

Labour and Accumulation in Rural Bihar: A Village Study

*A thesis submitted to the University of Hyderabad
in partial fulfillment of the requirements for the award of*

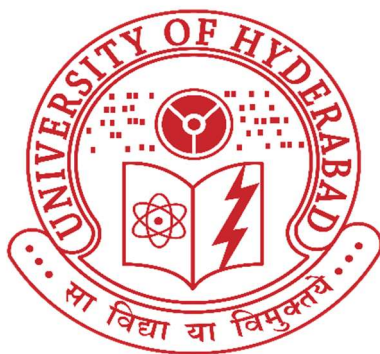
DOCTOR OF PHILOSOPHY

IN

ECONOMICS

BY

NILESH KUMAR
(Regd. No. 11SEPH08)



SCHOOL OF ECONOMICS
UNIVERSITY OF HYDERABAD
HYDERABAD-500046

January, 2023



CERTIFICATE

This is to certify that the thesis entitled “**Labour and Accumulation in Rural Bihar: A Village Study**” submitted by **Nilesh Kumar** bearing registration number 11SEPH08 in partial fulfillment of the requirements for the award of **Doctor of Philosophy** in the School of Economics is a bonafide work carried out by him under my supervision and guidance. This thesis is free from plagiarism and has not been submitted previously in part or in full to this or any other university or institution for the award of any degree or diploma.

Parts of this thesis have been published in the following publications:

1. Nilesh Kumar, Mrityunjay Pandey. Labour processes in rural Bihar: A set of survival strategies. Int J Finance Manage Econ 2021;4(2):118-128. DOI: [10.33545/26179210.2021.v4.i2.101](https://doi.org/10.33545/26179210.2021.v4.i2.101).

And

Presented at the following conference:

1. Presented a Paper on “***Labour Processes in Rural Bihar: A Set of Survival Strategies***” at the “***25th Silver Jubilee Annual Conference of Indian Political Economy Association (IPEA)***.” held on 24-25th March 2022 at the University of Hyderabad (HCU), Hyderabad, Telangana, India

Further, the student has passed the following courses towards fulfillment of the coursework requirement for Ph.D. He was exempted from doing coursework (recommended by Doctoral Committee) on the basis of the following courses passed during his M.Phil. programme and the M.Phil. Degree was awarded.

Marks sheet:

Sl. No.	Course Code	Name	Credits	Grade
1.	SE600	Advanced Economic Theory	4	C
2.	SE601	Social Accounting and Database	4	A
3.	SE602	Research Methodology	4	A
4.	SE620	Study Area	4	A+
5	SE680	Dissertation	16	B+

PhD Supervisor(s)

Dean of School

Prof. G. Omkarnath

Prof. R V Ramana Murthy

Prof. K Laxminarayana

Date: 31st January 2023



DECLARATION

I, Nilesh Kumar, hereby declare that this thesis entitled **“Labour and Accumulation in Rural Bihar: A Village Study”**, submitted by me under the guidance and supervision of **Prof. G. Omkarnath**, and **Prof. K Laxminarayana**, School of Economics, University of Hyderabad, is a bonafide research work, which is also free from plagiarism. I also declare that it has not been submitted previously in part or in full to this university or any other university or institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodganga/INFLIBNET.

A report on plagiarism from the university librarian is enclosed.

Date: 31st January, 2023

Nilesh Kumar

Place: Hyderabad

Regd. No. 11SEPH08

Table of Contents

<i>Acknowledgements</i>	iv
List of Tables	v
List of Figures	vii
Chapter 1	1
Introduction	1
1.1. The Context.....	2
1.2. Motivation.....	3
1.3. Objectives	6
1.4. Theoretical Framework.....	7
1.4.1. Commercialisation and Accumulation.....	8
1.4.2. Labour Processes	11
1.4.3. Production and Exchange Relation.....	12
1.5. Methodology and Data.....	13
1.5.1. Selection of Village	13
1.5.2 Survey and Data Collection	22
1.6. Organisation of Study	23
Chapter 2	24
The Accumulation Regime and Rural Bihar	24
2.0. Introduction.....	24
2.1. Structure of Rural Accumulation in the Indian Economy (1970-71 to 2011-12)	25
2.2. Structure of Accumulation in Bihar Economy	33

2.3 Regional Disparity, Poverty and Inequality.....	44
2.4 Accumulation Pattern at the Level of District economy.....	46
2.5. Accumulation and Participation at the Level of District Economy	50
2.6. Summary and Discussion.....	62
Chapter 3	64
The Structure of the Agrarian Economy	64
3.0. Introduction.....	64
3.1 The Study Region	65
3.2 Historical Overview	75
3.4. Demography.....	79
3.5. Land Use, Irrigation and Cropping pattern	80
3.6. Summary and Discussions	85
Chapter 4	87
Production and Exchange Relations in the Rural Agrarian Economy	87
4.0. Introduction.....	87
4.1. Production Condition in the Village Economy	87
4.2. Social Structure of the village.....	91
4.3. Occupational Structure in the Village.....	97
4.4. Exchange Relation in the Village Economy	98
4.5. Summary and Discussions	102
Chapter 5	103
Labour Process in Rural Economy	103
5.0. Introduction.....	103
5.1. Locating Labour in the Production structure	104
5.2. Social Labour Process.....	106

5.3. Labour Processes in Agrarian sector	108
5.4. Wage Structure	113
5.5. Labour Processes in the non-farm sector	117
5.6. Migration	120
5.7. Condition of Worker	122
5.8. Discussion and Summary.....	124
Chapter 6	127
Summary and Conclusions	127
Appendix.....	135
References.....	138

Acknowledgements

This study has benefited immensely from the kind help I have received from various people and institutions. First of all, I would like to express my sincere gratitude to my supervisor, Professor G. Omkarnath, for having introduced me to classical political economy and for his invaluable comments and suggestions at regular intervals during the study. It has indeed been a privilege to work under his supervision. Professor K Laxminarayana as my co-supervisor has been very supportive during the last few years of the study. Professor R.V Ramanamurthy, Dean School of economics has always been encouraging. I offer my sincere gratitude to all my faculty members in the School of Economics, University of Hyderabad whose erudite scholarship and academic excellence have shaped my academics.

This study is greatly indebted to everyone in the field for the kind help and support they extended wholeheartedly during survey and data collection work.

The list of friends who has been constant support throughout this journey Mobin, Alex, Lima, Subhash, Mrityunjay, Arun and the list could go on. I also sincerely thank all my friends who offered their helping hand as and when the need arose and for providing crucial inputs at a very critical moment, which has considerably enhanced the presentation of this study.

This study could not have been completed with ease, had it not been for the very helpful individuals at: the School of Economics office; the Indira Gandhi Memorial Library (IGML), University of Hyderabad; the IGML Library Xerox shop.

Finally, this dissertation could only have been completed with the constant emotional as well as financial support and encouragement my family has provided.

Nilesh

List of Tables

Table 1. 1.....	15
Table 1. 2.....	16
Table 1. 3.....	17
Table 1. 4.....	18
Table 1. 5.....	21
Table 1. 6.....	21
Table 2. 1.....	26
Table 2. 2.....	27
Table 2. 3.....	30
Table 2. 4.....	32
Table 2. 5.....	35
Table 2. 6.....	37
Table 2. 7.....	37
Table 2. 8.....	38
Table 2. 9.....	40
Table 2. 10.....	48
Table 2. 11.....	49
Table 2. 12.....	50
Table 2. 13.....	51
Table 2. 14.....	53
Table 2. 15.....	53
Table 2. 16.....	56
Table 2. 17.....	57
Table 2. 18.....	60

Table 2. 19	61
Table 3. 1	78
Table 3. 2	81
Table 3. 3	82
Table 3. 4	83
Table 3. 5	85
Table 4. 1	89
Table 4. 2	92
Table 4. 3	96
Table 4. 4	97
Table 4. 5	98
Table 5. 1	105
Table 5. 2	105
Table 5. 3	107
Table 5. 4	110
Table 5. 5	110
Table 5. 6	113
Table 5. 7	118
Table 5. 8	119
Table 5. 9	121
Table 5. 10	121
Table 5. 11	123
Table 5. 12	123
Table 5. 13	124

List of Figures

Figure 1. 1 19

Figure 2. 1 31

Figure 2. 2 36

Figure 2. 3 48

Figure 3. 1 68

Figure 3. 2 69

Figure 3. 3 70

Figure 3. 4 71

Figure 3. 5 80

Chapter 1

Introduction

The changing conditions of the rural agrarian economy in India have been a major concern for development economists worldwide. Unfolding predatory accumulation strategy (Walker, 2008) through a neoliberal policy regime biased towards a non-agrarian urban economy has produced a crisis in the rural agrarian economy of India. The largest part of Bihar is the rural economy, which generally is characterised as an agrarian production economy (Singh, 2017). A considerable proportion; 75 per cent (Bihar, 2020-2021) of the population is dependent on agriculture, and sustainability of agrarian production is the pre-condition for the development dream of Bihar. The approach towards the rural economy has largely been prioritized as a functional intervention in terms of rural development rather than understating the structural issue relating to agrarian production. Production conditions in the rural agrarian economy are an issue of utmost importance for the development economist for the required structural intervention. Treating issues of agrarian production through a resource allocation framework has shown serious neglect of structural understanding of agrarian production. The reallocation of labour and capital through techno-managerial methods to enhance competitive efficiency has failed to understand the complexity of the structure at hand. Production condition is the complex interaction between capital and labour processes through the production techniques in the agrarian production economy. The framework for production relation is an amalgamation of production condition and exchange relation in the

context of specific property relations and accumulation regime within the broader framework of social relation.

This research is aimed to generate an understanding of the structural complexity of the rural agrarian economy of Bihar through a village study. The production structure of the agrarian economy is identified with the complex interaction of the labour processes and accumulation processes. A rural agrarian economy is conceived in the context of an unfolding accumulation regime at the macroeconomic level, as an agrarian production economy.

1.1. The Context

The recent 'growth miracle' (CAGR of GSDP is 12% per annum for the period of 2006-07 to 2012-13 at constant prices of 2004-05) in Bihar economy has astonished the Indian economist and there has been a lot of debate on its methodology and whether the measure is correct or not but essentially identified as a new accumulation regime penetrating the Bihar economy (Gupta, 2010). However, there is still doubt about the numbers, but a kind of dynamism recently felt in the Bihar economy cannot be denied. Bihar fascinated with this aspirational age has changed its alliance from a social justice-based government to a new era of good governance style of politics. This good governance (*Sushashan*) under the leadership of Chief Minister Nitish Kumar has claimed to have achieved double-digit growth by 2011 and the chief minister was awarded best chief minister in India. Bihar's model of growth started contesting the Gujrat model in the political arena. Great enthusiasts like Nobel laureate Amartya Sen, Nicholas Stern, and many others have declared this era as the beginning of 'New Bihar' (N K Singh, 2014) and expressed hope for good governance

(*Sushasan*) based model of development. The data-driven policy regime has taken over the social mobility-based policy regime. The question to be asked is how this accumulation strategy, (which is neoliberal by nature, (Walker, 2008)) of the state at large is unfolding at the level of the rural economy of Bihar. What is the implication of these accumulation strategies for labour processes at work in a village economy?

This research titled ‘Labour and Accumulation in Rural Bihar’ has been conceived at the time when Bihar as one the most backward state was recognized as a great performer in the first five years of the new regime during 2005-2010 AD. The introduction of the 11th plan (2007-2012) has identified the previous decade of jobless growth excluding the large mass of the population and the buzzword of inclusion has taken the center stage. Bihar following the national economy after a decade has registered a similar phase of high growth. The present research is trying to assess this dynamism in the context of the rural economy of Bihar, especially in terms of the labour process and accumulation processes. Therefore, this study is an inquiry into two broader processes namely ‘labour processes’ and ‘accumulation processes’ contextualizing in a dynamic situation of a village economy in Bihar. Moreover, this study is trying to locate the labour-capital relations in the context of the recent phase of dynamism in rural agrarian setup.

1.2. Motivation

Doctoral research requires an immense amount of motivation and connects to the concerns of the area of study. The village is the major site of subhuman economic conditions and the rural poor historically coming from certain social groups, have a lot of implications for the

development dream of Bihar. Major development thinking has always considered development as a journey from the rural character of the economy to the urban character of the economy considering urban as a better economic space. The logic for that seems to be suspicious because the rural economy traditionally has been a space of deprivation and discrimination associated with the socio-economic power structure. As if changing the spatial character of the economy would lead to a change in the identity and associated power structure. Shifting resources from an agrarian rural economy to an urban non-farm activity would be considered development if this shift ensures better livelihood and living conditions. Shifting of so-called surplus workforce from rural to urban is not an automatic guarantee for better employment opportunities and contracts and is essentially not considered to be moving towards more formal than informal economic activity. Moreover, the dichotomy of this formal (Urban) and informal (Rural) as a typical representation seems to be problematic for development thinking. Characteristics of urban Bihar especially the towns are largely the same in terms of social structure and caste structure. All this development thinking requires serious interrogation of historical experience.

Economics is so obsessed with the concept of 'Economy' that it has mostly forgotten about the concept of society of which it is a sub-domain. Society is the amalgamation of various life processes and the expertise of these complex processes is categorized in so many disciplinary compartments like Economics, Political science, Anthropology, Sociology, History, etc. for the sole purpose of convenience. The concept of the social system often lost its relevance whenever segmented through the economic system, politics, morality, sociology, etc. Then what are these disciplinarian boundaries for? The tentative answer, which comes to our mind, is that while journeying, epistemology tended to promote scientism

and has decided to organise its knowledge (know-how) of the social system under various categories. This is just codifying the know-how of society under the branch of Economics, Politics, Philosophy, Sociology, History, Anthropology, etc. Then onward the race towards defining these boundaries as autarky had begun. Economics as a disciplinarian compartment evolved as a forerunner of the race and moved towards universalism and empiricism. Even sometimes when economics has tried to negotiate with the existing social reality, has superimposed the concept of the economy over the concept of society. What is seen today is more of indexation looking for the variables whereas observation of processes in a time continuum is neglected.

Let us take the idea of change, whenever economists think of change, it is more often quantitative, and even when qualitative changes are considered most of them are understood by comparing two points in time. Whereas change is a continuous process at work, the whole process needs to be observed before explaining the change. Most of the time, economists, express the change through comparative statistics and then interpolate or extrapolate to reason it out. Though Economics has tried to imitate empiricism and universalism but often lost on the fundamental principle of science, which is 'observation'.

Research during M.Phil has convinced that the process of universalization of economic theory divorced from context is just a thought experiment. Conceptual categories which are an outcome of contextual observation could not be expressed in relational terms of theory without specifying their context. Studies on labour as conceptual categories could not be abstracted out of context to form a universalized theory. Tracing the formative period of economic theory, it was found that the conception of labour and its attributes are always contingent upon the context. The context-free theory is a myth (Kumar, 2011).

Considering observation as the hallmark of a scientific inquiry, this research is an attempt to understand the structure of a village economy in the regional context. Studies based on secondary data are inadequate to analyze the structural processes at the ground level in the rural economy. Secondary data on the rural economy has highlighted the falling importance of agriculture in terms of its share in Gross Domestic Product (GDP, CSO, National Accounts Statistics). The share of the population dependent on agriculture is also declining slowly. The rural agrarian economy is facing a structural crisis because of the production condition like persistent rise in the cost of cultivation with non-remunerative prices resulting in the falling rate of return manifested in terms of indebtedness and farmer's suicide. A large share of marginal and smallholding facing adverse production conditions has led to farming as an unsustainable livelihood option and the rural economy has experienced high mobility of labour between farm and non-farm activity as a complex livelihood strategy.

The larger motivation for this study is an outcome of constant critical engagement with mainstream economics from the standpoint of classical economics including Marxian political economy. Established Indian economists like Krishna Bhardwaj, A.K Dasgupta, P.R Brahmanada, and many others have argued that the theoretical framework of the classical political economy including Marxian political economy is more apt to generate an understanding of developing economies like India.

1.3. Objectives

The post-liberalization accumulation regime in India has posed a serious challenge to the sustainability of agrarian production. The production condition in Indian agriculture has been

an important area of interest in this context as the agrarian crisis set in motion in rural India. Bihar has experienced the ripple of service and trade-led regime of growth since its bifurcation in 2000. In the context of this new phase of growth, this study focuses on its structural implication through the following objectives:

1. Identify and analyse the nature of the accumulation regime in Bihar since 2000 as the broader context of the study.
2. Analyse the structural specificity of the rural-agrarian economy in Bihar.
3. Analyse production and exchange relations in the study village.
4. Given the nature of the accumulation regime and production conditions with exchange relations, analyse labour processes in the study village.

1.4. Theoretical Framework

The structure of the rural agrarian economy under observation here is identified through the structural processes. These structural processes need to be observed both in their qualitative and quantitative dimensions. The production condition of the rural agrarian economy is analysed as structural processes in the context of rural economy as a specific space located in a particular agro-climatic condition. Structural specificity associated with economic sectors (Farm and Non-Farm) is analysed in the context of production relation and exchange relation under the broader framework of social relation. The nature of accumulation and its structural implication in the context of the rural economy will be analysed within the regional economy's commercialisation framework. The framework here would finally identify the nature of rural labour processes in the context of a new accumulation regime penetrating market neoliberalism and pervasive commercialisation in rural agrarian economy.

1.4.1. Commercialisation and Accumulation

Commercialisation is considered an intermediary stage of transition from a pre-capitalist to a capitalist mode of production. The classic case of the capitalist mode of production theorized by Marx observed this transition as the simultaneous development of forces of capitalist production through commercialization given the extant production condition. The development of capitalist relations with the expansion of commercial exchange networks throughout agriculture and industry as well as services was the classic case of transition presented by Marx. Historical experience across the regions of the world has been a very heterogeneous and pervasive process of commercialization produced muted formation of capitalist relations in case developing regions of the world like India. Colonialism was the means through which countries with the pre-capitalist mode of production were forcefully brought into the world capitalist order. Forced commercialisation with the motive of extracting more and more surplus by the colonial power has led to a pervasive process of muted capitalist formations. Overlapping mode of production, co-existence of different modes of production, and colonial mode of production was the various characterisation of the mode of production in Indian agriculture was the resultant. In this case, a framework around the nature and degree of commercialization is considered to be a better framework for accommodating the heterogeneous development of capitalist relations across the regions of India.

The broader history of commercialization during colonial India can be traced from the introduction of new property relations in the land as individual private property by the British colonial government as a policy measure to instil capitalist entrepreneurship in agriculture (Guha, 1982) (Whitcombe, 1971). The imposition of heavy revenue to be paid in cash along

with the timing of the revenue payment while cultivators needed cash for the productive reinvestment (Bagchi, 1976) were highlighted by historians (Chowdhury B. , 1964) (Whitcombe, 1971) (Amin, 1984) as a major force of commercialization of agriculture. Commercialisation was forced through the compulsion of major cash crops like Indigo, Poppy, Jute, Sugarcane, etc. Home and external markets for cash crops were developed through the network of transport and communications (Bagchi, 1976). State-led irrigation projects and input support for commercial crops led to the growth of commercialization. Private land ownership created a land market for mortgage and tenancy (Chowdhury B. B., 1967) (Patnaik, 1981) (Sen, 1982). All the above development has led to a substantial increase in the degree of monetization and a rising share of cash crops (Washbrook, 1976) resulting in the commercialisation of Indian agriculture. During the British period, Bihar experienced a fierce effort toward commercialization but has a limited impact on production relations due to the village economy's socio-economic dependence structure, which the major site of agrarian production (Robb, 1992). The introduction of advance payment for the cultivation of Opium and Indigo has loosened the control of non-economic relations in a very limited way.

Nature and degree of commercialization are historically dependent on production institutions which have been different in the different regions in India. One of the important interventions by the British revenue administration was the Permanent settlement (1793) in Bengal and Bihar intervened in the Zamindari system to collect revenue and encourage investment in agriculture by the Zamindar entitled to appropriate greater revenue. Permanent settlement was considered a solution to the agrarian crisis and famine in the existing agrarian production system. But the permanent settlement has led to more subinfeudation and the emergence of

layers of intermediaries failing to achieve the objectives. Revenue administration has been created throughout Bihar appointing revenue collectors. Zamindari abolition Act of 1949 and the Land reform act of 1950 have further created a very differentiated structure of peasantry through the kind of nexus of intermediary evolved out of the permanent settlement. Absentee landlord with a land leasing market and prominence of tenancy cultivation is a structure that led to tenant uprising and tenancy reform but failed miserably in recognizing the tenant.

A second major wave of commercialization Indian agriculture has experienced through the green revolution which again varies in degree and nature across the regions of the country. Commercialisation impacts differentiated peasantry in different ways. The production and exchange relation under differentiated peasantry was so hierarchical that it has not allowed for the simultaneous development of capitalist relations due to the forced commercialization (Bhardwaj, A view on commercialisation in Indian agriculture and the development of capitalism. , 1985). Late. Prof. Krishna Bhardwaj presents differentiated peasantry as the framework to understand the differential impact on the agrarian structure. Categorising households into different groups to analyse the production and exchange relation and its interaction with the forces of commercialization.

Accumulation which is one of the primary objectives of commercialization has not been explored adequately. It is the accumulation strategies of the surplus-earning household that has the potential to further the forces of commercialization. Primitive accumulation as the strategy was furthered through the process of commercialisation. The growth of agrarian surpluses was accumulated through various channels in the non-agrarian sector. The green revolution has led to the growth of agrarian surpluses, but these surpluses were not adequately reinvested to develop productive forces in agriculture.

This study attempts to identify the accumulation process at the broader level of national and state economies and analyses its implication in the context of a village economy. In the village economy, the implications are analyzed largely in terms of production condition, exchange relation and labour processes in primarily agrarian production economy.

1.4.2. Labour Processes

In contemporary mainstream economic theory, labour is treated as a factor of production at par with capital, and the labour process is analysed through the labour market as a factor market derived from the (commodity market) output demand market. Considering the specificity of production and exchange relation in agriculture treatment of labour as another commodity for the market has been already criticized in literature. Inadequacy of the mainstream conception of labour to capture the rural labour process has been adequately emphasized by Jen Breman (Breman, 2013). Various contradictions in terms of operating the labour market in the rural agrarian labour market as a competitive market have been highlighted by late. Prof. Krishna Bhardwaj (Bhardwaj, On the Formation of Labour Market in Rural Aisa, 1989)

Labour is not a homogenous category as it is being conceptualized by the mainstream economic theory, further its treatment through the demand and supply framework to analyse the wage and employment as an outcome of the labour market process (Solow, 1990) has been inadequate due to the sort of heterogeneity of labour as a category is. The theory of backward bending labour supply curve projects the household allocation of labour services as an outcome of tradeoff between leisure and income and labour demand by the producer is an outcome of profit maximizing behaviour. The coexistence of positive wage rate with high

rate of unemployment as well as shortages of labour during the peak farming seasons presents an important contradiction in operation of the labour market in the rural agrarian economy (Omkarnath, 1993). The labour process as a household survival strategy is what a household innovates given production and exchange relations under the broader accumulation strategy induced by commercialization.

1.4.3. Production and Exchange Relation

If we take a look at broader phases of the development of economic theory, we could simply observe that in the initial phase which was mercantilism, economic theories were oriented toward exchange since the exchange was considered as the sphere where surplus originates or value is created.

Then came the tradition of CPE (Classical Political Economy) where theories became production-oriented and surplus or value was produced through the production process. The neo-classical theories have no concept of surplus and the theories are oriented to exchange. This means each of these phases were having the concept of exchange and production but one or the other has been aligned towards the other or formulated ad-hoc to suit the proposed orientation. This study will try to explore what happens when we see exchange and production as intermingled spaces.

As Prof. Krishna Bharadwaj claims

“I view the arena of exchange and the associated notions of price as reflecting conditions under which surplus is produced, appropriated and distributed.” (Bharadwaj, 1994)

In her essay on the Indian Economy (1994) titled ‘Accumulation, Exchange, and Development’ a collection of published work she has indicated a possible theoretical framework to understand the Indian economy with its specificity. Therefore, this study will adopt a framework, which will treat production relations and exchange relations at par. The idea of the mode of production will be rediscovered in the space where exchange and production processes interact with each other not solely in the sphere of production.

1.5. Methodology and Data

Methodologically this work is an exercise of balance between empirics (Facts) and analytics (Theory) to identify the structure of the rural economy. From a regional economy perspective, this work is trying to specify a prototype of the Bihar economy through a village located in the Madhepura district of the Kosi region in Bihar. The study considers one village to examine the nature and causes of the progress in rural Bihar, so, this study can be classified as a village study. The framework for the identification of the village is presented in the next section.

1.5.1. Selection of Village

This study is largely focused on the structure and functioning of the agrarian production economy in rural Bihar. To identify a village with suitable characteristics a ranking framework is adopted. As the first step, this ranking framework, designed three criteria (A, B, C) to rank the districts dependent on agrarian production. Districts were ranked from lowest to highest based on the following criterion given below:

Criteria-A: Share of Primary sector in Net district domestic product (NDDP) for the year 2007-08. (Table 1.1)

Criteria-B: Share of Main Worker engaged in Primary Sector Census, 2001¹. (Table 1.2)

Criteria-C: Ranking of Districts according to the cropping intensity² in the year 2008-09. (Table 1.3)

Ranking all 38 districts according to the above-stated criterion (A, B, C), summed up the rank of each district across the indicators (Table 1.5.4: Ranking Exercise). The five districts having the least-sum of rank scores are Supaul (6), Sheohar (13), Madhepura (19), Araria (19), and Katihar (27). Apart from Sheohar, all other four districts having the minimum sum of rank belong to the same Agro-climatic Zone-II of Bihar. Considering the regional continuity Supaul (6), Madhepura (19), Araria (19) and Katihar (27), which belong to a region identified as the Kosi region of Bihar located on the north side of the river Ganges. Out of these Madhepura is selected considering logistical convenience. Madhepura is located in the northeast Kosi River plains in Bihar bordered by Saharsha, Khagaria, Bhagalpur, Purnea, Araria, and Supaul districts of Bihar. A Map is given below to show the location with respect to the agro-climatic zones of Bihar.

¹ At the time of selection of study village, data on workers for census 2011 was yet to be released.

² Cropping intensity has been calculated using the following formula. Cropping Intensity = (Gross Cropped Area / Net sown area) *100

Table 1. 1

Ranking of Districts according to the share of Primary sector share in District Domestic Product (DDP) for 2007-08 at constant prices of 2004-05 (Criteria-A)

Sl. No.	Name of the Districts	Percentage Share of DDP in Primary Sector	Rank
1	Sheohar	59.55	1
2	Madhepura	59.48	2
3	Supaul	54.48	3
4	Araria	54.46	4
5	Bhabhua	54.09	5
6	Banka	53.64	6
7	Kishanganj	51.49	7
8	Jamui	47.65	8
9	Buxar	47.45	9
10	Aurangabad	46.90	10
11	Purnea	45.65	11
12	West Champaran	42.31	12
13	East Champaran	41.61	13
14	Katihar	40.87	14
15	Saharsha	40.79	15
16	Gopalganj	40.58	16
17	Arwal	39.80	17
18	Sheikhpura	39.34	18
19	Nawada	38.55	19
20	Madhubani	38.52	20
21	Rohtas	37.31	21
22	Siwan	36.14	22
23	Bhojpur	35.84	23
24	Samastipur	35.25	24
25	Jehanabad	34.09	25
26	Lakhisarai	32.55	26
27	Sitamarhi	32.17	27
28	Vaishali	31.75	28
29	Saran	31.12	29
30	Nalanda	30.46	30
31	Khagaria	30.45	31
32	Darbhanga	28.97	32
33	Gaya	27.60	33
34	Muzaffarpur	23.54	34
35	Bhagalpur	20.65	35
36	Begusarai	18.49	36
37	Munger	15.84	37
38	Patna	2.72	38

Source: Directorate of Economics & Statistics (DES), Bihar

Table 1. 2

***Ranking of Districts according to the percentage share of Main workforce engaged in
Primary sector during census 2001. (Criterion B)***

Sl. No.	Name of the Districts	Percentage of worker engaged in primary sector	Rank
1	Madhepura	88.15	1
2	Supaul	87.26	2
3	Araria	87.22	3
4	Purnea	85.16	4
5	Kishanganj	84.17	5
6	Samastipur	83.05	6
7	Banka	82.76	7
8	Katihar	81.18	8
9	Sheohar	81.16	9
10	Bhabhua	81.15	10
11	Saharsha	81.07	11
12	West Champaran	80.97	12
13	Arwal	80.96	13
14	Madhubani	80.85	14
15	East Champaran	80.60	15
16	Nawada	79.33	16
17	Sitamarhi	79.13	17
18	Jehanabad	78.97	18
19	Gopalganj	78.33	19
20	Shekhpura	77.63	20
21	Gaya	77.06	21
22	Khagaria	76.88	22
23	Aurangabad	76.68	23
24	Nalanda	76.00	24
25	Buxar	74.10	25
26	Lakhisarai	73.90	26
27	Siwan	71.49	27
28	Bhojpur	71.34	28
29	Vaishali	70.99	29
30	Rohtas	70.83	30
31	Darbhanga	70.74	31
32	Saran	70.08	32
33	Muzaffarpur	68.53	33
34	Jamui	66.16	34
35	Begusarai	64.51	35
36	Bhagalpur	61.96	36
37	Munger	51.71	37
38	Patna	50.33	38

Source: Primary Census Abstract 2001, Bihar

Table 1. 3

***Ranking of Districts according to the cropping intensity in the year 2008-09
(Criteria C)***

Sl. No.	Name of the Districts	Gross Cropped Area (in Acre)	Net Sown Area (in Acre)	Cropping Intensity	Rank
1	Supaul	213900	119932	178.35	1
2	Saharsha	176535	100718	175.27	2
3	Sheohar	38691	22656	170.77	3
4	Samastipur	299734	181762	164.90	4
5	Katihar	259530	161158	161.04	5
6	Muzaffarpur	329602	209665	157.20	6
7	Vaishali	195639	124735	156.84	7
8	Jehanabad	109872	73700	149.08	8
9	Gopalganj	219541	147855	148.48	9
10	Siwan	246052	166932	147.39	10
11	Sitamarhi	200179	135954	147.24	11
12	Araria	268913	185474	144.98	12
13	Lakhisarai	90087	62135	144.95	13
14	Madhubani	335216	232702	144.05	14
15	West Champaran	399802	278519	143.54	15
16	Madhepura	145512	101927	142.70	16
17	Sheikhpura	64287	45068	142.64	17
18	Nawada	148901	104633	142.30	18
19	Khagaria	131756	93330	141.17	19
20	Buxar	181251	129337	140.13	20
21	Begusarai	150391	112541	133.63	21
22	Kishanganj	157286	118957	132.22	22
23	Purnia	256823	195255	131.53	23
24	Arwal	53999	41732	129.39	24
25	Bhabhua	222243	172053	129.17	25
26	Banka	165784	129394	128.12	26
27	E Champaran	390473	304875	128.07	27
28	Rohtas	320244	250125	128.03	28
29	Darbhanga	213748	168732	126.676	29
30	Saran	230802	182986	126.13	30
31	Aurangabad	279883	223082	125.46	31
32	Bhojpur	234746	188310	124.65	32
33	Munger	64237	51834	123.93	33
34	Nalanda	220553	179263	123.0332	34
35	Gaya	203713	170522	119.46	35
36	Bhagalpur	164112	138702	118.31	36
37	Patna	227135	195760	116.02	37
38	Jamui	59782	51723	115.58	38
	Total	7670954	5554083	138.11	

Source: Directorate of Statistics Evaluation, Bihar

Table 1. 4

Ranking Exercise at District Level

Sl. No.	Name of the Districts	Rank A	Rank B	Rank C	Sum Rank
1	Sheohar	1	9	3	13
2	Madhepua	2	1	16	19
3	Supaul	3	2	1	6
4	Araria	4	3	12	19
5	Bhabhua	5	10	25	40
6	Banka	6	7	26	39
7	Kishanganj	7	5	22	34
8	Jamui	8	34	38	80
9	Buxar	9	25	20	54
10	Aurangabad	10	23	31	64
11	Purnea	11	4	23	38
12	West Champaran	12	12	15	39
13	East Champaran	13	15	27	55
14	Katihar	14	8	5	27
15	Saharsha	15	11	2	28
16	Gopalganj	16	19	9	44
17	Arwal	17	13	24	54
18	Sheikhpura	18	20	17	55
19	Nawada	19	16	18	53
20	Madhubani	20	14	14	68
21	Rohtas	21	30	28	79
22	Siwan	22	27	10	59
23	Bhojpur	23	28	32	83
24	Samastipur	24	6	4	34
25	Jehanabad	25	18	8	51
26	Lakhisarai	26	26	13	65
27	Sitamarhi	27	17	11	55
28	Vaishali	28	29	7	64
29	Saran	29	32	30	91
30	Nalanda	30	24	34	88
31	Khagaria	31	22	19	72
32	Darbhanga	32	31	29	92
33	Gaya	33	21	35	89
34	Muzaffarpur	34	33	6	73
35	Bhagalpur	35	36	36	107
36	Begusarai	36	35	21	92
37	Munger	37	37	33	107
38	Patna	38	38	37	113

Source: Calculated from the data presented in Table-1.1, Table-1.2 and Table 1.3

Ranking all 38 districts according to the above-stated criterion (A, B, C), summed up the rank of each district across the indicators (Table 1.4: Ranking Exercise). The five districts having the least-sum of rank scores are Supaul (6), Sheohar (13), Madhepura (19), Araria (19), and Katihar (27). Apart from Sheohar, all other four districts having the minimum sum of rank belong to the same Agro-climatic Zone-II of Bihar. Considering the regional continuity Supaul (6), Madhepura (19), Araria (19) and Katihar (27), which belong to a region identified as the Kosi region of Bihar located on the north side of the river Ganges. Out of these Madhepura is selected considering logistical convenience. Madhepura is located in the northeast Kosi River plains in Bihar bordered by Saharsha, Khagaria, Bhagalpur, Purnea, Araria, and Supaul districts of Bihar. In Figure 1.1, given below, the location with respect to the agro-climatic zones of Bihar is presented.

Figure 1. 1

Agro-Climatic Zones of Bihar



Source: Maps of India website

In the second stage, 13 Sub-districts of district Madhepura are ranked for population density (W), workforce participation rate of male main workers (X), the share of non-farm main male workers (Y) and percentage share of the urban population (Z) based on recently available data from Census 2011. The criterion for the selection of sub-district is designed keeping in view that few of the sub-district could have zero urban population and worker participation rate of main male worker securing the occupational diversity in terms of agriculture and non-agriculture worker in the observations. Here, only male workers were considered for the occupational diversity since an insignificant percentage of female workers are part of non-farm occupations. The presence of female workers of all occupations can also be assured as we could see that none of the columns related to the male worker has assumed 100 per cent value. Which always leaves a possibility of female workers being part of the sample of occupations studied.

The criterion W, X, Y and Z for identifying a Sub-district to select a village for the study:(Table-1.5, Table-1.6)

W. Population Density per square kilometer. (Pop. Density)

X. Workforce Participation rate Main Male worker as a percentage share of the total population.

Y. Percentage share of Non-agricultural main male worker

Z. Percentage share of Urban Population in the total population.

Ranking according to the above four criteria has identified two sub-districts Murliganj and Singheswar with the minimum summation of rank. Murliganj is selected again considering logistical convenience.

Table 1. 5

Criterion for selection of Sub-District

Name of Sub-District	Pop. Density (W)	WFPR Main Male (X)	Main_Worker_Non-AG_Male (Y)	% Of Urban Pop. (Z)
Gamharia	1005	40.61%	12.13%	0%
Singheshwar	1552	29.40%	29.23%	3.95%
Ghailarh	1003	30.15%	8.60%	0%
Madhepura	1494	33.99%	31.63%	22.16%
Shankarpur	1000	25.41%	10.35%	0%
Kumarkhand	1000	27.28%	10.90%	0%
Murliganj	1176	35.25%	16.27%	13.39%
Gwalpara	1083	35.69%	10.41%	0%
Bihariganj	1283	27.77%	18.55%	0%
Kishanganj	1276	33.55%	12.43%	0%
Puraini	1208	37.96%	9.47%	0%
Alamnagar	1025	31.15%	11.34%	0%
Chausa	1156	30.59%	10.78%	0%

Source: Census, 2011

Table 1. 6

Ranking Exercise at Sub-District Level

Sub-District Name	PoP Density	WFPR Main Male	Main_Non-AG M	% Of Urban PoP	Sum of Rank
Gamharia	10	1	6	4	21
Singheshwar	1	10	2	3	16
Ghailarh	11	9	13	4	37
Madhepura	2	5	1	1	9
Shankarpur	12	13	11	4	40
Kumarkhand	12	12	8	4	36
Murliganj	6	4	4	2	16
Gwalpara	8	3	10	4	25
Bihariganj	3	11	3	4	21
Kishanganj	4	6	5	4	19
Puraini	5	2	12	4	23
Alamnagar	9	7	7	4	27
Chausa	7	8	9	4	28

Source: Table-1.5: Criterion for selection of Sub-District

Within the Murliganj sub-district, Gram-Panchayats were analysed according to the above-stated criteria and Dinapatti Sakhua Gram-Panchayat is identified as suitable for the study. Further village 'Sakhua' of Gram-Panchayat Dinapatti Sakhua is identified considering the following identifier.

- Identifying a village:
 - a. Multi-caste population.
 - b. With the size of 300-400 households.
 - c. 10-25 Kilometers distance from the sub-district.

1.5.2 Survey and Data Collection

After identifying the village for study, a house listing is conducted across the revenue village. In total 242 households are identified in the revenue village. Though the recent census of 2011 reported 429 households in the village. Cross verification has informed that many of the joint households have been reported as separate households as well as households settled outside of the village just having their land and house ownership counted in the census. Hence during the period of the survey from February 2014 to February 2015, the number of households as residents of the revenue village surveyed is 242. During festivals or some family occasions, many of the permanent migrant households used to visit the village. Land and other assets of these absentee households are managed as part of the joint family in the village so each of these families is being enumerated as a separate household.

Data collection is done through personal interviews of the head and other members of the household through structured questionnaires visiting each household. The social structure of the village is analysed along the line of social categories and caste. The economy of an

agrarian production village is largely structured around land ownership and operational land holding. Further for the study, households are classified according to their major source of income to derive the occupational structure of the village. Individual members of the household are classified into the broader categories of worker and non-worker based on their engagement in income-earning activities. This worker and non-worker classification of an individual is used to identifying and locating the worker in the socio-economic structure of the village society. Locating workers in the socio-economic hierarchy of the village and analysing labour processes as survival strategies in response to the larger accumulation strategy under extant production conditions. Activity levels and patterns will be analysed at household levels along with a different group of households.

1.6. Organisation of Study

This study is organised into six chapters. The first chapter introduces the objectives of the study, methodology, and theoretical framework adopted for the study. The second chapter identifies and analyses the nature of the accumulation regime in the state macroeconomy with the help of secondary data and literature. The third chapter presents the study region with its specificity. The fourth chapter discusses the structure of the village's agrarian economy, analyzing conditions of production and exchange relations in the village economy. The fifth chapter analyses rural labour processes at work in the study village along with its regional specificity (Chapter 3) in the context of extant nature of the accumulation regime identified (Chapter 2) in the Bihar economy and production and exchange relations in the study village (Chapter 4). The last chapter (Chapter 6), finally summarises the study and draws conclusions based on the study.

Chapter 2

The Accumulation Regime and Rural Bihar

2.0. Introduction

This chapter sets the context of the inquiry identifying the major feature of this high growth phase as an accumulation regime in the economy of Bihar since the year 2000. The accumulation regime, since the year 2000 marks the important physical reorganisation of the state economy in terms of its bifurcation into two states: Bihar and Jharkhand. The village studied will be contextualized in the new accumulation regime of the erstwhile Bihar to analyse the implication of this high-growth regime. Not in terms of comparison between the regimes but to identify the regime of accumulation this chapter has attempted to analyse the accumulation story of Bihar since 2000. It is important to engage at different levels of the economy to understand first at the national level, then at the state level, and finally at the district level accumulative dynamics to identify the regime of accumulation with spatial dimension.

To highlight the importance of the rural economy, the next section (Section 2.1) analyses the size and composition of the rural economy and outlines the broader structure of rural accumulation operating in the Indian economy during 1970-71 to 2011-12. Section 2.2, deals with the growth process in terms of sectoral decomposition of growth and share of output to understand the nature of accumulation at the level of state economy. The third section (Section 2.3) highlights the status of poverty and inequality in Bihar. Analysing the composition and growth of output, section 2.4 presents the patterns of accumulation at the level of district selected as a proxy to the regional economy as spatial nature of accumulation.

Section 2.5, through the changes in occupational structure of the workforce employed will outline this accumulation regime's participatory and distributive aspects. The last section (Section 2.6) summerises the discussion in the chapter.

2.1. Structure of Rural Accumulation in the Indian Economy (1970-71 to 2011-12)

According to the census 2011, 68.8 per cent of the population and 72.4 per cent of the workforce lives in rural India. The accumulation and development strategy of a country with a large population residing in rural areas should essentially prioritise rural accumulation and development to reap the benefit of the demographic dividend offered today. The rural economy contributes 47 per cent of the GDP of the country in the year 2011-12 (Aayog, 2017). The growth of the urban population (31.8%) between the census 2001 and 2011 was more than double of growth of rural population (12.18%) which is the result of a skewed accumulation strategy of industrialization and mass migration as classical political economy argued that adequate provision and growth in subsistence is a necessary condition for the sustained increase in population (Stirati A. , 2015). Therefore greater rate of accumulation in urban economy along with many other factors like better access to facilities of comfortable living are responsible for the higher growth in urban population.

United Nations population projections still project half of India's population will be rural by 2050. The golden opportunity offered to India will be missed if this large mass of rural population will not be enabled to be productive and innovative.

Rural economy is predominantly agrarian but there is a slow sectoral transition taking place in terms of employment and output of rural economy being diversified to non-agrarian sector as presented below in the Table 2.1.

Table 2. 1

Size of Rural Economy in total NDP and Workforce (in per cent)

Year	Economy	Workforce
1970-1971	62.4	84.1
1980-1981	58.9	80.8
1993-1994	54.3	77.8
1999-2000	48.1	76.1
2004-2005	48.1	74.6
2011-2012	46.9	70.9

Source: - Aayog, N.I.T.I.(2017) Changing structure of rural economy of India implications for employment and growth. *National Institution for Transforming India, Government of India.*

Table-2.1 presents the size of rural economy both in terms of output and employment. Rural India was contributing 62.4 per cent of NDP, employing 84.1 per cent of the workforce in the year 1970-71. There has been a sharp decline in the share in terms of NDP and workforce till 1999-00 to 48.1 percent and 76.1 percent respectively. Since 2000 this decline has slowed down and by 2011-12 share in NDP came to 46.9 and workforce came down to 70.9 per cent. A noteworthy point here is that the difference between output share and work-force share in the year 1970-1971 was 22 percentage points which increased to 28 percentage point in 1999-2000 and it shows an incommensurate decline in output and workforce share. This incommensurability was the result of capital-intensive urban biased accumulation strategies of the state.

After 2000, growth rate in rural economy also picked up and the output share stabilized at 48 per cent during 2000-2005. During 2005-2012, there is marginal decline in output share of rural economy. Even with the slow decline in output share of rural economy, the decline in workforce share has continued to fall which resulted in narrowing the gap between share of output and workforce to 24 percentage point with respect to the gap which was found to be 28 percentage point during 1999-00. In spite of narrowing gap between output share and workforce share it is evident that there has been period of jobless growth in the economy, which has not been able to create enough productive employment to keep up with the large mass of rural population.

Table 2. 2

Percentage share of rural areas in total NDP and workforce across different sectors

Sector	Agriculture		Manufacturing		Construction		Services		Non-Agri	
Year	NDP	EMP	NDP	EMP	NDP	EMP	NDP	EMP	NDP	EMP
1970-71	96.2	96.8	25.8	51.5	43.2	64.6	32.8	42.1	32.4	47.3
1980-81	94.9	95.9	31.8	48.1	45.6	58.8	34.0	41.7	35.0	44.9
1993-94	93.9	95.8	29.8	51.3	45.1	57.2	33.6	42.3	34.8	46.6
1999-00	93.2	96.6	41.6	51.5	43.3	57.6	27.1	40.7	31.8	45.8
2004-05	94.1	96.1	42.5	49.6	45.5	64.4	32.7	41.9	36.7	47.2
2011-12	95.1	95.9	51.3	47.4	48.7	74.6	25.9	39.6	35.3	48.7

Source: - Aayog, N. I. T. I. (2017). Changing structure of rural economy of India implications for employment and growth. *National Institution for Transforming India, Government of India.*

Table 2.2 presents the contribution of rural economy in the total output of each sector in the national economy. As agriculture is the primarily rural economic activity almost all the

output and employment are contributed by the rural economy during the four decades between 1970-2012.

In case of manufacturing output share of rural economy has doubled from 25.8 per cent in 1970-71 to 51.3 per cent but this increase has not led to any substantial increase in rural share of employment in manufacturing which indicate that rural manufacturing growth has been less employment elastic. This also points out that the hidden urbanization (Duijne, 2019) which qualify manufacturing as rural activity happening nearby towns and cities but not qualifying worker as rural in some way. Construction sector has initially witnessed not so promising growth in output share and falling employment share till 1999-2000 but afterwards it has picked up in terms of registering overall 5 percent increase in output share with 10 per cent increase in employment share. Construction is the single non-agri sector which has been able to absorb substantial proportion of rural workforce during high growth phase from 2004-05 to 2011-12 in the economy. Size of rural share of output and employment in services has experienced sustained decline as service sector growth largely have been capital intensive, urban biased, and skilled based job creation resulted in less creation of job for rural India. With the increasing rural share of output and employment in construction have occasioned little diversification in the economic profile of rural economy but simultaneous decline in employment share of rural economy in manufacturing and services has led it to be ineffective as rural share in total non-agri output and employment has not witnessed any substantial transition. Rural economy has just experienced a substantial jobless growth in the share of manufacturing output and expansion in low paid construction employment. Net effect of these changes has not led to any increase in the share non-agri employment with output share rising just meagerly just by 3 percentage point by 2011.

Almost whole output and employment of agriculture is contributed by rural area that's why agriculture is considered as prime sector of rural economy. Whereas contribution to the manufacturing output has increased from one fourth in 1970-71 to almost half of the total by 2011-12 but this increase in share of output has not led to any substantial increase in employment share of rural manufacturing. Construction sector has experienced almost 5 per cent increase in the share of output with 10 percent increase in the share of employment of rural area. Services has not experienced major change in the output and employment share of rural area during the period whereas service during the period has experienced highest growth in the national economy which basically means that service sector growth was largely urban biased and have not been able to absorb the surplus labour from rural economy.

In terms of share of sector's output (Table 2.3) in rural output has experienced substantial diversification as the share of agriculture in rural output has come down from 72.4 per cent to 39.2 percent with share of manufacturing, services and construction has increased from 17.1 percent, 5.9 percent and 3.5 percent to 27.0 percent, 18.4 per cent and 10.5 percent respectively during four decades of 1970-2012. Though these changes in share of the output indicates diversification but have not resulted in any substantial diversification in the employment share (Table-2.3) of rural economy.

With the 33-percentage point decline in the agrarian share of output in rural output employment share of agriculture in rural economy has just gone down by 23 percent during the four decades. This slow decline in employment share of agriculture with respect to decline in the share of output indicates still having large mass of dependent population in rural agrarian occupation because of not having enough opportunity and security of livelihood in non-farm economy. This decline in employment share has largely been absorbed by

construction sector in a big way share of which has increased from 1.4 to 10.7 per cent during 1970-2012.

Table 2. 3

Sectoral share in NDP and employment in rural areas: 1970 to 2012

(in Per cent)

Year	Agriculture	Manufacturing	Construction	Services
Share in Rural NDP (at current prices)				
1970-71	72.4	5.9	3.5	17.1
1980-81	64.4	9.2	4.1	20.6
1993-94	57.0	8.2	4.6	26.8
1999-00	51.4	11.1	5.6	28.6
2004-05	38.9	11.5	7.8	37.3
2011-12	39.2	18.4	10.5	27.0
Share in Rural Employment				
1970-71	85.5	5.3	1.4	7.3
1980-81	83.6	6.2	1.3	8.8
1993-94	78.4	7.0	2.4	11.4
1999-00	76.3	7.4	3.3	12.5
2004-05	72.6	8.1	4.9	13.9
2011-12	64.1	8.6	10.7	15.5

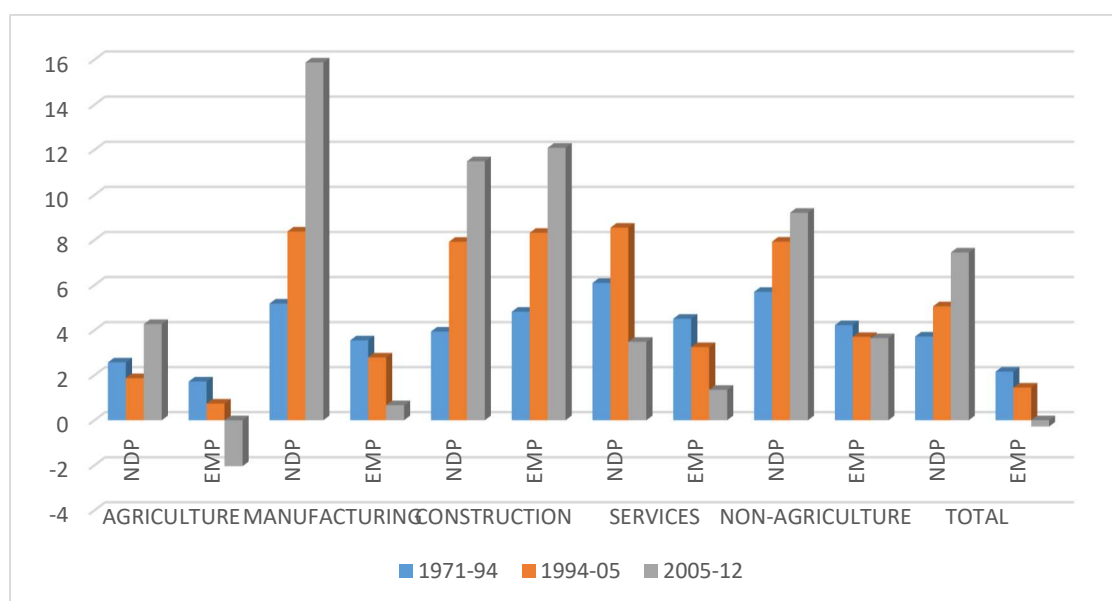
Source: Aayog N.I.T.I. (2017). Changing structure of rural economy of India implications for employment and growth. *National Institution for Transforming India, Government of India.*

Share of rural employment by services has also doubled but manufacturing which has experienced good growth during the period has not let to generate substantial employment for rural economy in this sector. Manufacturing employment share in rural economy has increased from 5.3 to 8.6 percent during the period in spite of high growth in output share of

manufacturing sector but growth in manufacturing employment has been slowing down substantially. Rural economy has experienced negative employment growth during period of high growth between 2005-2012. This diversification trend in the sectoral share of rural output has not been able to diversify the rural employment simultaneously. Rural accumulation strategy has been narrow-based employment inelastic during the decade and especially the high growth phase (2004-12) has excluded large mass of rural population.

Figure 2. 1

Trends in Growth rates of Rural Output and Employment



Source: - Aayog, N. I. T. I. (2017). Changing structure of rural economy of India implications for employment and growth. *National Institution for Transforming India, Government of India.*

Table 2. 4

***Growth rates in rural NDP (at 2004-05 prices) and rural employment
(in Per cent)***

Period	Agriculture	Manufacturing	Construction	Services	Non- agriculture	Total
Net Domestic Product (At Constant Prices 2004-05)						
1971-94	2.57	5.18	3.94	6.10	5.70	3.72
1994-05	1.87	8.38	7.92	8.55	7.93	5.06
2005-12	4.27	15.87	11.49	3.48	9.21	7.45
Employment (Usual Status)						
1971-94	1.72	3.55	4.82	4.51	4.22	2.16
1994-05	0.74	2.79	8.32	3.25	3.70	1.45
2005-12	-2.04	0.67	12.09	1.35	3.65	-0.28

Source:Aayog, N. I. T. I. (2017). Changing structure of rural economy of India implications for employment and growth. *National Institution for Transforming India, Government of India.*

To analyse the trend in the growth (Table 2.4 & Figure 2.1) in the rural economy across sector during four decades, three sub periods have been identified, first period is the pre-reform period of almost 20 years between 1971-1994, Second period as post reform period between 1994-2005 and finally 2005-12 is considered as high growth phase as it has witnessed high growth rate in rural economy almost surpassing the urban economy and equal to the growth rate of national economy. Almost two decade of pre-reform period (1971-94) has experienced 2.57 per cent annual growth in agriculture whereas non-agriculture annual growth also averaged to 5.70 per cent. Within Non-farm sector, services, manufacturing and construction grew with 6.10, 5.18 and 3.94 per cent per annum respectively. In the post reform period agriculture growth slowed down from 2.57 percent to 1.87 per cent and non-

farm growth in rural economy has increased 2 percentage point to reach at 7.93 per cent due to better growth performances of services, manufacturing and construction 8.55, 8.38 and 7.92 per cent respectively.

There is a puzzle regarding output growth without employment growth. Farm and non-farm both employment growth has been slowing down throughout the four decades. Except for the construction sector all sector has experienced jobless growth in output, which basically suggest that accumulation strategy of the state has largely been non-inclusive apart from growth in low paid construction job, no better opportunity has been offered by farm and non-farm sector for the large mass of rural population trapped into agrarian crisis.

2.2. Structure of Accumulation in Bihar Economy

For a long time since independence Bihar's performance in terms of growth as well as development, indicators have been very dismal. When Bihar and Jharkhand bifurcated in 2000, most of the natural wealth like mines and minerals along with important industries became part of Jharkhand. Bihar was left with the only major economy as agriculture as the plains of the Ganges are known for their fertile alluvial soil with enough water for irrigation. Unfortunately, the age-old problem of floods which is a major problem for agriculture as well as for the settlement of the population is still a major challenge to a large part of the agrarian economy of Bihar. The first five years between 2000 to 2005 were the year of restricting the newly craved state and organizing its resources to be able to sustain the large mass of the population, which was at the time of bifurcation almost 83 million (Census 2. , 2001) people.

The whole point of striving towards accumulation is to make this world materially comfortable for everyone on this planet. With its good and bad, this anthropocentric approach to existential economics of accumulation should largely be oriented toward the sustainable well-being of all. It is important to look at the large mass with which the erstwhile Bihar as a state is in existence.

As argued by many (Mukherji A, 2012) that this dynamism started during the mid-1990s and got halted after the bifurcation of Bihar and Jharkhand in 2000. Again by 2004-05 with the change in the government, it was claimed that with good governance (*Sushasan*) and government growth has picked up and since 2004-05 Bihar has moved to a high growth phase³ (Diwakar, 2020) .

The nature of the accumulation strategy of this high-growth phase is required to be diagnosed and analyzed through trends in growth, share and composition of growth and worker's share employed in different sectors of the economy.

Table-2.5 shows the yearly growth in the Gross State Domestic Product (GSDP) and Figure 2.2 shows the trend in the growth of in the economy of Bihar since the year 2000. Post bifurcation (Bihar Reorganization Act of 2000) Bihar has grown impressively throughout the period, though growth in GSDP (Gross Domestic Product) year-on-year basis has shown a series of fluctuations during 2000-2005. Every alternative year of double-digit growth has experienced negative growth of around 2 to 5 per cent. From 2006-07 onward output growth has always been positive but again alternating with high and low growth till 2009-10. Two

³ "After the formation of Jharkhand, the economy of Bihar witnessed an appreciably higher growth rate but this growth was not to the credit of the present regime of governance alone, rather it was a result of an increase in social justice outcomes on the counts of health and education (Das Gupta 2010). However, there was evidence that inequality in income distribution has also risen sharply." (Diwakar, 2020)

consecutive years of double-digit growth was the year 2010-11 and 2011-12, where the growth rate was 15 per cent and 10 per cent respectively. From the year 2012 to 13 growth moderated and remained largely at the one-digit level. The latest two the year 2018-19 and year 2019-20 have experienced 9 and 11 per cent growth rates in GSDP consecutively.

Table 2. 5

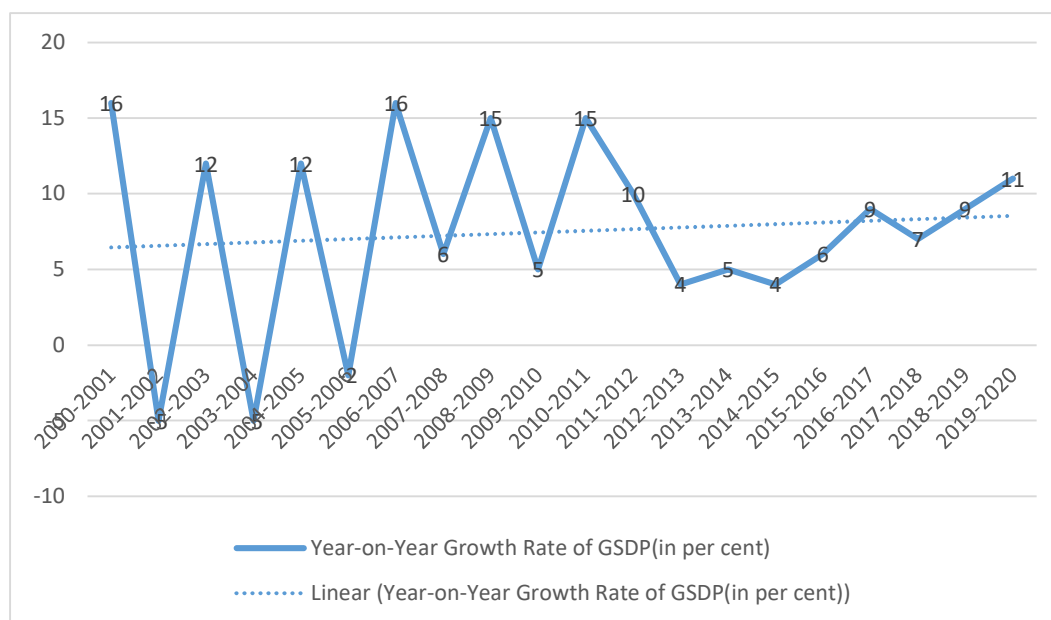
Annual Growth Rate

Year	2011-12 Back Series - GSDP (Constant Prices)
	BIHAR
	Year-on-Year Growth Rate of GSDP (in per cent)
2000-2001	16
2001-2002	-5
2002-2003	12
2003-2004	-5
2004-2005	12
2005-2006	-2
2006-2007	16
2007-2008	6
2008-2009	15
2009-2010	5
2010-2011	15
2011-2012	10
2012-2013	4
2013-2014	5
2014-2015	4
2015-2016	6
2016-2017	9
2017-2018	7
2018-2019	9
2019-2020	11

Source: Economic and Political Weekly Research Foundation (EPWRF)

Figure 2. 2

Year-on-Year Growth Rate of GSDP (in per cent)



Source: Table 2.5: Annual Growth Rate

To further diagnose this accumulation process in the state economy, the structure of the economy is presented in table 2.6 through shares in the different sectors of the economy. Growth in GSDP with the sectoral decomposition of growth for the period of 2004-2017 has been presented in table 2.6 along with growth in employment across sectors of the economy in table 2.6. Growth in the sectoral share of output and employment has followed the same periodizations (2004-2017) due to the frequency of availability of NSSO employment unemployment survey round data and recent periodic labour force survey (PLFS) data. GSDP data for sectors of the economy are on the base year 2011-2012.

Table 2. 6

Share of the Sectors of the Economy

Periods	2004-2011 (CAGR)	2011-2017 (CAGR)	2004-2017 (CAGR)
Agriculture and Allied activities	7.77	1.90	5.02
Construction	-9.02	4.90	-2.84
Manufacturing	6.91	10.36	8.49
Secondary	13.62	5.73	9.91
Services	9.48	8.64	9.09
GSDP	9.69	6.54	8.22

Source: Sabreen, M., & Behera, D. K. (2020). Changing Structure of Rural Employment in Bihar: Issues and Challenges. *The Indian Journal of Labour Economics*, 63(3), 833-845.

Table 2. 7

Growth in GSDP at 2011-12 Constant prices (Per cent)

Year	2004		2011		2017	
Sectors of the Economy	Percentage Share GSDP	Percentage of Workforce Employed	Percentage Share GSDP	Percentage of Workforce employed	Percentage Share GSDP	Percentage of Workforce employed
Agriculture and allied sector	29.2	72.7	25.8	61.7	20.2	43.9
Manufacturing	7.3	6.2	6.1	5.9	7.5	9.0
Construction	5.6	2.9	1.5	10.1	1.4	16.2
Secondary sector	14.7	9.3	18.8	16.1	18.0	25.4
Services Sector	56.2	18.0	55.5	22.3	62.3	30.8
Non-Farm Sector	70.9	27.4	74.3	38.4	80.3	56.2

Source: Sabreen, M., & Behera, D. K. (2020). Changing Structure of Rural Employment in Bihar: Issues and Challenges. *The Indian Journal of Labour Economics*, 63(3), 833-845

Table 2. 8

Growth in Employment (Per cent)

Period	2004-2011	2011-2017	2004-2017
Sector	CAGR Employment	CAGR Employment	CAGR Employment
Agriculture	-2.09	-5.66	-3.75
Manufacturing	-0.57	7.27	2.97
Construction	19.59	7.96	14.08
Secondary Sector	16.64	-1.17	8.05
Services	3.31	5.39	4.27
Non-Farm Sector	9.01	2.06	5.75
Total	0.23	-0.15	0.06

Source: Sabreen, M., & Behera, D. K. (2020). Changing Structure of Rural Employment in Bihar: Issues and Challenges. *The Indian Journal of Labour Economics*, 63(3), 833-845.

In terms of sectoral share (Table 2.7), the share of the agriculture sector in 2004 was 29.2 which came down to 20.2 per cent by 2017, with this fall in the share of output, the share of workers employed in agriculture came down from 72.7 per cent to 43.9 per cent which is a welcome change in terms of structural change as it is argued by many. The growth rate in GSDP from agriculture was 7.77 per cent with employment growth in agriculture being negative 2.09 per cent during 2004-2011, which again came down in the second period of 2011-2017 to 1.90 per cent and -5.66 per cent respectively. Overall, for the period of 2004-2017 agriculture output growth averaged 5.02 per cent with employment growth -3.75 per cent.

In terms of the secondary sector, the manufacturing share in total GSDP has fallen between 2004 to 2011 from 7.3 per cent to 6.1 per cent but by 2017 it has again resumed to 7.5 percent

of GSDP. Manufacturing employment share also slightly fell from 6.2 per cent to 5.9 per cent between 2004 to 2011. The manufacturing employment share has experienced an increase by 2017 and reached to 9 per cent share of the workforce employed. Growth in the manufacturing sector between 2004 to 2011 was 6.91 per cent whereas employment growth during this period was negative -0.57 per cent. In the next period of 2011-2017 manufacturing sector has experienced expansion both in output and employment substantially. From 2004 to 2017 growth in manufacturing has been optimistic and it has slightly contributed to employment growth still this growth in the manufacturing output and employment has been able to increase the share of workers employed from 5.9 per cent to 9 per cent between 2011-2017. Within the Secondary sector share of the construction sector in GSDP has fallen drastically from 5.6 in 2004 to 1.5 in 2011 but this fall in share was accompanied by a drastic increase in the share of the workforce employed from 2.9 per cent in 2004 to 10.1 in 2011. This drastic fall in output with an increase in the share of employment could be reasoned out through the national economic data as the construction sector expanded during this period. Most of these workers in construction could be migrant workers who have worked outside the state. Because throughout the period we see a fall in the share of construction output but employment seem to be expanding which is a sign of worker working in other states in construction are also counted in. Even the growth in output of construction has been reported as -9.02 per cent with a large share of workers almost 20 per cent of the economy.

Overall secondary sector expanding slowly (as the share in the GSDP has witnessed a dip in output and employment during 2004-2011 reporting negative 1.17 per cent employment growth).

The tertiary sector has experienced a small expansion as the share in output has grown to 62.3 per cent of GSDP in 2017 from 56.2 per cent in the year 2004. But the growth in output from the tertiary sector was stable between 8 to 9.5 per cent rate during 2004-20017 and employment growth averaged to 4.32 per cent $\{(3.31+5.39+4.27)/3\}$.

Table 2. 9

Growth in GSDP between 2000-2020 at a constant price of 2011-2012 (in per cent)

Periods	2000-2005 (CAGR)	2005-2010 (CAGR)	2010-2015 (CAGR)	2015-2020 (CAGR)	2000-2020 (CAGR)
Agriculture and Allied activities	-0.01	3.42	1.60	4.07	2.54
Construction	12.87	16.22	0.75	6.36	12.25
Manufacturing	0.80	8.84	9.96	7.75	6.97
Secondary	4.81	12.94	5.04	7.06	9.27
Services	4.48	8.19	5.07	7.06	7.41
GSDP	2.46	7.99	4.23	6.44	6.21

Source: Calculated from EPWRF data.

Table 2.9, considers a different periodisation for the output growth to analyse the accumulation structure and dynamics since the year 2000 in erstwhile Bihar. For the period of 2000 to 2020, the highest growth recorded in GSDP is 7.99 per cent between 2005-2010, which can be largely attributed to the high growth in the secondary and tertiary sectors being 12.94 and 8.19 per cent respectively. Within the Secondary sector, construction has recorded the highest growth of 16.22 per cent during the period 2005-2010. The overall primary sector which has recorded negative growth (-0.01 in 2000-05) in the previous period has also recovered well from 2005 to 2010 and registered 3.42 per cent growth. With the expansion in the output of secondary and tertiary sector, growth in employment was impressive 16.64 per cent and 9.01 per cent respectively during 2004-2011. Within the secondary sector

manufacturing even with 8.84 percent growth in output has registered negative -0.57 per cent growth in employment between 2004 to 2011. It was construction which has performed exceptionally well by absorbing both the worker coming out from agriculture as well as manufacturing recording negative growth in employment -2.09 per cent and -0.57 per cent respectively and registered 19.59 percent of employment growth during 2004-2011. With this 9.69 growth in total output (GSDP), employment has registered a very insignificant growth of 0.23 per cent during 2004-to 2011.

In terms of changes in the share of output (table 2.2.2) of agriculture including allied activity which is primarily a rural activity in Bihar, fallen by 3.4 percentage points and employment share has also fallen by 9.0 percentage points between year 2004 to 2011. Both output and employment share of agriculture in GSDP has further decreased by 5.6 percentage point and 17.8 percentage point and reached 43.9 percent and 20.2 percent respectively during 2011-2017.

Hence the growth in employment in the primary sector has been negative throughout. Looking at very insignificant or negative growth in total employment it can be safely said that either agriculture was losing out their share of workers or population growth has outpaced the opportunity created by secondary and primary sectors. Migration has a historical role to play in understanding the dynamics of the labor market, especially in the rural labour market in Bihar. Accounting for large migration population growth could not be the sufficient reason for the no growth in domestic employment opportunities in Bihar. The shifting of workers from agrarian occupations to non-farm occupations could not be explained as a simple transformation in occupations but as a complex multiplicity of

livelihood activities that could be understood as a livelihood strategy in response to the unfolding accumulation strategy at the state and national levels sponsored by the state.

Thinking in terms of Lewisian transformation as many have claimed it to be a welcome change. But the question remains about the nature and direction of this shifting of workers from agriculture to the secondary sector. Higher growth in output and employment in the construction sector indicates the movement of the worker from rural agrarian production to construction as manufacturing has a negative growth of employment. Other sub-sectors in the secondary sector have also experienced employment growth but the size of sectors like gas electricity and others are largely insignificant as well as this sector largely engages workers having a specific skill set so it is very unlikely that a large chunk of agrarian workers could shift to these sectors. Construction as a sector offers a very low wage which might be greater than the wage rate in agriculture but not sufficient enough to be considered life-transforming moreover working conditions in construction are far worse than in agriculture. Construction works are risky in any respect for the workers. Living conditions at the place of work in construction for the worker moving from the rural agrarian sector is pathetic in the temporary housing and slum kind of settlements. To work in construction workers have moved out of their homes and shifted to the location around the construction site which leads to an increase in the cost of living in terms of payments for rent and other utility services. Which siphoned off the difference of wage between agriculture and construction and the worker can just maintain the same living conditions and income that he/she was able to achieve being a rural agrarian worker. State-level accumulation process has managed to diversify the livelihood activity pattern of the rural worker which of course has an impact on agrarian wages and bargaining position of workers and earning subsistence. With this

improvement in rural wages and bargaining power of worker hardship and drudgery for securing livelihood is on the rise which complicates the whole idea of structural transformation for better or worse. In terms of real wages and working hours construction work could be a low-paid job than agrarian work if compared taking working hours and inflation into account. No doubt that the problem of limited opportunity and seasonality in agrarian work in rural economy has been overcome through this diversification of livelihood activity and continued expansion in the size of the non-farm sector in terms of share in GSDP.

Growth in the share of the output (Table 2.7) of the non-farm sector from 70 to 80 per cent from 2004 to 2017, was accompanied by a more than a doubling of worker share employed from 27.4 per cent in 2004 to 56.2 per cent in 2017. This rise in the share of workers employed in the non-farm sector can be attributed largely to both the rise in the share of the workforce employed in the secondary sector from 9.3 percent in 2004 to 25.4 by 2017 as well as the rise in the share of workers employed in tertiary sector from 18 percent to 30.8 percent by 2017. Within the secondary sector employment opportunity in the manufacturing sector has expanded very slowly with almost 3 percent from 2004-to 2017, whereas employment opportunity has in construction has grown faster by 14.09 percent. In the secondary sector with output growth construction has been able to generate employment in manufacturing.

The tertiary sector which has been the largest contributor to the output (GSDP) has grown consistently and averaged 4.27 percent CAGR increasing its share in output by 5.9 percentage points from 56.2 to 62.3 percent by 2017. This impressive performance of the tertiary sector has not been able to absorb enough share of the worker as it has grown merely by 12.8 percent in almost 13 years from 18.0 percent to 30.8 percent as this growth has not been effective in terms of overall employment growth in the Bihar economy.

Keeping the capital-intensive growth in the service sector and immiserizing growth in the construction sector the accumulation strategy at the state level has followed suit to jobless growth and non-inclusive growth path of the national economy just after a decade. Largely the service sector-driven growth has been responsible to exclude the large mass of Bihar benefiting from the recent growth process.

2.3 Regional Disparity, Poverty and Inequality

The nature of this new economic accumulation era in Bihar also needs to be examined in the context of the distributional outcome effectiveness in terms of different measures of inequality. A recently published report by Oxfam India titled ‘Mapping inequality in Bihar’ (Diwakar, 2020) has reported overall income inequality in terms of Gini-ratio calculated from NSS consumption expenditure data of three rounds 1993-94, 2004-05, and 2011-12 suggests increasing inequality in the distribution of calorie intake over the periods. But this increase in inequality has narrowed down the gap between urban and rural inequality as the rural Lorenz curve has marginally moved towards the line of perfect equality which indicates marginal moderation in rural inequality in Bihar. This improvement is also reflected in the percentage of the population below the poverty line as estimated with Tendulkar methodology was 54.4 percent of the population in 2004-05 which came down to 33.4 percent of the population by 2011-12. The new methodology of poverty measurement, the Rangarajan poverty estimate for 2011-12 has estimated 41.3 percent of the population below the poverty line. By Tendulkar’s methodology rural poverty has come down from 55.7 percent to 34.06 percent during 2004-05 to 2011-12 and urban poverty has also got reduced to 31.23 percent from 43.7 percent of the population during the period of 2004-05 to 2011-

12. But according to the Rangarajan methodology, urban poverty percentage has surpassed rural poverty as 50.8 percent of the urban population has been estimated below the poverty line in comparison to 40.1 percent of the population estimated below the poverty line in rural Bihar (NIRDPR).

The accumulation strategy adopted by the state has been also spatially biased towards a few districts of Bihar. The service sector and Secondary sector-led growth are largely located in a few districts in and around the capital city of Bihar which is Patna. As it can be seen that there are only four districts that could achieve state-level per capita income namely Patna being the capital city as a district it has a per capita income of almost 4 times the per capita income of the state-level per capita income. Other than Patna, Munger, Begusarai, Muzzafarpur, and Bhagalpur are the four districts that have per capita income above or equal to state-level per capita income. The tertiary sector which occupies the largest share of output and has experienced growth in the recent period is relatively small in size in most of the districts other than these four districts (Santra, 2014). Patna district itself produces 25 percent of GSDP and all other districts individually produce between 0 to 5 percentage shares of GSDP. Out of 38 districts, only 7 (Patna, Begusarai, Muzaffarpur, Bhagalpur, Madhubani, Gaya, West Champaran, East Champaran, and Samastipur) districts can produce more than 50 percent of GSDP across the period from 2004-05 to 2011-12. The measure of inter-district coefficient of variation exhibit a rising trend in inter-district inequality in per capita NDDP. Inter-district Gini-Coefficient estimated for Gross District Domestic Product (GDDP) for the year 2001 was 0.076 which rose to 0.095 by the year 2012, hence inequality in the distribution of GDDP among districts is on the rising. In terms of inter-district distribution of per-capita Net District Domestic Product (NDDP). 34 out of 38 districts are among the lowest per capita

NDDP. Even in terms of per capita NDDP across districts Gini-Coefficient estimated 0.112 for the year 2001 increased to 0.120 in the year 2012. This regional disparity which has been a consistent feature of the Bihar economy has been accentuated further in the phase of this new accumulation regime of high growth. As is highlighted above that the reason behind this enclaved growth in certain regions of the state because the growth strategy is largely skewed towards the secondary and tertiary sectors and urban-based, whereas many regions of the state are still is predominantly rural agrarian economies. Moreover, this phase of high growth has not been able to generate enough employment as data suggests (Table 2.5 and Figure 2.2) and the growth has been volatile and has not been able to generate sufficient credible livelihood alternatives for the large rural mass dependent on agriculture.

An IHD (Institute of Human Development) study on “The Challenges of Inclusive Development in Rural Bihar” (Gerry Rodgers, 2013) qualify the region of study as North-east region characterising with less advanced agriculture and high tenancy. Regional division running through north-south as a cultural context is cut across by west representing more advanced region than east as less advanced.

2.4 Accumulation Pattern at the Level of District economy

For the purpose of the study, village selected can be located in a regional economy context but there is dearth of data availability for the respective regions. Secondary data on the major parameters of accumulation as well as the labour process can only be found along with the administrative units of the state economy. Here District economy can be sufficiently understood as the subset of the regional economy. The Kosi region which has spread across Bihar and Nepal is a large landmass. In Bihar, Kosi region has spread over 7 districts Supaul,

Sahasrha, Madhepura, Purnea, Araria, Kishanganj and Katihar which was also considered as an administrative division of Bihar out of 8 administrative commissionaire division. Later this region got sub-divided in two part and a new division named Purnea division came into existence covering four districts namely Purnea, Katihar, Araria and Kishnaganj and Koshi region left with three District Madhepura, Saharsha and Supaul. Geography of these three districts is so continuous that Madhepura as district can be considered as an adequate representation of the regional.

The district economy considered as a prototype of the regional economy will be analyzed for the understanding of nature of reginal accumulation strategy. Madhepura as a district is predominantly an agrarian economy and one of the least performers in terms of growth during high growth phase. As the idea of this study is to understand the implication of this high growth phase in the state economy in terms of accumulation dynamics and labour process in context of a rural agrarian economy.

Table 2.10, presents Madhepura's 'Gross District Domestic Product' (GDDP) as share of 'Gross State Domestic Product' (GSDP) (both at constant price of 2011-2012) of Bihar as well growth in GDDP and GSDP of district and state respectively. In terms of share, size of the district economy seems to be shrinking very slowly in relation to size of the state economy. Growth of the district economy exhibit high volatility (see chart 2.3) than even state growth which itself is volatile. Year on year growth trend is similar except the year 2008-09 in which the growth in GDDP of Madhepura has been recorded -3.08 per cent with respect GSDP growth rate 14.54 per cent. This sudden dip in district level GDDP was caused by a heavy flood which has devastated the agrarian production as well as the production of the whole economy.

Table 2. 10

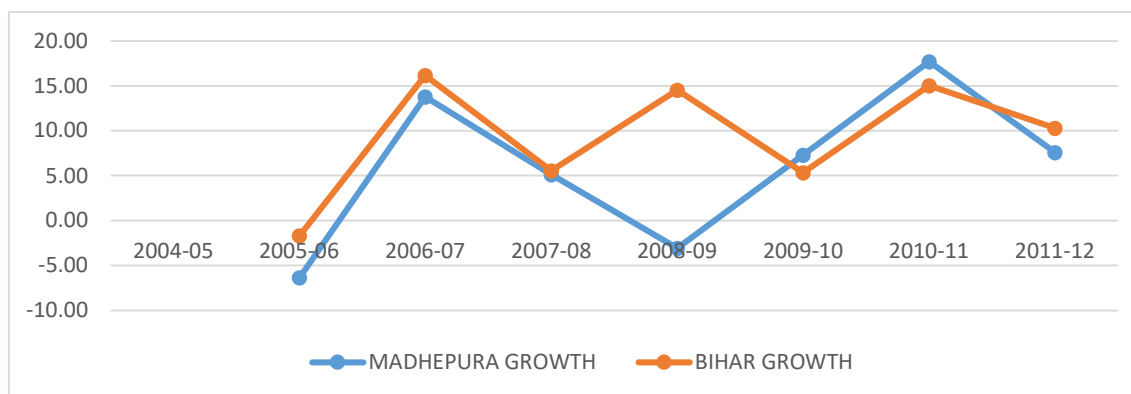
Growth in GDDP (at constant price of 2004-05) of district Madhepura and in GSDP of Bihar (In Per cent)

<i>Year</i>	<i>Madhepura (GDDP)</i>		<i>Bihar (GSDP)</i>
	<i>Share</i>	<i>Growth</i>	<i>Growth</i>
2004-05	1.37	--	--
2005-06	1.30	-6.36	-1.69
2006-07	1.27	13.77	16.18
2007-08	1.27	5.14	5.55
2008-09	1.07	-3.08	14.54
2009-10	1.09	7.31	5.35
2010-11	1.12	17.72	15.04
2011-12	1.09	7.60	10.29

Source: Directorate of Economics and Statistics Bihar

Figure 2. 3

Growth Trends in GDDP of Madhepura and GSDP of Bihar



Source: Directorate of Economics and Statistics Bihar

Table 2. 11

Sectoral Growth and Share of GDDP (In Per cent)

Year	Agri and allied		Industry		Services		GDDP
	Share	Growth	Share	Growth	Share	Growth	Growth
2004-05	63.69	--	9.01	--	27.30	--	--
2005-06	59.50	-10.44	10.56	12.41	29.93	5.09	-4.15
2006-07	60.01	12.31	10.81	13.93	29.18	8.56	11.36
2007-08	59.25	6.86	11.42	14.41	29.33	8.79	8.24

Source: Directorate of Economics and Statistics Bihar

As the data on sector wise ‘District domestic product’ (GDDP) is only available for the four-year period from 2004-05 to 2007-08. The table 2.11, presents the growth rate and respective share of output calculated from the data published in a publication on Gross District Domestic Product (GDDP) by Directorate of Economics and Statistics Bihar. The share of sector informs that agriculture and allied activities is still around 60 percent of output of the district economy. Therefore, growth process in the agriculture is larger determinant of the trend in growth at district economy, whereas accumulation strategy at state level economy is largely focused towards industry and services. This mismatch in the priority is leading to place Madhepura district economy at the rank of least performer in terms of growth with respect to state economy. As it can be observed that there is -10.44 percent growth during 2004-05 to 2005-06 which in effect leads to -4.5 percent negative growth in the district economy.

2.5. Accumulation and Participation at the Level of District Economy

As sectoral data on outputs at district level are not available for the longer period, similarly data on employment unemployment from NSSO at district level are insignificant for any analysis due to very small sample. In this case data from population census 2001 and 2011 could be useful to understand the respective impact of changes in output on employment pattern.

First of all, worker population ratio is presented in the table 2.12 below for the census year 2001 and 2011 and which shows that workers to population ratio which is work participation rate has fallen from 45 percent in 2001 to 38.84 percent by 2011.

Table 2. 12

Worker Participation Ratio at the District economy (In Per cent)

Census Year	Total/Rural/Urban	Total Worker			Non-Worker		
		WPR	WPR Males	WPR Females	Person	Males	Females
2001	Total	44.80	51.70	37.26	55.20	48.30	62.74
	Rural	45.53	52.08	38.40	54.47	47.92	61.60
	Urban	29.22	43.90	11.71	70.78	56.10	88.29
2011	Total	38.84	47.35	29.50	61.16	52.65	70.50
	Rural	39.26	47.48	30.24	60.74	52.52	69.76
	Urban	29.93	44.67	13.36	70.07	55.33	86.64

Source: District Census Handbook (DCH) 2001& 2011

This fall in work participation rate is largely due to fall in rural work participation rate from 45.53 percent in 2001 to 39.26 percentage in 2011, whereas the urban work participation rate is almost same. With the increasing population this fall in rural workforce participation rate signifies that the accumulation strategy at district level also has not been able to include the participation of rural worker during this phase. In terms of gender both urban male and female work participation rate has experienced a very small rise during the 10-year period. Which

could be considered being the index of expansion of economic activity at urban locations of district economy but it is not enough to compensate for the fall in the rural work participation rate leads to fall in the overall work participation rate largely in rural economy. The district level accumulation strategy has not been effectively able to translate to the rural economy and have been largely located in small urban enclaves of the district economy.

The change in work participation rate or growth in worker population ratio is being represented as growth in the total worker with its spatial and gender dimensions in the table 2.13. All category of worker has positive growth between 2001 and 2011. Growth in total worker is 13.68 percentage which is almost equal to the growth of rural worker which is 13.09 per cent over the period of ten years. But this growth in the total worker have nearly no impact of growth rate of urban worker which is relatively very high being 33.29 per cent. Similarly, growth in rural male worker and rural female worker are also very much near to the growth in rural worker and respective high growth in urban male worker and very high growth in the urban female worker could be said to be having low based as well as barely been able to compensate for population growth.

Table 2. 13

Growth in Worker's participation between Census 2001-2011 (In Per cent)

Census Year	Growth	Total Worker			Non-Worker		
		Person	Males	Females	Person	Males	Females
2001-2011	Total	13.68	20.36	3.56	45.28	43.24	46.99
	Rural	13.09	20.01	2.88	46.27	44.29	47.95
	Urban	33.29	28.79	53.45	28.86	24.79	31.94

Source: District Census Handbook (DCH) 2001& 2011

Even the counterfactual growth in the non-worker is higher than the growth in district's overall population with 31.12 percentage point, so it can be comfortably claimed that the expansion in the urban output have not been inclusive in terms of work participation. Spatial change in work participation with its gender dimension also suggest exclusive nature of accumulation except little improvement in urban female work participation during 2001-2010. Nature of accumulation is not suggesting any structural change being initiated during this ten-year period. Expansion in output alone without change in occupational structure of workforce cannot comprehend the change in the structure of economy.

Sectoral decomposition (table 2.14) of work participation allows further enquiry in the occupational structure of the economy. Changes (table 2.15) in the work participation rate can further be enquired with further decomposition of total worker into main worker and marginal worker subsequently into occupational categories of Cultivator, Agricultural worker, Household industry worker and other worker. According to census definition main worker are those workers who worked for at least six month and marginal worker are those who got the chance to work for 3 to 6 months in the last one year. Share of main male worker in total male worker has also gone down both in rural and urban area of the district economy. Share of main female worker out of total female worker has also fallen except in case of urban main female worker. Share of Marginal worker has risen substantially both in rural and urban economy and both for male and female worker except for urban female worker which has experienced a slight fall. Decomposition of share of total worker into main and marginal worker exhibit fall in the share main worker and rise in the share of marginal worker which can be termed as marginalization of worker exception being slight progress experienced in case of urban female worker.

Table 2. 14

Main and Marginal worker as share of Total Worker (In Per cent)

Census Year	Total/Rural /Urban	Main Workers			Marginal Worker		
		Person	Males	Females	Person	Males	Females
2001	Total	72.86	88.37	49.36	27.14	11.63	50.64
	Rural	72.58	88.37	49.27	27.42	11.63	50.73
	Urban	82.43	88.31	56.15	17.57	11.69	43.85
2011	Total	57.04	67.55	38.53	42.96	32.45	61.47
	Rural	56.21	66.76	38.05	43.79	33.24	61.95
	Urban	80.57	85.45	62.24	19.43	14.55	37.76

Source: District Census Handbook (DCH) 2001& 2011

Table 2. 15

Growth in Main worker and Marginal worker during 2001-2011 (In Per cent)

Census Year	Total /Rural / Urban	Main Workers			Marginal Worker		
		Person	Males	Females	Person	Males	Females
2001-2011	Total	-11.01	-8.00	-19.17	79.97	235.75	25.71
	Rural	-12.41	-9.34	-20.54	80.59	242.98	25.63
	Urban	30.27	24.61	70.10	47.46	60.33	32.12

Source: District Census Handbook (DCH) 2001& 2011

Even growth rate table for main and marginal worker also suggest that there is negative growth in main worker male and female in rural area and growth in main worker in urban area are positive but in effect the total growth rate in main worker, main worker male and female has been negative. Growth in urban main worker is not able to translate into positive growth in main worker.

Growth in rural male marginal worker is very high up to 242 percentage point which shows that in rural economy marginalization of male worker happened sharply as they diversify their occupations.

Having occupational structure-based classification of main worker and marginal worker will be able to further demystify this marginalization process. Table 2.16, below presenting occupational categories of main worker for both 2001 and 2011 census year. These shares are calculated on the basis of respective categories for example percentage share of rural female cultivator is the share calculated out of main rural female worker and respective categories of share will add to 100. Changes in the share represents the changes with respect to particular category of worker in the main worker.

Occupational structure through main worker category has not experienced any transformation through this high growth phase of the state economy. Percentage of cultivator as main worker category was 33.64 percent in 2001 has just fallen down to 30.61 per cent in last ten years. Similarly change in the share of agricultural worker, Household industry worker and other worker are insignificant, agricultural worker's share has fallen just by 0.56 percentage point and household industry worker has just risen by 0.10 percentage point. Share of category of other workers has risen by 3.47 percentage point.

Rural economy across the occupation has experienced squeezing of the activity but not in substantial proportion. Percentage share of cultivators in rural economy has gone down from 34.52 percent in 2001 to 31.61 per cent in 2010. Proportion of agriculture worker is almost unchanged for these ten years of period, house hold industry workers has also not seen any significant change. Only section of other worker has expanded which largely covers expansion in the government and private service work and there is expansion in the sector

but that expansion has not been adequate enough to alter the occupational structure or enforce a structural change in the rural economy. In urban economy share of cultivator reported to be on rise contrasting this the agriculture worker's share has gone down but male agricultural worker has increased slightly as there is little rise in urban male agricultural worker and very high rate of fall in the share of female agricultural worker in the urban economy. Urban household work has barely been able to maintained its share in 2010 similar to 2001 and all the expansion in the sector have not been able expand its scope of employment. Overall other worker category has not been able to be inclusive enough due to various reasons nevertheless it has seen little expansion in rural area as well as female participation has increased through this process.

Table 2. 16

Share of Main worker in different occupational categories (In Per cent)

Census Year	Total /Rural /Urban	Cultivators			Agricultural Workers			Household industry workers			Other workers		
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
2001	Total	33.64	37.16	24.09	54.40	48.35	70.82	1.73	1.73	1.72	10.23	12.76	3.37
	Rural	34.52	38.35	24.39	55.66	49.76	71.30	1.68	1.68	1.68	8.13	10.21	2.62
	Urban	7.67	8.10	4.61	17.22	14.02	39.72	3.06	2.89	4.22	72.06	74.99	51.45
2011	Total	30.61	33.82	20.66	53.86	50.34	64.73	1.83	1.52	2.78	13.70	14.31	11.83
	Rural	31.61	35.08	21.15	55.79	52.30	66.33	1.71	1.38	2.71	10.88	11.24	9.81
	Urban	10.69	11.60	6.00	15.69	15.57	16.28	4.13	3.99	4.88	69.49	68.84	72.84

Source: District Census Handbook (DCH) 2001& 2011

Table 2. 17

Growth in the Worker between 2001 to 2011 (In Per cent)

Census Year	Total /Rural/ Urban	Cultivator			Agricultural Worker			Household industry workers			Other workers		
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
2001-2011	Total	-19.04	-16.26	-30.66	-11.89	-4.21	-26.12	-5.68	-18.91	30.32	19.15	3.13	184.08
	Rural	-19.80	-17.08	-31.11	-12.21	-4.70	-26.08	-10.72	-25.30	27.76	17.20	-0.26	197.14
	Urban	81.75	78.55	121.28	18.69	38.41	-30.28	75.85	71.57	96.51	25.62	14.39	140.84

Source: District Census Handbook (DCH) 2001& 2011

As it can be also observed from Table 2.17, in terms of growth rate cultivator, agricultural worker as well as household industry worker have experienced negative growth over 10 years. Similarly for rural Main worker occupational category of cultivator, agricultural worker as well as household industry worker has negative growth over two census period 2001 and 2010. Growth in Urban cultivator is high because of having low base for example 121.28 percentage growth in the urban female cultivator represents increase from 94 urban female cultivator in 2001 to 208 urban female cultivator in 2011 in the district.

Further (Table 2.18), it can be also observed that in case of marginal worker, share of marginal cultivator has decreased substantially across rural and urban area as well as along gender specific category male and female cultivators. Share of marginal agricultural workers has increased in general except in case of urban male marginal agricultural worker. There is marginal increase in the share of marginal household industry worker in which rural share has increased slightly but urban share has experienced a fall. Male agricultural worker in marginal category located in urban area has increased but simultaneously share of urban female agricultural worker has fallen and in effect share of urban marginal agricultural worker has experienced a fall. In case rural area share of marginal agricultural worker has increased substantially. Agricultural worker being the major category of worker in rural area also exhibit marginalization in terms of employment frequency. In case of other worker also there is rise in the percentage share there is usual rise except urban are that too specifically in case of male workers.

Fall in the share of cultivator along with rise in agricultural worker offsetting the limited rise in other category of rural marginal worker could not be ascertained as any significant change in occupational structure of the rural economy except there is phenomenon of

more worker falling into the category of marginal worker in comparison to main worker and the time-period of employment opportunity is shrinking.

Table 2.19, on growth rates in different category of marginal workers exhibit that there is negative growth in the marginal cultivators which basically means that number of marginal cultivators has gone down in absolute number which is similar in case of rural marginal cultivators whereas urban marginal urban cultivators has seen rise in total as well as both in case male and female cultivators. In case of rural area only male marginal cultivator has shown growth and female marginal cultivator has exhibited negative growth in effect total cultivator growth is negative. Agriculture worker in the category of marginal worker has shown substantial growth both in case of rural and urban area as well as in case of male and female cultivator categories. Household industry worker and other workers in marginal worker shows very growth rate on very low base.

Table 2. 18

Share of Marginal Worker (In Per cent)

Census Year	Total/ Rural/ Urban	Cultivators			Agricultural Workers			Household industry workers			Other workers		
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
2001	Total	32.25	25.34	34.65	61.38	62.02	61.16	1.90	1.89	1.90	4.48	10.76	2.29
	Rural	32.64	25.93	34.91	61.90	63.96	61.21	1.76	1.76	1.76	3.70	8.34	2.13
	Urban	11.81	10.80	13.01	33.96	14.86	56.76	9.09	4.85	14.14	45.14	69.49	16.09
2011	Total	16.49	16.25	16.71	73.40	71.71	74.97	2.46	2.09	2.81	7.65	9.95	5.51
	Rural	16.57	16.37	16.76	74.06	72.59	75.42	2.39	1.99	2.75	6.98	9.04	5.07
	Urban	10.92	9.79	12.56	31.16	25.86	38.82	7.35	7.10	7.71	50.57	57.25	40.91

Source: District Census Handbook (DCH) 2001& 2011

Table 2. 19

Growth rates between census 2001 and 2010 (In Per cent)

Census Year		Cultivators			Agricultural Workers			Household industry workers			Other workers		
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
2001-2011	Total	-7.99	115.30	-39.39	115.21	288.22	54.11	133.73	272.46	85.83	207.46	210.50	202.47
	Rural	-8.30	116.50	-39.68	116.05	289.27	54.80	145.05	288.05	96.53	240.71	271.76	199.52
	Urban	36.41	45.37	27.54	35.27	179.08	-9.63	19.24	134.78	-28.00	65.21	32.07	235.94

Source: District Census Handbook (DCH) 2001& 2011

2.6. Summary and Discussion

This chapter explores the recent growth during 2000 to 2015; in Bihar economy, from the standpoint of rural agrarian economy located in northeast region of Bihar. First section of the chapter explores the broader structure of rural accumulation at the level of national economy. Continuous fall in the share of rural economy in the total output coupled with large mass of population dependent on rural agrarian economy identify the accumulation regime as less inclusive

Second section of the chapter further looks in the structure of accumulation in the state economy and identifies this as an accumulation regime biased towards the urban economy and jobless growth in the tertiary sector at national, state as well as district economy.

In section three, indicators of regional disparity, poverty and inequality further shows the spatial bias as well as distributional bias. Section four, analyse the accumulation pattern in the district economy given the limitation of data availability. Section five analysing the changes in the composition of workforce between census 2001 and census 2011, examine the workforce participation qualifying participatory nature of this accumulation regime. Marginalization of the workforce with employment uncertainty are the two key features of this regime.

Overall, Manufacturing growth has been sluggish and construction presents an immiserising growth picture. Narrow-based structure of accumulation is very exclusive to a few highly skilled occupational categories. Regional disparity in the state economy is acute, only urbanized economies benefitted through the present regime of accumulation and high growth since 2000. Growth in output is incommensurable with negative growth in employment, which basically means very low employment elasticity of this growth

process. In terms of participation, the nature of identified accumulation regime could not be considered as structural transformation as such.

Chapter 3

The Structure of the Agrarian Economy

3.0. Introduction

This chapter briefly describes the study region, locating the study village in a historically well-identified region in Bihar. A broad overview of agrarian structure through the colonial period to the present; highlights the features of commercialization in regional agriculture. Land-use patterns, irrigation, cropping patterns, and ecology are the important structural specifics of the rural agrarian economy. This chapter presents the structural specificity of a rural-agrarian economy located in Bihar.

“Every village in fact generates a class structure and a pattern of their interrelations depending upon the distribution of the population among the different sub-classes, the nature of the ruling class and structure of exchange relations. The changes in the form of commerce are reflected in the demand and supply patterns of outputs that emerges within the village and with the outside markets.” (Bhardwaj, 1994)

Section first of the chapter will introduce and locate the study region. A broad historical overview of the structural evolution will be presented to identify the nature of the commercialisation in regional agriculture in the second section. As the primary feature of the region is agriculture, land use, irrigation infrastructure, cropping pattern, and ecology will be discussed in the subsequent third, fourth, and fifth section of the chapter.

3.1 The Study Region

The study village is located in the Madhepura district of the Kosi division in Bihar. Kosi Division is one of the nine administrative divisions of Bihar comprising three districts namely, Saharsha, Madhepura, and Supaul. Kosi Division was formed on 2nd October 1972 as one of the 9 divisions of Bihar, comprising one of the oldest districts Saharsha as headquarters, and Purnea and Katihar. Subsequently, the Kosi division was further subdivided into Kosi and Purnea Divisions in 1990, representing another sub-region of the Kosi region, also known as the Kosi-Seemanchal region. Hence, the present Kosi region is just three districts Saharsha, Madhepura, and Supaul. Madhepura as a district was created in 1981 and Supaul was granted district status in 1991. Previously both Madhepura and Supaul were part of the old Saharsha District.

The district of study village, Madhepura is situated in the north-eastern part of the state in the plains of river Kosi between 25°34' and 26°07' North latitude and 86°19' and 87°07' East longitude at the altitude of 44.63 m. The district is bordered by Supaul and part of the Araria districts in the north, Saharsa and Khagaria districts in the west, Bhagalpur district in the south, and Purnia and Araria districts in the east. With a geographical area of 1788 square kilometres and a population of 20, 01,762 (Census, 2011) the district is having a population density of 1120 persons per square kilometre.

Madhepura lies under the Kosi flood plain sloped from north to south. The Kosi project began in 1959 with the objectives of flood control and irrigation management as well as hydropower generation (Mishra, The Kosi and the Embankment Story, 2008). A barrage at Bhimnagar an afflux bund and construction of embankments downstream of the barrage on both sides with eastern and western canal systems as well hydroelectric power station on the eastern canal was constructed by the year 1963. The tributaries of river Kosi enter the district from the northern district Supaul through Singheshwar and Kumarkhand

while passing Murliganj (the sub-district of the study village) gets divided into two parts before entering into the boundary of Saharsha and Bhagalpur district. For a long time, the Kosi flood had impacted the fertility of the soil in the large area of the district. After the construction of barrage and embankments on Kosi, this flood-prone infertile land again regained its fertility and was brought under cultivation. The depth of these tributaries of Kosi is not enough for the large-scale transportation facility but small boats are being used on a limited scale for travelling to villages located on both sides of the bank.

The district is well-connected to the rail and road networks. National highways NH-106 and NH-107 pass through the district. NH-106 connects the district from Bihapur (Bhagalpur) to the Nepal border in the Supaul district and NH-107 connects to Purnea and Maheshkhunt. The north-eastern railway network in the district is connected to the capital city; Patna through a broad-gauge line. Two of the major railway station in the district are Madhepura and Murliganj. In terms of urban centres other than district headquarter Madhepura only Murliganj which is a sub-district headquarters for identified study village.

Administratively, the District is divided into two sub-division namely Madhepura and Udakishunganj. The Madhepura district is organised into 13 sub-districts also known as community development blocks. The village under study is located in the Murliganj sub-district of Madhepura. Murliganj is a small-town having railway network through a broad-gauge line connecting to Katihar and Saharsha which ultimately connects to the capital city; Patna. National Highway 107 passes through Murliganj, which is located at a distance of 18 km from the study village and connected to the village by a rural road.

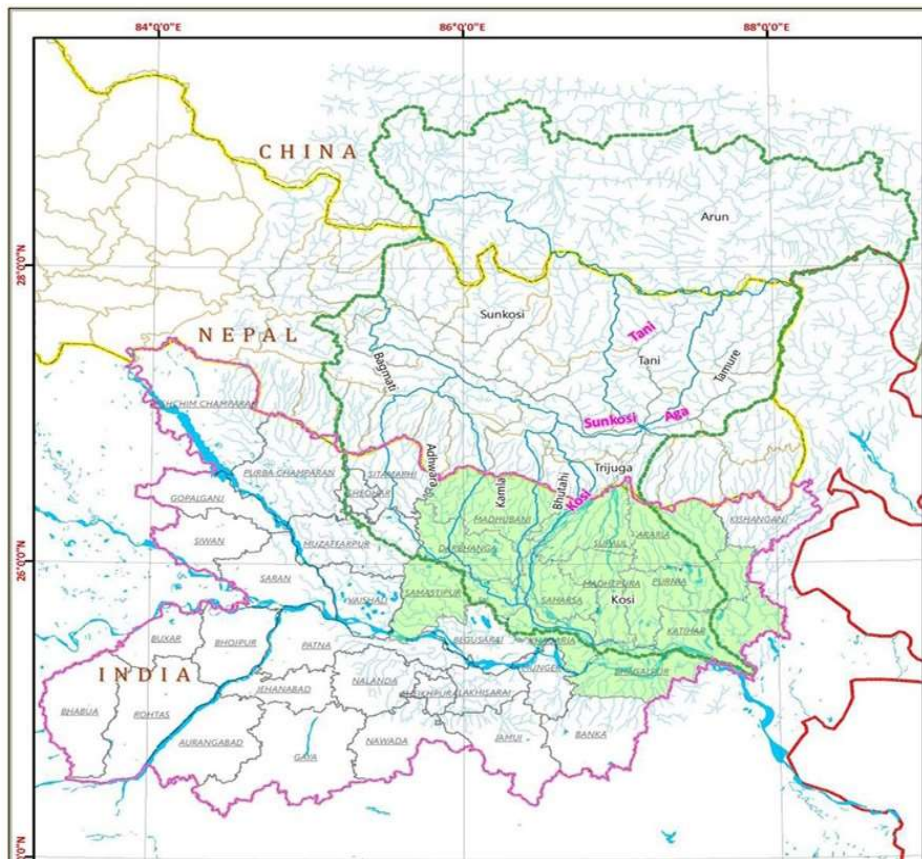
Study Village 'Sakhua' is located in Dinapatti Sakhua panchayat at an 18 km distance from sub-district Murliganj in Madhepura district of Bihar. Madhepura district comes

under the Kosi division, which belongs to the Agro-Climatic Zone-II, Northern East alluvial plain of Kosi River (see Figure 1.1). According to the census of 2011, the total area of the village is 209 hectares and the total population is 1851 comprising 429 households, while surveying the village researcher could locate the population as 1417 residing in 242 households within the boundary of revenue village Sakhua. Out of the total village area of 209 hectares, 195.6 hectares are used for cultivation as 'Net sown area' rest of 13.4 hectares is non-agricultural land including the village settlement area. Almost half of the net-sown area (100 hectares) is irrigated land, half of which (50 hectares) is irrigated by canal irrigation and another half (50 hectares) by well and tube well, the rest of 95.6 hectares of land is unirrigated land. The major crop grown in the Kharif season is paddy and Rabi season is wheat, and maize is the common crop grown in both seasons. Apart from these major crops few vegetables and bananas are also grown in a very limited area.

The village settlement pattern could be depicted visually in a snapshot of a google map Satellite view (Figure 3.3). The village has as spread over a 2.9 square kilometres area. This 2.9 square kilometres area has a tributary of Kosi flowing through the southeast corner and a canal from north to south.

Figure 3. 1

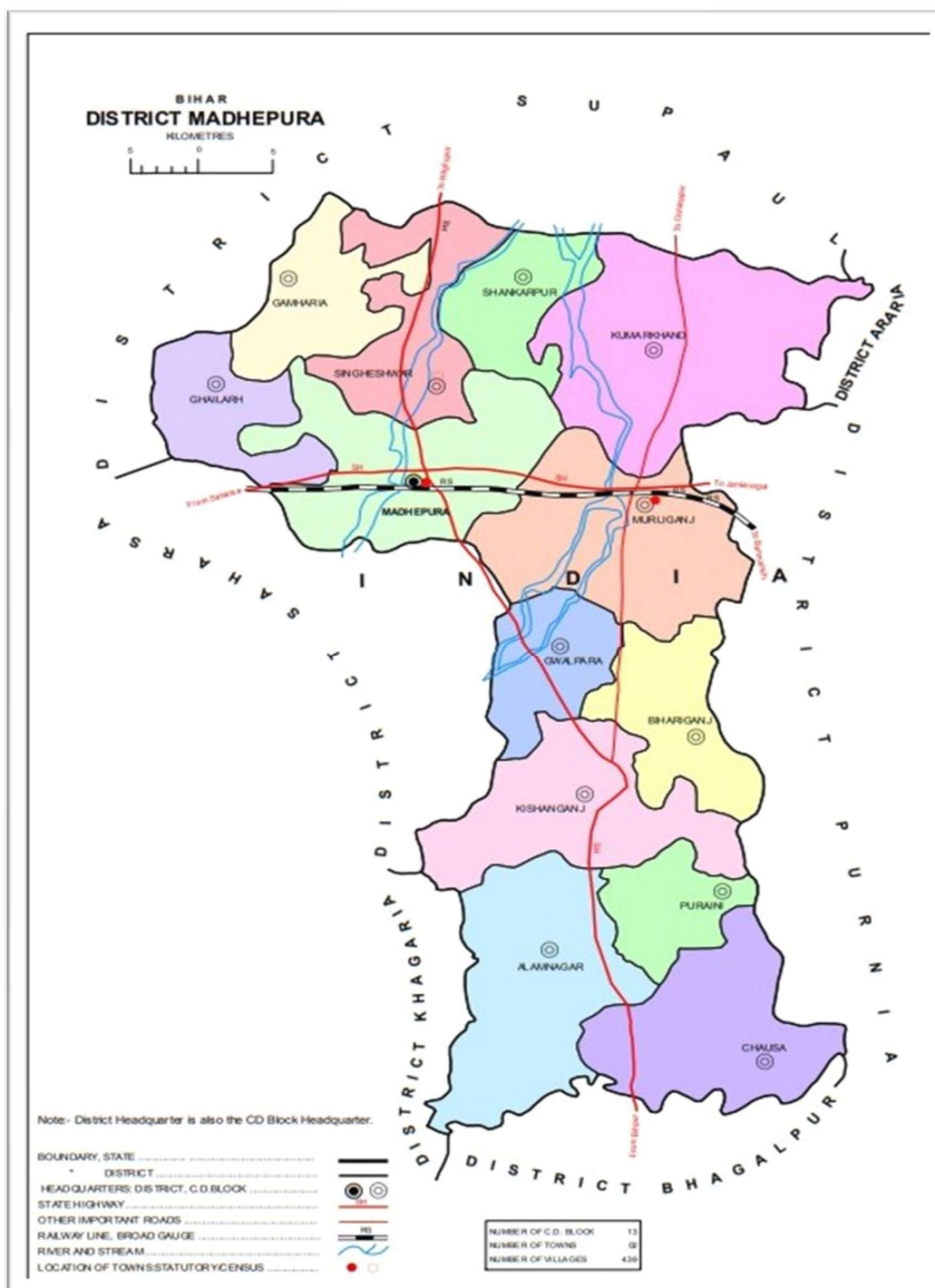
Koshi Region highlighted in the map



Source:Maps of India Website

Figure 3. 2

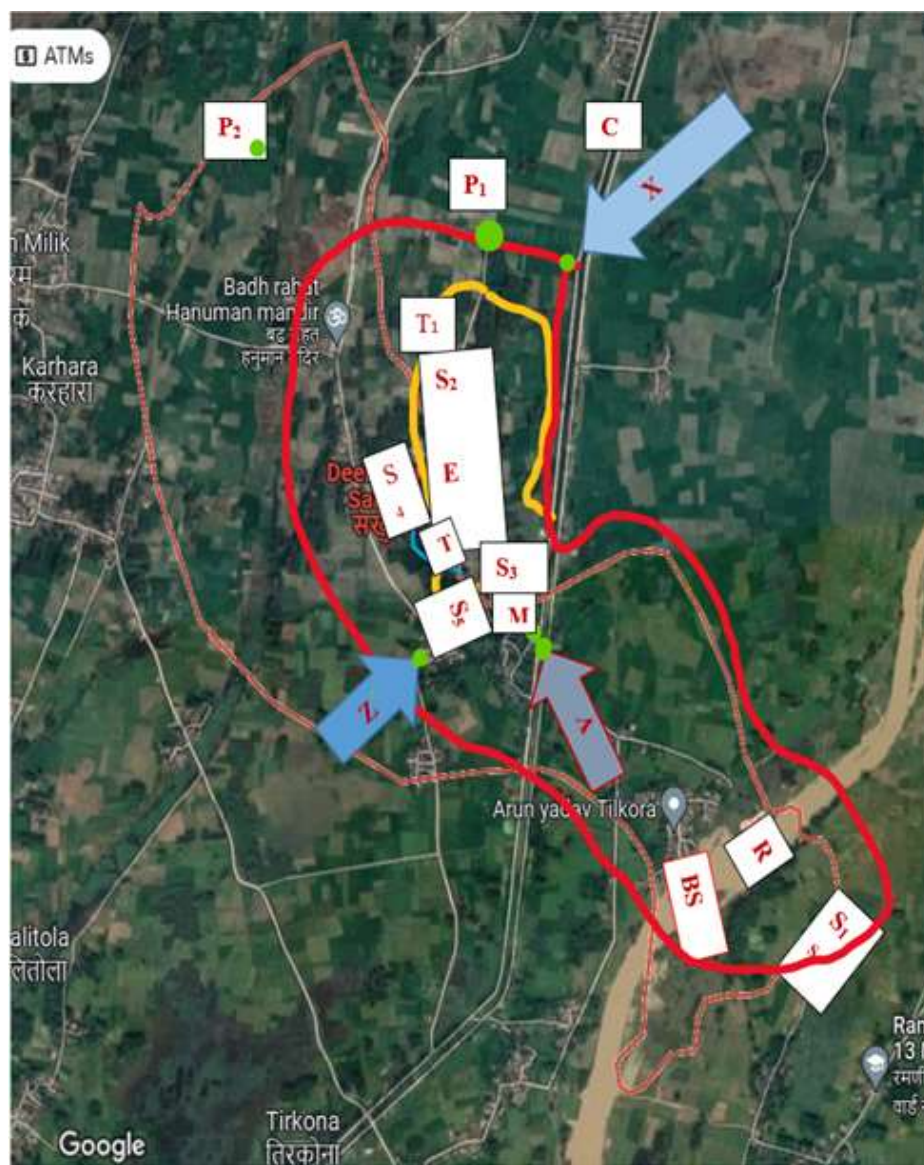
Map of Madhepura District



Source: Maps of India Website

Figure 3. 3

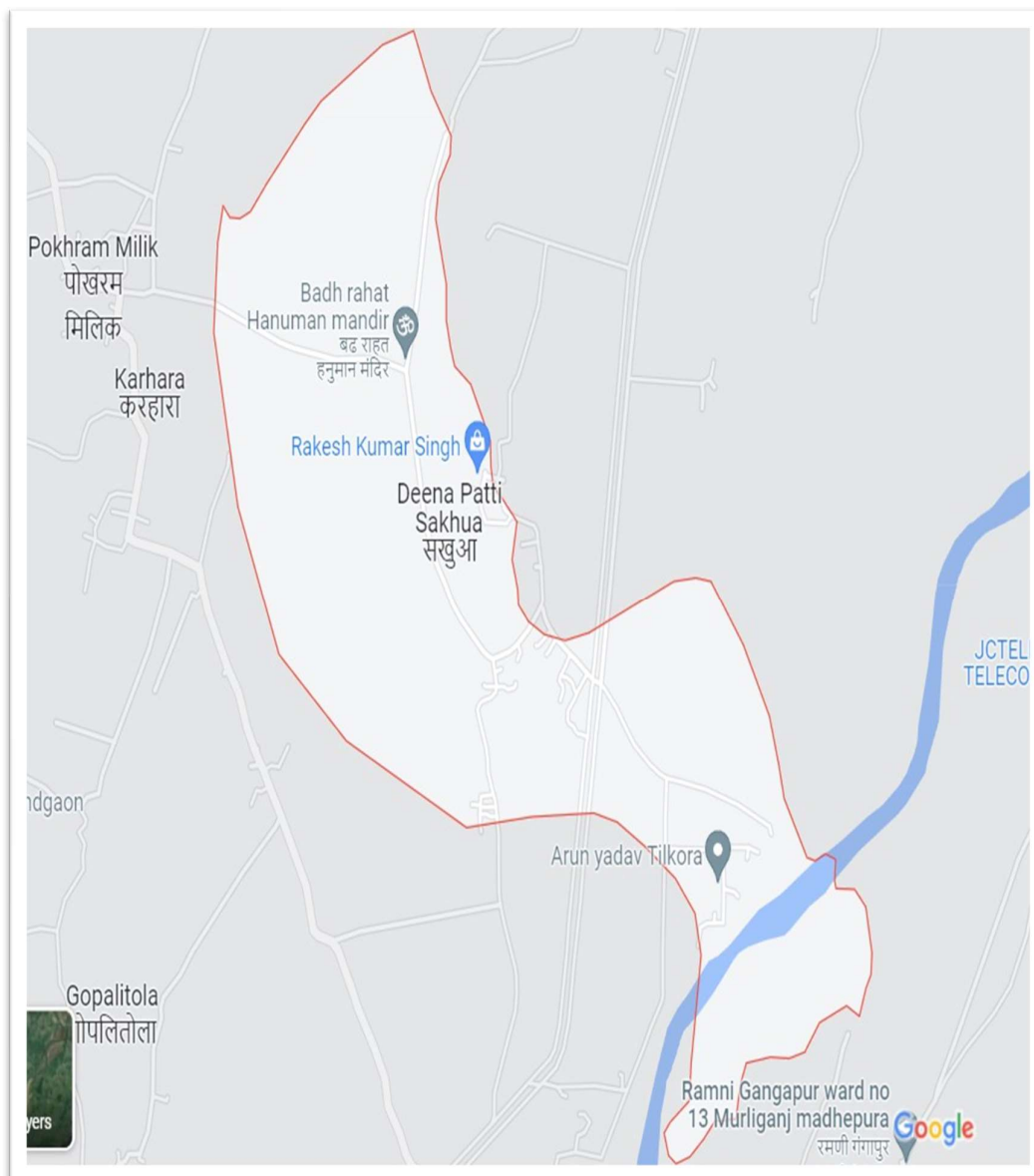
Map of Sakhua Village



Source: Google Maps

Figure 3. 4

Sakhua Village Map



Source: Google Maps

Village Settlement Pattern

The village settlement pattern is explained here through a google map (Figure 3.3 & Figure 3.4) snapshot. There are two perimeters drawn along the village: P₁ & P₂; P₁ is a perceptual understanding of village location by the villager. Historically, settlements have evolved out of continuous complex struggles between humans and nature as labour processes⁴, so, the administrative boundary of the revenue village Sakhua: P₂ is precipitously irrelevant.

⁴ *“Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material re-actions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature’s productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway. We are not now dealing with those primitive instinctive forms of labour that remind us of the mere animal. An immeasurable interval of time separates the state of things in which a man brings his labour-power to market for sale as a commodity, from that state in which human labour was still in its first instinctive stage. We pre-suppose labour in a form that stamps it as exclusively human. A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement. He not only effects a change of form in the material on which he works, but he also realises a purpose of his own that gives the law to his modus operandi, and to which he must subordinate his will. And this subordination is no mere momentary act. Besides the exertion of the bodily organs, the process demands that, during the whole operation, the workman’s will be steadily in consonance with his purpose. This means close attention. The less he is attracted by the nature of the work, and the mode in which it is carried on, and the less, therefore, he enjoys it as something which gives play to his bodily and mental powers, the more close his attention is forced to be.” (Marx, 1887)*

The village has spread over the length of north to east and breadth of northeast to southwest. Settlements marked on the village map are as follows:

- X:** Points to the junction of northmost entrance of the village frequently used by the residents of **S₂** settlement to enter from the west bank of the canal '**C**' passing north to east.
- Y:** Points to the small crossbridge over canal '**C**' beside which a small village weekly market place marked by '**M**' with few permanent paan shop, tea and snacks shop and barber shop is located.
- S₁:** The Scheduled caste social group (*Musahar*) hamlet at the farthest corner of the village on the other side of the river '**R**'.
- S₂:** A Rajput caste hamlet of high-density housing.
- T₁:** A private temple managed by an ex-teacher
- T:** Village temple.
- E:** A school for primary to class eighth education.
- S₅:** A settlement of BC and SC households, a kind of remnant of '*Jajmaani*' settlement of service caste group.
- S₃ and S₄:** Settlements of backward caste mostly Yadav and Baniya, engaged in tenancy cultivation or marketing.
- C:** Canal passing through village
- R:** Riverine of Kosi passing through the eastern boundary of village.
- BS:** Bamboo scaffolding to cross the river.

Village settlements can be depicted as the quality of land and class caste of the household.

Village could be found to be organized in three tolas (hemlets). A large part of the settlement is located on the west side of the Canal (C). Another small *tola* (hamlet) is on the east side of the Canal, between the Canal and the riverine of Kosi. On another side of

Kosi River, there is a hamlet of the *Mushahar*, scheduled caste population. Large part of underprivileged social group households is settled in flood-prone low land.

There are three-pointer arrows in figure 3.4; namely X, Y and Z which show the three pathways connecting settlements S1, S2, S3, S4 and S5. These settlements qualify the spatial feature of hamlets of different sizes and compositions. As it was indicated that settlement S1 located at the northeast end of the village is on the bank of river R. Settlement S1 connects to all-other settlements through a bamboo scaffolding BS over river R. There is another connecting long route via pakka road and a bridge used by heavy vehicles. Few private boats are also used for fishing and sand quarrying. S1 is largely an SC settlement having access to all-weather roads. Settlement S2, S3, S4 and S5 are located at the west of canal C. Due to canal C these settlements were less affected from the flood in the year 2008. River R is a branch Koshi river.

In the year 2014-15, entry point X was connected to a bund of the canal, which was 1 km kutchha pathway to pakka road at the Vrindaban chowak where another small bridge crossing the canal C. Pointer Y points to the small bridge crossing the canal C inside village. Z is another pathway through village. All roads inside village were Kutchha except a stretch of brick road passing through settlement S2 and S4 via S5. S2 is primarily caste Rajput settlement with lot of pucca houses. S3 and S4 are largely BC settlement whereas S5 is the mixed patch of settlement of SC and BC social group households. Other than S2 most other settlements are largely having unfurnished pucca houses with tin roofs, as tin as material for roofing was distributed during the flood of 2008. A large part of SC households was having poor housing and living conditions. The prime source of drinking water is hand-pump except for a few well-to-do households with electric pumps for the tap water facility.

3.2 Historical Overview

Geographically Bihar is divided into two parts by the river Ganga flowing from west to east namely North Bihar and South Bihar representing a specific cultural context. In ancient time, Madhepura was part of Anga Janapada/Apana Janapada of Angittarap. For a longer time Magadha remained integral part of Anga but later during the period of king Bimbisar, Anga became part of Magadha as a large imperial power which formed part of Nandas, Mauryas and Guptas kingdoms in later phase. During the Mauryan period Madhepura was on the border of Mauryan empire and was being governed by the Antadhyaksha appointed by King Ashoka according to his policy of protecting the people around the border of empire. The broader regional continuity can be found throughout north Bihar in the Gupta period as a province, known as *Tirhut* (Tirabhukti) having bordered by three rivers *Kausikī* (Kosi) in the east, *the Ganges* in the south, the *Sadānīrā* (the Gandak or the Rāpti) in the west, located at the foothills of the Himalayas in the north. The region has a glorious ancient history of knowledge and prosperity. In the medieval period, the region was more pronouncedly known as Mithila under the rule of Darbhanga Raj. Throughout the Mughal period, the region was organised as many estates and Zamindari. For a long period, a large part of the Mithila region known as the Kosi region located in the northeastern region of Bihar was known for the forest. During the colonial period of the British, this region was known as the best hunting destination in Bengal presidency. The deforestation carried out during the 19th century for the expansion of agriculture has changed the landscape (Jha H. , 2019). The name of the study village ‘Sakhua’ is also derived from the name of the ‘Sal’ tree and according to the villager’s account, the village is located at the place of a forest of Sal trees that’s why the name Sakhua. If we go by the history of the village settlement most of the village in this region initially was the landownership invested in a ‘*Math*’ (adobe of Sadhu). Darbhanga Raj

used to bestow the zamindari to these *Math* to inhabit these forest areas with new village settlements. The study village also came up with a *Math* system. These *Maths*, were initially used to distribute land for cultivation and settlement among their *Rayots* as tenants. Later on, many local zamindaris came up out of these *Maths*. Towards the end of the 19th century lot of settlements came up and forest areas were cleared in more than

Historically rural communities across India are considered economically backward. This backwardness manifests largely in terms of deprivation and discrimination. An objective framework of distribution of power and ownership is a far-sighted goal or a distant dream. The only tool which is operating as a power structure is political mobilization across the spectrum of class and caste frameworks.

Colonial powers have penetrated the rural communities through land and rent legislation. The rural hierarchy was not only along with land ownership but along other social divisions like caste and gender. Probably colonials were more interested in economic gains than humanitarian gains. Most of the colonial policies in the memory of literature of rural communities in India are largely perceived as exploitative though multiplying the distributions of the power structure. Rural communities in Bihar have suffered a crisis another way around. The rural communities in Bihar have experienced a virtual transition of power from the upper to the middle class but by 2014 upper class started reconsolidation. Restructuring of rural communities has come to a full circle in Bihar. Where the circle starts from the disinterested landed agrarian class considering any other occupation as superior to farming clings to majorly a marginal or small land holding considering it as a single-most private entitlement.

Post-Independence first structural or organizational intervention as land reform in the agrarian production economy has the potential to alter the economic hierarchy of rural

communities. The politics of land reform got complicated as the ownership structure has been. Land relations and ownership structures in rural communities have a very localized social structure. Caste-hierarchical and class-neutral politics of land reform via economic 'size and productivity' ended up with a very skewed welfare outcome. Caste hierarchy is evident in the ownership structure across Bihar, class neutrality is a phenomenon that is being whitewashed by the market through a trickle-down approach. In a sense, caste hierarchy is evil, and class-based democratic politics could be the way forward is a privileged notion of politics across Bihar.

Visualizing the regional continuity (Jha S. , 2012) of north-east Bihar is characterised as the least urbanized region (Singh, 2017) with relatively less advanced agrarian production along with high practices of tenancy (Gerry Rodgers, 2013).

3.3. Ecology

The study region is identified as 'Eastern Plain, Hot Subhumid (moist) Ecological-sub region (13.1) according to the Indian council of agricultural research (ICAR). The planning commission locates the district in 'Middle Gangatic Plain Region (IV) and the National Agricultural Research Project (NARP) classifies the district as North East Alluvial Plain Zone (BI-2). The regional agricultural research station is located at Agwanpur, in the neighbouring district Saharsha. Agromet Field Unit (AMFU, IMD) for agro advisories in the zone is M.B Agriculture College, Agwanpur, Saharsha and a Krishi Vigyan Kendra (KVK) is located at district headquarter (Agriculture Contingency plan for District Madhepura, 2013)

The climate of the district can be described as a mean condition of the climate of the rest of Bihar and Bengal. Madhepura experiences earlier heavy rainfall due to moisture-laden

breezes from West Bengal. The climate year is divided into three seasons namely, the winter season, the summer season and the season of monsoon rains. The winter season begins at the late end of October and continues till the beginning of April month in the year. The temperature starts falling from October onwards till January. From January onwards temperature slowly rises. The direction of wind during winter is normally west to east due to the pressure distribution and trends of the Himalayas. Average temperature during winter lies between 13.8-27.6 degree Celsius with mean temperature 20.7 degree Celsius and normal rainfall during winter (Jan-Feb) is 21 mm. The season of monsoon rain begins from mid of June with the outburst of south-west monsoon and ends by September. As per the data available average annual rainfall is 812.8 mm and district receive almost 80 percent of total rainfall during June to September due to change of direction impressed upon the monsoon current by Himalyan range. During the south-west monsoon (June-Sept) average normal rainfall recoded as 1146 mm whereas northwest monsoon (Oct-Dec) as a cessation period record normal rainfall of 100 mm. The average number of rainy days in the district is 54.53. Weather conditions in the rainy season becomes hot and humid as the temperature ranges from 24 to 33.1 degree Celsius with average temperature 28.4 degree Celsius. Summer season records a temperature range 19.3 to 36.1 degree Celsius with a mean temperature of 27.6 degree Celsius.

Table 3. 1

Soil Profile of District Madhepura

Major Soils	Area ('000 ha)	Percent (%) of Total
Sandy Soil	46.099	26.38
Coarse Sandy Loam Soils	70.391	40.28
Fine Sandy Loam Soils	56.484	32.32
Saline/ Calcareous Soils	1.782	1.02

Source:Agriculture Contingency plan for District Madhepura, 2013

The soil of the region constitute large part of inland deltaic deposits of huge granular silt-sand grade with clay transported at the rate of 25 MCM per year by the river Kosi. The soils association of non-calcareous, non-saline is overlying the entire area, mostly high to medium textured, acidic to neutral and generally yellowish to white to light grey in colour (District Irrigation Plan Madhepura 2016-2020, 2016).

3.4. Demography

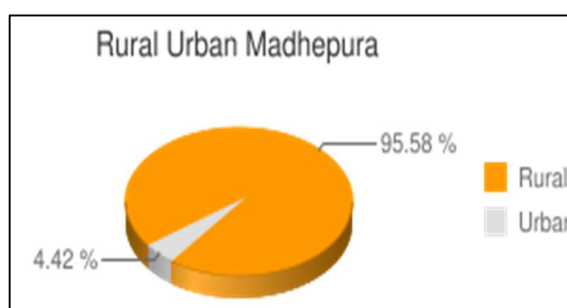
Madhepura ranks 26th position among all 38-district constituting 1.92 percent of the total population in Bihar according to census 2011. The decadal growth rate in the population between the census 2001-2011, for the district, is 31.12 percent averaging 3.11 percent per annum. Sex- ratio in Madhepura is 911 (Census, 2011) females per thousand males, which is a little lower than the 918 (Census, 2011) females per thousand of males for Bihar. District Madhepura has a considerably lower literacy rate; 52.25 percent (Census, 2011) than Bihar; 61.80 percent. There is large gap in literacy among females (41.77 percent) in comparison to male (61.77 percent). Population density in Madhepura has increased by 31 percent between the census 2001-2010 and reached to 1120 persons per square kilometer from 854 persons per square kilometer. Population density for Bihar is 1106 persons per square kilometer for Bihar.

The district has 402752 total households, out of which 11 percent reside in the Murliganj sub-district considered for the study. The percentage of the female population is 47.68 in Madhepura which is similar for Murliganj sub-district as well. The average household size in Madhepura is 4.99 people per household. The social-group composition of the population of Madhepura has 17.30 percent Scheduled caste (SC) population and 0.63 percent of scheduled tribe (ST) population. In terms of rural Madhepura the SC and ST

population share almost same as Madhepura total. But in the case of urban population, share of SC and ST population is below the rural share which can be considered as an indicator of less participation of marginalized social group in this urban biased regime of accumulation.

Figure 3. 5

Rural-Urban Population Share of Madhepura District (in Percent)



Source:Census of India, 2011

(<https://www.census2011.co.in/census/district/65-madhepura.html>)

Murliganj sub-district has 20.87 percent of SC and 2.20 percent of ST population. The urban population of Murliganj has a very low ST population share as just 0.17 percent out of its share in total population as 2.20 percent.

3.5. Land Use, Irrigation and Cropping pattern

The land is a natural factor of agrarian production and a natural source of livelihood for large sections of the rural population. With the increasing population pressure on land for non-agriculture use, the long-term land-use statistics in Bihar reported in (AE, 2021) suggest that the geography of Bihar is more amenable to agriculture but the management of water as a resource has been inadequately strategized. Flood is the common-sense

identity of Bihar. The landscape of the Koshi region has been known in history for a large number of public work programs (Mishra, The Kosi Embarkment Story, 2008). There has been a labour donation drive for the building of a Barrage on the river Kosi. The construction of the dam has drastically changed the Land use pattern as well as the settlement pattern. The claim over the cost of the Koshi barrage is still unaddressed (Appu, 1973).

Table 3. 2

Land Use Pattern in Bihar

Types of Land Use	Percentage Share in the reported area	
	TE* 2003-04	TE 2014-15
Forest	6.62	6.64
Not available for Cultivation	22.2	22.89
A. Area under non-agri. uses	17.53	18.28
B. Barren and uncultivable land	4.66	4.61
Uncultivated land excluding fallow land	3.19	3.29
A. Permanent pasture and other grazing lands	0.19	0.17
B. Plantation crops	2.5	2.64
C. Culturable wasteland	0.49	0.48
Fallow Land	7.27	10.44
A. Current fallow	5.83	9.15
B. Other fallow lands	1.44	1.29
Net Area Sown	60.73	56.74
A. Area sown more than once	24.2	25.28
Total Cropped Area	84.92	82.02

Source: Land Use Statistics, DES, Ministry of Agriculture and Farmers' Welfare. (AE, 2021)

*Triannum ending with the year mentioned represents the three years average of the variable to avoid certain kinds of abnormality,

Table 3.2 shows the changes in the land use pattern for Bihar over the period of TE 2003-04 to TE 2014-15. Land distributed in different types of land use shows not much change other than the impact of urbanization and expansion of non-farm space. Fall in the net

sown area can be compensated by the increase in the current fallow. The continuous decline in the net sown area (Sinha, 2019) combined with the increase in the current fallow raise a question about the sustainability of farming as a remunerative economic activity. Erratic rainfall or flooding is one of the reasons for the increase in current fallow. As low rainfall can induce less cultivation of water-intensive crop paddy or flooding in a year could lead to an increase in current fallow due to the deposition of sand and silt. An increase in the rural wage rate due to MNREGA also makes farming costly which could cause a decline in the net sown area.

Table 3. 3

Share of different sizes of operational holding and their average Size in Bihar (in Percent)

State	2005-06	2015-16
	Bihar	Bihar
Operational Holdings (%)		
Marginal (<1.0 ha)	89.64	91.21
Small (1.0-2.0 ha)	6.67	5.75
Semi-medium (2.0-4.0 ha)	2.99	2.52
Medium (4.0-10.0 ha)	0.67	0.49
Large (> 10.0 ha)	0.03	0.02
All sizes	100	100
Average size of operated area (ha)		
Marginal (<1.0 ha)	0.25	0.25
Small (1.0-2.0 ha)	1.25	1.25
Semi-medium (2.0-4.0 ha)	2.59	2.60
Medium (4.0-10.0 ha)	5.16	5.29
Large (> 10.0 ha)	20.56	14.48
All sizes	0.43	0.39

Source: Agricultural Census, Ministry of Agriculture and Farmers' Welfare (AE, 2021)

Marginal landowner's share has more than doubled from 18.20 per cent in 1971-72 to 42.07 by the year 2003 (Amit Basole, 2011). Table 3.3, above shows a substantial increase

in the number of marginal (< 1 ha) holdings with a reduction in the average size of the operated area which poses an important threat to agrarian accumulation.

The geographical area (TGA) of the district is 179.6 thousand hectares, out of which 70 percent is cultivable area. Almost 17 percent of area (TGA) is under non-agricultural use and almost 4 percent of area (TGA) is under plantation crop. 2.17 percent of area is barren land and 5.27 percent of area is reported as current fallows. Cropping

Table 3. 4

Cropping Intensity

Agriculture Land Use	Area ('000 ha)	Cropping intensity %
Net sown area	127.1	158
Area sown more than once	73.6	
Gross cropped area	200.7	

Source: Agriculture Contingency plan for District Madhepura, 2013

The principal crops grown in the district are paddy, jute, maize and wheat. Jute and maize are grown in large quantities. Total irrigated area in the district is 1.39 lakh hectare and extent of irrigation during Kharif season is 72 percent while the same in Rabi season is 93 percent. Out of total area under cultivation, 40.9 percent area is covered by cereal crop during Kharif season and 18 percent during Rabi season.

Coarse cereal is being cultivated 24.3 percent of gross cropped area. Coarse cereals occupy 5.1 percent of gross cropped area during Kharif and 10.6 percent during Rabi season. 8.5 percent of gross cropped area is under coarse cereals during the summer season (21.24 percent irrigated and 3.01 percent rainfed). Pulses are grown over the 11.1 percent of the gross cropped area of the district. Out of which 0.8 percent of gross cropped area is under pulses during Kharif season, 1 percent during Rabi season and 9.4 percent during summer season.

Oilseeds are largely grown during Rabi season almost at the 2 percent of gross cropped area whereas fiber crops are grown on 2.5 percent of the gross cropped area. Horticulture and plantation crops are grown on almost totally irrigated area which is just 0.3 percent of the gross cropped area (District Irrigation Plan Madhepura 2016-2020, 2016).

Murliganj CD block, where the study village is located, out of total area under cultivation 23.5 percent of area is covered by cereal crop during Kharif season, 16.7 percent of area during Rabi season and meagerly 0.1 percent of area during summer season. Area under coarse cereal 31.3 percent of gross cropped area. Out of which 6.5 percent during Kharif season, 7.5 percent during Rabi season and 17.3 percent during summer season. 29.69 percent of area under coarse cereal is irrigated and 1.57 percent is rainfed. Pulses are grown on the 14.7 percent of the gross cropped area of the block. Out of which 14.3 percent of gross cropped area is used for pulse cultivation during summer season which is the major season for pulse cultivation. During Rabi and Kharif season only 0.4 and 0.1 percent of gross cropped area is under pulse cultivation. During summer season oilseeds are also grown at 2.5 percent of gross cropped area. Fiber crops occupies 3.8 percent of gross cropped area. 0.5 percent of the gross cropped area is being used for horticulture and plantation crops and 62 percent of this is under irrigated area.

As per the department of agriculture Madhepura, total production of crop under irrigated area was 16 lakh quintals and under rainfed area was 4 lakh quintals. Productivity of the crops under irrigated area is way higher than the rainfed area. Productivity of Kharif crops under irrigated area was 2600 Kg per hectare in comparison to the rainfed area was 1700 Kg per hectare. Rabi season crop has productivity under irrigated area was 2750 Kg per hectare and 1680 Kg per hectare in the rainfed area.

Table 3. 5

Production, Yield, and Cost of Cultivation in Madhepura District

Season	Irrigated Area				Rainfed Area			
	Production (Lakh Qt)	Yield (Kg/Ha)	CoC (Rs/Ha)	Area (Ha)	Production (Lakh Qt)	Yield (Kg/Ha)	CoC (Rs/Ha)	Area (Ha)
Kharif	16	2600	26500	61405	4.0	1700	19000	23392
Rabi	13.6	2750	29050	49433	0.6	1680	19000	3489
Summer	3.7	2340	27600	15790	1.9	1150	18750	16252

Source: District Irrigation Plan Madhepura 2016-2020, 2016

Table 3.5 exhibit the considerable differences in the production and productivity between irrigated and rainfed area. As the cost of cultivation is high in irrigated area so the yield per hectare. Extent of irrigation is 70 percent of total cropped area and out of total irrigated area 70 percent is covered by canal irrigation rest 30 percent by minor irrigation tanks.

3.6. Summary and Discussions

The chapter analyses the structure of the regional agrarian economy with its specifics. Study village is located in the Madhepura district of northeast Bihar, known as Kosi region of Bihar. Kosi region is known for the notorious flood and also known as the sorrow of Bihar. After the construction of big barrage on Kosi in the year 1969, the damage from the flood could be controlled partially.

Study village ‘Sakhua’ is located in Deenapatti Sakhua Gram-Panchayat of Murliganj sub-district. The region has a history dating back to Gupta period when Madhepura was part of ‘Tirabhukti’ region spreading at the north bank of ganga till the foothills of the Himalayas. In the mediaeval period the region was pronouncly known as Mithila region.

Section one introduces the region with its location and infrastructural facility. Village settlement pattern is presented through maps. Section two of the chapter presents the brief historical overview of the commercialisation in regional agriculture. Commercialisation has penetrated the regional agriculture in limited way due to flood and social structure of the region. Ecological features of the district are presented in section three. Section four, presenting demographic feature of the district shows that according to census 2011, 95 percent of population of the district was residing in rural area. Section five presents land use pattern with irrigation and cropping pattern in the district.

Chapter 4

Production and Exchange Relations in the Rural Agrarian Economy

4.0. Introduction

This chapter analyses production and exchange relation in the rural agrarian economy of the study village under new accumulation regime identified in the chapter 2 and with its regional specificity presented in chapter 3. This chapter deals with the third objective of the study by analysing production condition along with exchange relation in the study village.

Section one of the chapter explores the production condition in agrarian production in the village. Section 2, presents social structure of the village. These two sections locate each household in the socio-economic hierarchy in village. Section three analysing occupational structure, classify household in different occupational categories to analyse the characteristics of households. Section 4, exchange relation in the village production economy, analyses various forms and process of exchange through differentiated social structure. Section 5. Summaries the discussion.

4.1. Production Condition in the Village Economy

Production structure in the village economy could be visualised within the social structure of graded hierarchy along caste, gender and class, which in turn lets evolve the production relation not as a pure economic relation but as a social relation. This study is confined to a village without assuming the independence of the village economy from the rest of the economy or political economy of Bihar.

Land being the basis of agrarian production assumes status of crucial asset in the agrarian production economy. Major production relations in the village economy can be ascertained as agrarian production relation as non-agrarian production is negligible in the village economy. Land ownership is the key to the economic hierarchy in the village economy. Class structure based on material condition especially land ownership is the traditional understanding of production relation in the village economy but economic hierarchy in the village economy could not be separated from the traditional social hierarchy. Class differentiation uninformed with other social hierarchy in the village society is impossible to figure out. In case of Bihar fortunately class and caste are largely overlapping category (Chakraborty, 2001). Analysis of variable along the line of class, caste and gender will be done to understand these hierarchy and implications in terms of production relation.

For the purpose of study 242 household is surveyed comprising population of 1417 individuals of all age. Total Land under ownership of the 97-landowner household in the sample 176.2 acre and total of operation holding is 163.27 acre with 12.93 acre of non-operational holding.

Landownership distributed in various size group and their respective share in the total land holding in the village is presented in table 4.1 below. Incidence of landlessness is so acute that almost 67 per cent of household has no ownership of land for cultivation. This landlessness doesn't include homestead land. Marginal size of landholding which is from 0-1 acre comprises almost 13 percent of household of the village having ownership of almost 10.39 per cent of total of village land holdings. Almost 7.5 per cent of household having small landholding of size 1-2 acre altogether own 17 percent of total landholding. Half of the landholding in the village are of middle (2-5 acre) size group owned by only

11 per cent of household and 2 percent of household owning large landholding as big as more than 5 acres own almost 21 percent of total landholding.

Table 4. 1

Distribution of ownership and operational holding across size-class (In Percent)

Types of Holding	Ownership Holding		Operational Holding	
	Percentage of Household	Percentage share of total landholding	Percentage of Household	Percentage share of total operational landholding
Landless/No operational holding	66.94	0	59.92	0
Marginal (0-1 acre)	12.81	10.39	16.53	14.31
Small (1-2 acre)	7.44	17.10	14.46	33.02
Middle (2-5 acre)	10.74	51.72	7.02	34.53
Large (more than 5 acre)	2.07	20.79	2.07	18.15
Total	100	100	100	100

Source:Field Survey (2014-15)

The landholding structure suggest that agrarian production in the village economy is largely dominated by the large and middle cultivator group as they own more than 70 percentage of total cultivable land in the village. Using different Size group of land holding as representation of household landholding position and considering their interest as representation of groups interest the village agrarian production economy can be classified in a possible class structure namely, large landowner, Middle land owner, Small and Marginal Land owner and finally large mass of landless worker. Production related decisions in this production structure would be largely mediated through the land ownership-based power structure. Each of these group will have a strategy which could be qualified as different strategy for organizing production. Production strategy of large and middle land owner class is objected towards producing surplus and accumulation of the surplus therefore these groups of landowners can be categorized as surplus earning household and their production strategy could be identified as accumulation strategy. A

Group of Small and marginal landowners can be considered a subsistence household having survival or livelihood strategy. Many marginal landholding households is also found to be under debt burden but their debt is largely serviceable. Category of landless working households are largely the deficit household mostly running on debt perpetuity.

Above classified categories of household based on ownership structure would not be able to inform the status of operational holding of these household to define the production strategy of these household. Distribution of share of operational landholding with respect to ownership holding seems to be more evenly distributed. In case of ownership holding 67 percent, household are landless whereas operational holding reported only 60 percent of household operating no land which means that 7 percent of landless households are leasing in land or being engaged in tenancy relation. In fact, tenancy can also be observed in case of marginal and small land size as percentage of household operating marginal and small size of landholding is higher than the percentage of household owning the marginal and small size of landholding. Share of operational holding of marginal and small holding size is also 20 percentage higher than the ownership holding which means that marginal and small landholders are net leaser. In terms of ownership 10.74 percent of household owning 51 percent of total land ownership operationally 7.02 per cent of household holding middle size landholding operate on 34.53 percentage of total operational holding which basically mean many of the middle landowner lease out their land. Large land owner house is of same percentage of household both in terms of ownership and operational holding but there is slight reduction in the share of operational holding in comparison to ownership holding. The contrast in the class structure in terms of land ownership get diluted in terms of operational holding. Many of the large and middle land owner are absentee landlord who has got settled in nearby town or district

headquarters due to which their interference in day-to-day cultivation business as land leaser is minimal.

4.2. Social Structure of the village

Caste system as a historical reality is very important defining feature of initial material condition of household and individual. Class structure designed based on ownership structure will not be able to capture this socio-historical caste hierarchy which has important implication for economic structure of village society. Traditionally caste system is key to the access to means of production and power of decision making at the level of village economy. Caste network outside agrarian economy as well as in government agency also provide advantage in the production sphere in the economy.

Village society is organized around the caste system and even the settlements are designed according to caste hierarchy. Low land and flood-prone area having no proper facilities for the standard of living are the common features of the household settlements of marginalized castes in the village (Mukul, The Utouchable Present: Everyday lives of Musahars in North Bihar, 4 Dec. 1999). Caste as a major social hierarchy determines land ownership historically. The predominance of agriculture and distribution of land ownership is an important indicator of economic hierarchy in the village. Juxtaposing the Social group of caste with the size class⁵ of landownership locates households in the socioeconomic hierarchy of the village. Almost half of the household in the village belongs to the SC social group rest of the household are equally divided into OBC and other groups. SC household settlements have spread over three hamlets, one of which is

⁵ Land ownership meaning land for cultivation and Size-Class is designed specific to the study.

settled at one end of the village and the other two are far away from the main village. OBC households are settled in hamlets on the other side of the village.

Table 4. 2

Number of Households in the different social groups and land size classes (in percent)

	Social Groups		
	SC	OBC	Others
Landless	96.64	54.84	21.31
0-1 Acre	1.68	25.81	21.31
1-2 Acre	1.68	11.29	14.75
2-5 Acre	0	8.06	34.43
More Than 5 Acre	0	0	8.20
Percentage share of total ownership holding	2.23	20.38	77.39

Source: Field Survey (2014-15)

The number of households with their respective land holding and social groups are presented in above table 4.2 and out of total 119 SC household in the sample only four household own land of marginal and small size. In OBC group out of 62 household 28 household own land of which 16 has marginal size of holding and 7 belong to the small category rest 5 are having middle size of landholding. Other category which is *Rajput* caste in the village having least incidence of landlessness almost around 21 per cent, which is highest among SC household as 96 per cent of SC households are landless. In other category out of total 61 household 13 are landless other 13 are marginal landowner, 9 are small landowner, 21 are middle landowner. Whereas only 5 household in the village has large land ownership and all of them are from other category.

Overall only 4 SC household own 2.23 percentage of total land holding and 28 landowning OBC household own 20.38 percent of total ownership landholding. Other social group which is *Rajput* in case of this village, 77.39 percentage of total landholding is owned by 48 household out of total 61 household in this category. As highest

percentage of landowner household fall in middle size landowner category and they collectively own around 50 percent of total landholding. Five large landowning household own 21 percentage of total landholding, which means that large part almost 77 per cent of landownership is still in the hand of traditional land owner social group in the village. This skewed land distribution pattern is an important defining feature of the production structure of the economy. While considering production structure, household will be the unit of analysis for land ownership as land largely is being operated collectively by the household. Land ownership is being operationalize in the village economy in terms of family structure. Even if the person having land entitlement is absent family member cultivate the land as an owner or they lease-in or out as owner. Most importantly land entitlement in villages is yet to be updated. Most of the land is still in the name of ancestor who died long back their heirs has been using the land without mutation in his/her name. Therefore, land can be considered as household asset and household position in the production relation is determined through landownership status. As caste define initial condition for the access to this crucial asset; land, so caste wise landownership is again crucial. Here in the above table 4.1.2, landownership is presented in social groups but within each social group there are different caste. In the study village there are four caste presents in scheduled caste group namely *Dom*, *Chamar*, *Musahar* and *Dusadh*. Out of these four-caste group only 2 marginal and a small landowner household is from *Mushar* caste households and another single small landowner household is from *Dusadh* caste. Traditionally SC as caste group has no land ownership and most of the household is dependent on their labour for livelihood.

Within other backward caste group (OBC) also there are only four caste presents in the study village namely *Yadav*, *Banaiya*, *Barbar* and *Badahai*. *Yadav* is considered second dominant caste in the village considering 18 out of 36 Yadav households own cultivable

land. Out of 18 landowning Yadav household 9 are marginal landowner, 6 household are small landowner whereas three households are middle landowner category. *Barbar*, one of the OBC caste has 5 household and all of them have landownership due to their *jajmaani* entitlement form traditional occupation. Out of all five *Barbar* household two are marginal land owner, one is small land owner and rest two are middle sized landowner. *Baniya* and *Badhai* caste have 19 and 2 household respectively in the study village, 3 *baniya* household and all two *Badhai* caste are marginal landowner. Within OBC social group each caste has traditionally specialized occupation. *Baniya* being merchant caste has important function in context of village production economy as they perform selling and buying of agrarian output of village. For small, marginal and middle farmer carrying their output to the market would be costlier and hiring a transport for small volume of output would be infeasible option. *Baniya* (village merchant) is largely an intermediary caste and linkage to the outside market for many villagers. Though traditionally this function of intermediary merchant was restricted to the *Baniya* caste but now a days many other castes people are also engaged in various kind of sell and purchase linking village economy to outside market. *Rajput* which is the single caste from the group of other social group is numerically second and materially dominant caste in the village. Out of 61 *Rajput* household in the village 13 are landless and 13 are marginal land owner rest 9 are small, 21 are middle and 5 are large sized land owner household. Most importantly all five large landowner households are from caste *Rajput*. Based on land ownership *Rajput* case is the most dominant in context of village production economy

Sakhua village has three social groups; SC, OBC and Others. Scheduled castes present in the study village namely, '*Dom*', *Chamar*, *Musahar* and *Dusadh (Paswan)*. Out of these four castes, *Dom* and *Chamar* are still considered untouchables and they have no

ownership of land other than the homestead land. Two castes *Dom*⁶ household has hut kind of house at the bank of canal which is government land. Both castes *Dom* and *Chamar* comprising 13 are landless households. Out of 42 *Musahar* households, two households have less than an acre of land and one household is having land ownership between 1 to 2 acres. Only one *Dusadh* household has small land ownership between 1 to 2 acres. In the other backward caste group (OBC), *Baniya (Vaishya)* has the highest incidence of landlessness as out of 19 households only 3 households have marginal land ownership (0-1 acre). *Yadav* being one of the dominant OBC castes has improved ownership in the recent past due to political patronage and has 50 per cent of the incidence of landlessness (Sharma A. N., *Agrarian Relations and Socio-Economic Change in Bihar*, 2005). Two of the other OBC caste *Badahi* (carpenter) and *Nai* (Barbar) being traditional *jajmaani* caste has no incidence of landlessness but *Badahi* household of which only two in number has marginal land ownership. *Nai* (Barbar) coming from the traditional *jajmaani*⁷ caste has five households out of that, two have marginal land ownership and rest three are small and middle (2-5 Acres) land ownership size-class.

Here in the table 4.3, land size class and social group as an axis for analysing the share of ownership and operational holding to identify the structure of economic and social hierarchy. In the study village, the total ownership holding is 176.20 acres and the total operational holding is 159.27 acres.

⁶ Their primary occupation is rearing pig and weaving bamboo to make many important articles like *Sup*, *Dagra*, *Biyani* and *Tokri* for household in the village. There is very limited seasonal demand for these articles. Caste *Dom* is traditionally considered as scavenger, mat-weaving and basketry, drum beating, removal of dead carcass but these two households are not engaged in the traditional occupation.

⁷ It will be discussed in detail in exchange relations in the village economy section.

The largest share of ownership and operational holding is of medium (2-5 Acres) size in the village. Almost 70 per cent of ownership size is above two acres. One-third of operational holding belongs to medium size class (2-5 Acres).

Table 4. 3

Distribution of Ownership and Operational holding in the village

Land Size Class and Distribution of Ownership and Operational Holding		
Land Ownership	Share Ownership Holding	Share Operational Holding
Landless	0	19.51
0-1 Acre	10.39	17.69
1-2 Acre	17.1	18.34
2-5 Acre	51.72	31.44
More Than 5 Acre	20.79	13.01
Total	100	100
Social Group and Distribution of Ownership and Operational Holding		
Social Group	Share Ownership	Share Operational Holding
SC	2.24	16.78
OBC	20.38	35.86
Others	77.38	47.35
Total	100	100

Source: Field Survey, 2014-15

In terms of share of ownership and operational holding, other social group which is the *Rajput* caste in the village has the largest share (77%, 47%) of ownership and operational holding. SC households own and operate the least share of total ownership and operational holding in the village. OBC group has a 20 per cent share in land ownership and they operate with a 36 per cent share.

4.3. Occupational Structure in the Village

Based on self-reporting about a major source of earning, this study has classified village households into 6 occupational categories. These are ‘Cultivators households, Agricultural labourer households, non-farm self-employed households, non-farm wage workers, Regular salaried workers’ and others: who could not be classified in any of the above categories. There is a possibility that within a household every member could have a different occupation but household-level occupation is largely defined in terms of a major portion of livelihood-earning occupation. Analysis of the individual worker will inform about the occupation of an individual in terms of their primary occupation.

Table 4. 4

Household type and social group

Household Type	Social Categories			
	OBC	Others	SC	Total
Agricultural Worker	2.60	-	97.40	31.82
Cultivator	35.29	41.18	23.53	35.12
Non-Farm Self Employed	41.18	29.41	29.41	7.02
Non-Farm Wage Worker	42.11	13.16	44.74	15.70
Other Households	57.14	14.29	28.57	2.89
Regular Salaried Employee	16.67	83.33	-	7.44
Total	25.62	25.21	49.17	100.00

Source- Field Survey (2014-15)

Table 4. 5

Household type and land size class

Household Type	Landless	Marginal (0-1 Acre)	Small (1-2 Acre)	Medium (2-5 Acre)	Large (5 Acre and above)	Total
Agricultural Worker	100.00	-	-	-	-	31.82
Cultivator	29.41	27.06	17.65	20.00	5.88	35.12
Non-farm Self Employed	88.24	5.88	-	5.88	-	7.02
Non-Farm Wage Worker	92.11	5.26	-	2.63	-	15.70
Other Household	57.14	14.29	28.57	-	-	2.89
Regular Salaried Employee	33.33	22.22	5.56	38.89	-	7.44
Total	66.94	12.81	7.44	10.74	2.07	100.00

Source: Field Survey (2014-15)

Agriculture worker household is numerically almost one-third of the total number of households in the village, are landless and largely (94.40 per cent) belong to SC social group. Around 41 per cent of the cultivator, household comes from the Rajput caste and 35 per cent from the OBC group. This clear demarcation indicates how social structures are still determined through caste in rural Bihar.

4.4. Exchange Relation in the Village Economy

Rural Exchange is largely contingent upon the production structure aligned production relation operating under the framework of larger social relations in the village economy. The traditional exchange relation in rural Bihar was identified as the *Jajmaani* system (Wiser, 1936; Srinivas M. N., 1955; Dube, 1955). In this system, rural societies were largely engaged in caste-based specialized occupations and used to exchange their goods and services on the principle of reciprocity. *Jajmaan* (customer) of goods and services

used to pay back in kind of necessities in exchange. In this system, occupations were largely specialized on a caste basis. Each of the caste groups specialized in a particular occupation and was dependent upon their *Jajmaan* which usually comes from the landed proprietary caste. Payment for the goods and services exchanged were oriented towards agriculture year and largely in kind. Money was not the frequent medium of exchange in the *Jajmaani* system. There was a system of giving a small piece of land for cultivation or a share of agricultural products in-lieu of services to the service castes like barbers, potters and others. Remnant of the *Jajmaani* system could still be found in the village of today's Bihar, barber services in the villages are still based on the old *Jajmaani* relation.

Rural Exchange processes in terms of major markets, (as mainstream economics consider it) output, land, labour, and credit are largely functioning through a power structure in the village economy. The scope of exchange and contract of exchange is being guided by intermediaries belonging to the upper and middle of the socioeconomic hierarchy of village society. The group with a larger share in the village surplus would have more power in determining the exchange relation in the village economy. Exchange relations are not usually determined through the bargaining process between the parties but by the superior decision-making process by the party (Intermediaries) enjoying asymmetric power in the village economy (Bhardwaj, 1994). Customary practices of exchange are largely determined through the village social hierarchy. The labour process in the rural economy is also determined through social and customarily established informal contracts. The middle class in the rural socio-economic hierarchy are largely decision-takers rather than decision-makers and they aligned themselves to the decision-maker dominant class in terms of their production and exchange decision to hold on to their subsistence position. On the lower end socio-economic classes with no or marginal ownership of means of production, land, or any other productive asset largely engage in

exchange merely out of compulsion of livelihood necessities. Landless or marginal cultivator households possessing no secure means of livelihood have to either hire them out or cultivate their small plot of land in the peak agriculture season with their household labour. In the lean season, they would largely be dependent on casual work or migrate to the non-farm opportunity at the urban center. Few of them work as quotidian migrants in the nearby small urban center. Landless agriculture workers opt for seasonal migration for agriculture works in a state having a different peak and lean season. In this condition of insecure livelihood, there is very less chance of having enough bargaining power while engaging in the exchange of their labour power and the exchange relation here could be skewed in nature which is indirectly an outcome of production relation and resource position of the agriculture worker households.

Production relation is the important determinant of the type of exchange relationships in which a household will be vis-a-vis its resource position. Access to the market and scale of transactions is limited by the resource position of the particular household. That is why the multiplicity of exchange relations is obvious in the village economy which is essentially differentiated in terms of production relations and respective resource position. In terms of the labour process, the village economy exhibits a large range of employee-employer relationships (Thorner & Thorner, 1962) and respective modes of wage payment or contracts.

Exchange networks of villages have spread over the villages around sub-district and District market centers. Few of the large producers have access to the district market in terms of the sale of their output and purchase of input for agriculture. Marginal, small and middle cultivators are dependent mainly upon petty merchant intermediaries for their output sale. These grain and Agri-output merchants come to the cultivator's house or field

to purchase the output. Prices are agreed upon by the information on price from the local market. Merchants quote a price lesser than the price in the nearby mandi.

For local exchange in the village, there is a weekly '*Haat*' organized twice a week. All the local purchases and sales of vegetables and essentials happen in this market. There are a few other weekly markets organized in nearby villages as well. More of the sale and purchase of perishable items like vegetables, fish, meat, chicken and other daily essentials like rice, flour, salt, pulses and cloth etc. happens through these weekly markets. For their daily need villager also depends on a few grocery shops in and around the village. These grocery shops have their supplies from the sub-district market of Murliganj.

Large and medium cultivator households also purchase their monthly grocery from the sub-district market. For the purchase of agriculture inputs like seed, fertilizer, pesticides and Diesel required for irrigation and ploughing by tractor is largely bought from sub-district markets. There are few shops for fertilizer and diesel also located in and around villages which supplies the input for agriculture on credit. Most of the output and input exchange happens on credit for a few days, like when a grain merchant buys output from a cultivator, will pay little or no amount at the time of purchase. Merchants will take a week time for selling the output and disburse the payment to the cultivator. Likewise, farmers buying input for the cultivation might pay after the harvest. There is no interest charge involved in these transactions but the price of input is usually higher than it is in the sub-district market as farmer purchase it on credit. There is a regular transaction relation between the cultivator and local seller of the market in terms of their need, cultivator usually depends on the local input dealer and the input dealer in turn is also dependent on the cultivator in the village for their sale. So, short-term credit for the sale and purchase of input and output is being offered by both parties.

Few input dealers in the village also purchase output from cultivators as grain merchants and marginal farmers are dependent upon them for the purchase of input and sale of output. This dependence structure can be seen in terms of an interlinked market but it is not so prevalent in the village. Many grain merchants are coming from outside of the village and buying output from cultivators and cultivators are not so bound to the sale of output only to the village merchant.

4.5. Summary and Discussions

Production condition in the village is largely agrarian dominated by large and middle landowner and tenant cultivator coming from OBC and other social groups. Tenancy is important mode of production in the village. Village has four social group namely SC, OBC and Others. These social group has caste groups within it which creates a complex hierarchy within hierarchy. Production structure of the economy operates through these socio-economic hierarchy of land ownership combined with caste.

Village-level exchange relation is largely oriented through a different network of exchange and production with a lot of intermediaries working as an operator of these networks. These intermediaries of exchange relations largely exploiting information asymmetry in communication create these networks for their benefit. Intermediaries do maintain good social relations with all households of all hierarchies in the village.

Chapter 5

Labour Process in Rural Economy

5.0. Introduction

The rural labour process is a set of survival strategies (Bharadwaj, On the Formation of Labour Market, 1989) invented by worker households in response to the unfolding accumulation strategy of extant production conditions in the rural agrarian economy. Production and exchange relationships in a rural agrarian economy are the major determinant of the rural labour process. Combining different forms of labour, diversifying labour use at the household level, condition of work, wages, as well as migration, comprises the major part of livelihood strategies of a rural labour household (Omkarnath, 1993).

This chapter is divided into eight major sections excluding introduction. Section 5.1, locates the worker in the production structure in the village economy; analyses the socio-economic positioning of the individual worker on the axis of the social hierarchy of caste and economic hierarchy of land ownership. The section 5.2, discusses the social hierarchy of caste and the rural labour process in the village economy. This study has conceived three economic sectors: the farm sector of the village, a non-farm sector in and around the village and migration. Section 5.3, discuss the labour process in the agrarian sector of the village economy and section 5.4, analyses the structure of wages or different forms of transaction and payments during exchange of labour within the village economy. Section 5.5, highlights the nature of labour processes in the non-farm activities in and around village. Section 5.6, discusses the migration and nature of migration in the village. Section, 5.7, presents the living conditions of worker household in the village. The last

section of the chapter based on the above discussion argues that labour process is one of the important lens through which fundamentals of the rural agrarian economy need to be reflect upon.

5.1. Locating Labour in the Production structure

Out of the total population of 1417, of those having information about their occupation have been categorized, into the two categories of ‘Worker and Non-worker’, basically considering their engagement in economic activity to derive direct income. This classification has not considered a person engaged in non-income earning activity such as household work. Each individual is categorised as a worker and non-worker in the sense of income earner and non-income earner. If a person (female/male/child) is working in household activity then it would not be considered a worker in income earning sense as it would separate persons who hire themselves out for the earning income or work with their means of production to earn income⁸. Through earning criterion village has 560 workers and 857 non-workers.

Almost 59 per cent (See table 4.4) of person belongs to the working age between 15-65 years but only 40 per cent can qualify as a worker in the income earner category. Leaving Non-worker out, the age structure of the worker in table 5.1, shows that 93 per cent of workers fall into the normative category of working age whereas there are incidences of child labour and old age worker as an income earner. The broader measure of workforce participation could be calculated for the village by dividing no. of workers with the total population ($560/1417=0.40$) as 40 per cent. A narrower definition of workforce

⁸ Household work of women has not been categorized as work here considering not to be adding directly to the household income. Household work is very important aspect of human survival; In fact, rural labour process has been gendered in terms of work and occupations. However, study of that is beyond the scope of this thesis.

participation rate will be no. of workers divided by the number of persons between the ages of 15 years to 65 years, which can be calculated ($560/834=0.67$) as 67 per cent. So, the worker-population ratio which is a measure of dependency structure within the household informs us about 60 per cent of the population is non-earning and dependent on the rest 40 per cent.

Table 5. 1

Age Structure of Worker

Age Structure	No. of Worker	Percentage of Worker	Cumulative Percentage
7 – 14	24	4.29	4.29
15 – 65	522	93.21	97.5
Above 65	14	2.5	100
Total	560	100	

Source: Field Survey (2014-15)

Table 5. 2

Gender Profile Across Social Groups of Workers

Social Group	Female	Male	Total
SC	38.13	61.88	100
OBC	14.55	85.45	100
Others	1.54	98.46	100
Total	25	75	100

Source: Field Survey (2014-15)

Gender plays a significant role in determining earning a position of a person in the village economy. Only 140 females could be categorized as workers in our study, which is 25 per cent of the total workers. This is basically because lots of women especially from other social groups are not part of income earning workforce. In the study village, upper-

caste women even from landless families have an almost negligible presence in income-earning activities (see table 5.2)

5.2. Social Labour Process

Caste structure in Sakhua village can be seen majorly operating as a determinant of the labour process in terms of occupational structure and access to livelihood activities. Hold of traditionally assigned economic activities to caste groups is yet to dilute fully.

Table 5.3 shows that the scheduled caste social group has the highest 57 per cent of workers as income earners. This percentage is lowest at almost 20 per cent for OBC and around 23 per cent for other (*Rajput*) social groups. In the SC group, *Musahar* which is the most vulnerable having 21 per cent of the worker as income earners and *Dom* which is the lowest untouchable caste in the SC group solely work as a self-employed occupation of pig rearing has the lowest percentage of workers as income earner (Mukul, *The Untouchable Present: Everyday life of Mushahars in North Bihar*, 1999). Caste *Dom* can still be categorised as a caste having no access to the open labour operation like opting for agricultural occupation or casual labour operations because of the untouchability still prevalent in the study village. Caste *Dusadh* (*Paswan*) in terms of economic hierarchy in the village could be considered as having relatively better access to labouring activity within the SC group in terms of access to the labouring and land leasing-in. Having relatively better access to the means of production and labour market *Dusadh* traditionally has been the largest segment of the agricultural worker in Rural Bihar. *Musahar* and *Dusadh* in the SC group are not considered untouchables in a limited way and have relatively better access to the labour market than caste *Dom*. *Musahar* has relatively less access to the means of production than the *Dusadh* caste and is also the second-largest proportion of workers in comparison to other castes in the SC group.

Yadav caste due to the gains from political patronage in the recent past has also started participating in education and opting out of the labour market at a younger age. *Badhai* (Carpenter) numerically small in the village is one of the specialized skilled groups having their own means of production (tools of carpentry) have better access to the labour market and also have marginal land ownership. Caste *Baniya* (merchant) as a caste group has largely been engaged in the specific occupation of merchant and shopkeeper. Most of the *Baniya* family are landless and self-employed in shopkeeping and grain trading as well as trading agricultural inputs like fertilizer and diesel. *Nai* (Barber) traditionally being *jajmaani* occupational caste still engaged in traditional occupation largely. Few barber household has still managed to continue *Jajmani* relation and cultivate the land given in past for *Jajmaani* services.

Table 5. 3

Worker by Caste in Different Social Groups

Social Group	Caste	Worker	Percentage	Cumulative Percentage
SC	Dom	4	0.71	0.71
	Chamar	30	5.36	6.34
	Mushar	120	21.43	27.77
	Dusadh	166	29.64	57.41
OBC	Yadav	62	11.07	68.48
	Barbar	9	1.61	70.09
	Baniya	33	5.89	75.98
	Badhai	6	1.07	77.05
Others	Rajput	130	23.21	100
Total		560		

Source: Field Survey (2014-15)

In the other category of the social group, only the *Rajput* caste is the dominant caste as well as the land owner class in the village. Largely, a *Rajput* household has fewer members working as residents in the village. Most of the family has their regular income earner worker outside the village. Rajput worker groups also include a large proportion

of cultivators largely engaged in cultivation more in terms of supervision. In recent years with the tightening of the rural labour market, *Rajput* males have started manual work in cultivation in their field due to a rise in the wage rate and a relative localised shortage of labour on the wage rate they could offer. So, the male members of the cultivator class have substantially taken over the less labour-intensive work like irrigation and weeding, ploughing with a tractor, and threshing of grain-like activity. In fact, whenever they hire labour, they also work with them equally to save the labour cost in terms of engaging another labour. A *Rajput* land owner who could still not consider being engaged in the manual work in cultivation is largely leasing out their land at sharecropping and they do get involved in regular supervision to direct the tenant in terms of decision making like what to sow when to sow, irrigate and when to fertilize.

5.3. Labour Processes in Agrarian sector

Sakhua production economy is predominantly agrarian as almost 70 per cent of the population depends on it for their subsistence. An amalgamation of both the operational holding structure as well as the occupational structure is the most sensitive way of analyzing rural society. Caste class duality in terms of the rural society of Bihar should not be confused as the economic interest of larger landless working classes is aligned with the major sections of the marginalized caste population. Questions of the duality of caste and class have been dealt with at length by various scholar's time to time (Jodhka, 2012) (Chakraborty, 2001). Caste and class are so intertwined in the village that it creates a specific mix of labour processes.

The household category of the 'cultivator household' is further classified into two categories; namely the 'pure tenant cultivator' and the 'owner cultivator'. Pure tenant cultivators are households whose primary earning source is cultivation; however, their

ownership holding is absolutely zero. The 'owner cultivator households' are cultivator household who cultivates primarily their own agricultural land, a few of them also 'leased in' parcel of land.

The cultivator households in the village are 85. Out of 85 cultivator household, 32 household belongs to the landless category. These 32 households can be considered as 'Pure tenants' and the remaining 53 can be categorized as 'Landowner Cultivators'. Most of the pure tenant cultivator household uses family labour for cultivation.

Tenancy and Labour Process

Table.5.4, exhibits the extent of tenancy in the village. It shows 52.57 per cent of cultivators are tenants and 37.6 per cents of cultivators are pure tenants (landless). Pure tenants as a share of total tenant cultivators are 61.5 per cent.

Table 5.5 presents the share in 'leased-in' and 'leased out' land by land ownership size category. It shows pure tenants are cultivating 55.07 per cent of total leased-in land and marginal land owners (0-1 acre) are cultivating 23.3 per cent of total leased-in land. The leased-out land is primarily from medium land owners (2-5 acres) and large landowners (5 acres and above) their share is 66.73 per cent and 21.67 per cent respectively.

Table 5.5, gives a clear picture in terms of land leasing-in and leasing-out activity. 30 households leasing out their land and 50 per cent of that comes from the more than two-acre category. These landowner families mostly migrated and settled in different parts of the country and the world with different occupations. Few members of the family mostly the old-aged head of the household stays in the village. Some of the family members who are settled in district headquarter or nearby visit regularly and supervise their cultivation work seasonally. As the village is surrounded by neighbouring village and cultivation

plots are spread across the villages, so, land and transactions in terms of leasing in and leasing out is also happening across the village.

Table 5. 4

Extent of tenancy in the village

Category	Share (in %)
Leased into operational holding	35.43
Tenant to cultivator household	52.57
Leased out to ownership holding	41.67
Lessor to landowning household	37.5

Source: Field Survey (2014-15)

Table 5. 5

Land ownership size class and share in 'leased in' and 'leased out' (in Percent)

Land Ownership Size Category	Share of leased-in land	Share of leased-out land
Landless	55.07 (32)	0 (0)
0-1 Acre	23.3 (11)	4.18 (4)
1-2 Acre	8.01 (4)	7.42 (5)
2-5 Acre	13.63 (4)	66.73 (18)
More Than 5 Acre	0 (0)	21.67 (3)
Grand Total	100 (51)	100 (30)
* figures in parenthesis are the number of households		

Source: Field Survey (2014-15)

The phenomenon of an interlinked market (Bharadwaj, 1974) (Sarap, 1991) can be seen operating in various degrees, especially in case of the study village, land leasing-in and labour hiring seem to be interlinked to attach a worker family to a large land owner. Landowner cultivator resort to leasing out a small parcel of land to have a secure supply of labour on a predetermined wage contract. These labour services in lieu of tenancy have both components of unpaid and underpaid labour services. Tenurial conditions play an

important role in interlinking the market as well as decision-making processes. The tenant generally follows the decisions of the land owner in terms of what to produce, how to produce and for whom to produce. These interlinked market phenomena impact the position of the participant from one market being determined in another market. Especially for the labouring household engaging as a tenant in the land market led to an unsaid commitment of labour services in the peak season when he/she could earn a higher wage than the ongoing wage rate.

Tenancy cultivation in the village is largely in terms of sharecropping where input cost and output are shared equally but the family labour of tenant cultivator households during lean season activity is either unpaid or underpaid. Labour/family labour during harvest season is being paid from the output in kind. This system of sharecropping (Sharma N. &, 1996) is known as '*Batai*' or '*aadhi*' in the village language. Sharecropping contract in this village is largely in terms of half of the input cost like ploughing, sowing, irrigation, and fertilizer cost being shared equally but the labour cost of initial major operation like sowing is not shared. Operations like irrigation and sprinkling and small operations for which tenant family work are not being paid for by anyone. Again, at the time of harvest, the harvest wages are generally in kind in the case of major crops. The kind wages of harvest are being given out of total production and there are conventional systems of wage payments in kind which do increase from time to time but very gradually. In the interest of smoothening the supply of labour as well to incur less cost for labour landowners engages in tenancy. Strategically large landowner cultivator also hedges their labour supply for the field for which he cultivates by themselves.

Agricultural labour Household and Agriculture Wages

Out of 242 households, 162 households in the village were reported to be landless households. In those 77 households reported agricultural labour as a primary earning

source. Land ownership along with social group locates the worker both in terms of their location in the social hierarchy of the village society vis-a-vis economic hierarchy in the village economy. As large as 80 per cent of landless workers are located in the lowest rung of the social hierarchy from the group of Scheduled caste in the village. This differentiation along the line of class, caste and gender with overtly skewed production structure needs urgent attention. The mainstream theoretical apparatus of demand and supply will not be able to comprehend the rural reality.

Agricultural worker households in the village are operating in groups of households. These groups are largely organized based on family or kinship-based relations. Work assignments, be it contract or daily wage work engagement are offered to the group which has some sort of proximity to the employer's household. Marginal and small farmer households maintain a sort of social relationship with their family, kin or neighboring household for their work assignments. They associate with the household through small labour exchange during occasions of need like marriages, festivals and others, which establish a tie in terms of their hired labour need during the peak seasons of agriculture. In fact, village society operates through all kind of non-economic relation like family, kinship, caste and neighborhood. All these social relations has serious implication for their household-level decision for hiring in and hiring out labour services. For their survival household do depend on an exploitative network of relations of labour exchange as well otherwise they will have very less opportunities outside of these networks. Village-level labour requirement is largely insufficient to provide opportunities to secure their livelihood for poor working households which pushes many of them to get hired on precarious terms of exchange.

5.4. Wage Structure

Labour exchange in the village economy as discussed in the previous section has large imperfections in terms of exchange relation and wages is considered as an outcome of those imperfect exchange processes. The wage determination process could not be captured through the demand and supply mechanism of the labour market nor in terms of the bargaining process. Wages are largely determined through conventions, traditions and the information acquired from different locations of labour exchange. With the state-sponsored rural employment programme; MNREGA, rural wages in India have got a floor for wage determination, and there has been an experience of rising rural wages. But a large part of agriculture wages is determined in kind which essentially will have less impact of the money wages determination process. The monetisation of agrarian wages is progressively on the rise in recent year (Kishore, 2004) but harvest wages which is the most important component of agricultural wages is still determined and paid in kind.

Table 5. 6

Average wage rates per person per day (in Rs)

Farm Activity	Male	Female	Child
Spade Work	250	-	-
Sowing	100-150	100-150	-
Weeding (Half-Day Activity)	-	50-60	30-50
Irrigation	250	-	-
Fertilizer And Pesticides Sprinkling	200	-	-
Harvesting And Processing	150-200	150-200	-
Non-Farm Activity			
Construction And Another Non-Farm Worker	200-250	150-200	-
Skilled Worker -Mason/Carpenter/Mechanic	300-350	-	-

Source: Compiled and calculated from the discussion with worker and cultivator during fieldwork (2014-15)

There is two major agriculture operation sowing and harvesting which is the most labour-intensive and are located in the peak agriculture season and have seen a substantial rise in recent year but not as much as money wages for the labour in the non-farm operation and other agriculture operations⁹.

There is a rise in contract work in agriculture operation of sowing and harvesting. In terms of contract work on average a group of 10 workers finish the operation of harvesting or sowing one acre of the field in a day working even more than 10 hours each and being paid an amount of Rs. 1000-1200. Which Comes to Rs. 100-120 per worker per day even if the workday is longer than 8 hours.

Wages are determined for different farming operations in different ways, for the preparation of the field, the cultivator generally hires a tractor for ploughing but with the ploughing, there is a need for a labourer per acre to do spade work for repairing the boundary of the field and also ploughing corner of the field through spade where the tractor could not reach. This labourer is generally being paid Rs. 100 (2014) in cash and maybe a cup of tea for a day of spade work. After the field preparation for the sowing or transplantation in the case of paddy cultivation. The wage for the worker is being paid according to the bunch of paddy saplings being transplanted. A worker is working in different operations simultaneously, firstly, they have to make bunches of paddy saplings from the nursery and then all the saplings they made need to be transplanted by him/her in the sowing field. The plantation of each bunch of saplings has a wage of Rs. 5 -7. The amount of wage earned by a worker for a day depends on how many saplings a worker can transplant in a day. Again, here is the piece rate, so the working day might not apply

⁹ A construction worker paid monetary wages of Rs.250 per day for almost 8 hours of work a day in the village non-farm, whereas the same worker earns on average Rs.100 and a kg of rice or one-time meal a cup of tea for a day work in the sowing season.

to 8 hours but is based on the completion of work. Along with Rs. 5-7 /bunch, there is some component of wages in kind basically as a meal some grain usually rice, half a kilogram per person will be given for a day of sowing wage. This complicated wage structure could not change based on some labour demand and supply mechanism but largely based on the notion of subsistence (Stirati A. , 1994). There is nothing like each day's supply and demand for labour decides the wages. This wage rate could only vary between Rs. 5-7 depending on the requirement of the cultivator and worker and some impact of demand and supply. The sowing season is most busy during the two weeks in the village and those two weeks could see wages of R.7/per bunch being paid otherwise early sowing or late sowing season could have the Rs. 5/bunch wage rate.

The question that how this Rs. 5/bunch to Rs. 7/bunch has been arrived at is largely driven by the notion of subsistence. As workers during the discussion said that 'We ask the wages according to the need of our stomach' (*Pet ke hisaab se majdori maangte hain*).

Next, Irrigation, weeding and sprinkling of fertilizer and pesticides are the major lean-season farming operation. For irrigation and fertilizer and pesticide sprinkling mostly male workers are hired. Irrigation workers work while pump-set or canal irrigation is in operation, he has to direct the water through spadework make channels and create layers for the smooth flow of water across the field. Fertilizer and sprinkling or pesticides along with spade worker of a day labour where day's work could spread 8-10 hours usually in irrigation work is being paid Rs. 250 without food or Rs. 200 with Lunch. This wage rate has changed drastically in a few years as workers reported that till the year 2000, they used to be paid Rs. 75-100 for the same work.

Harvesting wages are largely paid in kind if it is wage rate work. Sometimes it is also contracted in piece rate as explained above. Harvesting wage in kind is a share of the

harvest in terms of the unprocessed crop. In the case of paddy harvesting, work is spread over a week, firstly worker after cutting the crop just left spread in the field for a week then after a week they make bundles of the crop, and they are paid their wage share in proportion of those bundle of the crop like one bundle out of 8-10 bundle depending on the rate in the season as well as the village. Now, workers will have the choice to choose the bundle for their wage out of per 8-10 bundle. Previously it was 1 bundle out of 16 bundles then it increased to 1 bundle out of 12 bundles now it has come to 1 bundle out of 8-10 bundles, a cultivator reported. Each of these bundles after threshing could be converted into 12-15 kg of paddy depending on the size of the bundle. It is almost one-tenth share of output as harvest wage. Likewise, for each farming operation for each crop, there is a rate of wage arrived through convention and the notion of subsistence.

The exchange of labour services today is not at all organized through any physically established marketplace, as could be seen in many cities where there is a dedicated place for the worker to assemble in the morning to get hired. Villages do not have a dedicated place for the worker to assemble to get hired. To hire agricultural labour most cultivator goes to the labour household or their settlement area to ask them for labour services. Now a day's mobile phone also works as means of communication to inform about their requirement of the worker by cultivators. In the morning or a day in advance of the work cultivator goes to the worker's household and asks them to be hired for the work in the field. There is a practice of wage-based hiring as well as contract-based piece-rate hiring. Depending upon the nature of work and employee and employer's choice, terms and modes of labour exchange are decided. For agricultural labour, there is still a relationship that is being carried out, especially between the large landowner and agriculture workers that for an agriculture season a group of agriculture worker households commit themselves to work for a particular landowner. This relation is largely decided at the

beginning of the season in terms of those agriculture workers who have sown the crop will have the right to work till harvest because the final harvest wage is essential to have, some share of harvest as their subsistence need. But this relation is not as binding as workers or landowners cannot opt out of this. Since there are few large landowners/cultivators so, workers do compete to get hired in large cultivator fields as they will have more amount of work during the peak season of agriculture.

With this complicated sort of wage determination process agrarian wages could not be conceived to be the outcome of the labour market process but the outcome of a large set of non-economic processes considerations, tradition and notion of subsistence which is historically and socially determined (Stirati A. , 1994).

5.5. Labour Processes in the non-farm sector

In village 75, households reported non-farm as principle earning sources. They are classified into non-farm self-employed, non-farm wage workers and others. Here, others are reclassified into Regular salaried Government employees, retired from Govt. employment (pension dependent) and traditional caste-calling occupations.

Table 5.7 shows that 31 per cent of total households are dependent on earning from non-farm occupations. A large share (73 per cent) of these non-farm households are dependent on the casual nature of hiring out or self-employed category. However, it clearly exhibits a pattern of differentiation in access to various non-farm occupations in the non-farm sector dependent on the social background of the household.

Regular salaried households in government as well as in the private sector are from the social category 'other'. Out of a total of 16 salaried non-farm households, 14 are from the

social category of ‘Others’, being caste *Rajput*. Non-farm self-employed households are evenly distributed in all social groups of the household. SC and OBC households are the larger participants in hiring out as non-farm wage workers in the village. SC households in the village largely are excluded from the regular nature of non-farm employment. Only 17 per cent of OBC Non-farm households are engaged in regular nature of employment. Government sector regular salaried employment-dependent households are only 2, one from OBC and one from Others (*Rajput* caste) social group. Retired from government employment which means pension-dependent households in the non-farm income category household are 6 all from the *Rajput* caste household. Which suggest that regular salaried government jobs dependent household are migrating permanently to the urban centre for the work and education of their offspring.

Table 5. 7

Non-farm household type and social group

Non-Farm Household Type	Social Group			
	SC	OBC	Others	Grand Total
Non-Farm Self Employed	5	7	5	17
Non-Farm Wage Worker	17	16	5	38
Regular Salaried Govt. Employee	-	1	1	2
Regular Salaried Private Employee	-	2	8	10
Retired From Govt. Employment (Pension Dependent)	-		6	6
Traditional Caste Calling Occupations	-	2	-	2
Total	22	28	25	75

Source: Field Survey (2014-15)

Few of the non-farm activities operate inside the village largely construction work in terms of *kutchha* and *pakka* houses, and other construction where wages are mostly in terms of money wages but of course, agriculture is the largest sector hiring workers in the

village. Non-farm wage is also linked to the agrarian wage as workers and employers have a large set of evidence of wage rates in agriculture only. The casual need to labour especially for non-farm work like construction and household-related work also operates through groups of mason/contractor (*Rajmistri*, *Thekedaar*) and other networks.

Table 5. 8

Non-farm household type and Land Ownership

Non-farm Household Type	Number of Households	Land Ownership
Non-farm Self Employed	17	4.35
Non-Farm Wage Worker	38	3.16
Regular Salaried Govt. Job	2	1.35
Regular Salaried Private Job	10	8.48
Retired from Govt. Job (Pension Dependent)	6	20.89
Traditional Occupation	2	2.08
Total	75	40.31

Source: Field Survey (2014-15)

The land holding pattern among non-farm dependent households shows households who are primarily dependent on non-farm are having very low agricultural land ownership; Except the category of ‘Retired from Govt. Job (Pension dependent) households. These households moved to government jobs as a lucrative income diversification strategy in the pre-liberalization era. Now also, their land is cultivated by the tenant and they are pension and rent-dependent households. Post-liberalization the non-farm sector has risen mainly in form of informal low paying contractual forms. It does not provide enough assurance to households to move from farm to non-farm fully, only non-landed households could move towards the non-farm sector. On the whole, labour-process in the non-farm sector is largely casual in nature and substantial part of the non-farm worker is precariously self-employed as family labour in case of agrarian sector.

5.6. Migration

Bihar is very much known for large outmigration and this large migration has been understood as an index of progress in terms of income generation and livelihood security. Migration in a way is also good for the assimilation of people across the culture and regions and for breaking the stereotyped notion of each other's existence. There is a certain issue with the migration when it is distress driven not opportunity driven. Growth of the urban informal sector might offer a higher wage rate but in terms of working and living conditions of the migrant and migrant family residing at the source or destination, there is no guarantee of improvement in quality of life. Of course, migrants struggling for generations could be able to achieve some entitlement in terms of house or land in the city but that takes at least a generation of living in very sub-human conditions. Another issue regarding the working conditions is that migrant workers could receive a higher wage in comparison to their origin but in comparison to the local worker at the destination, they are being preferred to be hired at a lower wage. The standard working hour and working conditions are not being provided in the case of migrant workers usually. A large set of intermediaries working as labour contractors also operate to exploit migrant workers in lieu of offering work. Contract work is on the rise in the non-farm sector especially in the construction sector.

In the study village, 65 per cent of the household has at least one member migrating out for work. Out of those 65 per cent, 11 per cent of the household has an incidence of two members of the household migrating out. Other than the incidence of migration it is important that what kind of outmigration is happening in case of different social profile of the migrant. In the study village, there is a trend of seasonal migration among SC and OBC households and others which is forward caste group Rajput has a large incidence of

long-term migration. Out of total seasonal migration, 65.55 per cent are from a social group of SC and 30.65 from OBC.

Table 5. 9

Incidence of Migration from the Village

No. of Migrant Member in a Household	No. of Household	Percentage	Cumulative Percentage
0	84	34.71	34.71
1	121	50	84.71
2	27	11.16	95.87
3	7	2.89	98.76
4	2	0.83	99.59
5	1	0.41	100
Total	242	100	

Source: Field Survey (2014-15)

Table 5. 10

Migrant Occupation with their Social Group

Social Group				
Occupation Migrant	SC	OBC	Others	Total
No Migrant	38.55	34.94	26.51	100
Agriculture Worker	90.74	9.26	0	100
Mandi Worker	94.12	5.88	0	100
Construction Worker	55.56	44.44	0	100
Factory Worker	36.36	36.36	27.27	100
Household Worker	100	0	0	100
Student	0	66.67	33.33	100
Casual Worker	35.71	50	14.29	100
Regular Salaried Govt.	0	0	100	100
Regular Salaried Private	0	9.52	90.48	100
Self Employed	9.09	18.18	72.73	100
Carpenter	0	100	0	100
Driver	33.33	33.33	33.33	100
Total	49.17	25.62	25.21	100

Source: Field Survey (2014-15)

In long-term migration, most household members usually settled permanently at the place of migration destination. The share of the social category of 'other' is 60.66 and the share of OBC is 16.13 per cent is in the category of permanent migrant. (Datta, Circular migration and Precarity: Perspectives from rural Bihar., 2020) (Datta, Migration, Remittances and Changing Sources of Income in Rural Bihar (1999-2011): Some Findings from a Longitudinal Study, 2016)

The type of migration occupation of migrants gives a better picture in terms of the nature of the migration. As it is evident from table 5.10, the largest seasonal migrant group scheduled caste is migrating largely for manual work-based employment comprising agriculture workers, *Mandi* (headload) workers as well as a construction worker. The highest migration of students is happening from other backward caste groups (OBC). OBCs also migrate more to work in the construction sector and factories. The Rajput caste group have a migration pattern towards long-term employment like regular salaried job, and students and finally there are many factory workers who also comes from the Rajput caste (See Table 5.10).

5.7. Condition of Worker

Condition of workers is analysed based on the type of housing, lightening facility, access to drinking water, and type of fuel used by worker household. Ownership of the few assets like cycle and mobile phones are also considered to present the condition of worker household.

Table 5.11 shows that almost 36 percentage of worker lives in purely kutcha house which is not suitable considering heavy monsoon and flood prone area. In recent year there has been many cyclones which led to destruction of almost all of these kutcha houses and

which led to more use of tin roof which is also not so safe during the cyclone. After 2008 flood, some money was given for rehabilitation to many households and that made them construct kutchha house with tin roof and 34 percent of houses are now kutchha with tin roof.

Almost 60 percent of household has electricity connection, though service of electricity is very irregular and transformer of a large area is not working otherwise many more households would have access to electricity. Other than electricity large number of household use kerosene oil for the light in the night. (Table 5.12)

Table 5. 11

Type of Worker Household

House Type	Number of Worker	Percentage	Cumulative Percentage
Hut	37	6.61	6.61
Kutchha	167	29.82	36.43
Kutchha with Tin roof	194	34.64	71.07
Semi Pakka	85	15.18	86.25
Pukka	77	13.75	100
Total	560	100	

Source: Field Survey (2014-15)

Table 5. 12

Source of Light in Worker Household

Source of Light	No. of Worker	Percentage	Cumulative Percentage
Kerosene Oil	228	40.71	40.71
DC Connection/Solar	4	0.71	41.43
Electricity Connection	328	58.57	100
Total	560	100	

Source: Field Survey (2014-15)

Almost 86 percent of worker household depend on firewood and dung cake for the cooking fuel and they use kutcha chulha for cooking. Access to LPG is very low. In terms of assets 60 percent of worker household has bicycle, 84 percent has mobile phone and few of the cultivator household has agriculture equipment like Thresher, Pump Set and Ata Chakki. Five of the cultivator household has tractor as well.

Table 5. 13
Use of Cooking Fuel by Worker Household

Fuel	No. of Worker	Percentage	Cumulative Percentage
Firewood and Cow dung cake	481	85.89	85.89
LPG	79	14.11	100
Total	560	100	

Source: Field Survey (2014-15)

Most of the worker household are disenfranchised of land entitlement and assets, having weak asset position are not in position of using bargaining framework to secure their livelihood.

5.8. Discussion and Summary

Labour processes in the rural agrarian economy in Bihar is passing through uncertainty of livelihood. Various survival strategies and livelihood strategies are adopted by the worker. These survival strategies are primarily contingent upon the border accumulation strategies guided by the accumulation regime operating in the economy. Two of the major survival strategies are tenancy and migration. A rural worker household in the village has to combine various activities through changing forms of labour, engaging in family labour

on leased-in land. Migrating in the lean season to non-farm. So, the labour process in the rural economy of Bihar is in state of flux.

Labour process in the village is gendered and caste based traditional occupation is still in practice. Caste and landownership position are the two major determinant of rural labour process. Agriculture as a unique production activity has multidimensional labour process in which social relation and networks operates. Each of the agriculture operation has unique labour process associated as detailed in the section above. So, Agriculture worker as majority of worker group present in village engages in various activity simultaneously to hedge the uncertainty associated to livelihood structure in the agrarian production. Within agrarian production, agriculture worker lease-in a piece of land to use family labour and also move to the rank of cultivator. But this leasing in process usually involves an exploitative interlinking phenomenon between land and labour and results in some amount of unpaid labour or services to the landowner. Agrarian sector in the village is insufficient to provide adequate employment to the worker in and around village.

Non-farm activity in the village is very less. Household dependent on non-farm occupation is largely of regular salary earner or worker in the nearby subdistrict market as vendor, shopkeeper etc. Causal non-farm work in and around village are contractual in nature. Contract work is on rise in the village.

Migration is the most important survival strategy for the worker in the village. Frequency of migration is high but migration has not offered certainty or security to the landless agriculture worker. Landowner household is always looking for better opportunity outside village to settle down. Whatever meagre agricultural surplus is being generated in the village in mostly being invested in non-farm sector.

Rural labour process largely being agrarian labour process has a precondition of sustainability of agrarian production combined with some non-farm activity during lean season.

Chapter 6

Summary and Conclusions

Present study motivated by the need to understand the rural labour process under the new accumulation regime in Bihar. Identifying the new accumulation regime since the year 2000, marked by the separation of Jharkhand as new state. Erstwhile Bihar was left with large population and fertile Gangatic plain but no other natural resources or industry other than agriculture.

The research titled “Labour and Accumulation in rural Bihar: A village study, is study of a village located in district Madhepura of northeast Bihar. Northeast Bihar comprising eight districts namely Kishanganj, Araria, Purnia, Katihar, Supaul, Madhepura, Saharsha and Khagaria located in agro-climatic zone-II of Bihar. Northeast Bihar spreads over Gangatic plain to foothills of the Himalayas sloping north to south. River Kosi popularly known as ‘sorrow of Bihar’ coming from Nepal reaches to ganga flowing through its tributaries and distributaries. Kosi iegion is identified with these webs of tributaries and distributaries passing through this region causing devastating flood and relief through public work programme. Another modern name of this region ‘Seemanchal’ which means countryside located at the north border of India. Phaniswar Nath Renu, through his writings introduced this region to the modern India as a cultural context. The region known as least developed region in Bihar.

The study is based on household-level data collected through a primary census survey conducted during 2014-15 in Sakhua village located in Madhepura district of Bihar. The study village is identified as a typical rural agrarian economy through a multistage framework analyzing composition of District domestic product (DDP), composition of

the workforce, workforce participation rate (Census, 2011) as well as the cropping intensity of district and sub-district level data.

The study village 'Sakhua' is located in Dinapatti Sakhua gram-panchayat at a 10 km distance from sub-district Murliganj in Madhepura district of Bihar. Madhepura district comes under the Kosi division, which belongs to the Agro-Climatic Zone-II, Northern East alluvial plain of Kosi River. According to census 2011, the total area of the village is 209 hectares and the total population is 1851 comprising 429 households whereas while surveying the village researcher could locate population as 1417 residing in 242 households within the boundary of revenue village Sakhua.

Summary

This thesis is organized in six chapters. Chapter 1 of the thesis identify a high growth phase in Bihar as new accumulation regime through literature and generated research questions as objectives of the research as follows:

- I. Identify and analyse the nature of the accumulation regime in Bihar since 2000 as the broader context of the study.
- II. Analyse the structural specificity of the rural-agrarian economy in Bihar.
- III. Analyse production and exchange relations in the study village.
- IV. Given the nature of the accumulation regime and production conditions with exchange relations, analyse labour processes in the study village.

Chater-2, dealing with first objective of the study sets the context of enquiry identifying the nature of the accumulation regime in erstwhile Bihar. Section one of the chapter, highlights the importance of rural economy in terms of its contribution in output and

employment in the national economy. Continuous fall in the share of the rural economy in terms of output and employment shows declining importance of rural as an economic space. Agriculture being primarily a rural activity contributes almost total of agricultural output and employment in the national economy. Share of rural manufacturing output doubled whereas rural share of manufacturing employment has fallen slightly. Construction has experienced 5 percent increase in share of output with 10 percent increase in share of employment but rural share of service output and employment declined by 7 and 3 percent respectively. Overall, rural share of output and employment in non-farm sector has not seen any major change, which means that changes in the rural share of output and employment in construction and manufacturing has not led to any substantial change in the rural share of non-farm output and employment during 1970-2012. So, there has been diversification within non-farm sector which has not resulted in absorption of rural farm labour. Section two analysing the structure of accumulation in Bihar economy observes capital intensive growth in service along with immiserizing growth in construction, followed suit to jobless non-inclusive growth path. Section on Regional disparity poverty and inequality further characterises this high growth phase as spatially biased accumulation regime. Accumulation pattern at the level of district economy based on data available for the year 2004-05 to 2011-12 observes rural economy lagging behind the urban economy. Madhepura district is one among the least performer in Bihar. Share of Madhepura's district domestic product in the Bihar economy shows declining trend year on year during 2005-2012. Growth in the district economy coincides with the trend growth rate of state except year 2008-09 being a flood year. Comparing the data from census 2001 and 2011 for the workers participation, there is fall in the worker participation rate and this fall is largely in case of rural worker as worker participation rate for urban worker remain same. Further decomposition of worker participation

exhibits the marginalization of worker and uncertainty in employment is on rise. Though there is little diversification in occupational structure but it cannot qualify as a structural transformation. Overall, the high growth phase between 2005-2015, identified as an accumulation regime in the economy Bihar has no sign of structural transformation in the district economy, moreover this regime can be qualified as narrow based, exclusive growth process excluding large mass of rural population as this growth is service sector driven and urban biased.

Chapter 3 presents the structural specificity of the regional economy to situate the study village in a well-defined regional economy. The district has very low urbanization and 95 percent population (Census, 2011) lives in rural area. Population density of the district is higher than Bihar. Other parameters like literacy are low in the district. Village settlement depicts social group-based divisions. Untouchability is still in practice in the village. History of village settlement informs that village name is the name of a tree 'Sal' (Sakhua) as this region was forest area in the past according to oral history of villager as well history of the colonial period verifies the region as a forest area. The district is fairly an agrarian economy and volume of non-farm activities are very low located in urban economy.

Chapter 4, analyses the production condition and exchange relation in the agrarian production economy of the village. Village production structure is dominated by large and middle landowner as they own 70 percent landownership reported. Production decisions in the village economy is mediated through landownership-based superiority. Operational landholding suggests the practices of tenancy. The contrast in the class structure in terms of land ownership get diluted in terms of operational holding. Social structure is organized around caste as the settlements are divided along the line of caste. Caste and gender hierarchy still play important role in determining the asset position of the household. In terms of occupational structure, numerically scheduled caste agriculture

worker are one third of total number of household. These SC household largely belongs to the agriculture worker occupation. Numerically Rajput caste and OBC group are equal but 41 percent of Rajput household report cultivation as their household occupation. OBC household also reports 35 percent of cultivators from them.

Exchange relation in the rural economy is largely skewed along the line of production relation operating under the social hierarchy. In the differentiated production structure household engages in exchange out of compulsion, So, the terms and contract of exchange will be governed by the hierarchical relationship between both party enter into. Exchange networks in the village run by various intermediary. Remnant of the traditional jajmaani system is still visible in the village. Commodity and labour exchange both runs through the networks of intermediary.

Chapter 5, on rural labour process first separate out worker from non-worker from total population then locates the individual worker in the production structure of village economy by analysing socio-economic positioning of the worker. 59 percent belong to normative age to qualify as worker. But only 40 percent can be categorized as worker as income earner. Age structure worker shows that there is incidence of child as well as old age worker in the village. In terms of gender, only 25 percent of worker are female. This low participation of female in income earning activity shows caste bias as female from Other category household has negligible presence as worker outside their household. SC female has 38 percent participation whereas OBC has just 14 percent. Caste determines large part rural labour process through traditional caste-based occupation and segmentation due to practice of untouchability and other forms of caste discrimination. In agrarian production, operational landholding suggests lot of tenancy practices. Landless engages in tenancy as pure tenant substantially. Large amount of leased in land operates on marginal size land and uses their family labour. Family labour process is a

specific form of labour process in which wage may not be paid, and work schedule and working condition could lead to self-exploitation. Tenancy also works as hedge to smoothen the labour supply in peak season. There is phenomenon interlinking labour through tenancy. Large part of tenancy is being practiced as sharecropping. Agriculture worker as a largest category of worker largely coming from SC social group are landless. Agricultural worker households in the village are operating in groups of households. These groups are largely organized based on family, kinship-based or neighborhood relations. Village-level labour requirement is largely insufficient to provide opportunities to secure their livelihood for poor working households which pushes many of them to get hired on precarious terms of contract.

Wage in the village is being paid both cash and kind. Monetization of wages is on the rise. Harvest wages are paid in kind mostly. Wages rates are outcome of socio-historical process. Agriculture wages are determined operation wise. Peak and lean season has limited role to play in wage determination in the village.

Non-farm sector has various kind of worker like non-farm household worker, self-employed, wage worker, regular salaried worker. Each of these categories of worker working with different terms and conditions. Post-liberalization the non-farm sector has risen mainly in form of informal low paying contractual forms. It does not provide enough assurance to households to move from farm to non-farm fully, only non-landed households could move towards the non-farm sector.

There is high incidence of migration in the village but the nature of migration differs depending on the socio-economic position of the household and migrant occupation. Seasonal and temporary migrants come from the landless SC or OBC social group.

Whereas landed proprietor is looking for the better opportunity outside the village to settle down permanently.

Conclusions

The rural agrarian economy in Bihar is experiencing serious distress. Continued fall of share of the primary sector in GSDP of Bihar, as the primary sector largely is rural based so; it could be assumed that the importance of 'rural' as an economic space is losing relevance in terms of the accumulation strategy of the state. The wave of commercialization which was initiated during the green revolution had a very differentiated impact on the different regions of India. Further with the next wave of commercialization and with integration towards world market demand rural agrarian livelihood structure has been jeopardized asymmetrically. The recent growth (N K Singh, 2014) in the economy of Bihar was the context in which this distressed village economy was studied during the period of 2014-15.

Production condition in the agrarian economy of Sakhua village is in a multidimensional transition. This transition can be analysed through the labour process. Almost all 'Agricultural worker Households' were from scheduled caste social groups. This basically means that economic hierarchy coincides with social hierarchy for so long. Landownership is still in the hands of caste Rajput landowners. With a lot of struggles, OBC social group has politically negotiated to arrive at a subsistence farming household position by 2014-15. Social relation in a broader sense is in hopeless indifference between social groups in the village.

The volume of cultivation activity is not enough to generate employment for all agricultural worker. Labour process in agriculture is in acute crisis of infrequency and

uncertainty associated to work and livelihood. Caste untouchability is still interfering in the exchange of labour. Labour process as a survival strategy for rural worker could be juxtaposed with accumulation strategy as exchange relation is so eschewed with caste-class biases this survival strategy could be considered as follower of accumulation strategy. Accumulation strategy can be equated with growth strategy in current paradigms.

A large section of landed household and castes *Rajputs* are appropriating some surplus from agricultural land and moving towards petty non-farm accumulation strategy or permanent migration to urban areas in or outside Bihar. They are treating agriculture as backyard support in the current distress situation. This can be understood through large separation between ownership and operation by the *Rajput* caste households. However, each landed household having a leg in urban spaces has improved the human capital part of their family but those who are living in the village are just saving income to create a space in the urban non-farm economy. Selling land is not an option as one leg of the family is still in the village to survive and social power associated to land still exist.

For subsistence cultivator and agriculture worker households in majority from SC and OBC groups, migration work mere as 'hedge' to manage uncertainty in availability of work in lean agricultural season and lack of return in cultivation. Non-farm and migration as livelihood strategy is circular to them than unidirectional. Extent of non-farm work is very limited and migration is short term and seasonal in nature. Despite the severe distress in agrarian sector, they have to fall back to cultivation on small parcel of land they owned and on land leased in share cropping and farm labour as 'strategy of survival'.

Appendix

LABOUR AND ACCUMULATION IN RURAL BIHAR: A VILLAGE STUDY- 2014-15

Schedule: Household Schedule

PART- I H.H. Identity and Amenities

1. Schedule type code2. Serial No3. House No.....4. Name of head of household/sex..... 5. Son/wife of..... 6. Caste..... 7. Category..... 8. Type of house..... 9. Lighting..... 10. Latrine..... (Srinivas M. N., 1976) (Epstein)11. Drinking water..... 12. Fuel..... 13. Assets..... 14. Account No.....

PART-II Activity pattern of household (residents and migrants)

RM & MM	Introduction of H.H. Members						Usual Activity (by time)		Secondary activity (by time)			
	Sl.	Name (head's name first)	Relation to H.O.H.	Sex	Age	Education	Self-emp.	Casual Wage-paid	Regular Wage-paid	Self-emp.	Casual Wage-paid	Others
Resident Members	1											
	2											
	3											
	4											

	5											
	6											
	7											
Migrant Members	8											
	9											
	10											
	11											

PART-III Agricultural Activities

15. Whether cultivating /non –cultivating household.....

16. If cultivating, total area operated acres/ beeghas.....

(i) Inside the village outside the village (ii) Outside the village

17. Leased in area.....

18. Leased out area.....

19. Area under crops (acres/beeghas)

PART - IV Non-form activities

20. Nature of enterprises:

Season	Crop	Irrigated	Unirrigated	Others
Kharif				
Rabi				
Others				

- 20.1. Type of products/services.....
- 20.2. Seasonal/round the year.....
- 20.3. Output/turnover.....
- 20.4. Disposal of Output.....
- 20.5. No. of persons employed.....
21. Power consumption.....
22. Account No.....

SPACE FOR NOTES

Date/Time of interview

Name of the respondent

References

- Aayog, N. (2017). *Changing Structure of Rural Economy of India Implications for Employment and Growth*. National Institution for Transforming India, Government of India.
- AE, C. S. (2021). *Agricultural Growth Diagnostics: Identifying the Binding Constraints and Policy Remedies for Bihar, India*.
- Agriculture Contingency plan for District Madhepura*. (2013, 12 28). Retrieved from KRISHI NRM-CRIDA-Publication: https://krishi.icar.gov.in/jspui/bitstream/123456789/67411/1/BR20_Madhepura_28.12.2013.pdf
- Amin, S. (1984). *Sugarcane and Sugar in Gorakhpur*. Oxford University Press.
- Amit Basole, D. B. (2011). Relations of Production and Modes of Surplus Extraction in India: Part-I-Agriculture. *Economic Political Weekly (EPW) Vol.XLVI No. 14*, 41-58.
- Appu, P. S. (1973). Unequal Benefits from Kosi Development . *EPW*, 47-52.
- Bagchi, A. K. (1976). De-industrialization in India in the nineteenth century: Some theoretical implications. *The Journal of Development Studies*, 135-164.
- Basu, A. B. (2011). Relations of Production and Modes of Surplus Extraction in India: Part I-Agriculture. *Economic Political Weekly*, 41-58.
- Bharadwaj, K. (1974). *Production Condition in Indian Agriculture*. Cambridge: Cambridge University Press.

- Bharadwaj, K. (1989). On the Formation of Labour Market. In K. Bharadwaj, *Accumulation Exchange and Development* (pp. 322-352). New Delhi: Sage Publisher.
- Bhardwaj, K. (1985). A view on commercialisation in Indian agriculture and the development of capitalism. . *The Journal of Peasant Studies* 12(4),, 7-25.
- Bhardwaj, K. (1989). On the Formation of Labour Market in Rural Aisa. *World Employment Programme working Paper* 18, 18.
- Bhardwaj, K. (1994). *Accumulation Exchange and Development: Essays on the Indian Economy*. New Delhi: Sage Publications.
- Bhardwaj, K. (1994). Production and Exchange in Theories of Price Formation. In K. Bhardwaj, *Accumulation, Exchange and Development: Essays on the Indian Economy* (p. 28). Sage Publications: New Delhi/Thousand Oaks/London.
- Bihar, F. D. (2020-2021). *Bihar Economic Survey*. Finance Department Government of Bihar.
- Breman, J. (2013). *At work in the informal economy of India: A perspective from the bottom up*. OUP Catalogue.
- Census . (2011). *District Census handbook Madhepura*. Directorate of Census Operations, Bihar.
- Census. (2011). *Disctrict Census Handbook, Madhepura*. New Delhi: ORGI.
- Census, 2. (2001). *Census of India*. Government of India.
- Chakraborty, A. (2001). Caste and Agrarian Class: A View from Bihar. *Economic & Political Weekly*, 1448-1463.

- Chowdhury, B. (1964). *Growth of Commercial Agriculture in Bengal Volume I*. Calcutta.
- Chowdhury, B. B. (1967). Agrarian Economy and Agrarian Relations in Bengal, 1859–1885. In N. Sinha, *The History of Bengal, 1757–1905*. Calcutta: University of Calcutta.
- Datta, A. (2016). Migration, Remittances and Changing Sources of Income in Rural Bihar (1999-2011): Some Findings from a Longitudinal Study. *Economic and Political Weekly*, 85-93.
- Datta, A. (2020). Circular migration and Precarity: Perspectives from rural Bihar. *The Indian Journal of Labour Economics*, 63, 1143-1163.
- Dhar, N. S. (2012). On days of employment of rural labour households. . *Review of Agrarian Studies*, 2369-2021-100.
- Dhar, N. S. (2013). Features of rural underemployment in India: Evidence from nine villages. *Review of Agrarian Studies*, 2369-2021-094.
- (2016). *District Irrigation Plan Madhepura 2016-2020*. Kairibari , Phulwaria Barauni , Bihar 851112: TRUAGRICO,.
- Diwakar, D. M. (2020). *Mapping Inequality in Bihar*. India: ANISS, Oxfam India.
- Dube, S. C. (1955). *Indian village*. London: Rutledge and Kegan Paul Publication.
- Duijne, R. J. (2019). Why India’s urbanization is hidden: Observations from “rural” Bihar. *World Development*, 123, 104610.
- Epstein, T. S. (n.d.). *Village voices: forty years of rural transformation in South India*. Sage Publications India Pvt Ltd.

- Gerry Rodgers, A. D. (2013). *The Challenges of Inclusive Development in Rural Bihar*. New Delhi: IHD.
- Guha, R. (1982). *A rule of property for Bengal: An essay on the idea of permanent settlement*. Paris: Orient Blackswan.
- Gupta, C. D. (2010). Unravelling Bihar's "Growth Miracle". *Economic and Political Weekly*, 50-62.
- <https://www.census2011.co.in/census/district/65-madhepura.html>. (2011).
<https://www.census2011.co.in/census/district/65-madhepura.html>. Retrieved from
<https://www.census2011.co.in/census/district/65-madhepura.html>:
<https://www.census2011.co.in/census/district/65-madhepura.html>
- Indrakant, S. (2017). Dynamics of Food Grains Production in Telangana. . *Current Issues in Economics and Finance*,, 213-223.
- Jha, H. (2019). Ecological changes and underdevelopment of North-Eastern Bihar in a historical Perspective. In H. Jha, *Understanding Social dynamics in South Asia* (pp. 203-2011). Singapore: Springer.
- Jha, S. (2012). Visualising a Region: Phaniswarnath Renu and the archive of Regional Rural in the 1950s. *Indian Economic and Social History Review* vol. 49, no. 1, 1-35.
- Jodhka, S. (2012). *Caste*. New Delhi: OUP.
- Kishore, A. (2004). Understanding Agrarian Impasse in Bihar. *Economic and Political Weekly*, pp. 3484-3491.
- Kumar, N. (2011, June). Labour and Wages in Pre-smithian Political Economy. *M.Phil Dissertation*. University of Hyderabad, Telangana, India.

- Marx, K. (1887). *Capital Vol. 1*. Moscow, USSR: Progress Publishers,.
- Mishra, D. K. (2008). The Kosi and the Embankment Story. *Economic and Political Weekly*, vol.43, no. 46, pp. 47-52.
- Mishra, D. K. (2008). The Kosi Embankment Story. *EPW*, 47-52.
- Mukherji A, M. A. (2012). *Bihar: What went wrong? and what changed?*
- Mukul. (1999). The Untouchable Present: Everyday life of Mushahars in North Bihar. *Economic and Political Weekly*, pp. 3465-3470.
- Mukul. (4 Dec. 1999). The Utouchable Present: Everyday lives of Musahars in North Bihar. *EPW*, 3465.
- N K Singh, N. S. (2014). *The New Bihar-Rekindling Governance and Development*. India: Harper Collins.
- NIRDPR. (n.d.). Rural Development Statistics-2018-19. Hyderabad, Telangana, India.
- Omkarnath, G. (1993). *Rural Labour Processes: A case study in Coastal Andhra*. Retrieved from shodhganga.inflibnet.ac.in: <https://shodhganga.inflibnet.ac.in/handle/10603/14975>
- Patnaik, U. (1981). The Process of Commercialization under Colonial Conditions'. . *presented at the Seminar on Commercialization in Indian Agriculture*. Trivandrum.
- Robb, P. (1992). Peasants' choices? Indian Agriculture and the limits of commercialization in nineteenth-century Bihar 1. *The Economic History Review*, (45(1), 97-119.

- Santra, S. K. (2014). Structural change of Bihar economy during 1999 to 2010: a district level analysis. *The International Journal of Humanities and Social Studies* 2(1).
- Sarap, K. (1991). Interlinked agrarian markets in rural India. Interlinked agrarian markets in rural India.
- Sen, A. C. (1982). *Perspectives in Social Sciences 2: Three Studies on the Agrarian Structure in Bengal, 1850-1947 (Vol. 2)*. USA: Oxford University Press, USA.
- Sharma, A. N. (2005, 3 5-11). Agrarian Relations and Socio-Economic Change in Bihar . *Economic & Political Weekly*, pp. 960-972.
- Sharma, A. N., & Rodgers, G. (2015, March 6). Structural Change in Bihar's Rural Economy: Findings from a Longitudinal Study. *Economic and Political Weekly*, pp. 45-53.
- Sharma, N. &. (1996). Sharecropping in a North Indian village. *The Journal of Development Studies*, 33(1), 1-39.
- Singh, A. K. (2017). Urbanisation in North East Bihar: Pattern and Potential. *National Geographical Journal of India*, 26-27.
- Sinha, D. K. (2019). An Investigation on Factors Affecting Land Use Pattern in Bihar with special reference to changes in Current Fallow Land. *Munich Personal RePEc Archive*.
- Solow, R. M. (1990). *The Labour Market as a Social Institution*. Blackwell.
- Srinivas, M. N. (1955). *India's villages*. Calcutta: West Bengal Government Press.
- Srinivas, M. N. (1976). *The remembered village*. Univ of California Press.
- Stirati, A. (1994). *Wages and the labour market in classical political economy*.

- Stirati, A. (2015). Labour and Wages. In H. D. Salvadori, *The Elgar Companion to David Ricardo*. Edward Elgar Publishing Limited.
- Thomas, J. J. (2012). India's labour market during the 2000s: Surveying the changes. *Economic and Political Weekly*, 39-51.
- Thomas, J. J. (2013). Explaining the 'jobless' growth in Indian manufacturing. *Journal of the Asia Pacific Economy*, 673-692.
- Thorner, D., & Thorner, A. (1962). *Land and Labour in India*. Asia Publishing House.
- Walker, K. L. (2008). Neoliberalism on the Ground in Rural India:. *The Journal of Peasant Studies*, 557-620.
- Washbrook, D. (1976). *The Emergence of Provincial Politics: The Madras Presidency 1870–1920*. Cambridge, UK: Cambridge University Press.
- Whitcombe, E. (1971). *Agrarian conditions in northern India Vol.1: The United Provinces Under British Rule, 1860-1900*. Berkeley, CA: University of California Press.
- Wilson, K. (1999). Patterns of accumulation and struggles of rural labour: Some aspects of agrarian change in central Bihar. *The Journal of Peasant Studies*, 316-354.
- Wiser, W. H. (1936). *The Jajmani system Lucknow*.



International Journal of Financial Management and Economics

P-ISSN: 2617-9210
E-ISSN: 2617-9229
IJFME 2021; 4(2): 118-128
Received: 05-11-2021
Accepted: 09-12-2021

Nilesh Kumar
PhD Scholar, School of
Economics, University of
Hyderabad C.R Rao Road,
Gachibowli, Hyderabad,
Telangana, India

Mrityunjay Pandey
PhD Scholar, School of
Economics, University of
Hyderabad C.R Rao Road,
Gachibowli, Hyderabad,
Telangana, India

Corresponding Author:
Nilesh Kumar
PhD Scholar, School of
Economics, University of
Hyderabad C.R Rao Road,
Gachibowli, Hyderabad,
Telangana, India

Labor processes in rural Bihar: A set of survival strategies

Nilesh Kumar and Mrityunjay Pandey

DOI: <https://doi.org/10.33545/26179210.2021.v4.i2.101>

Abstract

This research is an enquiry into the rural labour process through a village study located in the Madhepura district of Bihar. Production condition and exchange relation intertwined with socio-economic hierarchy in the village creates a specific mix of labour processes as a set of survival strategies. Survival strategies of worker household is a response to unfolding distress due to neoliberal accumulation strategies.

Households dependent on agrarian income are largely of three categories Landowner cultivator, Tenant Cultivator and Agriculture worker. With the rising cost of cultivation, landowner cultivator is in the interest of diversifying their sources of income continuing with cultivation or leasing out land since the non-agrarian source of income is yet to assure. The village is largely backyard support for the landed class to search for a sustainable avenue outside the village. Tenant Cultivators household is holding back with subsistence farming using family labour to upgrade their status in the social hierarchy as a cultivator. Agriculture worker households are the largest group of households dependent on insufficient agrarian income surviving on the mix of unsustainable livelihood strategies through frequent circular migration between farm and non-farm activity.

Keywords: Survival strategies, rural labour, worker household, Bihar

Introduction

The rural labour process is a set of survival strategies (Bharadwaj, On the Formation of Labour Market, 1989) ^[2] invented by worker households in response to the unfolding accumulation strategy extant production conditions in the rural agrarian economy. Production and exchange relation in a rural agrarian economy is the major determinant of the rural labour process. Combining different forms of labour, diversifying labour use at the household level, condition of work, wages, as well as migration, comprises the major part of livelihood strategies of a rural labour household (Omkarnath, 1993) ^[10].

Structural change in rural Bihar (Sharma & Rodgers, 2015) ^[12] has been characterised by changing production relations in the rural predominantly agrarian economy. This study is an enquiry into the rural labour process within an agrarian economy to understand the implications of changing production relations under a new accumulation regime (Gupta, 2010) ^[6].

The study is based on household-level data collected through a primary census survey conducted during 2014-15 in Sakhua village located in Madhepura district of Bihar. The study village is identified as a typical rural agrarian economy through a multistage framework analyzing composition of District domestic product (DDP), composition of the workforce, workforce participation rate (Census, 2011) ^[3] as well as the cropping intensity of district and sub-district level data.

‘Sakhua’ is located in Dinapatti Sakhua panchayat at a 10 km distance from sub-district Murliganj in Madhepura district of Bihar. Madhepura district comes under the Kosi division, which belongs to the Agro-Climatic Zone-II, Northern East alluvial plain of Kosi river. According to census 2011, the total area of the village is 209 hectares and the total population is 1851 comprising 429 households whereas while surveying the village researcher could locate population as 1417 residing in 242 ^[a] households within the boundary of revenue village Sakha.

^a Cross checking with census 2011, it was realized that large number of joint households are registered as separate household and absentee household are also included in census counting.

Out of the total village area 209 hectares, 195.6 hectares is used for cultivation as 'Net sown area' rest 13.4 hectares is non-agricultural land including the village settlement area. Almost half of the net-sown area (100 hectares) is irrigated land, half of which (50 hectares) is irrigated by canal irrigation and another half (50 hectares) by well and tube-well, rest of 95.6-hectare land is unirrigated land. The major crop grown in the Kharif season is paddy and Rabi seasons is wheat, and maize is the common crop grown in both seasons. Apart from these major crops few vegetables and bananas are also grown in the very limited area.

This paper is divided into six major sections. The first section, production condition in the village economy; analyses socio-economic positioning of the households on the axis of the social hierarchy of caste and economic hierarchy of land ownership and occupational structure to derive production relation in the village. Given the production relation, the second section is on exchange relations in the village determining labour process through labour exchange, tenancy relation and wage structure. This study has conceived three economic sectors: the farm sector of the village, the non-farm sector in and around the village and migration. The third, fourth and fifth section highlights the nature of labour processes in respective sectors of the village economy. The final section of the paper, based on the above discussion argues that the labour process is one of the important lenses through which fundamentals of the rural agrarian economy need to be looked upon.

Production Condition in the Village Economy

Production structure in the village economy could be visualised within the social structure of graded hierarchy along caste, gender and class, which in turn let evolve the production relation not as a pure economic relation but as a social relation. This study is confined to a village without assuming independence of the village economy from the rest of the economy or political economy of Bihar.

Social Structure of the village

Village society is organized around the caste system and even the settlements are designed according to caste hierarchy. Low land and flood-prone area having no proper facility for the standard of living are the common features of the household settlements of marginalized caste in the village. Caste as a major social hierarchy determines land ownership historically. The predominance of agriculture, distribution of land ownership are the important indicator of economic hierarchy in the village. Juxtaposing Social groups of caste with size-class^[b] of landownership locates households in the socio-economic hierarchy of the village. Almost half of the household of the village belongs to the SC social group rest of the household are equally divided into OBC and other groups. SC household settlements have spread over three hamlets, one of which is settled at the one end of the village and the other two are far away from the main village. OBC households are settled in a hamlet on the other side of the village.

Table 1: Number of Household in the different social groups and land size class

Land Size Class	Social Groups			
	SC	OBC	Others	Total
Landless	115	34	13	162
0-1 Acre	2	16	13	31
1-2 Acre	2	7	9	18
2-5 Acre	0	5	21	26
More Than 5 Acre	0	0	5	5
Total	119	62	61	242

Source: Field Survey (2014-15)

In the village out of a total of 242 households, almost 67 per cent of households are landless, 13 per cent are marginal landowners (0-1 acre), 7 per cent are small landowners (1-2 acre), 10 per cent are medium landowner (2-5 acre) and at least 2 percentage are defined as large landowner (5 acres and above). Sakha village is divided into three social groups; SC, OBC and Others. Scheduled caste present in the study village namely, '*Dom*', *Chamar*, *Musahar* and *Dusadh* (*Paswan*). Out of these four castes, *Dom* and *Chamar* are still considered untouchables and they have no ownership of land other than the homestead land. Two castes *Dom*^[c] household has hut kind of house at the bank of canal which is government land. Both caste *Dom* and *Chamar* comprising 13 are landless households. Out of 42 *Musahar* household, two households has less than an acre of land and one household is having land ownership between 1 to 2 acres. Only one *Dusadh* household has small land ownership between 1 to 2 acres. In the other backward caste group (OBC), *Baniya* (*Vaishya*) has the highest incidence of landlessness as out of 19 household only 3 households has marginal land ownership (0-1 acre). *Yadav* being one of the dominant OBC castes has improved ownership in the recent past due to political patronage and has 50 per cent of the incidence of landlessness (Sharma, Agrarian Relations and Socio-Economic Change in Bihar, 2005)^[11]. Two of the other OBC caste *Badahi* (carpenter) and *Nai* (Barbar) being traditional jajmani caste has no incidence of landlessness but *Badahi* household of which only two in number has marginal land ownership. *Nai* (Barbar) coming from the traditional jajmani^[d] caste has five households out of that, two has marginal land ownership and the rest three are small and middle (2-5 Acre) land ownership size-class.

Here land size class and social group are used as the axis for analyzing the share of ownership and operational holding to identify the structure of economic and social hierarchy. In the study village, total ownership holding is 176.20 acres and total operational holding is 159.27 acres. The largest share of ownership and operational holding is of medium (2-5 Acre) size in the village. Almost 70 per cent of ownership size is above two-acre. One-third of operational holding belongs to medium size class (2-5 Acre). In terms of share of ownership and operational holding, the 'Other' social group which is the *Rajput* caste in the village has the largest share (77%, 47%) of ownership and operational holding. SC

^c Their primary occupation is rearing pig and weaving bamboo to make many important articles like *Sup*, *Dagra*, *Biyan* and *Tokri* for household in the village. There is very limited seasonal demand for these articles. Caste *Dom* is traditionally considered as scavenger, mat-weaving and basketry, drum beating, removal of dead carcass but these two households are not engaged in the traditional occupation.

^d It will be discussed in detail in Exchange relation in village Economy section.

^b Land ownership meaning land for cultivation and Size-Class is designed specific to the study.

household own and operate the least share of total ownership and operation holding in the village. OBC group

has a 20 per cent share in land ownership and they operate with a 36 per cent share. (See table 2)

Table 2: Distribution of Ownership and Operational holding in the village

Land Size Class and Distribution of Ownership and Operational Holding		
Land Ownership	Share Ownership Holding	Share Operational Holding
Landless	0	19.51
0-1 Acre	10.39	17.69
1-2 Acre	17.1	18.34
2-5 Acre	51.72	31.44
More Than 5 Acre	20.79	13.01
Total	100	100
Social Group and Distribution of Ownership and Operational Holding		
Social Group	Share Ownership	Share Operational Holding
SC	2.24	16.78
OBC	20.38	35.86
Others	77.38	47.35
Total	100	100

Source: Field Survey (2014-15)

Age-Structure of the Village Population

The total number of households surveyed in the study village is 242 comprising 1417 population. The age structure of the sample informs that almost 59 per cent of the total population belong to the working-age (16-65 year). But this age structure is normative in the sense of categorizing the population as capable to qualify as working age in the legal sense. But the prevalence of child labour as well as old age working in the village insignificantly. (See table 3).

Table 3: Age composition of the village population

Age Group	Persons	Percent
0-6	252	17.78
7-14	296	20.89
15-65	834	58.86
Above 65	35	2.47
Total	1,417	100

Source: Field Survey (2014-15)

Locating Labour in the Production structure

Out of the total population 1417, on which having information about their occupation has been categorized, in the two categories of 'Worker and Non-worker', basically considering their engagement in economic activity to derive direct income. This classification has not considered a person engaged in non-income earning activity such as household work. Each individual is categorised as worker and non-worker in the sense of income earner and non-income earner. If a person (female/male/child) is working in household activity then it would not be considered as a worker in the income-earning sense as it would separate persons who hire themselves out for the earning income or work with their means of production to earn income^[e]. Through earning criterion village has 560 workers and 857 non-workers.

Almost 59 per cent of person belongs to the working-age between 15-65 years but only 40 per cent can qualify as a worker as income earner category. Leaving Non-worker out,

the age structure of the worker in Table 4 shows that 93 per cent of workers fall into the normative category of working age whereas there is the incidence of child labour and old age worker as an income earner. The broader measure of workforce participation could be calculated for the village dividing no. of workers with a total population ($560/1417=0.40$) as 40 per cent. A narrower definition of workforce participation rate will be no. of workers divided by the number of persons between the age of 15 years to 65 years, which can be calculated ($560/834=0.67$) as 67 per cent. So, the worker population ratio which is a measure of dependency structure within the household informs us about 60 per cent of the population is non-earning and dependent on the rest 40 per cent.

Table 4: Age Structure of Worker

Age Structure	No. of Worker	Percentage of Worker	Cumulative Percentage
7 – 14	24	4.29	4.29
15 – 65	522	93.21	97.5
Above 65	14	2.5	100
Total	560	100	

Source: Field Survey (2014-15)

Gender plays a significant role in determining the earning position of a person in the village economy. Only 140 females could be categorized as a worker in our study, which is 25 percentages of the total workers. This is basically because lots of women especially from other social groups are not part of the income-earning workforce. In the study village, upper-caste women even from landless family have an almost negligible presence in income-earning activities (see table 5)

Table 5: Gender Profile across Social Groups of Worker

Social Group	Female	Male	Total
SC	38.13	61.88	100
OBC	14.55	85.45	100
Others	1.54	98.46	100
Total	25	75	100

Source: Field Survey (2014-15)

Social Labour Process

Caste structure in Sakhua village can be seen majorly

^e Household work of women has not been categorized as work here considering not to be adding directly to the household income. Household work is very important aspect of human survival; In fact, rural labour process has been gendered in terms of work and occupations. However, study of that is beyond the scope of this paper.

operating as a determinant of labour-process in terms of occupational structure and access to livelihood activities. Hold of traditionally assigned economic activities to caste groups is yet to dilute fully.

Table 6 shows the scheduled caste social group in total has the highest 57 per cent of the worker in terms of the income earner and this percentage is lowest almost 20 per cent for OBC as well as around 23 per cent for other (*Rajput*) social group. In the SC group, *Musahar* is the most vulnerable having 21 percentage of the worker as income earners and *Dom* which is the lowest untouchable caste in the SC group solely working as a self-employed occupation of pig rearing has the lowest percentage of the worker as income earner (Mukul, 1999) [8]. Caste *Dom* can still be categorised as a caste having no access to the open labour operation like opting for agricultural occupation or casual labour operations because of the untouchability still prevalent in the study village. Caste *Dusadh* (*Paswan*) in terms of economic hierarchy in the village could be considered as having relatively better access to labouring activity within the SC group in terms of access to the labouring and land leasing-in. Having relatively better access to the means of production and labour market *Dusadh* traditionally have been the largest segment of the agricultural worker in Rural Bihar. *Musahar* and *Dusadh* in the SC group are not considered untouchables in a limited way and have relatively better access to the labour market than caste *Dom*. *Musahar* has relatively less access to the means of production than the *Dusadh* caste and is also the second-largest proportion of workers in comparison to other castes in the SC group.

Yadav caste due to the gains from political patronage in the recent past has also started participating in education and opting out of the labour market at a younger age. *Badhai* (Carpenter) numerically small in the village is one of the

specialized skilled groups having their means of production (tools of carpentry) have better access to the labour market and they also have marginal land ownership. Caste *Baniya* (merchant) as a caste group has largely been engaged in the specific occupation of merchant and shopkeeper. Most of the *Baniya* family are landless and self-employed in shop keeping and grain trading as well trading of agricultural input like fertilizer and diesel. *Nai* (Barbar) traditionally being *jajmaani* occupational caste still engaged in traditional occupation largely. Few of the barber household has still managed to continue *Jajmani* relation and cultivate the land given in past for *Jajmani* services.

In the other category of the social group only the *Rajput* caste which is the dominant caste as well as landowner class in the village. A *Rajput* household has fewer members working as a resident in the village. Most of the family has their regular income earner worker outside the village. *Rajput* worker groups also include a large proportion of cultivators largely engaged in cultivation more in terms of supervision. Recently, with the tightening of the rural labour market, *Rajput* males have started manual work in cultivation in their field due to the rise in the wage rate and relative shortage of labour on the wage rate they could offer. So, the male member of the cultivator class has substantially taken over the less labour intensive work like irrigation and weeding, ploughing with the tractor, threshing of grain like activity. Whenever they hire labour they also work with them equally to save the labour cost in terms of engaging another labour. A *Rajput* landowner who could still not consider being engaged in the manual work in cultivation is largely leasing out their land at sharecropping and they do get involved in regular supervision to direct the tenant in terms of decision making like what to sow when to sow, irrigate and when to fertilize.

Table 6: Worker by Caste in Different Social Groups

Social Group	Caste	Worker	Percentage	Cumulative Percentage
SC	Dom	4	0.71	0.71
	Chamar	30	5.36	6.34
	Mushar	120	21.43	27.77
	Dusadh	166	29.64	57.41
OBC	Yadav	62	11.07	68.48
	Barbar	9	1.61	70.09
	Baniya	33	5.89	75.98
	Badhai	6	1.07	77.05
Others	Rajput	130	23.21	100
Total		560		

Source: Field Survey (2014-15)

Occupational Structure in the Village

Based on self-reporting about a major source of earning, this study has classified village households into 6 occupational categories. These are 'Cultivators households, Agricultural worker household, Non-farm self-employed households, Non-farm wage workers, Regular salaried worker' and others: who could not be classified in any of the above

categories. There is a possibility that within a household every member could have a different occupation but household level occupation is largely defined in terms of the major portion of livelihood earning occupation. Analysis of the individual worker will inform about the occupation of an individual in terms of their primary occupation.

Table 7: Household type and social group

Household Type	Social Categories			
	OBC	Others	SC	Total
Agricultural Worker	2.60	-	97.40	31.82
Cultivator	35.29	41.18	23.53	35.12
Non-Farm Self Employed	41.18	29.41	29.41	7.02
Non-Farm Wage Worker	42.11	13.16	44.74	15.70
Other Households	57.14	14.29	28.57	2.89
Regular Salaried Employee	16.67	83.33	-	7.44
Total	25.62	25.21	49.17	100.00

Source- Field Survey (2014-15)

Table 8: Household type and land size class

Household Type	Landless	Marginal (0-1 Acre)	Small (1-2 Acre)	Medium (2-5 Acre)	Large (5 Acre and above)	Total
Agricultural Worker	100.00	-	-	-	-	31.82
Cultivator	29.41	27.06	17.65	20.00	5.88	35.12
Non-farm Self Employed	88.24	5.88	-	5.88	-	7.02
Non-Farm Wage Worker	92.11	5.26	-	2.63	-	15.70
Other Household	57.14	14.29	28.57	-	-	2.89
Regular Salaried Employee	33.33	22.22	5.56	38.89	-	7.44
Total	66.94	12.81	7.44	10.74	2.07	100.00

Source: Field Survey (2014-15)

Agriculture worker household is numerically almost one-third of the total number of household in the village, are landless and largely (94.40 per cent) belong to SC social group. Around 41 per cent of cultivator household comes from the Rajput caste and 35 per cent from the OBC group. This clear demarcation indicates how social structures are still determined through caste in rural Bihar.

Exchange Relation in the Village Economy

Rural exchange is largely contingent upon the production structure aligned production relation operating under the framework of larger social relation in the village economy. The traditional exchange relation in rural Bihar was identified as the *Jajmaani* system (Wiser, 1936; Srinivas, 1955; Dube, 1955) ^[16, 13, 5]. In this system, rural societies were largely engaged and caste-based specialized occupation and used to exchange their goods and services on the principle of reciprocity. *Jajmaan* (customer) of goods and services used to pay back in kind of necessities in exchange. In this system, occupations were largely specialized on a caste basis. Each of the caste groups has specialized in a particular occupation was dependent upon their *Jajmaan* which usually comes from the landed proprietary caste. Payment for the goods and services exchanged for were oriented towards agriculture year and largely in kind. Money was not a frequent medium of exchange in the *Jajmaani* system. There was a system of giving a small piece of land for cultivation or a share of agricultural produce in lieu of services to service caste-like barber, potter and others. Remnant of the *Jajmaani* system could still be found in the village of today's Bihar, Barbar services in the village is still based on the old *Jajmaani* relation.

Rural Exchange processes in terms of major markets, (as mainstream economics consider it) output, land, labour, and credit are largely functioning through a power structure of the village economy. Scope of exchange and contract of exchange is being guided by intermediaries belonging to the upper and middle of the socio-economic hierarchy of village society. The group with a larger share in the village surplus would have more power in determining the exchange

relation in the village economy. Exchange relations are not usually determined through the bargaining process between the parties but by the superior decision-making process by the party (Intermediaries) enjoying asymmetric power in the village economy (Bhardwaj, 1994). Customary practices of exchange are largely determined through the village social hierarchy. The labour process in the rural economy is also determined through social and customarily established informal contracts. The middle class in the rural socio-economic hierarchy are largely decision takers rather than decision-makers and they aligned themselves to the decision-maker dominant class in terms of their production and exchange decision to hold on to their subsistence position. On the lower end socio-economic classes with no or marginal ownership of means of production, land, or any other productive asset largely engage in exchange merely out of compulsion of livelihood necessities. Landless or marginal cultivator households possessing no secure means of livelihood have to either hire them out or cultivate their small plot of land in the peak agriculture season with their household labour. In the lean season, they would largely be dependent on casual work or migrate to the non-farm opportunity at the urban centre. Few of them work as quotidian migrants in the nearby small urban centre. Landless agriculture workers opt for seasonal migration for agriculture works in the state having a different peak and lean season. In this condition of insecure livelihood, there is very little chance for having enough bargaining power while engaging in the exchange of their labour-power and the exchange relation here could be skewed in nature which is indirectly an outcome of production relation and resource position of the agriculture worker households.

Production relation is the important determinant of the type of exchange relationships in which a household will be vis-a-vis its resource position. Access to the market and scale of the transaction is limited by the resource position of the particular household. That is why multiplicity of exchange relation is obvious in the village economy which is essentially differentiated in terms of production relation and respective resource position. In terms of the labour-process village, the economy exhibits a large range of employee-employer relationships (Thorner & Thorner, 1962) ^[15] and

respective modes of wage payment or contracts. Exchange networks of the village have spread over the villages around and sub-district and District market centre. Few of the large producers have access to the district market in terms of the sale of their output and purchase of input for agriculture. Marginal, small and middle cultivators are dependent mainly upon the petty merchant intermediaries for their output sale. These grain and agri-output merchants come to the cultivator's house or field to purchase the output. Prices are agreed upon with the information on price from the local market. Merchants quote a price lesser than the price in the nearby mandi. For local exchange in the village, there is weekly 'Haat' in the village organized twice a week. All the local purchases and sales of vegetables and essentials happen in this market. There are a few other weekly markets organized in nearby villages as well. More of the sale and purchase of perishable items like vegetables, fish, meat, chicken and other daily essentials like rice, flour, salt, pulses and cloth etc. happens through these weekly markets. For their daily need villager also depends on a few grocery shops in and around the village. These grocery shops have their supplies from the sub-district market of Murliganj.

Large and medium cultivator households also purchase their monthly grocery from the sub-district market. For the purchase of agriculture input like seed, fertilizer, pesticides and Diesel required for irrigation and ploughing by tractor is largely bought from sub-district markets. There are few shops of fertilizer and diesel is also located in and around villages which also supply the input for agriculture on credit. Most of the output and input exchange is happening on credit for a few days, like when grain merchant buys output from cultivator will pay little or no amount at the time of purchase. The merchant will take a week time for selling the output and disburse the payment to the cultivator. Likewise, farmers buying input for the cultivation might pay after the harvest. There is no interest charge involved in these transactions but the price of input is usually higher than it is in the sub-district market as farmers purchase it on credit. There is a regular transaction relation between the cultivator and local seller of the market in terms of their need, the cultivator usually depends on the local input dealer and the input dealer in turn is also dependent on the cultivator in the village for their sale. So, short term credit for the sale and purchase of input and output is being offered by both parties.

Few input dealers in the village also purchase output from cultivators as grain merchants and marginal farmers are dependent upon them from the purchase of input and sale of output. This dependence structure can be seen in terms of the interlinked market but it is not so prevalent in the village. Many grain merchants are coming from outside of the village and buy output from cultivators and cultivators are not so bound to the sale of output only to the village merchant. Village level exchange relation is largely oriented through a different network of exchange and production with a lot of intermediaries working as an operator of these networks. These intermediaries of exchange relations

largely exploiting information asymmetry and communication create these networks for their benefit. Intermediaries do maintain a good social relationship with all households of all hierarchy in the village.

Labor Processes in Agriculture sector

Sakhua production economy is predominantly agrarian as almost 70 per cent of the population depend on it for their subsistence. The amalgamation of both the operational holding structure as well as the occupational structure is the most sensitive way of analyzing rural society. Caste class duality in terms of the rural society of Bihar should not be confused as the economic interest of larger landless working classes are aligned to the major sections of the marginalized caste population. Questions on the duality of caste and class have been dealt with at length by various scholar's time to time (Chakraborty, 2001)^[4]. Caste and class are so intertwined in the village that it creates a specific mix of labour processes. The household category of the 'cultivator household' is further classified into two categories; namely the 'pure tenant cultivator' and the 'owner cultivator'. Pure tenant cultivators are households whose primary earning source is cultivation, however, their ownership holding is zero. The 'owner cultivator households' are cultivator households that cultivate primarily their agricultural land, few of them also 'leased in' parcel of land.

The cultivator households in the village are 85. Out of 85 cultivator household, 32 household belongs to the landless category. These 32 households can be considered as 'Pure tenant' and the rest 53 can be categorized as 'Landowner Cultivator'. Most of the pure tenant cultivator household uses family labour for cultivation.

Tenancy and Labour Process

Table.9, exhibits the extent of tenancy in the village. It shows 52.57 percentages of cultivators are a tenant and 37.6 percentages of cultivators are pure tenants (landless). Pure tenants as a share of total tenant cultivators are 61.5 percentages.

Table 9: Extent of tenancy in the village

Leased into operational holding	35.43
Tenant to cultivator household	52.57
Leased out to ownership holding	41.67
Lessor to landowning household	37.5

Source: Field Survey (2014-15)

Table 10 presents to share in 'leased in' and 'leased out' land by land ownership size category. It shows pure tenants are cultivating 55.07 percentage of total leased-in land and marginal landowners (0-1 acre) are cultivating 23.3 percentage of total leased-in land. The leased out land is primarily from medium landowners (2-5 acres) and large landowners (5 acres and above) their share is 66.73 percentages and 21.67 percentages respectively.

Table 10: Land ownership size class and share in 'leased in' and 'leased out' land

Land Ownership Size Category	Share of leased-in land	Share of leased out land
Landless	55.07 (32)	0 (0)
0-1 Acre	23.3 (11)	4.18 (4)
1-2 Acre	8.01 (4)	7.42 (5)
2-5 Acre	13.63 (4)	66.73 (18)
More Than 5 Acre	0 (0)	21.67 (3)
Grand Total	100 (51)	100 (30)

* Figures in parenthesis are the number of households

Source: Field Survey (2014-15)

Table 10 gives a clear picture in terms of land leasing-in and leasing-out activity. 30 households leasing out their land and 50 per cent of that comes from more than the two-acre category. These landowners family is mostly migrated and settled in different parts of the country and world with different occupations. Few members of the family mostly old aged heads of the household stay in the village. Some of the family members who are settled in district headquarter or nearby visit regularly and supervise their cultivation work seasonally. As the village is surrounded by neighbouring villages and cultivation plots are having spread across the villages, so, land and transactions in terms of leasing in and leasing out is also happening across the village.

The phenomenon of the interlinked market (Bharadwaj, 1974)^[1] can be seen operating in various degrees especially in the case of study village land leasing-in and labour hiring seems to be interlinked as to attach a worker family to the large landowner. Landowner cultivators resort to leasing out a small parcel of land to have a secure supply of labour on a predetermined wage contract. These labour services in lieu of tenancy have both components of unpaid and underpaid labour services. Tenurial conditions play an important role in interlinking the market as well as decision-making processes. The tenant generally follows the decisions of the landowner in terms of what to produce, how to produce and for whom to produce. This interlinked market phenomenon impacts the position of the participant from one market being determined in another market. Especially for the labouring household engaging as a tenant in the land market lead to an unsaid commitment of labour services in the peak season when he could earn a higher wage than the ongoing wage rate.

Tenancy cultivation in the village is largely in terms of sharecropping where input cost and output are shared equally but the family labour of tenant cultivator households during lean season activity are either unpaid or underpaid. Labour/family labour during harvest season is being paid from the output in kind. This system of sharecropping is known as '*Batai*' or '*aadhi*' in the village language. Sharecropping contract in this village is largely in terms of half of the input cost like ploughing, sowing, irrigation, and fertilizer cost are being shared equally but the labour cost of initial major operation like sowing is being not shared. Operations like irrigation and sprinkling and small operations for which tenant family work are not being paid for by anyone. Again, at the time of harvest, the harvest wages are generally in kind in the case of the major crop. The kind wages of harvest is being given out of total production and there are conventional systems of wage payments in kind which do increase time to time but very rarely. In the interest of smoothening the supply of labour as well to incur less cost for labour landowners engage in tenancy. Strategically large landowner cultivator also hedge their labour supply for the field for which they cultivate by themselves.

Agricultural labour Household and Agriculture Wages

Out of 242 households, 162 households in the village were reported to be landless households. In those 77 households reported agricultural labour was the primary earning source. Land ownership along with social group locate the worker both in terms of their location in the social hierarchy of the village society vis-a-vis economic hierarchy in the village economy. As large as 80 percentages of landless workers

are located in the lowest rung of social hierarchy Scheduled caste in the village. This differentiation along the line of class, caste and gender with overtly skewed production structure need urgent attention. The mainstream theoretical apparatus of demand and supply will not be able to comprehend the rural reality.

Agricultural worker household in the village is operating in groups of households. These groups are largely organized based on family or kinship-based relations. Work assignments are contract or wage work engagement is being offered to the group which has some sort of proximity with the employer household. Like marginal and small farmer households maintain a sort of social relationships to their family, kin or neighbouring household for their worker need. They associate with the household through small labour exchange during occasions of need like marriages, festivals and other, which establish a tie in terms of their hired labour need during the peak seasons of agriculture. Village society operates through all kind of non-economic relation like family, kinship, caste and neighbourhood all these relations has serious implication for their household level decision for hiring in and hiring out labour services. For their survival household do depend on an exploitative network of the relation of exchange as well but otherwise, they have very little opportunity outside of those networks. Village level labour requirement is largely insufficient to provide an opportunity to secure their livelihood to the poor working household which pushes many of them to get hired on precarious terms of exchange.

Wage Structure

Labour exchange in the village economy as discussed in the previous section has large imperfections in terms of exchange relation and wages is the outcome of those imperfect exchange relations. The wage determination process could not be captured through the demand and supply mechanism of the labour market nor in terms of the bargaining process. Wages are largely determined through conventions, traditions and the information acquired from different locations of labour exchange. With the state-sponsored rural employment programme MNREGA, rural wages in India has got a floor for wage determination, and there has been the experience of rising rural wages. But a large part of agriculture wages is determined in kind which essentially will have less impact on these money wages determination process. The monetisation of agrarian wages is progressively on the rise in recent year (Kishore, 2004)^[7] but harvest wages which is the most important component of agricultural wages is still determined and paid in kind.

There is two major agriculture operation sowing and harvesting which is the most labour intensive and are located in the peak agriculture season have seen a substantial rise in recent year but not as much as money wages for the labour in the non-farm operation and other agriculture operations^[f].

There is a rise of contract work in agriculture operation of sowing and harvesting. In terms of contract work on average, a group of 10 workers finish the operation of harvesting or sowing one acre of the field in a day working even more than 10 hours each and being paid the amount

^f A spade worker paid money wages of Rs.250 per day for almost 8 hours work a day in the village non-farm, whereas the same worker earns on average Rs.100 and a kg of rice or one-time meal a cup of tea for a day work in sowing season.

Rs. 1000-1200. Which Comes to Rs. 100-120 per worker per day even the workday is longer than 8 hours.

Wages are determined for different farming operation differently, like for the preparation of the field, the cultivator generally hire a tractor for ploughing but with the ploughing, there is a need for a labourer per acre to do the spadework for repairing the boundary of the field and also ploughing corner of the field through spade where the tractor could not reach. This labourer is generally being paid Rs. 100 in cash and maybe a cup of tea for a day of spadework. After the field preparation for the sowing or transplantation in case of paddy cultivation. The wage for the worker is being paid according to the bunch of paddy saplings being transplanted. A worker is working in different operations at the same time. Firstly, they have to make a bunch of paddy saplings from the nursery and then all the saplings they made need to be transplanted by him/her in the sowing field. The plantation of each bunch of saplings has a wage of Rs. 5 -7. The amount of wage earned by a worker for a day depends on how many saplings a worker can transplant in a day. Again, here it is piece rate, so the working day might not apply to 8 hours but is based on the completion of work. Along with Rs. 5-7 /bunch there some component of wage in kind basically in lieu of a meal some grain usually rice, half a kilogram per person will be given for a day of sowing wage. This complicated wage structure changes could not change based on some labour demand and supply mechanism but largely based on the notion of subsistence (Stirati, 1994) ^[14]. There is nothing like each day's supply and demand for labour decides the wages. This wage rate could only vary between Rs. 5-7 depending on the requirement of cultivator and worker and some impact of demand and supply. The sowing season is most busy during two weeks in the village and those two weeks could see wages of R.7/per bunch being paid otherwise early sowing or late sowing season could have the Rs. 5/bunch wage rate.

The question that how this Rs. 5/bunch to Rs. 7/bunch has been arrived at is largely driven by the notion of subsistence. As workers during the discussion said that 'We ask the wages according to the need of our stomach' (*Pet ke hisaab se majdori maangte hain*).

Next, Irrigation, weeding and a sprinkling of fertilizer and pesticides are the major lean season farming operation. For irrigation and fertilizer and pesticides sprinkling mostly male workers are hired. Irrigation workers work while pump-set or canal irrigation is in operation, he has to direct the water through spadework make channels and create layers for the smooth flow of water across the field. Fertilizer and sprinkling or pesticides along with spade worker of day labour where day's work could spread 8-10 hours usually in irrigation work is being paid Rs. 250 without food or Rs. 200 with Lunch. This wage rate has changed drastically in a few years as workers reported that till the year 2000 they used to be paid Rs. 75-100 for the same work.

Harvesting wages are largely paid in kind if it is wage rate work. Sometimes it is also contracted in piece-rate as explained above. Harvesting wage in kind is a share in the harvest in terms of the unprocessed crop. In the case of paddy harvesting, work spread over a week, firstly worker after cutting the crop just left spread in the field for a week then after a week they make bundles of the crop, and they are paid their wage share in proportion to those bundle of the crop like one bundle out of 8-10 bundle depending on the rate in the season as well as the village. Now, Worker will have a choice to choose the bundle for their wage out of

8-10 bundles. Previously it was 1 bundle out of 16 bundles then it increased to 1 bundle out of 12 bundles now it has come to 1 bundle out of 8-10 bundles, a cultivator reported. Each of these bundles after threshing could be converted into 12-15 kg of paddy depending on the size of the bundle. It is almost one-tenth share of output as harvest wage. Likewise, for each farming operation for each crop, there is a wage rate arrived through convention and notion of subsistence.

The exchange of labour services today is not at all organized through any physically established marketplace, as it could be seen in many cities where there is a dedicated place for the worker to assemble in the morning to get hired. The village does not have a dedicated place for the worker to assemble to get hired. To hire agriculture labour mostly cultivator goes to the labour household or their settlement area to ask them for labour services. Now a day's mobile phone also works as means of communication to inform about the requirement of the worker by the village cultivator. In the morning or a day in advance of the work cultivator goes to the workers household and ask them to be hired for the work in the field. There is a practice of wage-based hiring as well as contract-based piece-rate hiring. Depending upon the nature of work and employee and employer's choice terms and modes of labour exchange is decided. For agriculture labour there is still a relation is being carried out especially between the large landowner and agriculture worker that for agriculture seasons a group of agriculture worker household commit themselves to work for a particular landowner. This relation is largely being decided at the beginning of the season in terms of those agriculture workers who have sown the crop will have right to work till harvest because the final harvest wage is essential to have some share of harvest as their subsistence need. But the relation is not as binding as worker or landowner cannot opt-out from this. Since there are few large landowners/cultivators so, workers do compete to get hired in large cultivator's fields as they will have more amount of work during the peak season of agriculture.

With this complicated sort of wage determination process agrarian wages could not be conceived to be the outcome of the labour market process but the outcome large set of non-economic considerations, tradition and notion of subsistence which is historically and socially determined.

Table 11: Average wage rates per person per day (in Rs)

Farm Activity	Male	Female	Child
Spade Work	250	-	-
Sowing	100-150	100-150	-
Weeding (Half Day Activity)	-	50-60	30-50
Irrigation	250	-	-
Fertilizer And Pesticides Sprinkling	200	-	-
Harvesting And Processing	150-200	150-200	-
Non-Farm Activity			
Construction And Another Non-Farm Worker	200-250	150-200	-
Skilled Worker- Mason/Carpenter/Mechanic	300-350	-	-

Source: Compiled and calculated from the discussion with worker and cultivator during field-work (2014-15)

Labor Processes into Non-farm sector

In the village, 75 households reported non-farm as principal earning sources. They are classified into Non-farm self-employed, Non-farm wage workers and others. Here, others are reclassified into Regular salaried Govt. employees,

Retired from Govt. employment (pension dependent) and traditional caste calling occupations.

Table 12 shows that 31 per cent of total households are dependent on earning from non-farm occupations. A large share (73 per cent) of these non-farm households are

dependent on the casual nature of hiring out or self-employed category. However, it exhibits a pattern of differentiation in access to various non-farm occupations in the non-farm sector dependent on the social background of the household.

Table 12: Non-farm household type and social group

Non-Farm Household Type	Social Group			
	SC	OBC	Others	Grand Total
Non-Farm Self Employed	5	7	5	17
Non-Farm Wage Worker	17	16	5	38
Regular Salaried Govt. Employee	-	1	1	2
Regular Salaried Private Employee	-	2	8	10
Retired From Govt. Employment (Pension Dependent)	-	-	6	6
Traditional Caste Calling Occupations	-	2	-	2
Total	22	28	25	75

Source: Field Survey (2014-15)

Regular salaried households in government as well as in the private sector are from the social category 'other'. As out of a total of 16 salaried non-farm households, 14 are from the social category of 'Others', being caste *Rajput*. Non-farm self-employed households are evenly distributed in all social groups of the household. SC and OBC households are the larger participants in hiring out as non-farm wage workers in the village. SC households in the village largely are excluded from the regular nature of Non-farm employment. Only 17 per cent of OBC Non-farm households are engaged in the regular nature of employment. Government sector regular salaried employment dependent household are only 2, one from OBC and one from Others (*Rajput* caste) social group. Retired from government employment which means pension dependent households in the non-farm income category household are 6 all from the *Rajput* caste

household. Which suggest that regular salaried government jobs dependent household are migrating permanently to the urban centre for the work and education of their offspring. On the whole, the labour process is largely casual and self-employed respectively.

Few of the non-farm activities operates inside the village largely construction work in terms of *kutch* and *pucca* houses, and other construction where wages are mostly in terms of money-wages but of course agriculture being the largest sector hiring workers in the village. Non-farm wage is also linked to the agrarian wage as workers and employers have a large set of evidence of wage rates in agriculture only. The casual need to labour especially for non-farm work like construction and household-related work also operates through groups of mason/contractor (*Rajmistri*, *Thekedar*) and other networks.

Table 13: Non-farm household type and Land ownership

Non-farm Household Type	Number of Households	Land Ownership
Non-farm Self Employed	17	4.35
Non-Farm Wage Worker	38	3.16
Regular Salaried Govt. Job	2	1.35
Regular Salaried Private Job	10	8.48
Retired from Govt. Job (Pension Dependent)	6	20.89
Traditional Occupation	2	2.08
Total	75	40.31

Source: Field Survey (2014-15)

The landholding pattern among non-farm dependent households shows households who are primarily dependent on non-farm are have very low agricultural land ownership; Except the category of 'Retired from Govt. Job (Pension dependent) households. These households moved to government jobs as a lucrative income diversification strategy in the pre-liberalization era. Now also, their land is cultivated by the tenant and they are pension and rent dependent households.

Post-liberalization the non-farm sector has risen mainly in form of informal low paying contractual forms. It does not provide enough assurance to households to move from farm to non-farm fully, only non-landed households could move towards the non-farm sector. (See table 13)

Migration

Bihar is very much known for large outmigration and this large migration has been understood as an index of progress

in terms of income generation and livelihood security. Migration in a way is also good for the assimilation of people across the culture and region and breaking the stereotyped notion of each other's existence. There is a certain issue with migration when it is distress driven not opportunity-driven. The growth of the urban informal sector might offer a higher wage rate but in terms of working and living conditions of the migrant and migrant family residing at source or destination, there is no guarantee of improvement in quality of life. Of course, migrants struggling for generations could be able to achieve some entitlement in terms of house or land in the city but that takes at least a generation of living in very sub-human conditions. Another issue regarding the working conditions is that migrant workers could receive a higher wage in comparison to their origin but in comparison to the local worker at the destination they are being preferred to be hired on a lower wage. The standard working hour and working

conditions are not being provided in the case of migrant workers usually. A large set of intermediaries working as

labour contractors also operate to exploit migrant workers instead of offering work to the migrant worker.

Table 14: Incidence of Migration from the Village

No. of Migrant Member in a Household	No. of Household	Percentage	Cumulative Percentage
0	84	34.71	34.71
1	121	50	84.71
2	27	11.16	95.87
3	7	2.89	98.76
4	2	0.83	99.59
5	1	0.41	100
Total	242	100	

Source: Field Survey (2014-15)

In the study village, 65 per cent of the household has at least one member migrating out for work. Out of those 65 per cent, 11 per cent of the household has the incidence of two members of the household migrating out. Other than incidence of migration it is important that what kind of outmigration is happening with the social profile of the migrant. In the study village, there is a trend of seasonal migration among SC and OBC households and other which is forward caste group Rajput has at the large incidence of long-term migration. Out of total seasonal migration 65.55 percentages are from the social group of SC and 30.65 from OBC. In long term migration, in that case, mostly household members usually settled permanently at the place of migration destination; the share of the social category of 'other' are 60.66 and the share of OBC is 16.13 percentages. The type of migration occupation of migrants gives a better picture in terms of the nature of the migration. As it is evident from table 15, the largest seasonal migrant group scheduled caste is migrating largely for manual work-based employment comprising of agriculture worker, *Mandi* (headload) worker as well as a construction worker. The highest migration as a student is happening from other backward caste groups (OBC). OBC also migrate more to work in the construction sector and factories. Rajput caste group have migration patten towards long term employment like regular salaried job, students and finally, there are many factory workers also comes from the Rajput caste (See Table 15).

Table 15: Migrant Occupation with their Social Group

Occupation Migrant	Social Group			
	SC	OBC	Others	Total
No Migrant	38.55	34.94	26.51	100
Agriculture Worker	90.74	9.26	0	100
Mandi Worker	94.12	5.88	0	100
Construction Worker	55.56	44.44	0	100
Factory Worker	36.36	36.36	27.27	100
Household Worker	100	0	0	100
Student	0	66.67	33.33	100
Casual Worker	35.71	50	14.29	100
Regular Salaried Govt.	0	0	100	100
Regular Salaried Private	0	9.52	90.48	100
Self Employed	9.09	18.18	72.73	100
Carpenter	0	100	0	100
Driver	33.33	33.33	33.33	100
Total	49.17	25.62	25.21	100

Source: Field Survey (2014-15)

Discussion and Conclusions

The rural agrarian economy in Bihar is experiencing serious distress. Continued fall of share of primary sector in GSDP of Bihar, as primary sector largely is rural-based so; it could be assumed that the importance of 'rural' as an economic

space is losing relevance in terms of accumulation strategy of the state. The wave of commercialization that was initiated during the green revolution had a differentiated impact on the different regions of India. Further with the next wave of commercialization and with integration towards world market demand rural agrarian livelihood structure has been jeopardized asymmetrically. The recent growth (N K Singh, 2014) ^[9] in the economy of Bihar was the context in which this distressed village economy was studied during the phase of 2014-15.

Production condition in the agrarian economy of Sakhua village is in multidimensional transition. This transition can be seen through the labour process. Almost all 'Agricultural worker Household' were from scheduled caste social group. This means that economic hierarchy coincided with social hierarchy for so long. Landownership is still in the hands of caste Rajput landowners. With a lot of struggle, OBC social group has politically negotiated to arrive at a subsistence farming household position by 2014-15. Social relation in a broader sense is in hopeless indifference between social groups in the village.

The volume of cultivation activity is not enough to generate employment for all agricultural workers. The labour process in agriculture is in the acute crisis of infrequency and uncertainty associated with work and livelihood. Caste untouchability is still interfering in the exchange of labour. Labour process as a survival strategy for a rural worker household could be juxtaposed with accumulation strategy as exchange relation is so eschewed with caste-class biases this survival strategy could be considered a follower of accumulation strategy. Accumulation strategy can be equated with a growth strategy in current paradigms.

A large section of landed households and castes *Rajputs* are appropriating some surplus from agricultural land and moving towards petty non-farm accumulation strategy or permanent migration to urban areas in or outside Bihar. They are treating agriculture as backyard support in the current distress situation. This can be understood through a large separation between ownership and operation by the *Rajput* caste households. However, each landed household having a leg in urban spaces has improved the human capital part of their family but those who are living in the village are just saving income to create a space in the urban non-farm economy. Selling land is not an option as one leg of the family is still in the village to survive and social power associated with land still exist.

For subsistence cultivator and agriculture worker households in majority from SC and OBC groups, migration work merely as a 'hedge' to manage uncertainty in availability of work in lean agricultural season and lack of

return in cultivation. Non-farm and migration as livelihood strategies are circular to them than unidirectional. The extent of non-farm work is very limited and migration is short term and seasonal. Despite the severe distress in the agrarian sector, they have to fall back to cultivation on a small parcel of land they owned and on land leased in sharecropping and farm labour as a set of 'strategies of survival.

Acknowledgment

This paper is an outcome of doctoral research. We thank Prof. G Omkarnath, (School of Economics and University of Hyderabad) for guidance and support throughout this research.

References

1. Bharadwaj K. Production Condition in Indian Agriculture. Cambridge: Cambridge University Press 1974.
2. Bharadwaj K. On the Formation of Labour Market. In K. Bharadwaj, Accumulation Exchange and Development. New Delhi: Sage Publisher 1989, 322-352.
3. Census. District Census handbook Madhepura. Directorate of Census Operations, Bihar 2011.
4. Chakraborty A. Caste and Agrarian Class: A View from Bihar. Economic & Political Weekly 2001, 1448-1463.
5. Dube SC. Indian village. London: Rutledge and Kegan Paul Publication 1955.
6. Gupta CD. Unravelling Bihar's "Growth Miracle". Economic and Political Weekly 2010, 50-62.
7. Kishore A. Understanding Agrarian Impasse in Bihar. Economic and Political Weekly 2004, 3484-3491.
8. Mukul. The Untouchable Present: Everyday life of Mushahars in North Bihar. Economic and Political Weekly 1999, 3465-3470.
9. NK Singh NS. The New Bihar-Rekindling Governance and Development. India: Harper Collins 2014.
10. Omkarnath G. Rural Labour Processes: A case study in Coastal Andhra 1993. Retrieved from shodhganga.inflibnet.ac.in: <https://shodhganga.inflibnet.ac.in/handle/10603/14975>
11. Sharma AN. Agrarian Relations and Socio-Economic Change in Bihar. Economic & Political Weekly 2005;35-11:960-972.
12. Sharma AN, Rodgers G. Structural Change in Bihar's Rural Economy: Findings from a Longitudinal Study. Economic and Political Weekly 2015, 45-53.
13. Srinivas MN. *India's villages*. Calcutta: West Bengal Government Press 1955.
14. Stirati A. Wages and the labour market in classical political economy 1994.
15. Thorner D, Thorner A. Land and Labour in India. Asia Publishing House 1962.
16. Wiser WH. The Jajmani system Lucknow 1936.

25th (Silver Jubilee) Annual Conference of Indian Political Economy Association (IPEA)



organised by

School Of Economics,
University of Hyderabad, Hyderabad

and

Indian Political Economy Association (IPEA)



This is to certify that Mr./Mrs./Ms./Dr./Prof *Nilesh Kumar*

..... has participated/presented a paper entitled *Labour Processes*

in Rural Bihar : a set of survival strategies

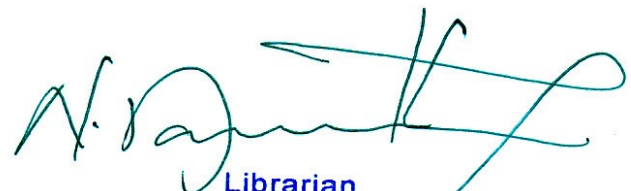
..... during the 25th Annual Conference of Indian Political Economy
Association (IPEA) held on 24-25th March, 2022 at School of Economics, University of Hyderabad,
Hyderabad, Telangana.

R V Ramana Murthy

Prof R V Ramana Murthy
Organising Secretary

Labour and Accumulation in Rural Bihar

by Nilesh Kumar



Librarian
Indira Gandhi Memorial Library
UNIVERSITY OF HYDERABAD
Central University P.O.
HYDERABAD-500 046.

Submission date: 31-Jan-2023 11:39AM (UTC+0530)

Submission ID: 2003156247

File name: Nilesh_Kumar.docx (1.33M)

Word count: 33131

Character count: 174350

Labour and Accumulation in Rural Bihar

ORIGINALITY REPORT

6%

SIMILARITY INDEX

5%

INTERNET SOURCES

3%

PUBLICATIONS

1%

STUDENT PAPERS

PRIMARY SOURCES

1

niti.gov.in

Internet Source

1%

2

pmksy.gov.in

Internet Source

<1%

3

krishi.icar.gov.in

Internet Source

<1%

4

cdn.s3waas.gov.in

Internet Source

<1%

5

www.gangothri.org

Internet Source

<1%

6

Prabhu Pingali, Anaka Aiyar, Mathew Abraham, Andaleeb Rahman. "Transforming Food Systems for a Rising India", Springer Science and Business Media LLC, 2019

Publication

<1%

7

assets.publishing.service.gov.uk

Internet Source

<1%

8

"Economic Transformation of a Developing Economy", Springer Science and Business

<1%

Media LLC, 2016

Publication

9

www.socialresearchfoundation.com

Internet Source

<1 %

10

Krishna Bharadwaj. "A view on commercialisation in Indian agriculture and the development of capitalism", The Journal of Peasant Studies, 2008

Publication

<1 %

11

d1ns4ht6ytuzzo.cloudfront.net

Internet Source

<1 %

12

"Rural Labour Mobility in Times of Structural Transformation", Springer Science and Business Media LLC, 2017

Publication

<1 %

13

"Labour Questions in the Global South", Springer Science and Business Media LLC, 2021

Publication

<1 %

14

www.iimahd.ernet.in

Internet Source

<1 %

15

cgwb.gov.in

Internet Source

<1 %

16

www.shyaminate.in

Internet Source

<1 %

17

www.downtoearth.org.in

<1 %

18

Maryam Sabreen, Deepak Kumar Behera.
"Changing Structure of Rural Employment in
Bihar: Issues and Challenges", The Indian
Journal of Labour Economics, 2020

Publication

<1 %

19

megplanning.gov.in

Internet Source

<1 %

20

"Development Challenges of India After
Twenty Five Years of Economic Reforms",
Springer Science and Business Media LLC,
2020

Publication

<1 %

21

www.upuea.com

Internet Source

<1 %

22

"Industrial Clusters, Migrant Workers, and
Labour Markets in India", Springer Science
and Business Media LLC, 2014

Publication

<1 %

23

lsi.gov.in:8081

Internet Source

<1 %

24

mp.ra.ub.uni-muenchen.de

Internet Source

<1 %

25

jkuber.gov.in

Internet Source

<1 %

26

www.isroset.org

Internet Source

<1 %

27

www.niti.gov.in

Internet Source

<1 %

28

ir.nbu.ac.in

Internet Source

<1 %

29

www.ancient-buddhist-texts.net

Internet Source

<1 %

30

www.ijmra.us

Internet Source

<1 %

31

Shuchi Benara Misra, O. P. Shukla. "Rural non-farm employment in Maharashtra: trends and determinants (1993–94 to 2009–10)", The Indian Journal of Labour Economics, 2016

Publication

<1 %

32

pdfcoffee.com

Internet Source

<1 %

33

Employment Policy in a Developing Country A Case-study of India Volume 2, 1983.

Publication

<1 %

34

Vishwambhar Prasad Sati. "Towards Sustainable Livelihoods and Ecosystems in Mountain Regions", Springer Science and Business Media LLC, 2014

Publication

<1 %

35	erepository.uonbi.ac.ke Internet Source	<1 %
36	planningcommission.gov.in Internet Source	<1 %
37	www.nationalheraldindia.com Internet Source	<1 %
38	Tanvi Khurana, Seema Sangita. "Household access to electricity and non-farm business in rural India: A panel data analysis", Energy for Sustainable Development, 2022 Publication	<1 %
39	"Revitalizing Indian Agriculture and Boosting Farmer Incomes", Springer Science and Business Media LLC, 2021 Publication	<1 %
40	L. Gulati. "Women and Work in Kerala: A Comparison of the 1981 and 1991 Censuses", Indian Journal of Gender Studies, 09/01/1997 Publication	<1 %
41	www.mti.gov.sg Internet Source	<1 %
42	"Economic and Societal Transformation in Pandemic-Trapped India", Springer Science and Business Media LLC, 2022 Publication	<1 %

43	"Smart Economy in Smart Cities", Springer Science and Business Media LLC, 2017 Publication	<1 %
44	lib.buet.ac.bd:8080 Internet Source	<1 %
45	repository.out.ac.tz Internet Source	<1 %
46	businessdocbox.com Internet Source	<1 %

Exclude quotes On
Exclude bibliography On

Exclude matches < 14 words