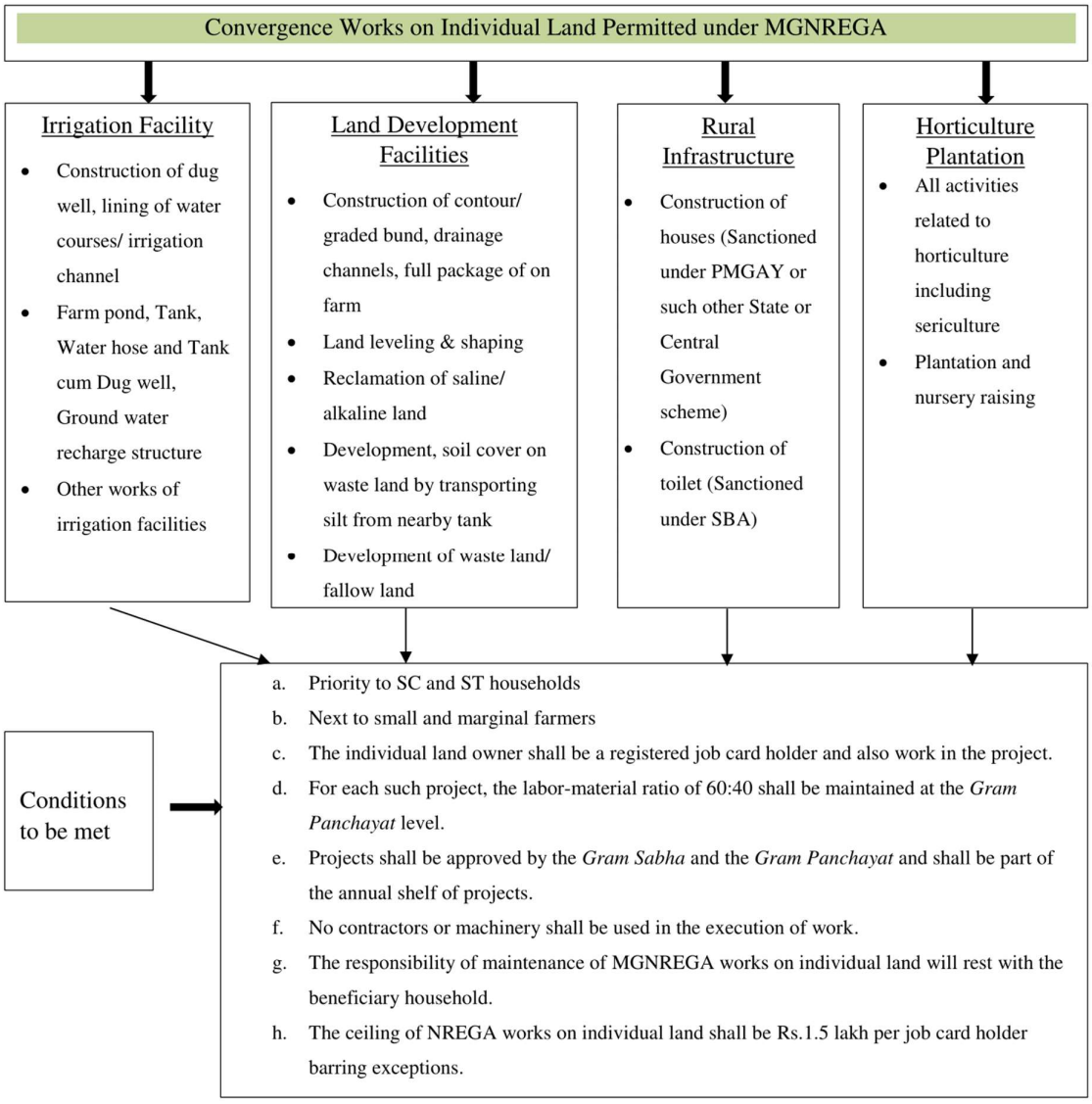
In order to examine the processes and procedures adopted for convergence under MGNREGA, the information related to the convergence processes and procedures for works on individual land were obtained from the MoRD guidelines. Extensive discussions were held with the functionaries at the *panchayat*, block and district level in two sample districts to elicit information regarding the adherence to the guidelines in course of the implementation of convergence schemes.

In order to strengthen the livelihood resource base of the rural poor and creation of durable assets and adherence to the amendment notified by MoRD vide notification dated 22 July 2009, certain directives were issued in accordance with Section 27(1) of MGNREGA vide MORD letter No. 11060/3/2009-NREGA dated 1 September 2009. As per the directives, in the implementation of convergence measures, priority should be given to works on the land of SC and ST households. Only after saturation of works on the lands of SC and ST households in a GP, works on lands of small and marginal farmers may be considered.

It is also clearly mentioned that for getting works executed on someone's individual land, the general MGNREGA conditions as notified vide notification dated 18 June 2008 should be satisfied. The foremost condition is that the beneficiary must be a job card holder and must be willing to work on the proposed scheme. For each such project, labor-material ratio of 60:40 should be maintained at the GP level. The *gram sabha* shall approve the application of all such projects and forward to GP for positioning in the annual shelf of projects. The basic prerequisites of MGNREGA like employment to job card holders only, strict ban on engagement of contractors or machinery, payment of wages through bank/post office account,

management information system (MIS) entry, etc. continue to apply to the schemes. Only manual labor oriented works are permissible under the scheme (Figure 4.1).

Figure 4.1: Permitted Convergence Works on Individual Land under MGNREGA and Conditions for Implementation



Source: Draft Guidelines for Implementation of works on Individual land under NREGA, 2009

The GPs have to carry out social audits at regular intervals for all such works. The individual beneficiary has to indicate in writing that s/he would take up responsibilities for maintenance of assets created under MGNREGA support. Maximum amount to be invested on individual land is INR 1.50 lakh. However, in cases where boring of dug-well in some areas requires higher investment, full justification should be provided while preparing labor budget, which is duly endorsed by district program coordinator (DPC) before implementing such a

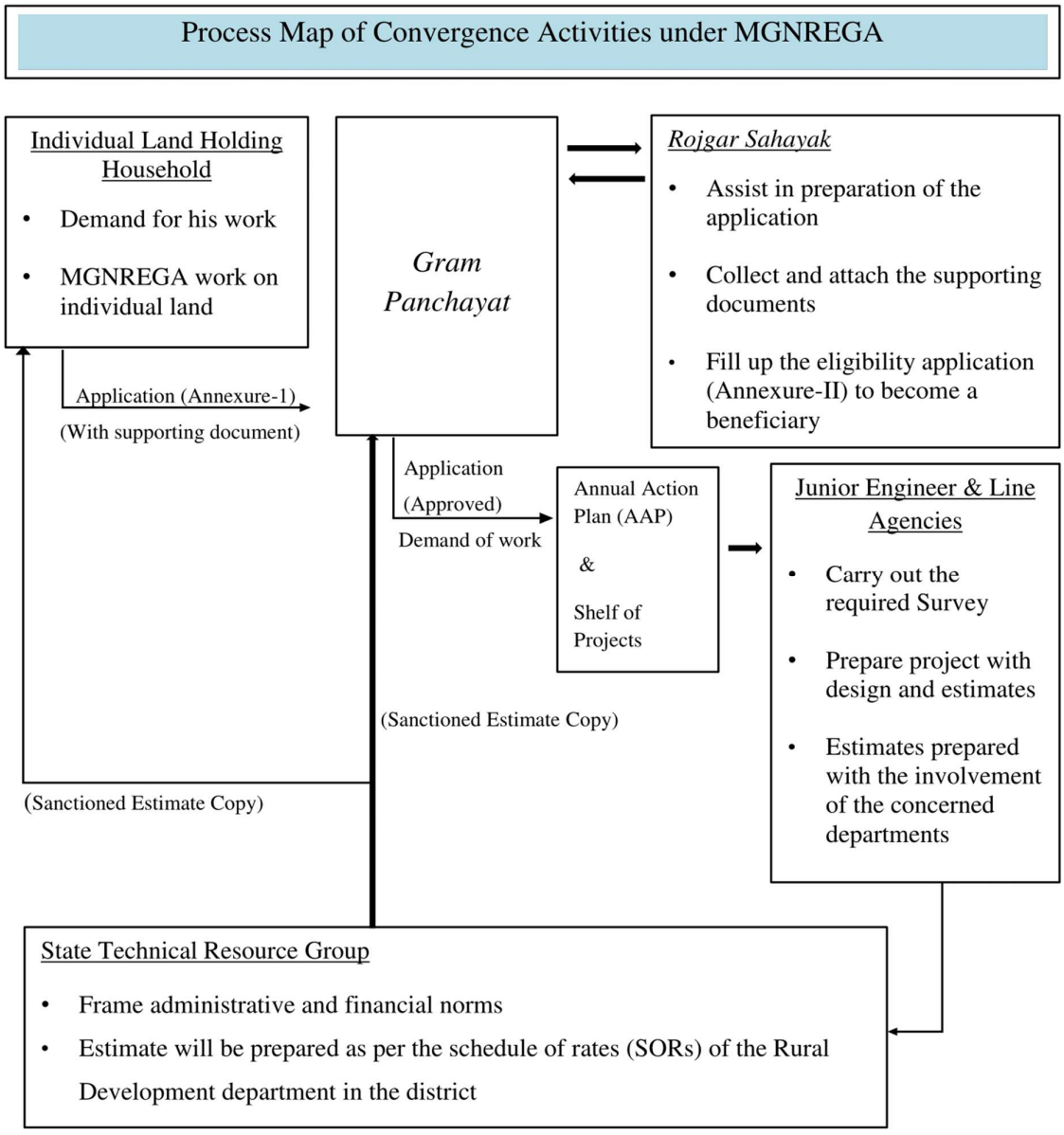
scheme. Over and above this budget limit, more works would be planned under convergence with other schemes for value addition to the project.

In order to ensure fair distribution of benefits under this scheme and maintain a balance between works on individual land and works on common public resources, a onetime investment on individual land on the proposed activity is to be maintained. This is aimed to meet the demand for works on individual land by all seekers. Those who are left out in the initial beneficiary list may be considered for second round.

The permissible works under convergence initially included *inter alia* irrigation facilities, land development, creation of rural infrastructure and horticulture plantation. In the subsequent revisions, MoRD has also included construction of IHHL along with school and ICDS, sanitation blocks and community sanitary facilities under total sanitation campaign (TSC). The specific activities comprise construction of dug-well, lining of water courses/irrigation channels, farm pond, tanks, water hose and tank cum dug-well, ground water recharge structure, construction of contour/graded bund, drainage channels, land leveling and shaping, reclamation of saline/alkaline land, development, soil cover on waste land by transporting silt from nearby tank, development of waste land/fallow land, construction of houses (sanctioned under PMAY-G or such other state or central government schemes), construction of toilet (sanctioned under SBA), all activities related to horticulture including sericulture, plantation and nursery raising, etc.

The job card holding households, who wish to undertake MGNREGA work on their personal land, must apply to the GP seeking employment and also for carrying out MGNREGA work on individual land. First part of the application format is nearly identical to the regular application format for employment of the job card holders clearly mentioning that s/he is agreeable to work for a continuous stretch of 14 days. However, in the case of works on individual land through convergence scheme there is a second part where the applicant is supposed to provide the details of his/her land and the type of work s/he intends to carry on over the individual land.

Figure 4.2: Process Map of Convergence Activities under MGNREGA



Source: Draft Guidelines for Implementation of works on Individual land under NREGA, 2009

According to the provisions, the *Gram Rozgar Sahayak*/ GP secretary is required to assist the interested households in preparation of the application and verify/collect and attach the following documents and fill up the data input sheet for the eligible beneficiaries. The *patwari* verifies the ownership of land proposed for development.

a) Caste certificate in case of SC or ST
b) Certificate/copy of the land record.
c) If house hold is BPL, then it has to be verified from the BPL list issued by the competent authority.

d) For construction of dug well, the water availability clearance certificate from the Ground Water Department should be collected and attached.

*Panchayat*s at village, intermediate and district level are the prime authority for planning, strategizing, recommending and executing works under MGNREGA. After the applications are prepared, the GP will put up these applications, for the demand of work along with carrying out MGNREGA work on the beneficiary's land, for inclusion in the Annual Action Plan and shelf of projects. The *gram sabha* approves these development plans and forwards them to program officer through GP.

After the works are approved and included in annual action plan (AAP), the designated junior engineer (JE)/technical assistant (TA) along with the officials of the line department are required to undertake a survey and design the project and prepare the budget. This is done with the consent of the beneficiary households. At the state level, the state technical resource group sets the technical and financial norms for different categories of work on individual land. These norms vary from state to state as it would be dependent on the physical and environmental conditions of that region.

4.2 Compliance with the Guidelines

Based on our extensive interactions with the functionaries at the GP, block and district level, focus group discussions and personal interviews with the sample respondents, it appears that the convergence initiatives, by and large, follow a bottom up approach through intensive participation of various stakeholders. The processes followed in the execution of a convergence work are as follows:

- *Gram sabha* discusses and approves a list of projects as proposed by line departments, and block and district resource teams.
- JE/TA prepares the estimates involving officials of the line departments.
- *Gram sabha* approves the estimates.
- *Panchayat samiti* approves the projects and the estimates.
- President, *Zilla parishad* approves the projects.
- AAP for a shelf of projects is prepared.
- *Gram sabha* monitors the execution of the works.

Table 4.1: Processes and Procedures under MGNREGA in the Pre-Implementation Stage in Sample Districts of Odisha

Agencies/Stakeholders	Roles	Level	Survey Observations
Job Card Holder (individual land holding household)	Demand for job with job card and supporting documents	**GP**	Job cards were not available with the job card holders at the time of field survey.
Gram Panchayat (*Rojgar Sahayak*)	Assist in preparation of the application		✓
	BPL household should be verified from the And Issuing of BPL list by the competent authority.		✓
	Collecting and attaching the supporting documents regarding individual land		✓
	Filling up of the eligibility application (Annexure II) to become beneficiaries		✓
Gram Sabha & *Gram Panchayat*	Approval of Projects		✓
	Part of the annual shelf of projects		✓
	Ensuring no contractors or machinery are used in the execution of work.		Violations in a few places
Junior Engineer & Line Agencies	Planning, designing the estimate and submitting project proposal	**Block**	✓
Program Officer/Block Development Officer	Project proposals should be received from GPs into the Block Plan		✓
	Submitting District *Panchayat* for scrutiny and consolidation		✓
District Program Coordinator (DPC)/ District Collector/CEO of District *Panchayat*	Receive the Block *Panchayat* plans	**District**	✓
	Consolidate them along with project proposals		✓
District *Panchayat*	Consolidation of Annual Block Plans (within the District) into a District Plan		✓

Source: a) Primary Survey

b) Draft Guidelines for Implementation of works on Individual land under NREGA, 2009

c) Operational Guidelines, MGNREGA, 4th Edition, 2013

The processes and procedures followed in the sample districts are found, more or less, in conformity with the directives of the MoRD (Tables 4.1 and 4.2). However, there seems to have been some deviations in certain important aspects. One major deviation is with respect to the custody of the job cards. As per the provisions of the scheme, while the job card holders are entitled to be the sole custodians of their job cards, it was observed that many such job cards were not available with the beneficiary households during the time of our primary survey. In most of these cases, the cards were reported to be with the *gram rozgar sahayak*. The process

Table 4.2: Processes and Procedures under MGNREGA in the Implementation/ Execution Stage in Sample Districts of Odisha

Agencies/Stakeholders	Roles	Level	Survey Observations
Gram Panchayat (*Rojgar Sahayak*)	Issuing dated receipts for applications for work	GP	✓
	Allotting work within fifteen days of submitting the application		✓
	Maintenance of Notice Board (Beneficiary Name, Financial and Technical sanction)		Missing in a few locations
	Keeping and Maintaining Muster Rolls, Bills, Vouchers, Measurement books and Copies of sanction orders		✓
	Monitoring the implementation of work at the village level		✓
	Recording quantity and price of materials purchased for each project along with name of agency		✓
	Maintaining asset register		✓
Gram Sabha & *Gram Panchayat*	Final authority to determine the order of priority	GP	✓
	Monitor the execution of works within the GP		✓
Junior Engineer/Line Agencies/PIA (Project Implementation Agencies)	Maintenance of measurement book (work & expenditure) in the presence of beneficiary	Block	✓
	Activity calendar to households		Needs improvement
	After completion of project, the completion certificate shall be issued by the PIA		✓
	Amount of labor cost goes into the workers' accounts as per the muster roll		✓
	Procurement from prescribed agencies		✓
Program Officer/Block Development Officer	Complaints should be entered & acknowledgements used		✓
	Inspect 25% of the works in the Block		✓
	Review of works on private land on schedule monthly meetings		✓
	Organize formal monthly meetings with civil society organizations (CSOs) involved in facilitating		✓
District Program Coordinator (DPC)/District Collector/ CEO of District *Panchayat*	Ensure timely release and utilization of funds	District	✓
	Appoint Project Implementation Agencies (PIAs) throughout the district, keeping in mind that for at least 50% of value of the works, the PIAs need to be GPs		✓
	Timely procuring of quality material in transparent manner		✓
	DPC and Additional DPC shall inspect 3% and 1% of the works, respectively		✓

Source: a) Primary Survey

b) Draft Guidelines for Implementation of works on Individual land under NREGA, 2009

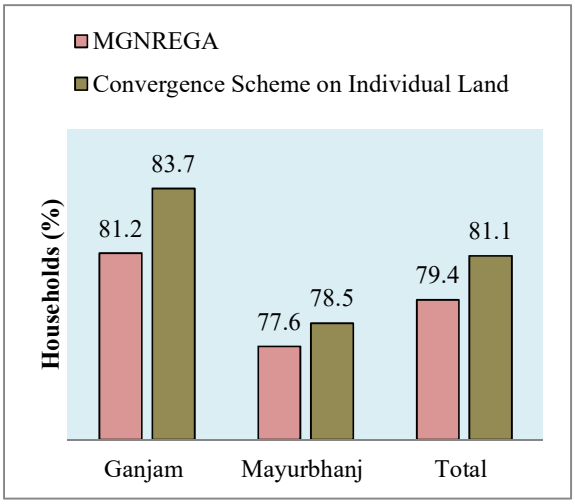
c) Operational Guidelines, MGNREGA, 4th Edition, 2013

of applications for jobs and coverage under convergence of the individual land was not known to many respondents. Though they reported that they have filled in some forms, some of them had no idea what purposes these documents were to serve for them. This indicates the poor awareness level among the beneficiaries regarding the scheme and its provisions. There are

also a few cases where the respondents reported to have got their works done through contractors.

At the implementation stage, though most of the processes followed seem to have been as per the stated guidelines, certain areas still need attention. To be specific, while there is a provision that notice boards must be displayed and activity calendars must be furnished to the beneficiaries, the study team observed certain deficiencies on this front in quite a few places.

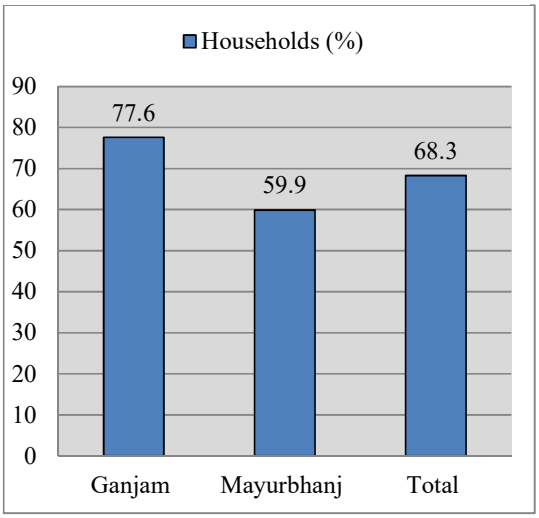
Figure 4.3: Applications Submitted (%)



Source: Own estimates from the primary data

It can be observed that the rate of submission of applications for work under these MGNREGA and convergence schemes is as high as 79.4 percent and 81.1 percent respectively. A comparison between the two sample districts indicates that in Ganjam, the sample beneficiaries tended to have made relatively more demand (81.2%) and (83.7%) for MGNREGA jobs and convergence works on individual lands, respectively than that in Mayurbhanj (77.6%) and (78.5%) (Figure 4.3). However, the awareness regarding the collection of dated receipts of applications for different convergence schemes are found to be much lower than desired (68.3%) (Figure 4.4). The households reporting that they did not submit any application while getting the jobs or getting covered under convergence tend to suggest their lack of awareness about this process. Our interactions with the *gram rojgar sahayaks* seem to suggest that these beneficiaries have possibly submitted their applications taking his/her help and they are hardly aware of the same.

Figure 4.4: *Gram Panchayat* issued Dated Receipts against the Applications



Source: Own estimates from the primary data

As per the provisions of the MGNREGA act, work allotment to a job card holder should be made within 15 days of the demand for employment. The survey data reveals that about 41.3 percent of the households were allotted works under MGNREGA within an interval of 15-30 days, while 24.2 percent of households got the work allotment within a range of 1-3 months. The work allotment pattern is found to be, more or less, similar across convergence schemes too. As many as 71 percent of work allotment in convergence schemes have crossed the mandated 15 days period. Comparing two districts, Mayurbhanj is found to be more sluggish in work allotment, where a high of around 37 percent of the work allotment to households have been made after a lapse of one month (Table 4.3).

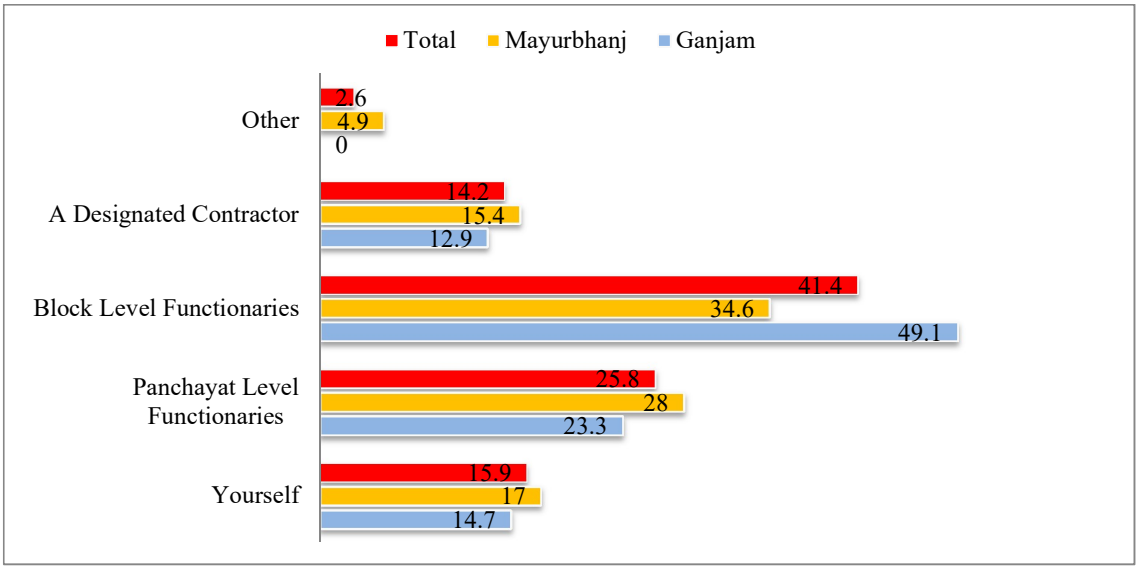
Table 4.3: Average Number of Days taken by GPs for Allotting the Works after the Applications Received

Type	Responses of Households	Ganjam	Mayurbhanj	Total
MGNREGA	<15 Days	36.2	24.1	29.8
	15 Days - 1 Month	44.7	38.2	41.3
	1 - 3 Months	15.8	31.8	24.2
	> 3 Months	3.3	5.9	4.7
Convergence work on individual land	<15 days	23.8	21.51	22.3
	15 Days - 1 Month	34.4	36.6	35.5
	1 - 3 Months	35	36	35.5
	> 3 Months	6.9	5.8	6.3

Source: Own estimates from the primary data

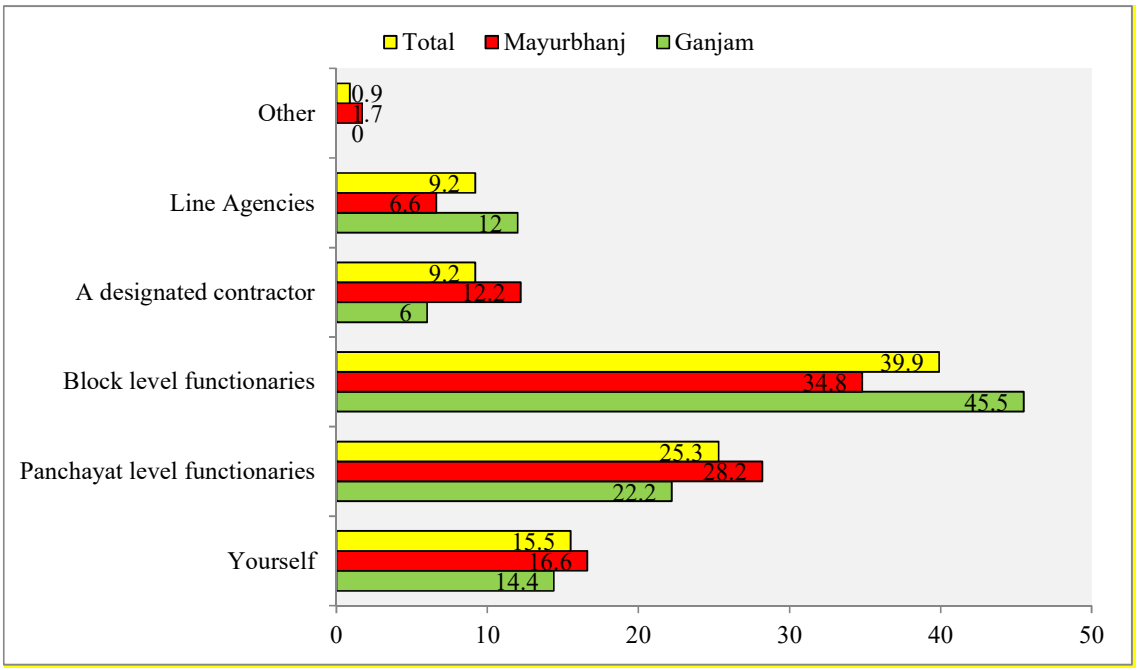
The block level functionaries seem to be having fair participation in the execution of the schemes followed by the participation by the *panchayat* level functionaries. However, there are also reported cases of contractors getting involved in both MGNREGA as well as the works of the line departments (Figures 4.5 and 4.6). While it may be permissible to engage contractors in the works executed by the line departments, efforts are needed to ensure that no contractors are engaged especially for the MGNREGA part of the works.

Figure 4.5: Person(s) who executed the MGNREGA Part of the Work (%)



Source: Own estimates from the primary data

Figure 4.6: Person(s) who executed the Works of the other Line Departments (%)



Source: Own estimates from the primary data

The wage payments while executing the schemes are primarily made through bank account (97.2%), which seems to be welcome step. It brings about greater transparency in wage payment. However, there are areas of concern with respect to the execution of the work as about 21 percent reported that they do not find the local level functionaries to be very forthcoming in providing necessary help and as many as 93 percent opined that the technical support they receive is inadequate. About 7 percent of them opined that the process is much

complicated for them to understand and about 6 percent felt that the sanction of the project takes more time than expected (Table 4.4).

Table 4.4: Response of the Households regarding Implementation of Convergence Schemes

Indicators	Responses of Households	Ganjam (%)	Mayurbhanj (%)	Total (%)
Political Ideology same as the Local *Sarpanch's*	Strongly support	68.2	47.5	57.7
	Partially support	22.2	38	30.1
	Neither support nor oppose	5.1	8.9	7
	Partially oppose	1.1	1.7	1.4
	Strongly oppose	3.4	3.9	3.7
Participation in *Gram Sabha*	Always	54.49	55.31	54.9
	Frequently	33.15	22.34	27.73
	Occasionally	7.87	9.5	8.68
	Rarely	2.25	6.15	4.2
	Do not participate	2.24	6.7	4.49
Member of any SHG	Yes	27.3	27.5	27.4
Participation in SHG Meetings	Always	32.35	29.47	30.96
	Frequently	17.65	13.68	15.74
	Occasionally	2.94	5.26	4.06
	Rarely	5.88	22.12	13.71
	Do not participate	41.18	29.47	35.53
Technical Support for any Work	Yes	4.8	8.5	6.7
Wage Payments through Bank/ PO	Bank Account	98.3	96.1	97.2
Problems in the Execution of the Convergence Works	Delay in sanction	3.4	9.4	6.4
	Lack of interests by local officials	17.5	24.4	21
	Bribing the middlemen	0	0.6	0.3
	Complicated processes	8.5	5	6.7
	No personal involvement	1.1	0	0.6
	None	69.5	60.6	65

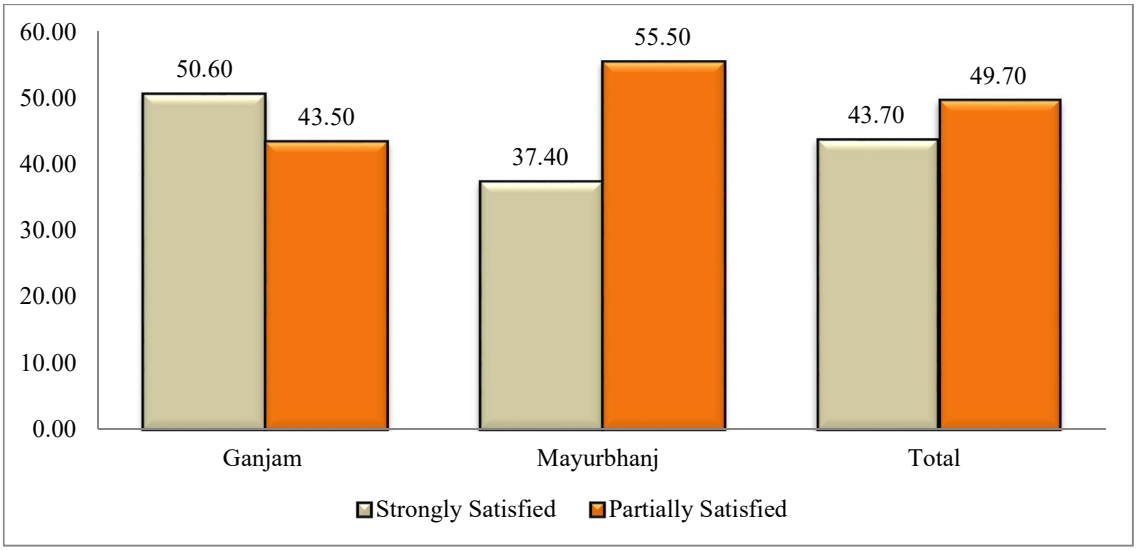
Source: Own estimates from the primary data

In order to examine if any preferential treatment is given to the households in the selection of beneficiaries, the sample respondents were asked to report if they followed the same ideology as that of their local *sarpanch.* It is revealing to note that more than 90 percent of the beneficiaries reported that they either strongly or partially support the political ideology of the local *sarpanch*. This amounts to indicate a possibility of 'clientelism', leading to biases

in the selection of beneficiaries based on the probable loyalties. It is also important to note that most of the beneficiaries (88%) attend the *gram sabha* meetings either always or frequently, hence suggesting their overwhelming participation in local level decision making process. About 27 percent of the beneficiary households are found to be the members of SHGs (Table 4.4).

Despite some deficiencies in the compliance of processes and procedures of conference under MGNREGA, an overwhelming 94 percent of households have expressed satisfaction over the processes and procedures of convergence schemes. This clearly reflects the proactive steps undertaken by the district, block and *panchayat* level functionaries towards successful implementation of the program in the sample districts.

Figure 4.7: Level of Satisfaction over the Process of Implementation of the Convergence Scheme among the Beneficiary Households (%)



Source: Source: Own estimates from the primary data

4.3 Concluding Remarks

To summarize, it may be noted here that the processes of convergence are, by and large, in compliance with the stated guidelines. In order for the convergence initiative to become more effective, efforts may be required on the following. There is a need to create greater awareness among the intended beneficiaries about the procedures, scope and relevance of the scheme. Efforts are required to reduce the time lag between the conception of the program and its execution. The delay in execution is plausibly due to the delay in work allotment. Bridging the communication gap between the different functionaries may help reduce the time lag quite significantly. It may be equally important to ensure that contractors are prohibited from the

execution of MGNREGA works. Monitoring mechanism need to be strengthened so that job cards remain under the custody of the beneficiary households.

Chapter V

Determinants of Household Participation under Convergence

5.1 Introduction

As envisaged earlier, the success of the program rests with the overwhelming participation of the intended beneficiaries. Ironically, not only the participation in MGNREGA works is on the decline but also the people's participation in convergence schemes appears to be much lesser than desired. With the continued decline in the employment rate under MGNREGA, efforts have been made to introduce convergence of MGNREGA with other ongoing schemes with an aim to create more viable employment opportunities, durable community assets, improve the participation rates among SC and ST and women, etc. However, the progress on this front is not very satisfactory. Under convergence measures, there are initiatives to improve *inter alia* rural livelihood opportunities, quality of life and natural resource conservation and regeneration through the creation of facilities like water conservation and water harvesting, renovation of traditional water bodies, drought proofing, flood control, canal irrigation, horticulture plantation, rural sanitation, rural drinking water, rural housing etc. However, when one looks at the volume of asset creation over the years, though one finds much improvement over time, still a lot needs to be done to reach the desired target.

For the convergence measures to provide desired results, it may be necessary that more households are covered under different schemes of convergence. As it prioritizes SC and ST households, BPL families and small and marginal farmers, drive to create enabling environment to cover more number of such households under the ambit of the convergence may be useful. Given the fact that the coverage is low, it may be pertinent to understand, in this context, what determines the incidence of participation among the rural households in convergence scheme. This chapter, thus, attempts to identify the factors contributing to the participation of the households in the convergence initiatives. Here one may raise the following important research questions.

- Does 'clientelism' exist under convergence?
- Does household dependency on MGNREGA affect their willingness and access to convergence on the individual land?

- Do people value opportunity costs?
- Is awareness building necessary to improve the access?
- Do people value the net economic benefit while deciding to join the scheme?
- Is there a possibility of 'elite capture' of the benefits?

5.2 Variables Selection and Hypotheses Formulation

The literature on the determinants of household participation suggests that households are not equally endowed with the ability to influence decisions in their favor (Weinberger and Juetting, 2001). Their relative bargaining power largely depends on their socioeconomic characteristics, institutional and community characteristics (Engel et al., 2005). Moreover, the ability and willingness to participate may *inter alia* depend on (a) the net benefit the households are likely to derive from such interventions, (b) the enabling environment, and (c) the possibility of clientelism. Following a schematic framework as suggested by Nayak et al. (2010), a brief outline of the possible linkage between the above factors and the incidence of participation is given as follows.

One may argue that the basic motive behind participation in any welfare program is to derive net economic benefit, which involves a comparison between the possible returns on participation and the opportunity cost of such participation. With the presence of off-farm livelihood opportunities, people may assume the opportunity cost of getting involved in farm based activities to be high. As convergence primarily involves economic activities on individual land mostly covering agriculture and horticulture, those getting occupied in off-farm activities may compare their loss of income from the off-farm activities with the gain from the activities under convergence. The opportunity cost of the households with higher levels of schooling is likely to be higher and hence, there is a possibility of lesser participation among these households. On the other hand, the likely return the participating households can expect may be gauged by the nature and magnitude of rural durable assets to be created and the extent of a household's dependency on such programs. Greater the dependency a household exhibits higher is the return perceived from the participation. The households having larger family size are likely to remain largely dependent on improved rural livelihood opportunities and they are expected to participate in the convergence program. A large family size reflects presence of more human labor in the households, which can be utilized in saving labor cost required in the execution and maintenance of different convergence schemes whether it is cattle rearing or horticulture.

The incidence of participation also depends on the kinds of enabling environment created for the intended beneficiaries. Under the provisions of MGNREGA and the convergence scheme, *gram sabha* is one such enabling institution, which plays a critical role in terms of its involvement in the approval of the shelf of projects and monitoring in the execution of works. The constitution 73rd amendment act of 1992 in India has created *gram sabha*, an important 'invited space'[9], where people meet, deliberate and make decisions regarding local development. It comprises all the electorates of a *panchayat.* In addition to participating in *gram sabha,* rural people are also found to participate in what is called a 'popular space'[10] to deliberate, settle disputes and take decisions. Self-help group (SHG) is one such popular space, which plays a catalytic role in shaping rural development initiatives. Hence, one may suggest that participation of the households in *gram sabha* and SHG meetings would act as enablers for enjoying the benefits of convergence. Besides, creation of awareness among the intended beneficiaries could be a critical means to improve the willingness and access of the households to convergence schemes. While one may argue that rise in education level among the household members can enable awareness and willingness to search information (Verba and Nie, 1972), in rural development process, what is perhaps more important is the creation of awareness among the people through various formal and informal channels.

MGNREGA in general and convergence in particular is considered to be a major enabling source of livelihood for the SC and ST households. Under convergence, priority is given to the SC, ST and BPL households in terms of spread and coverage. Therefore, one can expect that ST and SC households are likely to participate more compared to their general caste and OBC counterparts. Similarly, households belonging to BPL are likely to be preferred over those which are relatively better-off. One can also develop a counter argument that there could be a possibility of exclusion of these households on the ground that they may not have requisite resources like land, financial capital and bargaining power to influence the schemes in their favor.

There can be a third but not a very desirable factor, which could enable a household to get an access to the benefits, is the political affiliation of the household to the ruling dispensation.

[9] An invited space is created by the government to be used as a platform for deliberation or communication and at times, it may become a regularized institution (Cornwall 2004).

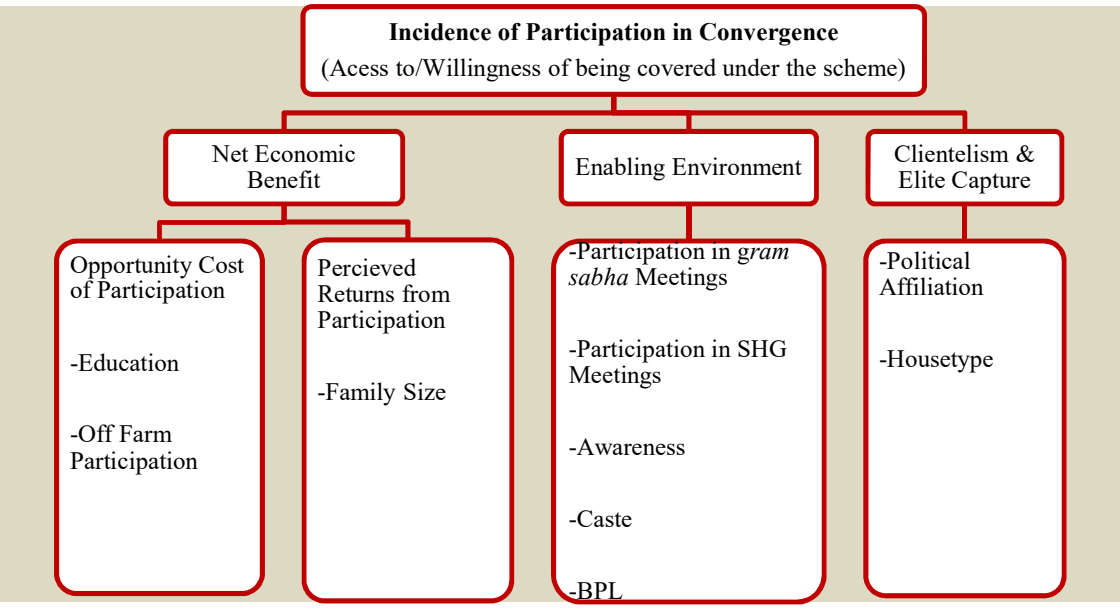
[10] Popular space is an arena in which people voluntarily come together. It may be the outcome of their passion about any relevant issues. It may also take the form of an association or a group involving people in the development process (Cornwall 2004)

This creates the possibility of clientelism (World Bank 2004) in the delivery of public services, where more and better services are directed towards the followers of the ruling political parties. It involves strategic transfers by the political parties and government to only those who can make their votes secure. It may be considered as a strong tool for removing political competition (Bardhan and Mookherjee, 2012). One may also argue that people who support the political party of the local representatives will be in a position to raise the issues, demand services, and hold them accountable so that they can be served better. On the contrary, those in opposition are usually not encouraged to participate in invited spaces and even if they participate, their voices are rarely heard (Samanta and Nayak, 2014). In the present context, one may, thus, suggest that if a household follows the same political ideology as that of the local *sarparch*, it is likely to receive the favor and grab the benefits.

Last but not the least, the access to the convergence scheme may suffer from the fear of 'elite capture'. Elite capture involves transfer of benefits to the local elites. In rural socio-political milieu, relatively well-off households always try to influence the delivery of public services in their favor. The people enjoying higher socioeconomic status in rural areas are always inclined to participate in local level decision-making process (Bracht and Tsouros, 1990), raise their points firmly and in turn, try to grab the benefits in their favor (Bardhan et al. 2009). The indicators like land holdings, type of houses and other household durable assets can be considered as proxies for socioeconomic status of the households in a rural setting. In the present context, we consider house type as an indicator and hypothesize that those having *pucca* and semi-*pucca* houses are likely to access benefits more than their counterparts having *kutcha* houses.

A schematic framework of the possible relationship between the incidence of participation and its possible household level determinants is given in figure 5.1.

Figure 5.1: Schematic Framework of the Incidence of Participation in Convergence



Source: Modified Version of the Analytical Framework as provided in Samanta and Nayak (2014)

5.3 Sources of Data and Methodology

As mentioned earlier, the study is based on primary household level data collected from two sample districts of Odisha. The study considers two development blocks per district. A total of 386 beneficiary households and 190 non-beneficiary households are considered to analyze the data. In order to identify the factors affecting the incidence of participation among the households in convergence activities, the study applies the qualitative response model. Given the dichotomous nature of the households (convergence beneficiaries and non-beneficiaries), a qualitative response model is appropriate. Qualitative response models relate the probability of an event to various independent variables. Such models are often used to assess the household characteristics associated with their participation decisions (Uzunoz and Akcay, 2012). This study uses probit model to analyze the factors that influence the household binary participation behavior.

The probit model is basically a statistical probability model with binary responses in the dependent variable (Liao, 1994). The model is based on the cumulative normal probability distribution. The binary dependent variable takes the values of zero (non-beneficiary) and one (beneficiary) (Aldrich and Nelson, 1984).

The probability (P_i) of choosing any alternative over not choosing it can be expressed as in Eqn. (1), where $\emptyset_\gamma$ represents the cumulative distribution of a standard normal random variable γ :

$$P_i = \text{prob}\,[Y_i=1 \mid X] = \emptyset_\gamma(X_i\beta) \quad (1)$$

where X_i is the vector of explanatory variables and β is the vector of coefficients to be estimated. The extended probit regression model to determine the socioeconomic factors affecting the incidence of participation among the households in convergence activities is given in Eqn. (2).

$$Y_i = \beta_0 + \beta_1 bpl_i + \beta_2 size_i + \beta_3 edu_i + \beta_4 awr_i + \beta_5 pol_i + \beta_6 gsp_i + \beta_7 shg_i + \beta_8 caste_i + \beta_9 occ_i + \beta_{10} hou_i + +\mu_i \quad (2)$$

where Y_i is convergence participation with reference category (non-beneficiary =0), *i = 1, 2 ... 576* refer to cross-section units. bpl (BPL card), $size$ (household size), edu (education level), awr (awareness level), pol (political affiliation), gsp (gram sabha participation), shg (SHG participation), $caste$ (caste category), occ (occupation type) and hou (house type) represent household socio-economic characteristics. μ is the random disturbance term. The operationalization of variables included in the regression model is presented in Table 5.1.

Table 5.1: Description and Operationalization of the Variables

Variables	Explanation	Operationalization
Participation	BF= Beneficiary, NBF= Non-Beneficiary	Dummy variable = 1, if the household is covered under convergence scheme; 0 otherwise.
BPL Card	Possession of BPL card	Dummy variable = 1, if the household is having BPL card; 0 otherwise
HH Size	Household Size	Number of family members
Education Level	Years of schooling	Household's mean years of schooling (age>18 years)
Awareness Level	Awareness about the convergence scheme	Dummy variable = 1, if the household members are aware of the provisions of convergence scheme; 0 otherwise
Political Affiliation	Support the political ideology of the concerned *sarpanch*	Dummy variable = 1 if the household supports the political ideology of the local *sarpanch*; 0 otherwise
Gram sabha Participation	Participation in g*ram sabha* meetings	Dummy variable = 1 if any member of the household participates in *gram sabha* meetings; 0 otherwise
SHG Participation	Participation in SHG meetings	Dummy variable = 1 if any member of the household participates in SHG meetings; 0 otherwise
Caste1	Caste	Dummy variable = 1 if the household belongs to SC; 0 otherwise

Caste2	Caste	Dummy variable = 1 if the household belongs to ST; 0 otherwise
Occupation1	Occupation	Dummy variable = 1 if the household's major occupation is non-farm labor; 0 if the household's major occupation is farm labor
Occupation2	Occupation	Dummy variable = 1 if the household's major occupation is artisan trader, self-employed, and government employee etc.; 0 if household's major occupation is farm labor
House Type	House type	Dummy variable = 1 if the household has a *pucca* or *semi-pucca* house; 0 if the household has a *kutcha* house

5.4 Results and Discussion

The estimates of binary probit regression for the incidence of participation are presented in table 5.2. Model is robust with LR χ^2 value 247.83 being statistically significant at one percent level. Since the dataset contains cross-sectional units, the z-statistics of the individual coefficients are estimated applying the robust standard error in order to control for the problem of heteroscedasticity. The variance inflation factors (VIF) computed for the model to examine the possibility of multicollinearity shows that all the VIF values are below 5, proving thereby that the model is free from multicollinearity.

The negative significant coefficient of BPL card implies that households holding BPL cards are less likely to participate in convergence programs. This is contrary to what one would have expected given the fact that BPL families are mandated to be given priority under convergence. It possibly indicates the following. There is a possibility of mission drift in the implementation of the convergence scheme as poor households are likely to remain outside the net. As discussed earlier, one possible reason could be that the BPL households may not have the ability to arrange requisite resources including land and financial capital to take the advantage of the convergence scheme.

Belonging to ST families improves their probability of getting covered under the convergence scheme. As per the provision of the scheme, both SC and ST households having individual land should be given preference in work allotment under convergence programs of MGNREGA. Though the scheme is prioritized for both SC and ST households, the plausible reasons for ST households getting more benefits under the convergence scheme are their

greater access to forest area based natural resources acting as supplements as well as preferential treatment towards them.

Table 5.2: Results of the Probit Estimates of the Determinants of Participation of the Households in Convergence

Indicators	Coefficient
BPL	-0.546 (-3.08)***
HH Size	-0.167 (-3.56)***
Education Level	0.015 (0.65)
Awareness Level	0.779 (5.52)***
Political Affiliation	0.391(1.24)
Participation in *Gram Sabha* Meetings	0.785(1.82)*
Participation in SHG Meetings	-0.096(-0.58)
Caste1	0.244 (1.42)
Caste2	1.269 (6.25)***
Occupation1	-0.711 (-4.29)***
Occupation2	-0.296 (-0.95)
House Type	1.643 (10.73)***
Number of Observations	566
Lrchi2(13)	247.83***
Log Likelihood	237.27
Pseudo R^2	0.34

Source: Own estimates from the primary data

Yet another enabling factor is the awareness level among the rural households regarding the scheme. It is found that the coefficient of the awareness variable is positive and significant. This indicates that the households having awareness are likely to get access to the benefits compared to their counterparts who are not aware about the scheme. They may also be exhibiting greater willingness to participate in the program as they are aware of the positive net benefits. Though education aids in the induction of literacy which helps in comprehending the documents and provisions therein, it may not be a source of awareness. Sources like community gathering, television, radio, posters and announcements are more instrumental in spreading awareness regarding convergence provisions.

As expected, the households having non-farm as their major sources of occupation are likely to be less willing to participate in the convergence scheme. This is because they possibly

perceive higher opportunity cost if they choose agriculture based vocation over the non-farm occupation. However, as far as perceived return is concerned, contrary to the expectation, the larger households are less likely to participate in convergence scheme. One possible reason could be that larger families in rural setting are mostly less endowed with complementary resources except labor, which may be deterring them from getting covered under the convergence scheme.

The house type is considered as a proxy for not only the living conditions but also the economic status of the household and a measure of its wealth. Interestingly, the households having *pucca* and semi-*pucca* houses are likely to access greater benefits compared to their counterparts which are having *kutcha* houses. This confirms that there is a possibility of elite capture in the distribution of benefits among the rural households.

One interesting result is regarding the household participation in *gram sabha* meetings, which comes out positive and significant. The results tend to suggest that the households which participate in *gram sabha* meetings on a regular basis are likely to be the beneficiaries under the scheme compared to those refraining from participation. The basic tenet of participation in democratic space is to provide people a meaningful and empowered space in local level decision-making process, involving a paradigm shift from the margin to the mainstream (Williams, 2004). *Gram sabha* is one such forum in India's democratic decision-making structure, which can be used by all including the poor, SC, ST and other disadvantaged groups to redirect the program in their favor.

5.5 Concluding Remarks

From the preceding discussions, one may infer that participation of the households in the convergence may be addressed from two different sides: the access and the willingness. While willingness to participate is a demand side dimension of participation, the access basically is a marker of a household's ability to receive the benefits and how best it can influence the decisions of the benefit providers. In this context, one may argue that the non-participating households are those, which have been either denied participation or are not willing to participate. The findings of the study suggest that creation of enabling environment is the key to providing greater coverage under the scheme. Creating awareness among the rural households is one of the key enabling factors. There are, however, a few pertinent areas, which need to be addressed for the scheme to be more inclusive and it reaches the intended beneficiaries. There is a possibility of mission drift in the convergence targeting as BPL households are excluded and wealthy households are favored. Though the study does not prove

the prevalence of clientelism in the distribution of benefits, the incidence of elite capture needs to be eliminated so that the scheme reaches to the intended beneficiaries.

Chapter VI

Impact of Convergence: A Household Level Analysis

Convergence schemes under MGNREGA target the rural people with the aim of strengthening their livelihood resource base and creating durable assets for them. At the community level, such interventions are expected to create multiple impacts including improvement in the quality of the durable community assets, natural resource conservation and regeneration, improvement in rural connectivity, etc. At the individual level, the scheme is designed to improve the livelihood opportunities leading to increase in income, wages, agricultural productivity and household savings. There could also be many desirable social impacts including improvement in children's education, social empowerment, etc. The present study, therefore, attempts to assess the impact of convergence scheme on the beneficiary households in terms of the improvement in overall household income, wages and household saving propensity.

6.1 Methodology

The present study applies propensity score matching (PSM), a commonly used non-experimental approach, to carry out impact evaluation. The analysis so undertaken serves two purposes. On the one hand, it identifies the causal effect of the convergence measure on certain relevant outcome indicators in the sample districts like total household income, household savings, and average wages. On the other hand, using relevant socioeconomic characteristics of the treated households, we try to find out the heterogeneous treatment effects of the program (Abebaw et al., 2010). The empirical data related to this are obtained from the primary survey over a cross-section of 576 households, comprising 386 treatment group and 190 control group households. The description of the sample profile and the sample selection criteria have been provided in chapter 3.

The PSM technique has the advantage of providing us a common support region over which the treatment and the control group have the same characteristics. Many existing studies (Jalan and Ravallion, 2003; Abebaw et al., 2010; Abebaw and Haile, 2013) have applied this technique to undertake impact assessment. PSM is a non-parametric technique, which is different from the ordinary least squared (OLS) regression model. The former differs from the latter in several ways. To be specific, unlike OLS regression, which employs all observations of treated and control samples, PSM applies only the match sub-samples. It also allows for the estimation of the heterogeneous treatment effects as it does not impose restrictions (Abebaw et

al., 2010). PSM can also solve the specification problem by creating a propensity or a probability score for all observations over all covariates for which both the treatment and the control groups share equal characteristics. One can estimate the optimum potential impact of the program for both the groups in the counterfactual situation (Caliendo and Kopeinig, 2005).

We have applied the following steps to apply PSM for impact assessment. The first step of PSM is to estimate the predicted probability that a household is a beneficiary under convergence, which is to know the propensity score. This can be estimated by

$$p(Z_i) = Prob\ (C_i = {}^{1}/_{Z_i}) \quad (1)$$

where the propensity score p (Z_i) is calculated by a probit model which regresses household participation (1 = beneficiary and 0 = non-beneficiary) on observed household characteristics. This has been carried out in chapter 5.

Secondly, the beneficiaries and non-beneficiaries are individually matched with one another so that their propensity scores become closer. For this purpose, we use nearest neighbor matching and kernel matching methods. The suitability of the matching is examined by a balancing model, in which the explanatory variables are compared by a probit model. The propensity score estimator for average treatment effect on the treated is represented as

$$\tau_{ATT}^{PSM} = E_{P(X)|D|}\{E[Y(1)|D| = 1, P(X)] = E[Y(0)|D| = 0, P(X)]\} \quad (2)$$

where 'τ' is the average treatment on the treated (ATT), Y represents the dependent variable under consideration, D represents whether the household is covered under the program or not and X represents independent variables.

Finally, in order to test whether the impacts of the convergence are the same among the beneficiary households, we use OLS regression of estimated household-level impacts on their characteristics. The data used for this estimation are obtained from beneficiary households in the matched sample.

6.2. Results and Discussion

The empirical analysis of this study starts with the estimation of the probit model to predict the household participation in convergence. The estimated results have already been given in chapter 5. Most of the covariates of the model seemed to have got expected signs and corroborate previous studies.

6.2.1 Average Treatment Effects

Table 6.1 presents the average treatment effects on the outcome variables. As mentioned earlier, we have applied both nearest neighbor matching and kernel matching method for the said purpose. For the nearest neighbor matching, we have applied replacement. Hence, nearest

neighbor matching estimate retains 81 control households unlike 173 in the kernel matching estimate. Both the techniques keep 349 treated households to estimate the impact of the convergence on the outcome variables. Model is robust with LRχ^2 value of 247.83 for the unmatched sample, which is significant at 1 percent level (Table 6.2). The LR value for the matched sample is 190.58, which is significant at 1 percent level.

Table 6.1: Results of the Average Treatment Effect on the Treated

	Outcome Variables (Ln)	ATT	t	No. of Treated	No. of Control
Nearest Neighbor Matching Method (random draw version)	Annual Average Household Income	0.27*	1.754	349	81
	Annual Average Savings	0.921*	1.764	349	81
	Annual Average Wage	0.071*	1.866	349	81
Kernel Matching Method	Annual Average Household Income	0.208**	2.267	349	173
	Annual Average Savings	0.929**	2.211	349	173
	Annual Average Wage	0.071**	2.353	349	173

Notes: ATT= Average Treatment effect on the treated

**, and * indicate a significance level of 5%, and 10% respectively.

Source: Own estimates from the primary data.

Table 6.2: Outcomes of Treatment

Treatment Effect	Sample	Pseudo R^2	LR χ^2
Treatment	Unmatched	0.343	247.83
	Matched	0.287	190.58

Source: Own estimates from the primary data.

Table 6.3: Comparison of Means

Outcome Variables	Beneficiaries (B) & Non-Beneficiaries (N)	Mean (INR)	t-Value
Average Annual Income	B	58768.90	1.95**
	N	47856.70	
Savings per Annum	B	2766.92	2.11***

	N	1550.56	
Average Wage Rate	B	174.50	0.69
	N	171.92	

***, and ** indicate a significance level of 1%, and 5% respectively.

Source: Own estimates from the primary data.

The estimated results clearly provide the evidences of the convergence scheme exerting significant and positive impact on three important outcome indicators, namely total household income, household saving and average wage. The estimates are robust as both the techniques provide the same results. Among the three outcomes, the highest impact is realized in the form of a rise in household saving followed by rise in incomes and average wages.

The results seem to suggest that the beneficiary households have benefitted in terms of increase in average annual income. This is also evident from a comparison of the mean household annual income between the participating and non-participating households having a gap of INR 10912. Saving propensity is the key to sustainable improvement in the living standards of the beneficiary households. Evidently, the households which have participated in the convergence have, on the average, achieved an increased annual savings by an amount of INR 1216. It tends to indicate that the beneficiaries are becoming increasingly conscious of having a financially secure future. The increase in saving propensity is expected to help agriculture receive greater capital formation for improved productivity. The average wage rate of the beneficiary households is reported to be higher by about 3% over that among the non-beneficiary households. Though the difference is not much, yet a positive wage differential gives a favorable signal towards containing distress migration among the rural people.

6.2.2 Heterogeneous Treatment Effect

In addition to the average treatment effect, we also conduct a test for the presence of heterogeneity in the effect of convergence across the beneficiary households. To put it otherwise, the study intends to raise the following question: Does the effect vary according to household characteristics? In order to capture this, the derived household treatment effects from the matching score are regressed on certain observable household characteristics.

As it can be observed from the table 6.4, the impact of the convergence program varies among the beneficiary households. If one considers average household income, the gain from the scheme is found to be significantly larger for those households, which are aware of the provisions of the schemes and are relatively wealthier. The increase in family size tends to reduce the ability of the household to earn more. Turning to average savings, being SC household improves the propensity to save. However, the political affiliation of the

Table 6.4: Regression Results of the Variations in Individual Household effects according to Household Characteristics

	Average Income of the HH			Average Savings per Annum HH			Average Wage Rate		
	Coef.	Robust Std. Err.	t-Value	Coef.	Robust Std. Err.	t-Value	Coef.	Robust Std. Err.	t-Value
BPL	-0.11	0.08	-1.28	0.28	0.36	0.78	0.00	0.02	-0.01
HH Size	-0.18	0.02	-8.30***	-0.05	0.10	-0.55	0.01	0.01	1.96*
Mean Year of Schooling	-0.02	0.01	-1.51	0.05	0.05	1.02	0.01	0.00	2.24**
Awareness level	0.17	0.07	2.40**	0.46	0.30	1.54	0.06	0.02	3.50***
Political Affiliation	-0.09	0.17	-0.50	-1.16	0.49	-2.37**	0.10	0.04	2.80***
Gram Sabha participation	0.03	0.17	0.16	-0.32	0.80	-0.40	0.05	0.04	1.44
SHG participation	-0.06	0.08	-0.72	0.31	0.36	0.85	-0.02	0.02	-0.84
Caste1	0.12	0.08	1.51	0.68	0.36	1.88*	0.07	0.02	2.81***
Caste2	-0.14	0.10	-1.45	0.50	0.39	1.26	0.06	0.02	2.41**
House type	0.13	0.07	1.84*	0.33	0.30	1.10	-0.05	0.02	-2.63**
Occupation1	0.08	0.08	0.95	-0.84	0.37	-2.27**	0.00	0.02	-0.21
Occupation2	0.22	0.15	1.47	-1.07	0.68	-1.57	0.06	0.05	1.33
Number of obs.	522			522			522		
F(12, 509)	11.09			1.92			6.09		
Prob> F	0			0.03			0		
R-squared	0.2			0.03			0.13		

Note: HH- Household

***, **, and * indicate a significance level of 1%, 5%, and 10% respectively

Source: Own estimates from the primary data.

households and the employment in the non-farm sector tend to reduce the possibility of more savings. For the average wage rate, the results are intriguing. Households having larger family size, greater years of schooling and greater awareness are expected to get higher wages. Besides, political affiliation also has a positive impact on the wage rate. Further, being SC and ST, the households are likely to get higher wages compared to their general counterparts. However, if a household is engaged in non-farm occupation, the wage rate tends to decrease.

6.3 Subjective Assessment of the Impacts

In the previous section, we considered objective parameters viz. income, wages, and savings to examine the impact of convergence on the beneficiary households. In such estimation, the possibilities of over- or under-reporting of the values may not be ruled out. To supplement this, a subjective assessment of the impact is carried out. It is based upon the subjective judgment of the benefits by the sample beneficiary respondents on a 5-point Likert scale, 5 being the maximum benefit possible and 1 being no benefit.

6.3.1 Methodology

The subjective assessment of impacts is based on the formulation of five different benefit indices viz. economic benefit index, social benefit index, child education index, environmental development index and expenditure improvement index. The sample beneficiary respondents were asked to rate on a 5-point Likert scale 35 different benefit indicators ranging across different categories of indices. These indicators are further categorized into five different broad impact indicators. In order to formulate the individual benefit indices, principal component analysis (PCA) is applied.

PCA tends to transform the original set of variables into a smaller set of linear combinations that account for most of the variances in the original set. The aim of the PCA is to construct out of a set of variables,X_j's (j = 1, 2, k) new variables (P_i) called 'Principal Components (PC)', which are linear combinations of the X's (Koutsoyiannis, 2001). Each component is considered a linear weighted combination of the initial variables. The components are ordered in such a way that the PC explains the maximum possible variance.

Mathematically, it can be expressed as

$$PC_1 = a_{11}X_1 + a_{12}X_2 + \cdots \ldots + a_{1n}X_n$$

$$PC_m = a_{m1}X_1 + a_{m2}X_2 + \ldots \ldots + a_{mn}X_n$$

where a_{mn} represents the weight or loadings for the m^{th} principal components and n^{th} variables. Procedures for the formulation of four indices are enumerated as follows.

Each index is calculated as a PC score by applying the following method.

$$Index = (\sum_{i=1}^{n} X_i Y_i)$$

and $Y_i = a_i / \sum a_i$

where X_i represents the components of the index, a_i represents factor loadings, and n represents the number of variables. The components of each index are measured on a 5-point Likert scale according to the degrees of agreement. Factor loadings corresponding to the first PC are

considered to derive the average PC score. The individual indicators with their corresponding factor loadings are given in table 6.5.

Table 6.5: Factor Loadings of the Individual Indicators under different Benefit Indices

Benefits	Economic Benefit Index	Social Benefit Index	Child Education Index	Environmental Development Index	Consumption Improvement Index
Increase in Agricultural Productivity	0.039				
Higher Revenues From Change in Cropping Patterns	0.035				
Increase in Household Income	0.044				
More Land Put to Agricultural use	0.030				
Income from Allied Sources has Risen	0.033				
Created Opportunities for Non-Farm Activities	0.046				
Improved Income helping the Education of Your Children			0.238		
Fall in Dropout Rate among the Children Due to Improved Economic Conditions			0.235		
Girl Children Going to School after The Rise in Income			0.274		
Improvement in Academic Performance of Children			0.253		
Expenditure on Children's Education Increased					0.181
Improved Cooking Practices (From The use of Firewood to Biogas, LPG, Etc.)					0.182
Spending on Health of The Family Members Increasingly Affordable					0.208
Women's Participation Rate in Public Space (*Gram Sabha*, SHG) increased		0.381			
Women Participate in Day to Day Decision Making of the Households		0.391			
Wage Rate in the Locality has Increased	0.058				
Days of Employment under MGNREGA per Annum has Increased	0.056				
Improved Livelihood Opportunities	0.053				
Increase in Social Status		0.228			
Better Access to Resources	0.066				
Greater Saving Propensity	0.066				
Timely Receipt of Wages	0.056				
Drought/Flood has been Mitigated				0.198	
Change in Cropping Pattern	0.048				
Movement from Food Crop to Cash Crop	0.063				

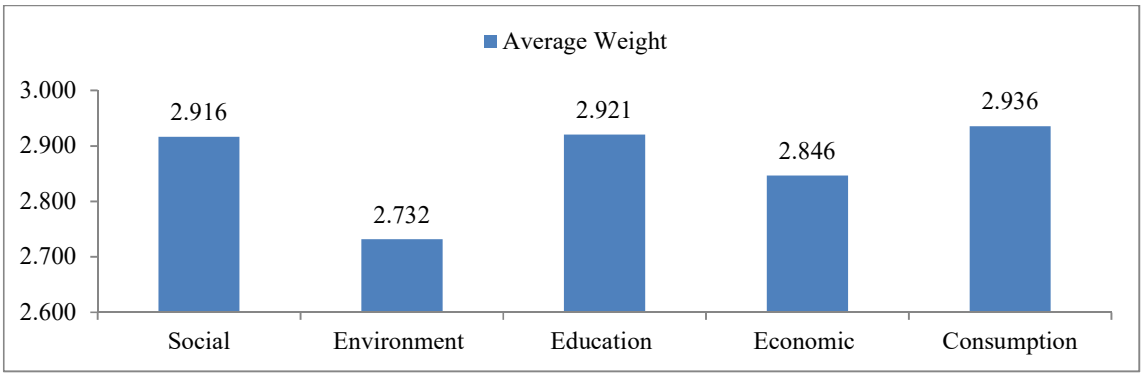
Increased Consumption Expenditure on Food Items					0.225
Increased Consumption Expenditure on Non-Food Items					0.203
Fertility of Land has Improved	0.060				
Improvement in Biodiversity				0.198	
Improvement in Rural Non-Farm Activities	0.050				
Greenery in The Locality is Improved				0.166	
Cropping Intensity Has Increased	0.066				
Improved Irrigation Facilities	0.065				
Increased Mechanization of Agriculture	0.066				
Rise in Ground Water Table in Your Area				0.220	
Rise in Surface Water Level in Your Area				0.218	

Source: Own estimates from the primary data.

6.3.2 Results and Discussion

Figure 6.1 presents the values of the five different benefit indices as estimated on the basis of PCA. It is interesting to note that unlike the objective parameters where some clear-cut favorable impacts on the beneficiaries were observed, the subjective assessment of benefits does not provide praiseworthy results. The values of none of the benefit indices exceed 3, indicating thereby that the beneficiary households do not consider the benefits derived from the program to be very encouraging. The values vary between 2.73 for environmental to 2.94 for improvement in consumption.

Figure 6.1: Comparison of Benefit Indices



Source: Own estimates from the primary data

The results seem to suggest the following. Though there appears to have been improvements in income, savings and wages among the beneficiary households compared to their non-beneficiary counterparts, possibly there has not been substantial jump or possibly, the scheme has not been able to reach the levels of expectations of the beneficiaries. Though the perceived benefits are lower; a comparison across individual indices indicates that people derive relatively higher benefits in terms of improvements in their levels of consumption,

women's participation in democratic spaces and educational attainment among the children. The beneficiaries seem to rank the environmental impact the least.

6.4: Concluding Remarks

From the preceding discussions, it may thus be inferred that though convergence scheme seems to have created positive impacts on the beneficiary households, there is still room for improvement. As the extent of benefits tends to vary according to household characteristics, there is perhaps a need to address this aspect more carefully. The possibility of clientelism, which gets reflected through the positive impact of political affiliation on some benefit indicators, may need to be eliminated for the benefits truly reach to the intended beneficiaries. The awareness building regarding the processes and procedures of the scheme and its potential positive impacts remains critical. The steps to improve the outcome of the intervention may be needed to help people realize the expected benefits.

Chapter VII

Best and Worst Practices and Lessons Learnt

The preceding chapters made an assessment of the processes and procedures of convergence, identified the factors determining the household participation in convergence initiatives and provided an evaluation of the possible impact of the scheme on the beneficiary households. It is ascertained that the scheme seems to be creating visible impacts on the livelihoods of the people, though it leaves room for further improvement in certain critical aspects. The outcome of a scheme of this nature may depend upon appropriate identification of projects according to the local needs and conditions, proper coordination among the participating departments, transparency and accountability on the part of the implementing agencies, overwhelming participation among the intended beneficiaries, adequate awareness among the people regarding the processes and procedures and the benefits of convergence, and the like. In this context, it is important to examine as to how such aspects are adhered to in the sample districts of Odisha. The present chapter thus attempts to portray the scenarios regarding the appropriateness of the convergence schemes in place among the sample households, the nature of the coordination among different participating agencies, degrees of transparency and accountability, awareness level among the beneficiaries, etc.

7.1 Types of Convergence and their Relative Significance

The information regarding different convergence schemes, which the sample households are covered under, is provided in table 7.1. Broadly, there are four different types of convergence models in force among the sample households namely, horticulture, irrigation, rural housing and livestock infrastructure, and integrated facilities covering more than one scheme for a particular household. The details of coverage are given as follows:

Rural Housing and other Infrastructure

Construction of *pucca* houses under PMAY-G and BPGY comes out to be the major convergence scheme implemented in the sample districts. A high of 57 percent of the total sample households are covered under these two schemes with coverage of 68 percent sample beneficiaries of Ganjam and 46 percent of sample beneficiaries of Mayurbhanj. Construction of household toilets in houses is yet another convergence program, which comes under SBA scheme and rural infrastructure development program. Though there is scope for implementation of such a scheme for many other households, the coverage has been much

lesser than expected. A total 5 percent of the sample rural households are covered under this scheme with Mayurbhanj (8%) having received more beneficiaries than Ganjam (3%). The rural infrastructure development scheme also includes construction of cattle shed in the sample districts. A total 4 percent of the sample households are found to have been benefitted under this scheme.

Figure 7.1: Pucca House provided to the Household at Kuliana Block in Mayurbhanj

Source: Primary Survey

Table 7.1: Coverage of Convergence Schemes among the Sample Beneficiary Households

Categories of Convergence		Work Undertaken	No. of Household (%)		
			Ganjam	Mayurbhanj	Total
Horticulture		Mango Plantation	0 (0)	62 (32)	62(16)
		Cashew Plantation	35 (18)	0(0)	35(9)
Irrigation		Dug well	3(2)	1(1)	4(1)
		Farm Pond	0(0)	18(9)	18(5)
Rural Infrastructure	Livestock	Cattle shed	11(6)	4(2)	15(4)
	Housing and Sanitation	PMAY-G/BPGY	129(68)	90(46)	219(57)
		IHHL/SBA	6(3)	15(8)	21(5)
*Integrated Facility Schemes			6(4)	5(3)	11(3)
Total			190(100)	195(100)	385(100)

Source: Own estimates from the primary data.

Figure 7.2: Creating Dug Well on Individual Land at Hinjilicut Block in Ganjam

Source: Primary Survey

Figure 7.3: Mango Produce from the Plantation Program on Individual Land at Bangriposi Block of Mayurbhanj District

Source: Primary Survey

Irrigation

Under the irrigation program, two types of schemes namely, dug well and farm pond, are being implemented. A total of 6 percent of the sample households are benefitted from these irrigation schemes. Between the two districts, the sample households of Mayurbhanj are reported to have got farm ponds, while in Ganjam, some of the sample households have dug wells created under the scheme. It was observed that the irrigation facilities created through these two schemes seem to have been helping sample households to access the water for their daily use as well as agricultural purposes.

Horticulture

As a part of the convergence schemes, horticulture constitutes 25 percent of the total works done. Segregating between the sample districts, mango plantation is the major work carried out in Mayurbhanj involving around 32 percent of the sample households. In Ganjam, cashew plantation is the prominent work constituting 18 percent of the sample beneficiaries of the district. The horticulture department of the respective districts have provided the saplings of mango and cashew to the households and have also provided guidance regarding the maintenance of the plantation.

Integrated Facilities

The integrated facilities refer to the facilities where a household has availed of more than one of the above-mentioned schemes. These could be a combination of a *pucca* house and a toilet, a *pucca* house and cattle shed, a *pucca* house and mango/cashew plantation, a toilet and

mango/cashew plantation. Some households are found to have received three or more schemes as well. There are only 3 percent sample households who are found to have availed of these integrated facilities.

7.1.1 Differences in Outcomes: Intra- and Inter-Scheme Convergence

It is important to note that different convergence schemes seem to have created different impacts on the beneficiary households. One major impact is observed in terms of improvement in the living conditions among the people, thanks to the implementation of PMAY-G and BPGY schemes. As reported by the beneficiary households, there are multitude of benefits the rural housing scheme has provided to them. A better housing facility has helped them to have better living conditions for themselves. They are also in a position to store their harvest for a longer period of time as they have got a protected space to store the produce. Provision of toilets seems to have contributed immensely by letting them avoid open defecation, leading to prevention of communicable diseases, especially in rainy seasons. Our interactions with the villagers and especially the women members tend to suggest that the provision of the household toilet has been a significant support especially to the women members. It seems to have improved their dignity of life.

Table 7.2: Intra-Scheme Comparison of Average Annual Incomes among the Sample Households

Category of convergence		Work undertaken (Number of households)	Average annual income (INR)	t-value	
Horticulture		Mango Plantation (62)	61438.71	-0.74	
		Cashew Plantation(34)	74576.47		
Irrigation		Dug well(4)	58000.00	0.95	
		Farm Pond(18)	41777.78		
Rural Infrastructure	Housing and Sanitation	PMAY-G/BPGY(219)	53099.18	1 vs 2	1.25
		IHHL/SBA(21)	42990.48	1 vs 3	-1.26
	Livestock	Cattle shed(15)	71466.67	2 vs 3	-1.82*
[1]Integrated Facilities (11)			85500.00		

[1]Integrated Facilities= Participation in more than one scheme/program

Note: * significant at 10% level

Source: Own estimates from the primary data.

Mango and cashew plantations seem to help people generate additional income. Between cashew and mango, the sample beneficiaries have reported to have got more income

from cashew. The income gap between these two can be justified from the fact that cashew carries higher market price compared to mango. Integrated facilities tend to give the highest annual incomes to the sample households compared to other schemes. Cattle shed are also found to be helping the households generate relatively higher amount of incomes. However, none of the sample means are statistically different from each other except the difference between cattle shed and toilets (Table 7.2). This is quite natural as the former is an income generating activity while the latter is a rural social infrastructure facility to improve the living conditions. Whatever income seems to have been generated from the latter intervention is primarily due to increase in person-days of employment due to improvement in health conditions of the adult household members. The installation of cattle shed is reported to be helping the beneficiary households in two ways. First, it helps the households increase the cattle population for milk production. Second, the increase in cattle population itself has the potential contribute to the households in getting organic manure and keeping the vermi-compost project operational.

The average annual household income generated from integrated facilities stands at INR 85500 followed by horticulture, rural infrastructure and irrigation at INR 66092, INR 53347 and INR 44727 respectively. A comparison of mean incomes across broad categories reveals that mean income derived from horticulture is higher than that from irrigation. Similarly, mean income accruing to beneficiaries from the integrated facilities is higher than that from rural infrastructure only (Table 7.3). The low income from irrigation may be attributed to underutilization of its capacity, thanks to lack of complementary resources. The beneficiary households have reportedly not been able to take full advantage of the irrigation facilities. Moreover, compared to horticulture plantation and especially, cashew nuts, which belong to one of the most lucrative cash crops, the other agricultural produce are relatively low priced crops. As far as rural infrastructure is concerned, while cattle shed is directly linked to livelihood generation activities, rural housing and toilets are not considered as income generating projects. However, they are otherwise considered very important from the standpoint of assuring an improved quality of life.

Table 7.3: Inter-Scheme comparison of Mean Incomes among the Sample Households

Convergence Schemes	Average Annual Household Income (INR)	t-value
Horticulture	66091.67	1.21
Rural Infrastructure	53347.14	
Horticulture	66091.67	1.75*
Irrigation	44727.27	
Irrigation	44727.27	1.06
Rural Infrastructure	53347.14	
Integrated Facilities	85500.00	-1.59
Irrigation	44727.27	
Integrated Facilities	85500.00	-2.71***
Rural Infrastructure	53347.14	
Integrated Facilities	85500.00	-0.63
Horticulture	66091.67	

Note: * significant at 10% level; *** significant at1% level

Source: Own estimates from the primary data.

7.2 Integrated Schemes: The Ideal Cases of Convergence

It may be noted here that among all the types of convergence measures undertaken in the sample districts, the integrated schemes comprising several inter-linked income generating projects along with facilities for improved living conditions can be considered as an ideal intervention towards ensuring all-round development of the intended beneficiaries. One case of Ganjam as reported below provides the evidence of a successful convergence model, which may need to be, replicated in other places as well (Refer to Case 7.1).

Case: 7.1 An Integrated Convergence Model for S Gopal in Hinjilicut Block of Ganjam District

S. Gopal is a job card holder and a convergence scheme beneficiary in the village P. Padmanabhapur, falling under the Makarajhola GP of Hinjilicut block. Gopal owns four acres of land as his major source of livelihood. However, due to lack of irrigation facilities, his land was underutilized, and the produce was substantially low. After participation and availing of the integrated facilities of dug well, cowshed, IHHL and vermi-compost tank under the convergence program, he has been able to use the land more efficiently. With the irrigation facilities on his agricultural land, he is now producing vegetables and he has reported to have got an income of Rs 44,000 in the previous year from the agricultural produce due to the facilities he has been provided with. The structure of the integrated facilities is as follows:

Construction of Dug well

Unskilled labor provided by *panchayat samiti* under MGNREGA was used to construct the dug well and the beneficiary availed of Rs. 16000 for the material cost to dig and prepare the well. The barren land which was earlier underutilized has now been converted into a fertile land. Having seen success of such an intervention, the block administration has taken up steps to sensitize other people in the locality to come forward and join such initiatives. Taking a step forward, the GP organized a Dug Well *Mela* in the month of December 2017. The primary purpose was to identify eligible beneficiaries and distribute the works for the construction of dug well. Such an initiative reaped fruits as 91 individuals submitted their applications for the construction of dug wells in their individual lands.

Figure 7.4: Dug Well

Source: Primary Survey

Construction of Cattle Shed

To construct the cattle shed, he was provided both the labor support and a sum of INR 35000 for purchasing materials under MGNREGA. The facility helps him in protecting his cattle from the winter cold, rain and storm. Besides, he is also using the top of this shed as storage for the farm produce.

Figure 7.5: Cattle Shed

Source: Primary Survey

Construction of a Pucca House (PMAY-G) and a Toilet (IHHL)

Figure 7.6: IHHL

Source: Primary Survey

Figure 7.7: PMAY

Source: Primary Survey

Gopal is also among the beneficiaries of PMAY-G and SBA schemes. Under both the schemes, he got a sum amount of INR 13,000 and INR 12,000 as material cost to construct the *pucca* house and a toilet respectively. As part of the convergence scheme, he got the support of manual labor from MGNREGA. These facilities seem to have helped this family to reside in a concrete

house and prevent the family members from open defecation.

Construction of Vermi-compost Tank

Under rural infrastructure development scheme, Gopal also got the vermi-compost tank. MGNREGA provided financial support of INR 20000 as material cost and manual labor for the construction of tank. During our visit, the tank construction had just been complete. It was reported to us by the beneficiary that he would make use of the cow dung and household waste to develop vermi-compost, which will be used in his farm and the surplus if any will be sold off.

Figure 7.8: Vermi Compost Tank

Source: Primary Survey

7.3 Mango Plantation in Mayurbhanj: An Opportunity for Sustained and Improved Living for the Tribal Households

Given the agro-climatic conditions, mango and cashew plantations have been promoted in Mayurbhanj district. However, there are reported cases of more successes in Mango plantation project compared to the other. These plantations are taken up by the department of horticulture in convergence with MGNREGA. The works carried out under MNREGA are field preparation, digging pits, digging trenches along the boundary, raising nursery, planting, watering and weeding. Seedlings, fertilizer, pesticide, and insecticide used in the plantation are provided by the horticulture departments. There have also been efforts on the part of the district administration to create a market linkage for the mango produce. Given below is a case of tribal household, which has been a beneficiary of this project (Refer to Case 7.2).

Case: 7.2 Mango Plantation as a Convergence Measure in the Land of Ajay Murmu in Bangriposi Block of Mayurbhanj district

Ajay Murmu is from the Bangriposi block of Mayurbhanj district. He has been a beneficiary of the mango plantation scheme under the convergence initiative. When the team visited the site, the plantation was about three years old and had already started yielding mangoes. During the first three years, while the plants were growing, the family received training and guidance on mango cultivation from the horticulture department. In the initial years, the plantation field was maintained by the horticulture department itself and recently, it had been handed over to the beneficiary for maintenance. The mangoes are of *Amrapalli* variety which has the potential to fetch a good market. Field irrigation was done through bore well using drip irrigation method. The best part of this initiative is the generation of self-employment to the family members apart from the produce.

Figure 7.9: Mango Plantation in Mayurbhanj

Source: Primary Survey

7.4 Key Challenges

There is no denying that the convergence scheme has been able to create noticeable impacts on the beneficiary households on several counts. There seems to have been improvements in incomes, savings, and wages. Some schemes have been able to create sustained and improved sources of livelihood and improved quality of life. This intervention has resulted in the creation

of several rural assets including dug well, farm ponds, cattle sheds, vermi-compost tanks, rural houses, etc. It may, however, be noted here that the scheme possibly has much greater potential than what is tapped. In order for the scheme to realize the intended goals, certain process related shortcomings need to be addressed. Given below are a few areas of concern, which need to be paid attention to.

Lack of Awareness

The success of this scheme can be judged on the basis of its coverage and spread. The main hindrance that lowers the rural households' participation in the convergence schemes is their low awareness level regarding the processes and procedures and the benefits of convergence. Consequently, these people are mostly devoid of benefits. In whichever case, they avail of the benefits, there are instances of local middlemen helping them get access to the schemes, which may involve rent seeking. Though in many cases, *Gram Rojgar Sahayaks* provide necessary assistance, it is possibly insufficient in terms of information sharing and compliance with the processes.

Poor or Passive Participation in Gram Sabha Meetings

Needless to say, *gram sabha* is an appropriate forum for the households to participate, become aware of the provisions of the government, raise demands and eventually, avail of the opportunities. Lack of participation leads to poor awareness among the households regarding the provisions of the schemes and necessary rules for getting covered under different schemes. Moreover, mere attendance in *gram sabha* meeting may not suffice. People need to actively participate in the deliberations, raise their voice and put forward their demands. This is an area, which needs to be looked into as our observations suggest that most of the households are reported to be mere passive participants in such meetings.

Lack of Market Linkage

The convergence scheme, especially the horticulture project, requires a better market linkage for the beneficiaries to get the right price at the right time. Though there have been initiatives on the part of the district administration to create a proper market linkage through the formation of producers' groups and involvement of Odisha Rural Development and Marketing Society (ORMAS) in establishing better linkage between the farmers and traders, a lot needs to be done on this front to mobilize the resources for a proper value chain. Our interactions with the beneficiaries seem to suggest that people are largely skeptical about the market for their produce. There is absence of a proper supply chain for the agricultural produce. The producers are unaware of the right market and price for their produce. They usually sell the produce in the local market at low prices. Many a time, they sell the produce to middlemen at low prices.

Such situations discourage other intended beneficiaries to enroll in the scheme. For the scheme to receive wide coverage and greater acceptance among the people, efforts are needed to improve the market linkage including the creation of storage facilities.

Lack of Training

Effective operation of the schemes by the beneficiaries requires proper skill set and adequate training. Though in the initial phases, projects are monitored by the implementing agencies, in due course, these are left to the beneficiaries to be maintained by themselves. This has resulted in reported failure of the projects in some places. There are cases of beneficiaries not having been properly trained how to rear fish in farm ponds. In mango and cashew plantation, there have been problems of maintenance of crops, leading to reported cases of poor harvesting. It is, in this context, imperative that proper training is imparted to the beneficiaries before the project is implemented. Besides, regular monitoring and supervision by the concerned extension officials is also necessary.

Custody of Job Cards

There were reported cases of job cards not available with the job card holders. In several cases, the job cards are also not updated properly regarding the number of days of jobs provided and the wages paid. On our enquiry regarding the custody of the job cards, many beneficiaries had no idea that they were supposed to be the custodians of their cards. This amounts to the possibilities of some irregularities.

Violation of MGNREGA Guidelines

Though there is an explicit guideline for the implementation of MGNREGA and the convergence schemes under it, at places, these guidelines do not seem to be strictly adhered to. There are reported cases of contractors being engaged in MGNREGA part of the work, which is beyond the provisions of the scheme. Some respondents have also reported that the wages are not paid on time. Though the scheme is based upon a bottom-up approach, some respondents have shown their displeasure over the way the beneficiaries are selected, the projects are identified, and *gram sabha* meetings are conducted. The beneficiaries' involvement in the execution of the scheme is an area needing improvement.

Lack of Complementarity among the Schemes

In many instances, rural households are facilitated with two schemes, but the schemes are not complementary to each other, but rather they are mutually exclusive. For example, households are provided with mango plantation and toilet or *pucca* house, but to irrigate the plants no irrigation facility is provided. In such cases, the only asset created for the household is the *pucca* house or a toilet. In some places, the households having got cattle shed instead of rearing

cattle are simply using the space for other purposes including storage of household items and agricultural produce. This is possibly due to lack of adequate monitoring. In many cases, dug well has been provided to the households without any provision of electricity to run the motor to pump out water. A possible way out is to provide solar panels in these areas.

Possibility of Clientelism and Elite Capture

There are possibilities of clientelism and elite capture in the access to the benefits. As it is observed from the study that the households having political affiliation with the local *elected representatives* are likely to get more wages compared to others, it tends to indicate some amount of biases based on certain political considerations. There is also a plausibility of relatively better off households grabbing the benefits at the cost of the poor and less influential households. As being BPL, the participation is likely to be less and being wealthy, it improves the probability of participation, these aspects need to be addressed so that the scheme truly inclusive.

7.5 Lessons Learnt

The convergence despite having its pitfalls in certain aspects is possibly a way forward for the rural economy to develop in a more sustainable way. With careful attention to certain key aspects like implementation procedures, selection of beneficiaries, selection of projects, proper monitoring, etc., the convergence has the potential to become a game changer for the village economy. Based on the findings of this study and our observations in the field, we outline the lessons learnt from the evaluation of the scheme as follows:

Convergence: A Critical Need of the Disadvantaged

It is revealing to note that despite a general decline in or low demand for jobs and employment creation under MGNREGA, the scheme continues to remain a very important development intervention for the SC and ST households. This is evident from the high participation rates among these households both in MGNREGA employment as well as convergence schemes. It is also found that the households belonging especially to ST are likely to participate in convergence schemes more compared to their counterparts from other communities. As there is greater incidence of poverty among these communities, convergence seems to be a useful intervention to improve their socioeconomic conditions.

Convergence: A key mechanism to Create Rural Assets

One of the major fallouts of the convergence is the creation of several important rural assets both at the community and at the individual level. It is becoming instrumental in helping the rural households get farm ponds, dug wells, cow and goat sheds, plantation of high valued

crops, etc., which are turning out to be sustainable sources of improved livelihood opportunities for them. At the same time, the scheme helps them improve their living conditions through rural housing and sanitation projects. What is, however, required is to enhance the spread and coverage of the schemes.

Awareness Building is the Key

In order for the convergence to receive wide coverage and spread as well as it is implemented with great deal of transparency and accountability, it is imperative on the part of the district, block and *panchayat* functionaries to create awareness regarding the program among the rural people. With improved awareness, the scheme will be able to change the face of the rural economy. Use of all relevant channels of communication including the involvement of non-government organization and civil society organizations may help improve the awareness level.

Active Participation of the Households in Gram Sabha Meetings

It seems that people usually participate in *gram sabha* meetings. However, mere presence of the members of the households in *gram sabha* meetings may not suffice. They need to actively participate in deliberations, make their opinion heard, raise their issues and demand for benefits which they are entitled to. Sensitizing them on this front may turn out to be a critical intervention strategy.

Pro-active Leadership

One interesting observation is that the success of the scheme largely depends on the pro-active leadership of all the stakeholders. The blocks where the block development officers (BDO) and the GP functionaries are found to be very actively involved at all stages of implementation and post-implementation monitoring of the projects, the projects seem to have received phenomenal success. To substantiate this, it may not be out of place to suggest that it was the pro-active involvement of the BDO of the Hinjilicut block that has resulted in timely completion of many projects, satisfactory outcomes and greater degrees of transparency in operations. Similarly, the active involvement of the BDO of the Bangiriposi block has also been helping the villagers to reap benefits of the program quite satisfactorily.

Market Linkage

The key to the success of livelihood generation projects is to establish proper market linkage. There are reported cases of mango getting already linked to organized market in case of Mayurbhanj, thanks to the pro-active role of the district administration. However, there is still room for improvement on this front. Creating the entire value chain ready for the farmers through inter-departmental coordination, stake-holders' meetings, regular monitoring and operationalization of producers' cooperatives are some such critical requirements for the

market linkage to be truly functional. Design of a robust supply chain for the produce can eliminate the role of middlemen. It will help the households avoid distress sale and get the right price for their produce.

Regular Monitoring of the Projects

Projects to become successful require continuous monitoring and supervision. Where the *gram panchayats* are active, there are more households aware of the convergence schemes. In these places, regular *gram sabha* meetings are organized, and information regarding different schemes is transmitted to the participating members. In one block of Ganjam, the GPs, in consultation with the block development officials, organized a dug well *mela*. Consequently, many people showed keen interest to participate in this convergence scheme. GP has a critical role to play in monitoring the implementation of the scheme. Its active involvement brings about success to the project both in its execution as well as post-implementation delivery of outcomes. Besides, provision of technical support from time to time from the officials and their regular visits to the sites to examine the conditions may be necessary to make the program more effective.

Selection of Projects based on Local Conditions

It is interesting to note that in most of the places, projects have been selected for implementations keeping in mind the local needs and conditions. It is perhaps equally important that the selection of the shelf of projects for a household is based on the possibility of a forward and backward linkages across the projects. Needless to say, a household having got a dug well would like to have a solar panel installed in the absence of on-grid electricity as a complementary scheme rather than providing it with a toilet or a house. A household having got a farm pond needs support from fishery department to get all necessary inputs to grow fish. There is no denying that other benefits are needed, the true convergence is possible only when the complementary resources are made available to the households.

Possibility of Clientelism and Elite Capture

As the convergence scheme intends to give priority to BPL, SC and ST households including small and marginal farmers, it may be imperative to ensure that they truly receive the priority in both coverage and spread. A clientelistic approach of benefiting those who remain loyal politically or otherwise may defeat the very purpose of this scheme. Moreover, the influence of the rural elite to capture the benefits is equally a critical issue. Proper monitoring of the selection process and active participation of the members in *gram sabha* may possibly address these vital issues.

Chapter-VIII

Summary and Conclusion

The study aimed at evaluating the convergence program of MGNREGA with other line departments in the state of Odisha. The major objectives were to (a) To examine the processes and procedures of convergence; (b) To identify and analyze the factors determining household participation in convergence; (c) To assess the impact of convergence; (e) To identify the best and worst practices of convergence; and (f) To design an institutional framework and operational norms for an effective convergence process.

In order to accomplish these objectives, we collected both primary and secondary data. Secondary data pertaining to coverage and spread of the scheme, employment generation, rural asset creation, average wages paid, etc. were collected primarily from the MGNREGA website of the MoRD. Besides, a primary survey was conducted over randomly selected beneficiary households. The sample households were chosen from two districts of Odisha, selecting two blocks under each district. Under each block, in addition to primary survey over beneficiary households, a control group covering all the sample areas was also surveyed during April-June, 2017. The total sample size was 400 beneficiary households and 200 non-beneficiary households. After eliminating incomplete and inconsistent responses, we were finally left with 386 questionnaires for the beneficiaries and 190 for the non-beneficiaries. Besides, we conducted focus group discussions with key stakeholders and discussions with the district, block and *panchayat* level functionaries. The summary of the findings are given as follows:

8.1 Summary

8.1.1 Performance of MGNREGA in Odisha

The objective of this chapter was to assess the MGNREGA in Odisha especially in the post-convergence period. Using the secondary data (www.nrega.nic.in), the performance of the state was analyzed considering four important indicators, namely (a) employment status, (b) women's participation, (c) fund utilization, and (d) asset creation.

Employment status

In Odisha, till 2016-17, the total number of job cards issued to the households was over 6.33 ml. Among all the job card holders, about 47.54 percent belonged to the SC and ST households. Though the number of households demanding jobs has increased in recent years, it is still much below the desired level. The proportion of total job card holding households demanding

employment has increased from about 23 percent in 2011-12 to 37 percent in 2016-17. It is, however, significant to note that contrary to the expectations, in Odisha, the average days of employment have declined from 40 days in 2006-07 to a meager 38 days in 2016-17.

The employment generation was relatively higher among the ST beneficiary households compared to their counterparts under other communities. However, the average days of employment generated for ST households was found to be lower than that at the national level. The share of the ST population in total employment was, however, much higher than the national average. The ST households also, on the average, had greater share of reaching the mandated 100 days of employment. In Odisha, the average wage rate having witnessed a dramatic rise in 2015-16 was reported to have declined quite significantly in 2016-17.

Women's Participation

One of the objectives of the MGNREGA is to empower women and the act attempts to look into this aspect by the inclusion of women-friendly clauses. One important aspect of this is their participation in workforce. Compared to overall employment, there seemed to have been some improvements in workforce participation rate among women from about 34 percent in 2014-15 to 40 percent in 2016-17).

Asset Creation

In Odisha, there has been phenomenal jump in the creation of rural assets in 2016-17 compared to the previous years. Among all, the schemes like water conservation and water harvesting, renovation of traditional water bodies, rural connectivity, irrigation facilities for SC/ST/IAY/LR beneficiaries, land development and rural sanitation have received the major thrust. Though there has been much progress in the work completion rate in recent years, a lot needs to be done to convert the works in progress to their timely completion.

Fund Utilization

There has been significant improvement in the fund utilization rate especially since 2014-15 in the state of Odisha. Compared to a meager 86 percent utilization rate during 2010-11, Odisha has witnessed a phenomenal jump in its utilization to 103 percent in 2016-17. These records tend to suggest that possibly the convergence measures have been helping the state to undertake more schemes.

8.1.2 Performance of Odisha under MGNREGA according to Districts

As there seems to exist wide variations across the districts of Odisha in all these indicators, an attempt was also made to present the scenarios across the districts considering the same indicators.

Employment Status

On employment front, the results seem to be fairly mixed with some districts like Mayurbhanj, Bolangir, Kandhamal, Gajapati, Rayagada, Sundargarh and Ganjam having done relatively well, while districts like Cuttack, Jagatsinghpur, Puri, Kendrapara, Sonepur and Jajpur having been laggards. Interestingly, most of the better performing districts are basically dominated by tribal population. The tribal households, on the average, have also achieved relatively greater days of employment. As the incidence of poverty is higher with the tribal households, the scheme seems to be acting as a panacea to this most vulnerable group.

Women's Participation

A comparison across districts indicated that in 2016-17, the districts recording greater share of women labor in the workforce were Ganjam, Deograh, Mayurbhanj, Kalahandi, Keonjhar, Kandhamal, Bolangir and Nuapada. However, none of the districts has been able to reach 50 percent women's participation rate. At the extreme bottom were Cuttack and Jajpur with a very poor participation rate. There is, however, greater participation rate among women in tribal dominated districts.

Asset Creation

There seems to exist wide variations across districts in terms of the total rural asset base. In 2015-16, Mayurbhanj was way ahead of the other districts with its asset base followed by Ganjam. In 2016-17, Mayurbhanj continued to top the list and Koraput turned out to be the next best performer. At the bottom are Nayagarh and Boudh, which have failed to create much headway. Among all the assets created, rural connectivity is a major accomplishment. The other important activities are irrigation facilities, land development and drought proofing. In Mayurbhanj, irrigation projects have been large in number. It is interesting to find that among the best performing districts of Odisha, many are tribal dominated. It tends to suggest that MGNREGA in connivance with convergence measures has been able to reach out to the most disadvantaged groups.

8.1.3 Processes and Procedures of Convergence in the Sample Districts

From our extensive interactions with the functionaries at the GP, block and district level, focus group discussions and personal interviews with the sample respondents, it appeared that the convergence initiatives, by and large, follow a bottom up approach through intensive participation of various stakeholders. The processes and procedures followed in the sample districts were found, more or less, in conformity with the guidelines of the MoRD. However, there seemed to have been some deviations in certain important aspects. As per the provisions of the scheme, while the job card holders are entitled to be the sole custodians of their job cards,

many such job cards were not available with the beneficiary households during the time of our visit to the field.

There seems to be poor awareness level among the beneficiaries regarding the scheme and its provisions. At the implementation stage, though most of the processes followed seem to be as per the stated guidelines, certain areas still need attention. To be specific, while there is a provision that notice boards must be displayed and activity calendars must be furnished to the beneficiaries, the study team observed certain deficiencies on this front.

There were reported cases of contractors getting involved in MGNREGA part of the works. As many as 71 percent of work allotment in convergence schemes crossed the mandated 15 days period. The wage payments are primarily made through bank accounts, which seems to be welcome mechanism. However, there are areas of concern with respect to the execution of the work as respondents reported that they did not find the local level functionaries to be very forthcoming in providing necessary help and technical support was inadequate.

A large majority of the beneficiaries reported that they either strongly or partially support the political ideology of the local *sarpanchs*. This tends to indicate the possibility of clientelism, leading to biases in the selection of beneficiaries based on probable loyalties. However, one praiseworthy aspect is the overwhelming participation of the beneficiaries in *gram sabha* meetings. Despite certain deficiencies in the compliance, most of the households appear to be satisfied with the processes and procedures of convergence. This possibly reflects the proactive steps undertaken by the district, block and panchayat level functionaries in the implementation of the program in the sample districts.

8.1.4 Determinants of Household Participation under Convergence

As the success of the scheme primarily depends on the overwhelming participation of the intended beneficiaries, the present study aimed to find out how the household characteristics affect the incidence of participation among the rural households in convergence scheme. The results seemed to suggest that the households holding BPL card are less likely to participate in convergence programs. It indicates a possibility mission drift in the implementation of the convergence scheme. However, belonging to ST families improves the probability of getting covered under the convergence scheme. The plausible reason for this could be their greater access to forest based natural resources.

The coefficient of the awareness variable was positive and significant, indicating the importance of awareness building. The households having non-farm as their major sources of occupation are likely to be less willing to participate in the convergence scheme. This is because they may perceive higher opportunity cost. However, contrary to the expectation, the

larger households are less likely to participate in convergence scheme. One possible reason could be that larger families in rural setting are mostly less endowed with complementary resources except labor, which may be deterring them from getting covered under convergence. Interestingly, the households having *pucca* and semi-*pucca* houses are likely to access greater benefits compared to their counterparts having *katcha* houses. This confirms the possibility of elite capture in the distribution of benefits. The household participation in *gram sabha* meetings comes out be positive and significant, suggesting thereby that the households which participate on a regular basis are likely to become beneficiaries.

8.1.5 Impact of Convergence in Odisha

The estimated results of the PSM clearly provided the evidences of the convergence scheme exerting significant and positive impacts on three important outcome indicators, namely total household income, household saving and average wage. However, the impact was found to vary among the beneficiary households. Considering household average income, the gain from the scheme was found to be significantly larger for those households, which were aware of the provisions of the schemes and were relatively wealthier. The increase in family size tends to reduce the ability of the household to earn more. Turning to average savings, being SC household improves the propensity to save. However, the political affiliation of the households and the employment in non-farm sector tend to reduce the possibility of savings. For the average wage rate, the households having larger family size, greater years of schooling and greater awareness tend to get higher wages. Besides, political affiliation also has a positive impact on the wage rate. Further, being SC and ST, the households are likely to get higher wages compared to their general counterparts. However, if a household is engaged in non-farm occupation, the wage rate tends to decrease.

Unlike objective parameters where some clear-cut favorable impacts on the beneficiaries were observed, the subjective assessment of benefits did not provide very encouraging results. The values of none of the benefit indices exceeded 3, indicating thereby that the beneficiary households did not consider the benefits derived from the program to be satisfactory. The results seem to suggest the following. Though there appears to be improvements in income, savings and wages among the beneficiary households compared to their non-beneficiary counterparts, possibly there has not been substantial jump or the scheme has not been able to reach to the expectation levels of the beneficiaries. Though the perceived benefits are lower, a comparison across individual indices indicates that people derive relatively higher benefits in terms of improvements in their levels of consumption, women's

participation and educational attainment among the children. The beneficiaries rank the environmental impact the least.

8.1.7 Best and Worst Practices and Lessons Learnt

Broadly, there are four different types of convergence models in force among the sample households namely, horticulture, irrigation, rural housing and livestock infrastructure and integrated facilities. Different convergence schemes tend to create different impacts on the beneficiary households. One major impact was observed in terms of improvement in the living conditions among the people, thanks to the implementation of PMAY-G and BPGY schemes. There are multitudes of benefits the rural housing scheme has created. A better housing facility has helped them to have a better living conditions. Provision of toilets tends to have contributed immensely in letting them avoid open defecation, leading to prevention of communicable diseases. The provision of household toilet especially for women seems to have improved their dignity of life.

Mango and cashew plantation tends to help people generate additional incomes. The sample beneficiaries have reported to have got more income from cashew compared to mango, thanks to the former's higher market price. Integrated facilities have the scope to generate the highest annual incomes compared to other schemes. Cattle shed is also found to be helping the households generate relatively higher incomes. A comparison of mean incomes across broad categories revealed that mean income derived from horticulture was higher than that from irrigation. Similarly, mean income accruing to beneficiaries from the integrated facilities was higher than that from rural infrastructure. The low income from irrigation may be attributed to underutilization of the capacity, thanks to lack of complementary resources. Moreover, compared to horticulture plantation and especially, cashew nuts, other agricultural produce are relatively low priced crops.

Among all the convergence measures undertaken in the sample districts, the integrated schemes comprising several inter-linked income generating projects along with facilities for improved living conditions can be considered as an ideal intervention strategy towards ensuring all-round development of the intended beneficiaries. Given the agro-climatic conditions, mango and cashew plantations have been promoted in Mayurbhanj district. However, there were reported cases of more successes in Mango plantation project compared to the other.

8.2 Implications and Recommendations

Needless to say, convergence program can be considered as a game changer for the rural economy in terms of its potential to create opportunities for sustained and improved

livelihoods, employment and agricultural productivity, crop diversification, promotion of horticulture and the like. The initiative of the government to link rural housing and sanitation projects seems to be creating dramatic changes in the living conditions including improvement in health and hygiene. One vital aspect needing mention is that not only do the tribal people have higher participation rate in employment but also there is larger participation among them under convergence. This tends to suggest the critical importance of such a scheme for the socially deprived and economically vulnerable groups. Another important contribution of the convergence scheme is in terms of creation rural durable assets both for better living and improved livelihoods. The scheme is giving a big impetus to the creation of irrigation facilities through the construction of dug wells and farm ponds across villages. This is expected to improve agricultural productivity and help farmers grow multiple crops. Fishery is yet another opportunity for the villagers to capitalize on as pond excavation is one of the major initiatives under the convergence measure.

The initiative of the government to provide vermi-compost tanks is likely to help farmers adopt organic farming. The integration of cattle shed with vermi-compost project along with rural housing under PMAY-G would be a critical intervention towards improving living conditions of the beneficiaries. It is, in this context, pertinent to note that integrated model of convergence is better than a stand-alone project as a measure of convergence. However, while choosing an integrated model, it is important to understand the complementarity of the projects so that greater synergistic impact can be created.

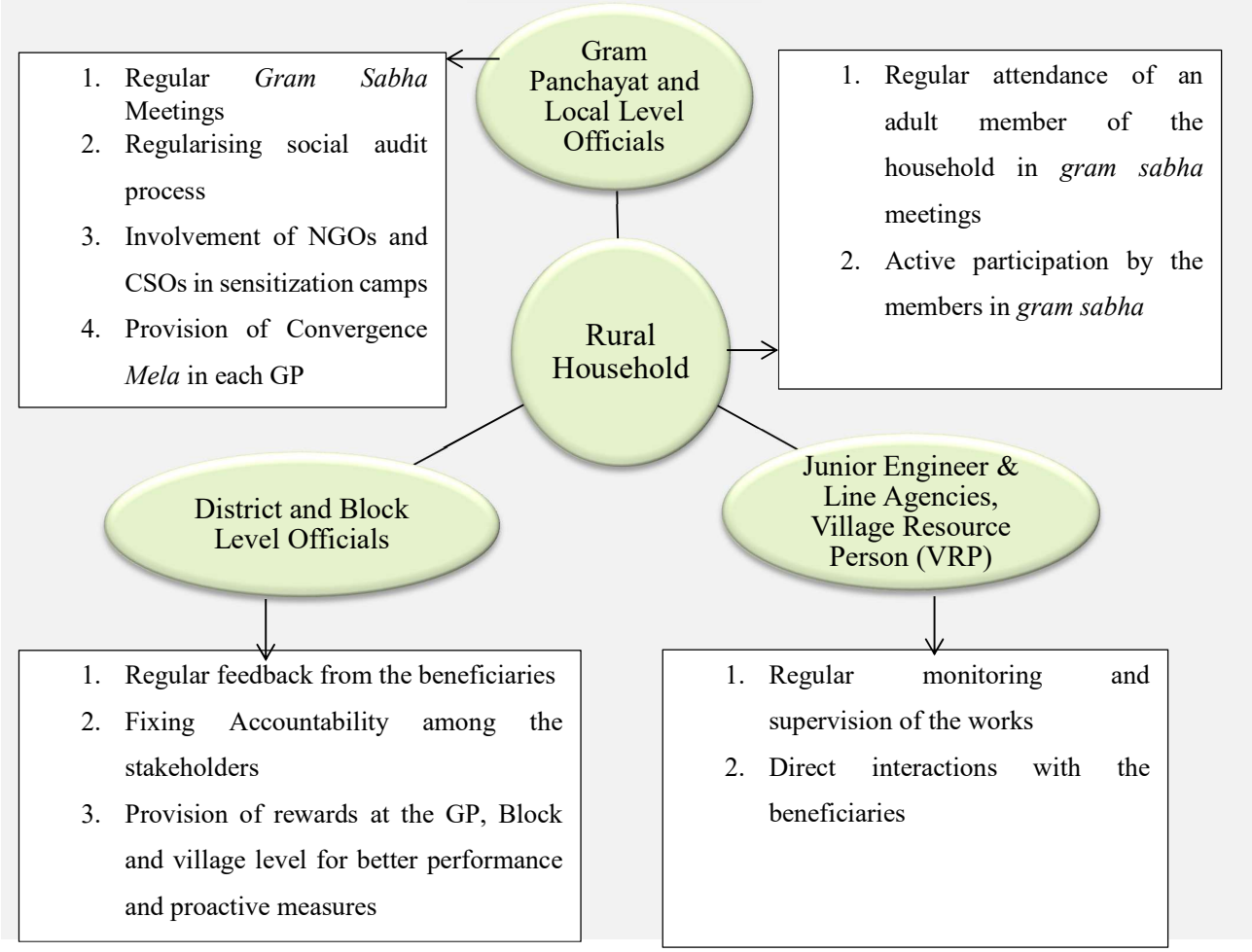
Despite success of the program from many fronts, there are, however, many critical challenges that need to be overcome so that the scheme provides desired outcomes. Among the challenges, the major ones are the poor awareness level among the people regarding the program, their passive participation in *gram sabha* meetings, poor market linkage for the horticultural produce, inadequate training facilities, suspicion over the custody of the job cards by unauthorized entities, reported violation of MGNREGA guidelines, lack of complementarity across schemes and possibility of clientelism and elite capture.

There is no denying that the scheme is a well thought-out intervention towards improving the conditions of the rural households. In order for the program to become more effective both in its breadth and depth outreach, it is necessary to create adequate awareness building among the intended beneficiaries regarding the processes and procedures of the program and the benefits thereof. Creation of awareness carries many advantages. It will not only make the people motivated about the program but also bring greater transparency and accountability in the selection of beneficiaries and projects, and the processes of

implementation. There is a need to educate the beneficiaries regarding the commercial values of their produce so that they sell it at right price and are not exploited by the middlemen. It was observed during our survey that a mango grower was simply using his mangoes for personal consumption and was distributing the same among the people free of cost. Creating awareness in them regarding the exchange value of their produce will help them earn a living.

It is equally imperative that the communication channel among all the stakeholders need to be robust and inclusive. Active involvement of all the important stakeholders through regular interactions, frequent visits, regular *gram sabha* meetings and grievance redressal forums would make the communication process more effective. Application of the modern modes of communication like mobile messaging in vernacular language and sensitization programs through electronic and print media could become useful tools for effective communication. A model of communication framework is proposed as follows.

Figure 8.1: A Proposed Communication Framework



One interesting take on this study is that pro-active leadership is the critical prerequisite to the success of any program. It has been observed that wherever the district, block and panchayat level functionaries have been very proactive in reaching out to the beneficiaries, there has been greater acceptance of the scheme by the people, better delivery of services, greater transparency, larger participation of the beneficiaries in decision making process, better monitoring and in turn, better outcome. In the present sample study, there has been better performance on several counts in Hinjilicut block of Ganjam district and Bangiriposi block of Mayurbhanj district, thanks to the active involvement of the block level officials in all spheres of the execution of the program.

It is necessary on the part of the households to actively participate on a regular basis in *gram sabha* meetings. Mere presence may not suffice. They need to actively get involved in the decision making process. In this context, it may be significant to argue that formation of SHGs and involvement of NGOs in the mobilization process and awareness building could be a useful intervention. More simpler and transparent process flows are needed in the implementation of the program. Adequate checks and balances are needed to be put in place to ensure that there is no possibility of clientelism and elite capture in the provisioning of the scheme.

8.3 Conclusion

Given the intent and the scope, the convergence scheme can be considered to be a way forward for achieving all-round development of the rural economy. Having faced difficulties in the initial phase with respect to coordination and acceptance across participating departments and other stakeholders, the scheme in due course has moved ways forward towards realizing the set objectives of generating improved livelihood opportunities, providing better living environment, changing cropping pattern, ensuring increased productivity and above all, enhancing the rural capabilities through the creation of durable assets. In order for the program to become more effective, it may be imperative to make the people active partners in the decision making process through their participation in democratic spaces. Awareness building seems to be the key to achieve better provisioning of the benefits without any room for clientelism and elite capture. A pro-active bureaucracy in coordination with a well-functioning PRI can make this scheme overcome all possible problems.

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