



Block Human Development Report

Phiringia Block of Kandhamal District in Orissa



National Institute For People's Development, Investigation & Training (NIPDIT)

College Road, P.O.: Phulbani, Dist : Kandhamal, Pin-762 001 (India)

Ph. : +91-6842-253579, Fax : 91-6842-253403,

E-mail : nipdit@rediffmail.com

website : www.nipdit.org

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Preface



Block Human Development Report (BHDR), Phiringia, Kandhamal is part of the initiative under “Rural Decentralisation and Participatory Planning for Poverty Reduction” project implemented by National Institute for People's Development Investigation & Training (NIPDIT). The choice of Phiringia as a location for one of the first BDR exercises to be conducted in Orissa serves to identify the most pressing developmental constraints in a block where the impact of development is not visible over a period of time. Block Development Report is thus expected to serve as the foundation for formulating a comprehensive Block Development Plan in future.

Preparation of Development Report at the disaggregated level begins the process of a serious attempt to break the syndrome of “islands of deprivation”, the major lacuna of the development process and singular look towards the Adoption of development goal is not new and there are instances where the country or a state as a whole is said to have achieved the goals leaving behind a large area where symptoms of under development and deprivation still prevail. It is a contention beyond contest that the country & the state often shows significant improvements in terms of development indicators pushing the marginalized area & its people to further deprivation. The exercise for preparation of Human Development Report at the disaggregated spatial dimension alerts us to such a situation. Furthermore, the exercise is not all about the status, it provides insights and looks forward to possible ways of development which helps in finding out, integrating & synthesizing plans, programs & strategies appropriately.

Block Human Development Report identifies few reasons of backwardness within Phiringia block in terms of basic human development attributes such as health status, educational and livelihood opportunities. However, its exploration of development situations in the block is not limited merely to the computation of the human development indexes. While identifying the current development constraints and challenges faced by Phiringia as a block, the development report also examines various factors responsible in this regard and identifies several emerging development trends.

This Block Human Development Report is the ultimate outcome of consultations between responsibility holders of district administration, Kandhamal, block administration of Phiringia, GP functionaries, PRI representatives, development agencies and the community. Overall coordination, data & information collection for preparation of the Block Development Report was undertaken by NIPDIT. The Project Co-ordinators and the team members associated with Rural Dcentralization Project shared their experience and learning during the preparation of the report.

We hope that similar exercise for preparation of Human Development Report will be undertaken by both the government and the civil society for other Blocks and sincerely look towards the direction of addressing the issues according to their capacities. Our effort has been to make the report lucid in language and analytical in content. Feedbacks on the report and various aspects of its analysis are most welcome.



**Member-Secretary,
NIPDIT, Phulbani**

Acknowledgment



We would like to acknowledge and extend our heartfelt gratitude to the following organizations/persons for their support & cooperation in making completion of this document possible:

Our special thanks to Mr. Mainak Sarkar for providing guidance for documentation and the UNDP New Delhi for providing us the required financial support.

We appreciate the cooperation of the District Administration, Kandhamal especially the Collector, PD & APD, DRDA, District Planning Officer, District Panchayat Officer & Block Development Officer, Phiringia for support to this exercise.

GP level Animators and community leaders with their assiduous effort have provided the data & information in preparation of the report. More importantly, the experience based inputs for preparation of the report have brought out the nuances of analysis. PRI representatives, Block level officials & GP level functionaries have always been in close proximity with the people and have been part & parcel of the livelihood patterns & development processes. Preparation of Block Human Development Report would not have been possible without their cooperation.

Our Special thanks goes to Mr. Saroj Nayak, development consultant who has put his entire effort in preparation of the development report from devising formats for data collection, designing group discussion framework to structurizing and finalizing the report. Lastly, we consider it our opportunity to thank the partner community for their whole-hearted support, encouragement and feedback.

NIPDIT,

College Road, Phulbani



The Block Human Development Report (BHDR) brought out by National Institute for People's Development, Investigation & Training (NIPDIT) is a unique effort. Preparation of HDR strengthens the development debate in terms of designing and implementation of development programmes and I believe, the BDHR of Phiringia block will contribute to the same.

Human Development Reports are developed at world, country, state & district levels by government & non-government initiatives. The challenge is to take it to the Block & Panchayat level. Preparation of BHDR highlights problems of disadvantaged communities for whom development planning & interventions have often been criticised. The greatest challenge in preparing block or Panchayat level HDR is to collate data/information at a disaggregated level and to bridge the gap between the macro-micro levels. Moreover, location specific development indices have to be identified, as addressing problems and prospects of diverse livelihood patterns, is the crux of development planning. The Block Human Development Report of Phiringia block in Kandhamal district has endeavored to meet these challenges.

NIPDIT deserves appreciation for this effort and I wish NIPDIT success for its unique endeavor. I hope similar efforts will be undertaken in the future.

Ambika Nanda

*Dr. Ambika Prasad Nanda
State Programme officer
UNDP, Bhubaneswar*

United Nations Development Programme, N/4 – F/41,
IRC Village, Nayapalli, Bhubaneswar-751 015, Orissa, India
Tel: 91-674-2558795/96, Fax: 91-674-2558794

55 Lodi Estate, P.O. Box 3059, New Delhi - 110003, India
Tel: 91-11-46532250, Fax: 91-11-24627612
Website: www.undp.org.in

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Chapter ONE

1.0 Introduction

The Phiringia Block Human Development Report [BHDR] is one of its kinds and perhaps an attempt of its own at state and national level to understand the development status of a block. As such, it forms a model for many more human development studies of a similar kind that will be carried out subsequently in the other blocks of the state. This exercise as part of Rural Decentralisation project was facilitated by National Institute for People's Development, Investigation and Training (NIPDIT) to understand the prevailing development situation of the block. The Block Human Development Report has got a direct link to the district situation presented in Orissa Human Development Report, 2004, which identifies Kandhamal as one of the backward blocks of the state in human development parameters. The choice of Phiringia as a location for one of the first Block Human Development Report exercises to be conducted in Orissa serves to identify the most

pressing developmental constraints in a block where the impact of development is not so visualised over a period of time. By focusing the study on Phiringia, a parallel effort has also been made to build the institutional capacity in the block for human development based planning at block level. The Phiringia BDR is thus expected to serve as the future foundation for formulating a comprehensive Block Development Plan for the block.

The statutory responsibility of the local planning committee or DPC¹ is to integrate block development plan with other block plans formulated at block level by the line Departments of the State Government, and to forward the schemes and projects, as recommended by the block, to the State Planning Board for inclusion in the integrated State Plan. In Orissa, with the existing framework of panchayati raj institutions [PRIs], the importance of block level

1. District Planning Committee

planning is enhanced by the coterminousness of respective development block and Panchayat Samitis. Under decentralised planning, as institutionalized in the state, the PRIs are actively involved in the planning process, right down to the formulation of basic village development plans by the Gram Panchayats. Poor availability of information / data base at GP² and block level has severely affected the development planning. Apart from that little use of the existing data base is made use appropriately in the local planning exercises because of the lack of equivalent technical skills. Besides data deficiencies which impede the application of human development indicators at sub block level, existing mechanisms for collecting and handling data at block level and below suffer from various technical shortcomings. Such limitations in data and technical capabilities ultimately restrict the effectiveness of block and block planning, leading to persisting backwardness of the block and GPs.

The Phiringia Block Human Development Report is the ultimate outcome of consultations between administrative authorities, development agencies and other stakeholders representing the block, with the participation of community and PRI representatives of Phiringia block. Overall coordination of the Block Human Development Report exercise was maintained by NIPDIT who was associated with the implementation of RD³ project in Phiringia Block. Much of the data work that supported preparation of BDR was undertaken by NIPDIT along with field coordination. The team members associated with the project shared their experience and learning from time to time during the preparation of the Block Human Development Report which supported to bring out a clear understanding on the development status of the block. This contributed meaningfully to the analytical focus that has been achieved in the

Phiringia Block Human Development Report.

The Block Human Development Report identifies few reasons of backwardness within Phiringia block, in terms of basic human development attributes such as health status, educational and livelihood opportunities. However, its exploration of development situations in the block is not limited merely to the computation of the human development indexes. While identifying the current development constraints and challenges faced by Phiringia as a block, the Block Human Development Report also examines various factors responsible in this regard and identifies several emerging development trends / responses that may ultimately strengthen human development based planning in the future. The process of consultation followed during preparation of the BHDR, which has got further strengthened through HH⁴ situation analysis and focus group discussions with various stakeholders at GP and block level.

With as many as 221 village settlements grouped under 20 Gram Panchayats, the block remains largely rural in character. While the block economy continues to be dominated by agriculture, low rates of urbanization and slow proliferation of non-farm based economic activities have deepened the livelihood crisis in Phiringia, leading to high persistence of human poverty. Exploration of these special focus issues identifies further constraints that have previously impeded human development in Phiringia block. To mitigate these specifically, sustainable planning initiatives are required which must be designed locally. In view of such constraining features, human development planning at block and sub-block levels holds the ultimate key to balanced development of the block and upliftment of the rural poor in the block to desirable standards of living.

2. Gram Panchayat, 3. Rural Decentralization, 4. House Hold

1.1 District Scenario Influencing Block Development

1.2 Historical Background

The ancient history of Kandhamal district may be traced back to the 3rd Century B.C.⁵ It finds mention as an unconquered Atavika country fields in the Kalinga Rock Edicts of the legendary Mauryan Emperor Ashok. This mountainous Atavika rajya unquestionably encompassed the Kandhamal region. Some historians are of the view that Mahakantar subdued by the Gupta Emperor, Samudragupta, in the 4th century A.D.⁶, during his Dakshinapatha Campaign, included Kandhamal area and he led his victorious army to the south from Kosala and Kural through this district. He defeated the then king of Ganjam. The present Kandhamal district is made up with some segments of three erstwhile principalities of Boudh, Ghumusar and Khemundi, reigned by the Bhanjas and the Gangas from ancient times. Their reign came to an end when the British came to this region in the nineteenth century.

G. Udayagiri constituted the northern fringe of Ghumusar kingdom of the Bhanjas. They occupied this state in the 9th Century and continued to rule over it till 1835. Ganjam came under the Britishers in 1765. The Bhanjas could not put up with their interference and aggressive attitude from the very beginning and they raised the banner of revolt frequently against the British. The Kandhas and the Paikas forming the Ghumusar army waged relentless wars under the able leadership of Dora Bisoyi from 1815 to 1835. Deposing Dhananjay Bhanja for his habitual recalcitrance the British occupied Ghumusar. Dhananjaya Bhanja died at G.Udayagiri in December of the same year as a fugitive. Balliguda region was under the Gangas of Kandhamal, most probably from the 10th Century and the dynasty ruled over these hilly tracts till the 19th century. British

captured this area in phases from 1830 to 1880 by subjugating some hill chiefs, who were the proteges of the Gangas.

Ghumusar and Balliguda regions were under the uninterrupted reign of the Bhanjas and Gangas, respectively, for about a millennium. But the Kandhamal area, which was part of Boudh, witnessed a chequered history during the same period. The present Kandhamal sub-division was an integral part of Boudh from time immemorial till 1855. The earliest history of this area is gleaned from a number of copper-plate inscriptions issued by the kings of the early Bhanja dynasty that reigned over Boudh and Kandhamal in the 8th and 9th Century. Their kingdom was known as Khinjali Mandala. From the 10th Century to the advent of British in this region, Boudh, including Kandhamal, has been governed in succession by the following royal dynasties: the Somavanshis, the Chindak Nagas/Telugu Chodas, the Kalchuris and the Bhanjas. The history of Boudh-Kandhamal for 500 years prior to the coming of the British is however, still nebulous.

The Britishers launched a vigorous campaign in these hilly tracts with the objectives of annexing the areas to their empire and suppressing the abominable practice of human sacrifice, then prevalent among the Kandhas. The Britishers encountered stiff resistance from the tribal for a prolonged period of 20 years from 1835 to 1855. As the Boudh Raja utterly failed to curb the horrendous ritual of the tribal, the British truncated a large area, where the Kandhas were predominant, from Boudh on February 15, 1855 and named this newly annexed territory as Kandhamal. After British conquest of Uttar Ghumusar (G.Udayagiri area) and Uttar Khemundi (Balliguda area) these territories were placed under the administration of the Collector of Ganjam district. These areas remained under the control and

5. Before Christ 6. Anno Domino

administration of the British until India attained her independence.

Kandhamal remained a Tahasil from 1855 to 1891 and it was administered by a Tahasildar under the direct control and supervision of the superintendent of the Tributary mahals of Cuttack. In 1891, it was upgraded to sub-division and tagged with Angul district. When the new province of Orissa was formed in 1936, and Ganjam was merged with Orissa, from the Madras presidency, Kandhamal became a sub-division of Ganjam. In the wake of the amalgamation of the princely states with Orissa in January 1948, Boudh and Kandhamal constituted the new district of Boudh-Kandhamal, with its headquarters at Phulbani. Balliguda sub-division was added to Boudh-Kandhamal district on 1.1.1949. With the secession of Boudh from Phulbani district as a separate district only Balliguda and Kandhamal sub-divisions remained with Phulbani district, which was later rechristened as Kandhamal in June, 1994.

1.3 Tribal Revolt in Kandhamal

The horrific ritual of human sacrifice practiced by the Kandhas upto the middle of the 19th century has been an indelible blot on the community. But the way they offered dogged resistance to the British for several decades, notwithstanding their deprivation, they amply deserve kudos for their valiant fight. The tribals played a stellar role in the Khurda Rebellion commanded by Buxi Jagabandhu against the British in 1817. There had been a smouldering discontent against British rule in the coastal areas of Orissa for several years, on the grounds of agrarian, economic and political issues. It was a band of 400 Kandhas of Ghumusar, who sparked off the conflagration by entering the Khurda region to fight. Buxi Jagabandhu and his army joined there, and the revolt soon spread to Khurda, Tangi, Gopa, Bolagarh, Banapur, Pipili, Nayagarh and other places. They captured Puri in

April 1817 and proclaimed restoration of the authority of the King, who had been deposed by the British. The revolt was so widespread and strident that the British considered their position in Orissa perilous. But gradually the rebellion fell through. Buxi Jagabandhu took shelter in Ghumusar and Boudh for some years from May 1818. The Rajas of Boudh, Ghumusar, Nayagarh and Dasapalla supported him and the Kandhas of these areas gave him protection till he surrendered in 1825.

Ganjam district, including Ghumusar, came under the possession of the British in 1865. The Bhanja Kings of Ghumusar did not brook interference from the British officers in their administrative affairs. The kings and the people began to resent the exploitative and oppressive behaviour of the officers. There were rebellions against the British in 1766, 1778 and 1801. Dora Bisoyi, commander of Ghumusar force, spearheaded the revolt, off and on, from 1815 to 1835. In all these revolts, the Kandhas of Ghumusar, including the Uttar Ghumusar area of G.Udayagiri, took a leading part. The refractory Bhanja Raja, Dhananjaya Bhanja, was dethroned and the principality was annexed to the British Empire on November, 3, 1835. The deposed Raja and Dora Bisoi fled to Udayagiri area. Rebellion spread like wildfire in the entire Uttar Ghumusar region. The British army had to confront with fierce resistance everywhere. Meanwhile, the king breathed his last on December 31, 1835. The rebellion was crushed by the British with utmost brutality. According to John Campbell, "The two years campaign was of unexampled severity" from the reports of G.E.Russel, special commissioner for Ghumusar and a ghastly fact is inferred. "Numbers of konds were shot like wild beasts; some were seized and hung up on trees. Their villages were everywhere laid in ashes."

Dora Bisoyi fled to Boudh Kandhamal area with some of his lieutenants. He surrendered in 1837 and the Raja of Angul handed him over to the British. Dora Bissoi died in 1846 at Gooty, near Madras, where he was a prisoner. The Kondhas of Boudh-kandhamal area rose up in arms against the invading British as their land and liberty were at stake. They also resented the interference of the British in their social and cultural activities and religious rituals. In Boudh-Kandhamal, Nabaghana Kanhar of Ratabari rose in revolt against the king of Boudh and the British in 1835. The king of Angul extended his support and cooperation. His two years revolt came to an end when he, due to conspiracy of Sam Bissoi, a British supporter, handed over to the British some Ghumusar insurgents, who had taken shelter under him. His two sons, Bira and Maheswar, surrendered. On account of the organisational skill of Dora bissoi and Nabaghan Kanhar, the uprising had assumed a gigantic proportion in the Kandha inhabited areas. Hence the British government had to requisition military forces from Madras, Nagpur and Bengal Divisions to quell the Kandha rising.

There was some semblance of peace and tranquility in the area for some years. But the Kandhas, under the inspiring leadership of Chakara Bisoyi, Bira Kanhar and Madhaba Kanhar, made brisk preparation from 1844 to wage rebellion against the British. The rebellion again erupted in 1846 in both Boudh-Kandhamal and Ghumusar regions. It also broke extensively in Angul, Jajpur, Kalahandi, Sonapur and Dasapalla. The rebellion was fierce and sporadic in nature and as the area of operation was the vast expanse of inhospitable Jungle terrain, the insurgents could sustain the rebellion for a protracted period of 10 years, even in the face of superior military strength of the British. The Kandha insurrection fizzled out by 1856. S.C. Macpherson, John Campbell, Mac Vicar and Mac Neil were the military officers of the British

army who successfully put down the tribal insurgency and terminated the practice of human sacrifice, Meriah in the local parlance. During this period of turmoil two tribal strongholds, Angul and Kandhamal were annexed by British in 1847 and 1855 respectively to their empire.

The district Kandhmal a part of erstwhile district of Boudh-Kandhmal came to existence on 1st April, 1993 as a result of reorganization of the district of Orissa. The district is a land of scenic beauties, water falls and natural springs, hill tracts, perched with history antiquities. The District is otherwise peaceful but on 25th December 2007, it attracted attention due to social conflict among Kandha tribe and Pana caste people. This is the land where Kandha tribes are the principal inhabitants. The district headquarter is Phulbani located in the central part of the district.

1.4 Topography and Agro-climatic Characteristics

The district comes under North Eastern Ghat zone characterized by hot with humid and sub-humid climate. The normal rainfall of the district is 1427.9 mm distributed in 73.7 rainy days against the state average of 1482 mm. The actual rainfall recorded in the district was 1278.9 mm and 1965.6 mm during 2000 and 2001 with intra block variation of 1217 mm to 2894 mm. Nearly 90% of rainfall is received by south-west monsoon during June to September and distributed in 53 rainy days (72 of total rainy days). The average maximum temperature is 31.3 degree celsius with average minimum of 17.2 degrees celsius. The highest maximum temperature of 39.0 degree celsius recorded during May and lowest minimum of 8.2 degree celsius during December.

The district "KANDHAMAL" has two subdivisions, Phulbani and Balliguda. Phulbani subdivision forms a broken plateau of about 518 mtrs

above sea level, gridled almost continuously by high ranges which cut it off from the surrounding area. On the north-east and west these ranges quite perceptibly rise abruptly from the plains of Boudh district while on the south they merge in the outlines of the Eastern Ghats of Balliguda Subdivision. The high plateau lying within these ranges is broken up by numerous smaller ranges which form an endless series of valleys varying in size. Thick forest still covers much of these tracks and the villages lie in scattered clearings along the hill sides and in valleys below, while some are in almost inaccessible places on the top most summits of the hills. The whole of this Sub-division is of hills and forests interspersed here and there with the small hamlets of the kondhas. This hilly tract is intersected in all directions by streams and torrent, which run dry after the cessation of the rains. The uplands and slopes leading down from the foot of the hills are utilised for growing dry crops periodically depending on the rain. The area of cultivated land is small. The Balliguda Sub-division is on the plateau and lies at height varying from 300 meters to 1100 meters above the mean sea level. The eastern side of the sub-division consists of wide well cultivated valleys. The southern portion is mountaineous, covered with dense forests infested with wild animals. The hills of this Sub-division are a part of the Eastern Ghats.

The scheduled district of Kandhamal is spreaded over a geographical area of 8021 sq. kms which is 5.15% of the total geographical area of the state. The district is situated within longitude of 80 30' to 84 35' east and latitude of 19 34' to 20 34' north. The district is placed centrally in the geographical map of Orissa bound by Boudh district in the north, Rayagada in south, Ganjam and Nayagarh district in east and by Kalahandi in west. The district is having a total population of 6, 48,201 [census 2001] and has observed a decadal growth of 18.66% in comparison

to 1991. Tribal dominate the district population with 51.96% of the total share with 16.89% scheduled caste [SC] communities. It is one of the most backward districts of Orissa with 47.2% households below the poverty line [BPL] category [census 2001].

Table 1, District population		
Population	1991 Census	2001 Census
Male	2,73,234	3,22,799
Female	2,73,047	3,25,402
Total	5,46,281	6,48,201
Percentage of State Total	2.73%	1.76%
Decadal Growth	21.69%	18.66%
Sex Ratio (For 1000 Male)	999	1008
Rural Population	5,10,619	6,03,912
Urban Population	35,662	44,000
Population Density per Square Km.	68	81
Scheduled Caste	99,499	1,09,506
Scheduled Tribe	2,81,386	3,36,809
Source – District Statistical Hand Book, Census of India		

The district comprises of 12 blocks and 2 subdivisions with 2379 inhabited villages. About 70% of geographical area is reported to be under forest coverage. It can be said that the district is rich in natural resource base as far as forest coverage is concerned. The district is endowed with rivers like Salki, Bagha and Khadag which are the major rivers of the district. The district is known for its vegetables and spices and has conducive agro-climatic situation for cultivation of horticulture crops such as mango, banana, guava, papaya and jackfruit. Paddy, vegetables, maize, mustard, kulthi, niger and turmeric are the principal crops grown in the district. The district has a special characteristic of growing organic turmeric and ginger and known for organic

farming in Orissa. The district however is backward due to various factors like poor connectivity, lack of industrialization, poor processing and manufacturing units etc.

Block / NAC / Municipality	Population (2001 Census)	ST		SC		Literacy		
		No.	%	No.	%	Male	Female	Total
Khajuripada	46755	23554	50.4	14528	15.5	15799	7341	23140
Phulbani	34976	19813	56.7	6886	9.89	10699	4929	15628
Phiringia	72099	41960	58.2	12224	8.57	19117	7935	27052
Balliguda	63570	28773	45.3	8394	6.65	16306	7698	24004
Tumudibandh	38061	21660	56.9	7638	10.1	6734	2856	9590
Kotagarh	40860	23465	57.4	7038	8.84	7559	2970	10529
Daringi Badi	93530	55783	59.6	8094	4.32	21811	10878	32689
K.Nuagam	47402	24280	51.2	4974	5.21	13517	6577	20094
Raikia	48090	25997	54.1	6725	6.97	15165	8976	24141
G.Udayagiri	30631	19952	65.1	3711	6.11	10013	6449	16462
Tikaballi	46688	25535	54.7	9815	10.6	14928	8625	23553
Chakapad	41445	19765	47.7	10335	12.6	13330	6448	19778
Phulbani[N]	33890	3849	11.4	7708	11.2	14780	10748	25528
G.Udayagiri[N]	10204	2423	23.8	1436	7.64	3975	3542	7517
Total:	648201	336809	51	109506	16.9	183733	95972	279705

Source – District Statistical Hand Book, Census of India

The poor connectivity has adversely affected the economic growth of the district besides deprivation of basic minimum necessities of life particularly health, education and modern amenities. The decennial growth rate of population estimated to be 18.60%, is just above the state average of 15.94.

1.5 District Worker Situation

The district is predominantly agrarian based with cultivators comprising a significant proportion of the district workforce. Of the total cultivators, small and marginal farmers constitute a significant proportion

followed by agricultural labourers. Big farmers with higher land holding size are less in number. In the agriculture allied sectors significant numbers of people are engaged for livelihood.

Sl. No.	Worker Categories	Numbers
1	Cultivators	102929
2	Small and Marginal farmers of cultivators	81397
3	Agricultural labourers	71170
4	Artisans	3170
5	Household or cottage industry	21588
6	Allied agriculture activities	71889
7	Other workers	65492

Source – District Statistical Hand Book, Census of India

Proportion of people engaged in artisan activity lowest in comparison to any other sector engagement. Cottage industry also employs less number of people in comparison to agriculture and allied sector engagement. Remaining others are engaged in other sectors of engagement like transport and communication, quarry etc.

1.6 Cultural Profile

Kandha Tribes

The word Kandha is spelt variously which are synonymous such as Kond, Khond and Kandha. But they identify themselves as Kuilaku or Kuinga. The language they speak is Kui, which has no script. The Kandhas are identified from their names. Some writers have attempted to trace out the Telegu derivation from the word Konda means hills. Those living on the hill tops are named as Kandha. It is a fact that the kandha like to live in hill tops and their subject people the Panos liked to live beneath their settlement. The common surnames of Kandhas are

Pradhan, Mallick, Kanhar and Majhi. And those worship deities have surnames like Dehury, Jhankar, Jani etc. According to the 2001 census, the ST⁷ population of the district is 3.36 lakhs which constitutes 51.96% of the total population.

Ethnographic Records

Different views have been given by different authorities about identity of Kandhas. Dalton describe the Kandhas as tall as average Hindus and much darker in complexion. MacPherson described the Kandhas as faithful to friends, devoted to their Chiefs, Resolute, Brave, hospitable, Laborious. The Kandhas have their loyalty to their erstwhile feudatory chiefs in Orissa and elsewhere. They are treated as valiant warriors and discharged their services very faithfully to their rulers. They offered their valuable services at the time of freedom movement. To name a few among them are Chakara Bisoyi and Dora Bisoyi. The population distribution of SC and ST in the district is 1, 00,000 (18%) and 2, 81,000 (51%) respectively. There was an ethnic riot experienced by this district during the year 1994. The main issue during this period was the illegal and forcible possession of lands belonging to ST community by members of SC community.

Types of Kandhas

According to the area of habitation Kandhas are classified into four categories viz. Kutia, Malua / Malia, Dongria and Desia. The Kutia Kondhas are found mainly in Kotgarh, Tumudibandh and Belgarh area of Balliguda Sub-division. The Dongria live in high lands of hilly area in the District. The Desia or Oriya Kandhas live in plain areas with the non-tribal.

Dresses - Men wear a long and narrow cloth which passes round the waist and between the legs, the ends of this cloth are brightly colored and hang down behind like a tail. The Kandha men used to have long

hair which they fastened in front by knot, in which they invariably stuck cigars, comb, metal pins etc. Women wear two clothes, one around waist and another for upper portion of the body. The Kutia Kandha women wear only one loin cloth. They have intense love for ornaments and wear gold and silver necklaces, ear-rings, nose-rings and hair ornaments. Coloured beads are generally used as necklaces. They bore the entire rim of the ear with silver rings. They tattoo their faces before marriage. The Kutia Kandha women don't have tattoo on their faces. Most of the old customs among the Kandhas are now fast disappearing.

Food Habits - Kandhas eat rice with boiled green leaves and vegetables,. They use scoop made of leaves for taking food, use peja (gruel of rice) as a sick diet. They are very fond of meat on social and religious functions, but don't take beef, fish is taken when available. They smoke and chew tobacco leaves. Both men and women consume excessively Salapa and Mohua liquor on all occasions.

Houses - Houses are made up of wooden walls (planks) and bamboo splits with a thatching of forest grass and leaves. Generally houses are neat and tidy but lack ventilation. Domestic animals and residents are all huddled in two or three rooms. Doors are made up of bamboo splits designed artistically.

The district of Kandhamal is bestowed with the beauty of nature. It has wild life, scenic beauty, healthy climate, and serpentine ghat roads for the tourists who need to relax and unwind. It has attractions, like panoramic coffee gardens, pine jungles, Ghat roads, hills and water falls, virgin forest and typical tribal village life. Almost 66% of the land area of the district is covered with dense forest and towering mountains which provide shelter to the inhabitants like Kondhas, classified under the ancient Gondid race of proto Austroloid group, rich in green

meadows at the attitude of 2000 ft to 3000 ft, the terraced valleys thronged with these colorful tribals in their natural heritage, dancing and sporting has its own appeal. Kandhamal is also famous for handicrafts such as Dokra, Terracotta, Cane and Bamboo works.

The region is proud of its rich cultural heritage. Mauryan Emperor Ashoka mentioned in Jaugada (Ganjam) edict about the people of this hill tract as Atavikas who practised their own religion. The ghat tract of Kandhamal "Kalinga" was known to the travellers of medieval history. The tract was used for the transportation of salt to the central India. Again the route running through Daringibadi was known in history as Great Military road discovered by Britishers who happened to come over to Daringbadi for pleasure trips to enjoy the natural beauty and cool climate during summer.

1.7 District Forest Resources

Phulbani Division was created during the year 1945. The division extends to the whole of Phulbani Sub-Division and G.Udayagiri Tahsil of Balliguda Sub-division in Kandhamal District. It covers 7 C.D.⁸ Blocks, namely Phulbani, Khajuripada, Phiringia, G Udayagiri, Tikabali, Chakapad and Raikia. The division has four territorial ranges, 21 section and 65 beats. The division has 8 forest check gates located at Kalinga, Bisipada, Khajuripada, Ranipathar, Tudipaju, Baraba, Dimiripalli and Nediguda. There are forest Rest Houses at Phulbani, G Udayagiri and Rest Sheds at Phiringia and Karada. There are 28 forest roads over a length of 240.038 KM.

The forests of the division come under category i) 3C North Indian Tropical Moist Deciduous Forests, ii) 5B North Indian Tropical Deciduous forests as per Champion and Seth Classification. There are 59 RF⁹ Blocks, which are managed as per the sanctioned

working plan prepared for the division by Sri Satyanarayan Bohidar, IFS¹⁰ for the period from 1990-91 to 2000-01. There are 37 demarcated protected forest blocks, which are managed as per the prescriptions of the working scheme prepared by Sri Sankarshan Behera, OFS¹¹-II, valid for the period from 1993-94 to 2002-03.

The total geographical area of the division is 331261.00 ha. The forest- land thus covers nearly 81% of the total geographical area of the division. There are about 473 VSS¹²s functioning in the division who have protected about 29504 ha of forests. Due to people's involvement in the protection of forests, podu activities have been curbed down to a quite an extent and regenerated, established crop is coming in many villages. Wild life like elephant, leopard, tiger, bear, boar, deer etc. are available in the forests of this division.

Large extent of forest is damaged due to collection of sal twigs and leaves used for turmeric cultivation over whole of the division. The tribal people take up podu cultivation traditionally in Reserve Forest of this division. Substantial forest area in Phiringia and G Udayagiri Range are affected by podhu cultivation each year. Podu cultivation is mainly taken up in revenue and reserve forests. The revenue forest extends over 1, 11,936.97 ha in the division and the offence are difficult to be controlled under the provisions of the existing forest act. However, efforts have been made by the Forest Department to distribute pamphlets to educate all the panchayats to desist from podhu cultivation.

Kendu Leaf Situation in the District

Phulbani Kendu Leaf Division is one of the five Divisions of Cuttack Kendu Leaves Circle. This Division is functioning since 1973 after the Nationalization of Kendu Leaf Trade in the State of

8. Community Development , 9. Reserve Forest, 10. Indian Forest Service, 11.Orissa Forest Service, 12. Vana Suraskhya Samiti

Orissa in December, 1972. This Division extends over Phulbani and Balliguda Revenue Sub-Division of Kandhamal District, Bhanjanagar Sub-Division of Ganjam District and Nayagarh Sub-Division of Nayagarh District. So far as the territorial jurisdiction is concerned, it overlaps five Territorial Forest Divisions viz. Balliguda, Phulbani, Ghumsur (North), Ghumsur (South), and Nayagarh. It is adjoining to Boudh and Bhawanipatna Kendu Leaf Divisions. The terrain is mostly hilly and inaccessible in Kandhamal District and part of Nayagarh District and the terrain in Ganjam and part of Nayagarh Districts are however plain. The phadies are situated widely apart from each other, some being in very inaccessible areas, which causes much difficulty in transportation of processed Kendu Leaves bags. The Division has mostly tribal population who get the benefit of maintaining their livelihood partly from this Kendu Leaf operation.

Phulbani Kendu Leaf Division comprises of seven Ranges namely, Phulbani, Gochhapada (East), Gochhapada (West), Balliguda, Tumudibandha, Bhanjanagar and Daspalla having four Sections in each Range. The headquarters of the Ranges have been fixed at the place of the name of the Range except Gochhapada (East) Range whose headquarters is at Phulbani. The seven Ranges have been put under three Sub-Divisions namely Phulbani, Balliguda and Bhanjanagar having headquarters at Phulbani, Balliguda and Bhanjanagar respectively. At present there are eight units in operation in these seven Ranges. These unit numbers are area codes put on the bags which help in the identification of the area of procurement. The unit no 75, which was worked previously under Daspalla Range, has been closed due to very low quality leaves and difficulty in working.

Kendu Leaf trade provide subsistence to the poor

people in the season when no other employment opportunity is available to them. Kendu Leaves worth more than Rs. Two crores are purchased every year from over 50,000 pluckers in the months of April and May. Each family engaged in leaf plucking earn about Rs.2000/- in these two months. The leaves produced are handed over to Orissa Forest Development Corporation Ltd for marketing. The leaves of Phulbani Division are mainly of Quality IV. However, Gochhapada (West) and Tumudibandha are also known for producing Quality III leaves.

Table 4 :Forest resource base in Phiringia		
SN	GP	Forest Area [Ha.]
1	Ratanga	1100
2	Krandibali	1940
3	Jajeshpanga	1425
4	Tala Dandikia	1389.937
5	Dimiriguda	997
6	Bhrungijodi	1878.685
7	Dindiragaon	1319.1
8	Balandapada	1166.175
9	Gochhapada	1702
10	Bandhagarh	669.767
11	Phiringia	600
12	Kashinipadar	2853
13	Luising	3280.562
14	Pahiraju	1314
15	Nuapadar	582.199
16	Salaguda	2492.293
17	Pallabrudi	1216.838
18	Pabingia	980.864
19	Kelapada	492
20	Sadingia	3074.619
Source – GP level information, Primary Source		

All the GPs of the block have forest resource base though its proportion to the geographical coverage vary. Highest are of forest coverage marked to be in Luising followed by Sadingia and Kasinipadar while lowest area of forest is prevailing in Kelapada. The block inherits the district character with regard to natural resource base in terms of forest for which all the GPs have the forest coverage though it is under severe depletion path in the recent days. Increasing market demand for woods has promoted illegal trading on the forest resource base. Apart from that, unscientific and unregulated exploitation of the forest resource has resulted with decreasing woods of high crown size. Though the department of forest has initiated some concrete measures in this regard to check the fast depletion of the forest resource base and its restoration, still illegal cutting of forest is continuing in many forest areas of the block.

SN	GP	Natural Resources		
		Forest [Ha]	Water source [No.]	Cultivated area [Ha]
1	Ratanga	1100	82	705
2	Krandibali	1940	95	1146
3	Jajesh panga	1425	159	670
4	Tala Dandikia	1389.937	65	627.546
5	Dimiriguda	977.171	31	985
6	Bhrungijodi	1878.685	41	593.394
7	Dindiragaon	1319	91	453.73
8	Balandapada	1166.175	107	777.45
9	Gochhapada	1702	134	936.21
10	Bandhagarh	669.767	34	805.815
11	Phiringia	600	95	740.3
12	Kashinipadar	2853	82	835
13	Luising	3280	26	615
14	Pahiraju	1394	16	325.4
15	Nuapadar	582.199	47	814.924
16	Salaguda	2492.293	36	705
17	Pallabrudi	1216.838	92	556.606
18	Pabingia	980.864	69	820.86
19	Kelapada	492	79	1823
20	Sadingia	3074.619	47	1024.842
Source – GP level information, Primary Source				

Chapter TWO

2.0 The Block of Phiringia

Spreading over an area of 632.56 sq. km with a population of 72099 [census 2001], the block of Phiringia covers 20 GP¹'s and home to 11.12% of the total district population.

S. N	GP	Distance from Block	Distance from District HQ
1	Ratanga	9	34
2	Krandibali	32	39
3	Jajeshpanga	27	52
4	Tala Dandikia	22	47
5	Dimiriguda	13	48
6	Bhrungijodi	15	40
7	Dindiragaon	3	22
8	Balandapada	41	43

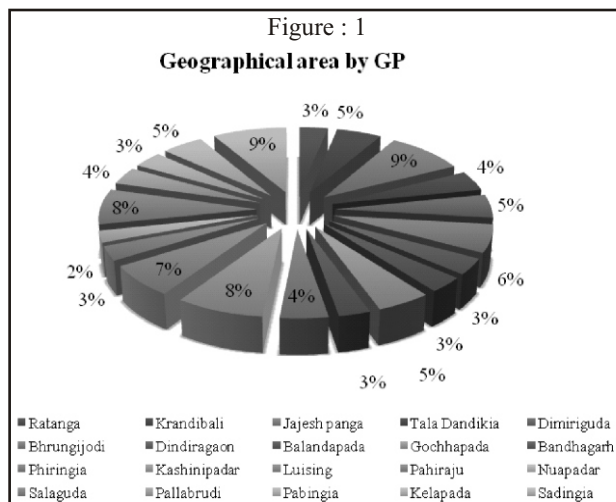
9	Gochhapada	23	30
10	Bandhagarh	12	37
11	Phiringia	0	23
12	Kashinipadar	11	35
13	Luising	45	51
14	Pahiraju	51	56
15	Nuapadar	12	52
16	Salaguda	29	34
17	Pallabrudi	15	40
18	Pabingia	6	31
19	Kelapada	12	37
20	Sadingia	32	57
Source - GP level information, Primary Source			

Based on the geographical location, different GPs are placed at different distance from the block and district headquarters. The GP of Pahiraju and Luising are at

the most distant places i.e. on an average 51 KM and 45 KM from block headquarters and 56 and 51 KM from the district headquarters respectively. After Phiringia, which is the block headquarters, GPs at the lowest distance from block headquarters are Dindiragaon [3 KM], Pabingia [6 KM] and Ratang [9 KM].

Calculating from district headquarters, the block headquarters at Phiringia is at lowest distance [23 KM] after Dindiragaon [22 KM] followed by Pabingia [31 KM], Salaguda [34 KM] and Ratang [34 KM]. GPs that are at a highest distance from the district

comprises around 9% of the total geographical area of the block, share of other GPs to the total geographical area of the block vary between 2% to 8%. But population density of each GP does not correspond to its geographical spread rather it is dependent upon availability of resource base and other amenities that are essential to lead a normal life. Numbers of villages within a GP also vary significantly based on these parameters but somehow it is dependent upon the availability of space for the growth of a village. The GP of Sadingia with second highest geographical area is having maximum number of villages [52 villages] followed by Pabingia [30 villages] and Jajespanga [25 villages]. The GP of Jajespanga with largest geographical area is having comparatively less number of villages in comparison to other GPs of the block like Pabingia and Sadingia. So, apart from geographical area, there are other factors which play a key role in the growth of human settlements.



headquarters within the block are Pahiraju [56 KM], Nuapadar [52 KM], Jajespanga [52 KM] and Luising [51 KM]. Objective of analysis of distance is attributed to understanding the impact of distance on development focus. It is normally viewed that villages and GPs that are at a distance from the block and district headquarters remains neglected due to poor focus and inadequate monitoring mechanism.

Different GPs have different geographic coverage within the block jurisdiction. The GP of Jajespanga is having highest geographical area followed by Sadingia, Kasinipadar and Salaguda. While the former two GPs i.e. Jajespanga and Sadingia each

Table 7 : Household and Population Details by GP

SN	GP	Tot Vill	Total HH	Av. HH per Village	Tot Popu	Pop./ Village
1	Ratanga	17	899	53	4069	239
2	Krandibali	15	761	51	3534	236
3	Jajeshpanga	25	935	37	4092	164
4	Tala Dandikia	12	714	60	3302	275
5	Dimiriguda	15	887	59	4141	276
6	Bhrungijodi	18	531	30	2520	140
7	Dindiragaon	13	548	42	2484	191
8	Balandapada	18	997	55	4538	252
9	Gochhapada	15	904	60	4056	270
10	Bandhagarh	16	701	44	3023	189
11	Phiringia	19	1062	56	5045	266
12	Kashinipadar	18	892	50	4442	247
13	Luising	15	790	53	3856	257
14	Pahiraju	18	627	35	2955	164
15	Nuapadar	12	905	75	4108	342

SN	GP	Tot Vill	Total HH	Av. HH per Village	Tot Popu	Pop./ Village
16	Salaguda	21	745	35	3550	169
17	Pallabrudi	15	767	51	3486	232
18	Pabingia	30	1055	35	4796	160
19	Kelapada	12	1021	85	4757	396
20	Sadingia	52	991	19	4526	87

Source – GP level information, Primary Source

The block is having 376 villages with a total of 16732 households. The numbers of households vary significantly from village to village and by that from GP to GP but on an average each village is having 45 households. Highest number of households observed to be in the block headquarters though its geographical area is comparatively less than many other GPs of the block. As far as number of household are concerned, the block headquarters of Phiringia is followed by Pabingia, Kelapada and Balandapada. The GP of Jajespanga with highest geographical area is having less number of households in comparison to some other GPs of the block. Looking at the households per village, it is apparent that highest number of households per village observed to be in Kelapada followed by Nuapadar GP and lowest number of household per GP observed to be in Sadingia which is comparatively having more geographical area of the block. As the block is hilly and terrain, the size of the villages are not as big as it is in most parts of the coastal district. Secondly, the villages are also not densely populated and settlements are in a scattered form.

Total population of the block estimated to be 11.12% of the total population of the district with wide variation by GP. Total population of the block estimated to be 72099 covering all the GPs with an average population of 183 per village (taking into account only the inhabited villages). Population

estimated to be of highest order in the block headquarter GP of Phiringia followed by Pabingia, Kelapada, Balandapada and Sadingia. Lowest population marked to be in Dindiragaon followed by Bhrungijodi and Pahiraju. With less number of villages [12 villages] and more population [4757], per village population is highest in Kelapada followed by Nuapadar [4108 population in 12 villages]. Though, number of villages are more [52 villages], lowest average population per village marked to be in Sadingia followed by Bhrungijodi [average of 140 population] and Pabingia [average of 160 population].

2.1 Demographic Situation

The regional demography of Phiringia block has undergone continuous alteration over the period. Population growth in the block has been more moderate compared to the growth rates witnessed in several other parts of the state more particularly the coastal plains. The associated factors of increase in population between the years 1991 to 2001 have thus been over 15%. For the block as a whole, population growth has maintained a rising trend over the century, growing at the long-term annual exponential rate of around 1.5 percent per annum. However, the rates of annual increase have varied from period to period.

In spite of growth in population, there is no significant shift of landuse from food crops to cash crops and orchardry over the years in the block apart from small pockets. Landlessness is more or less prevalent in many GPs and villages and this large landless rural population is now engaged principally in agricultural wage work or in daily labour activities.

With the increment at growth in population, population density in the block has accordingly intensified. However, unlike the dense settlement in

coastal parts of Orissa, urbanisation levels in Phiringia block remain low. The block is not having as such any other developed urban areas apart from block headquarters which is also at its infancy of

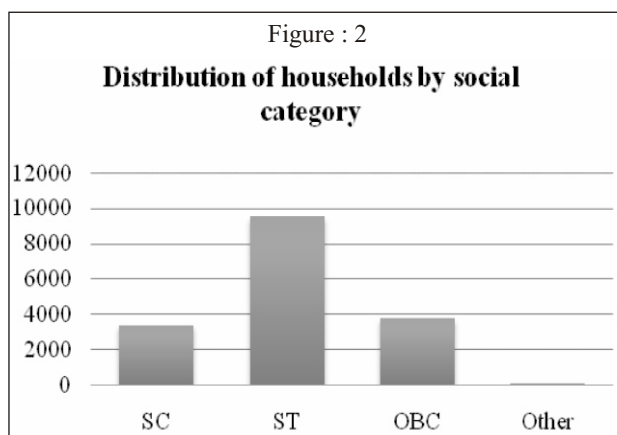
present situation of development. Though it is very slow, but there has been a gradual shift from farm based to non-farm based occupations.

Table 8 : Population by Social Categories, Field Studies

GP	SC HH	SC Pop	ST HH	ST Pop	OBC HH	OBC Pop	Other HH	Other Pop
Ratanga	221	1196	342	1421	336	1452	0	0
Krandibali	74	348	521	2605	166	581	0	0
Jajeshpanga	192	606	562	2668	176	801	5	17
Tala Dandikia	111	446	503	2360	100	496	0	0
Dimiriguda	156	478	516	2454	215	1209	0	0
Bhrungijodi	54	276	425	1952	52	292	0	0
Dindiragaon	126	568	343	1482	79	341	0	0
Balandapada	245	1097	593	2727	159	714	0	0
Gochhapada	237	1063	460	2064	205	920	2	9
Bandhagarh	119	512	313	1351	260	1132	9	28
Phiringia	301	1107	376	1748	355	2048	30	142
Kashinipadar	188	961	440	2132	264	1349	0	0
Luising	106	433	574	2860	110	563	0	0
Pahiraju	89	413	482	2285	56	257	0	0
Nuapadar	158	672	508	2359	232	1041	7	36
Salaguda	195	870	437	2121	113	559	0	0
Pallabrudi	193	840	425	1997	146	636	3	13
Pabingia	219	1285	749	3102	87	409	0	0
Kelapada	229	1181	358	1689	420	1820	14	67
Sadingia	120	505	633	2930	238	1091	0	0
Total	3333	14857	9560	44307	3769	17711	70	334
Source – Respective GP, Primary source								

growth. New urban settlements are trying to sprout at GP head quarters but the pace of growth is very slow. The expected future trend of urbanisation will be vital to the growth of the block especially as far as quality of services and livelihood options are concerned. But such trends are expected to come late looking at the

As per the present demographic situation, many GPs are dominated by SC² households while some other GPs by ST³. But most of the GPs have mixed population of scheduled caste and scheduled tribe. Significant number of OBC⁴ population also exists in all the GPs while general caste population exists in



limited numbers and restricted to a few GPs. The GPs that have relatively higher number of SC households are Phiringia, Balandapada and Gochhapada while less SC population observed to be in Bhrungijodi, Karandibali and Pahiraju. Total SC population of the block is 19.24% of the total block population while they compose of 19.92% of the total household of the block. So, population per household in SC category estimated to be 4.46.

Table 9 : Social Groups in the block, Census 2001

S.N.	Village Name	Total Rural Families	Rural Families with Social Group					Total
			ST	SC	OBC	Others	NS	
01	Balandapada	1148	645	330	88	82	3	1148
02	Bandhagada	741	319	120	281	21	0	741
03	Burungijodi	604	480	60	53	11	0	604
04	Dimiriguda	939	529	167	187	43	13	939
05	Dindrigam	571	354	106	69	42	0	571
06	Gochhapada	989	451	259	258	21	0	989
07	Jajespanga	1033	620	204	199	10	0	1033
08	Kashinipadar	964	500	196	254	14	0	964
09	Kelapada	1125	394	260	433	38	0	1125
10	Krandibali	804	500	75	44	185	0	804
11	Luisingi	864	615	96	141	12	0	864
12	Nuapadar	914	493	168	117	136	0	914
13	Pabingia	1146	802	217	121	3	3	1146
14	Pahireju	732	525	151	32	20	4	732
15	Palla brudi	797	404	207	123	59	4	797
16	Phiringia	1481	510	389	463	112	7	1481
17	Ratanga	926	353	240	312	15	6	926
18	Sadingia	976	585	128	244	14	5	976
19	Salaguda	803	460	226	104	12	1	803
20	Taladandakia	766	539	133	62	26	6	766
Grand Total		18323	10078	3732	3585	876	52	18323

Note – NS for not specific, Source – GP information and Primary data

The GPs that are dominated by ST households are namely Pabingia, Sadingia and Balandapada while lowest concentration of tribal is observed to be in Bandhagarh GP followed by Ratang and Dindiragaon. ST households in total comprise 57.14% of the total households of the block with 57.39% of the total block population. In comparison to ST, OBC population is less but more than SC population of the block. Total OBC households comprise 22.53% of the total household of the block and 22.94% of its population. The average family size in case of ST is 4.63 while that in OBC is 4.70. So, in comparison to SC, ST and OBC families have more number of family members where OBC has the highest. As discussed earlier, other household composition is comparatively less in the block to the tune of 0.42% with 0.43% of the total population of the block and average family size of 4.77. So, by family size, other class population is having a higher family size in comparison to any other social groups residing in the block followed by OBC, ST and SC. So, the overall demographic character of the block is dominated by ST while ST and SC together comprise

76.63% of the block population and 77.06% of the total household.

2.2 Rural Housing

The quality of house and facilities available in it considered to be one of the indicators of wellbeing of a family and its overall economic status. Families with pucca houses altogether ascribe a different community recognition in comparison to families that have kuchha or mixed type houses. House type also reflects the overall economic situation of a locality and wellbeing of its people. The block is having more of kuchha houses followed by pucca houses. Many families do not have their own house and hence staying in some other's house or having a temporary dwelling. A total of 21.75% families have pucca house while 75.57% families in the block area having kuchha house. Mixed house types area available with 0.57% families whereas 2.12% families do not have their own house. Families those are not having their own house, normally stay in other's houses on a temporary basis or having temporary sheds for shelter.

Table 10 : Housing Pattern in the block

Sl. No.	GP	Housing Categories					
		Total HH	Pucca HH [+IAY]	Kucha HH	Mixed HH	Homeless	IAY Houses
1	Ratanga	899	270	583	24	46	173
2	Krandibali	761	131	611	0	19	122
3	Jajeshpanga	935	234	234	0	25	187
4	Tala Dandikia	714	70	457	54	36	151
5	Dimiriguda	887	105	771	0	11	223
6	Bhrungijodi	531	187	342	0	2	127
7	Dindiragaon	548	134	406	0	8	105
8	Balandapada	997	160	861	0	12	111
9	Gochhapada	904	237	638	0	17	187
10	Bandhagarh	701	185	511	0	5	152
11	Phiringia	1062	366	696	0	47	256

Table 10 : Housing Pattern in the block

Sl. No.	GP	Housing Categories					
		Total HH	Pucca HH [+IAY]	Kucha HH	Mixed HH	Homeless	IAY Houses
12	Kashinipadar	892	125	756	17	11	160
13	Luising	790	144	630	0	16	140
14	Pahiraju	627	125	473	0	29	119
15	Nuapadar	905	294	556	0	25	204
16	Salaguda	745	124	606	0	15	94
17	Pallabrudi	767	158	609	0	0	85
18	Pabingia	1055	269	771	0	15	202
19	Kelapada	1021	228	793	0	0	216
20	Sadingia	991	93	783	0	15	118

Source – BPL Census 2002 and Primary information

Of the total households, percentage of pucca houses marked to be highest in Bhrungijodi [35.22%] followed by Phiringia [34.46%] and Nuapadar [32.49%]. Lowest percentage of pucca houses are in Sadingia [9.38%], Tala Dandikia [9.80%] and Dimiriguda [11.84%]. So, looking at the prevalence of pucca houses, it can be derived that the GPs that are having lowest number of pucca houses are in a less better of situation while GPs having more pucca houses are comparatively in a more economically advantageous position. But this conclusion may not stand true for all the GPs as rural housing scheme of government is having a greater bearing on the availability of pucca houses in any specific GP. Indira Awas Yojana [IAY], a rural housing scheme of

government observed occupying a significant percentage of the total pucca houses in all the 20 GPs of the block. In total 76.23% pucca houses are constructed with the support of government sponsored rural housing scheme while remaining 23.77% pucca houses are constructed by the concerned family. In one hand, the situation reflects the penetration of rural housing scheme to the GPs by which many families could able to have a concrete house of their own while in other hand it reflects the fact that house type is not the sole determinant of economic condition of a family in all the cases. Especially it is the poor and BPL⁵ enrolled families that access such housing schemes to construct their own house with the government support.

Table 11 : House typology in the block by GP

SN	Name of the GPs	% of Pucca houses with IAY	% of kuchha houses to the total	% of mixed houses to the total	% of total having other dwelling types	IAY Houses	% of IAY to Pucca
1	Ratanga	30.03	62.18	2.67	5.12	173	64.07
2	Krandibali	17.21	80.29	0.00	2.50	122	93.13
3	Jajesh panga	25.03	72.30	0.00	2.67	187	79.91
4	Tala Dandikia	9.80	77.59	7.56	5.04	151	215.71
5	Dimiriguda	11.84	86.92	0.00	1.24	223	212.38

Table 11 : House typology in the block by GP

SN	Name of the GPs	% of Pucca houses with IAY	% of kuchha houses to the total	% of mixed houses to the total	% of total having other dwelling types	IAY Houses	% of IAY to Pucca
6	Bhrungijodi	35.22	64.41	0.00	0.38	127	67.91
7	Dindiragaon	24.45	74.09	0.00	1.46	105	78.36
8	Balandapada	16.05	82.75	0.00	1.20	111	69.38
9	Gochhapada	26.22	71.90	0.00	1.88	187	78.90
10	Bandhagarh	26.39	72.90	0.00	0.71	152	82.16
11	Phiringia	34.46	61.11	0.00	4.43	256	69.95
12	Kashinipadar	14.01	82.85	1.91	1.23	160	128.00
13	Luising	18.23	79.75	0.00	2.03	140	97.22
14	Pahiraju	19.94	75.44	0.00	4.63	119	95.20
15	Nuapadar	32.49	64.75	0.00	2.76	204	69.39
16	Salaguda	16.64	81.34	0.00	2.01	94	75.81
17	Pallabrudi	20.60	79.40	0.00	0.00	85	53.80
18	Pabingia	25.50	73.08	0.00	1.42	202	75.09
19	Kelapada	22.33	77.67	0.00	0.00	216	94.74
20	Sadingia	9.38	89.10	0.00	1.51	118	126.88

Source – Primary Information, BPL census 2002

The GP of Luising heads the list in accessing IAY⁶ with 97.22% of the total pucca houses are from rural housing. Some other GPs that have significant percentage of IAY to the total pucca houses are Pahiraju with 95.20%, Kelapada with 94.74% and Krandibali with 93.13% pucca houses. Kuchha house altogether comprise 75.57% of the total housing of the block and highest percentage to the tune of 89.10% marked to be in Sadingia followed by 86.92% in Dimiriguda, 82.85% in Kasinipadar and 82.75% in Balandapada. Lowest number of kuchha houses among all the GPs of the total houses of the GP marked to be in Phiringia [61.11%], the block headquarters followed by Ratang [62.18%], Bhrungijodi [64.41%] and Nuapadar [64.75%]. Mixed house types are only in 0.57% cases and highest percentage of mixed houses observed to be in Tala Dandikia to the tune of 7.56% of the total households followed by 2.67% in Ratang and 1.91%

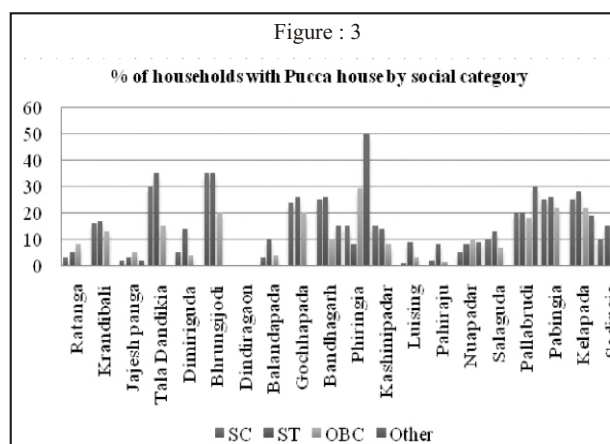
in Kasinipadar. No mixed houses are there in the remaining 17 GPs where houses are either of kuchha or pucca type.

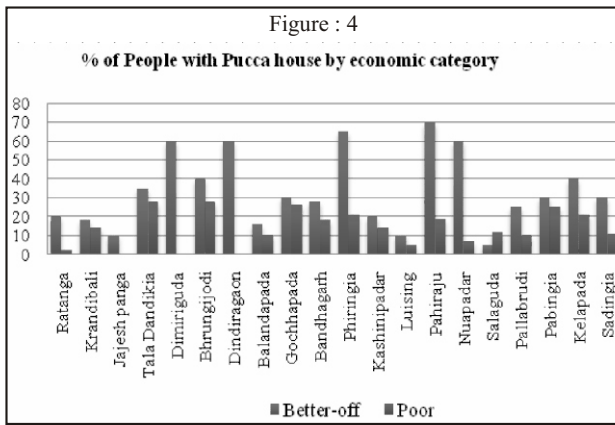
Another remarkable observation is that in 2.12% families who do not have a home of their own. Basically they dwell in temporary sheds or having a space in some other houses. Highest of this order marked to be in Ratanga, followed by Taladandikia, Pahiraju and Phiringia GPs of the block. There are different reasons which can be attributed to this situation like not having a homestead land to construct their own house, no accessibility to government sponsored rural housing scheme, having poor economic condition to construct a house, no need to construct own house due to availability of relatives / others house to stay etc.

S N	Name of the GPs	No. of family not having IAY
01	Balandapada	540
02	Bandhagada	264
03	Bhrungijodi	64
04	Dimiriguda	85
05	Dindiragaon	137
06	Gochhapada	178
07	Jajeshpanga	217
08	Kashinipadar	37
09	Kelapada	211
10	Krandibali	259
11	Luisingi	142
12	Nuapadar	87
13	Pabingia	56
14	Pahiraju	148
15	Pallabrudi	39
16	Phiringia	278
17	Ratanga	32
18	Sadingia	221
19	Salaguda	360
20	Tala Dandakia	27
Grand Total		3382
Source – Census 2001 and Primary Information		

According to the available information, out of the total 18323 households of the block (census 2001), 18.46% families (18.46%) yet to availed the rural housing benefit inspite of having homestead land. Of the total such families, highest number of deserving families are in Balandapada GP followed by Salaguda and Bandhagarh. While, lowest number of such families observed to be in Tala Dandikia, Ratang and Kashinipadar GPs.

SN	GP	% of people with Pucca House					
		Rich	Poor	SC	ST	OBC	Other
1	Ratanga	20	2	3	5	8	0
2	Krandibali	18	14	16	17	13	0
3	Jajesh panga	10	0	2	3	5	2
4	Tala Dandikia	35	28	30	35	15	0
5	Dimiriguda	60	0	5	14	4	0
6	Bhrungijodi	40	28	35	35	20	0
7	Dindiragaon	60	0	0	0	0	0
8	Balandapada	16	10	3	10	4	0
9	Gochhapada	30	26	24	26	20	0
10	Bandhagarh	28	18	25	26	10	15
11	Phiringia	65	21	15	8	29	50
12	Kashinipadar	20	14	15	14	8	0
13	Luising	10	5	1	9	3	0
14	Pahiraju	70	19	2	8	2	0
15	Nuapadar	60	7	5	8	10	9
16	Salaguda	5	12	10	13	7	0
17	Pallabrudi	25	10	20	20	18	30
18	Pabingia	30	25	25	26	22	0
19	Kelapada	40	21	25	28	22	19
20	Sadingia	30	11	10	15	6	0
Source – Household Survey and FGD							





The number of pucca houses observed to be more with relatively better off families in comparison to the relatively poor families in all most all the GPs excluding a few like that of Salaguda. Even in many GPs, the poorer families do not have a pucca house like in Jajespanga, Dimiriguda and Dindiragaon though some of them are enrolled under BPL categories and entitle to get pucca house under rural housing scheme [IAY]. A mixed pattern observed as far as ownership of pucca house is concerned in different social categories. In some villages / GPs SC community have maximum number of pucca houses while in some cases, it is the ST families and OBC families that are having more number of pucca houses. So, with regard to housing, it is basically the economic factor that decides rather than the social.

2.2.1 House Type in the Block

Available information reveal that a total of 1.92% families in the whole block do not have a home to stay in spite of massive implementation of rural housing programme. Of the total houseless families, 60.80% do not have government sponsored IAY house in spite of having land for house construction while 39.20% do not have land for IAY house construction. Highest percentage of landless families to the total family of the GP is in Pabingia where 4.36% families do not have home followed by 4.31% homeless families in Tala Dandikia and 3.98% in block headquarters of Phiringia. Of the total houses of the block, 75.17% are Kutcha houses while 9.03% are semi pucca and 13.72% are pucca houses. Numbers of Kutcha houses are of highest order in house categories with a relative lowest in Tala Dandikia where 46.08% houses are of Kutcha type. Semi-pucca houses to the total houses marked to be highest in Dimiriguda with 18.10% families having this house type followed by 13.45% in Salaguda and 12.90% in Phiringia. Lowest percentage in semi pucca house category marked to be in Lusing where 2.08% families have this house type followed by Balandapada with 3.92% families and Nuapadar where 4.92% families have semi pucca houses.

Table 14 Housing pattern

GP	House Type									
	Houseless			Kutcha			Semipucca	Pucca	Urban Type	Total
	Total	Having Land For IAY House	Not Having Land For IAY House	Total	Having Land For IAY House	Not Having Land For IAY House				
Balandapada	14	7	7	1005	453	552	45	83	1	1148
Bandhagada	3	0	3	518	320	198	68	152	0	741
Bhrungijodi	15	10	5	428	390	38	56	105	0	604
Dimiriguda	33	20	13	659	580	79	170	77	0	939
Dindiragaon	10	7	3	455	356	99	44	61	1	571

Table 14 Housing pattern										
GP	House Type									
	Houseless			Kutchha			Semipucca	Pucca	Urban Type	Total
	Total	Having Land For IAY House	Not Having Land For IAY House	Total	Having Land For IAY House	Not Having Land For IAY House				
Gochhapada	22	8	14	696	582	114	95	176	0	989
Jajeshpanga	7	3	4	813	636	177	112	100	1	1033
Kashinipadar	16	13	3	693	570	123	74	178	3	964
Kelapada	5	4	1	837	693	144	102	178	3	1125
Krandibali	0	0	0	658	431	227	60	86	0	804
Luisingi	7	6	1	777	642	135	18	62	0	864
Nuapadar	15	9	6	714	647	67	45	130	10	914
Pabingia	50	31	19	891	833	58	72	132	1	1146
Pahiraju	12	3	9	575	427	148	76	69	0	732
Pallabrudi	26	13	13	607	527	80	58	106	0	797
Phiringia	59	41	18	1030	795	235	191	198	3	1481
Ratanga	5	4	1	665	595	70	92	163	1	926
Sadingia	8	5	3	801	575	226	77	89	1	976
Salaguda	12	4	8	599	341	258	108	84	0	803
Tala Dandakia	33	26	7	353	232	121	91	284	5	766
Grand total	352	214	138	13774	10625	3149	1654	2513	30	18323

Source – Primary data and BPL census 2002

In Tala Dandikia 37.08% families have pucca house followed by 20.51% in Bandhagarh. So, overall prevalence of kutchha house is more in number at each GP followed by semi-pucca and pucca houses. Housing in itself is an indicator of development and from this it can be concluded that economic situation of people is not at par with many other districts of the state where people can afford to construct a pucca house of their own for living. Quality of house in itself is the indicator of human development of the block.

2.2.2 Housing Condition (Houseless) by Social Category

The total houseless families are distributed in 178 villages of the block across all the GPs. In 82 villages, 161 ST families do not have the house of their own which is 45.74% of the total families who do not have a house of their own. In SC category, 107 families i.e. 30.40% of the total houseless families reside in 44 villages of the block. Comparing SC and ST as far as houselessness is concerned, percentage of tribal families to the total houseless families is more than that of SC. Families belonging to otherbackward

class comprises 20.17% of the total homeless and spread over 42 vilalges. Similarly, 6.39% of the total homeless belong to other social categories spreading over 10 villages of the block.

2.2.3 Housing Condition (Kutcha House) by Social Category

As discussed elsewhere, the block is having a total of 13774 Kutcha houses of which 56.24% belongs to

Houseless Household	ST	SC	OBC	Others	Total
	No. of Houseless household	No. of Houseless households	No. of Houseless households	No. of Houseless households	No. of Houseless households
0-5	131	81	63	13	288
5-10	30	0	8	0	38
10-20	0	26	0	0	26
20-50	0	0	0	0	0
50-100	0	0	0	0	0
>100	0	0	0	0	0
Total	161	107	71	13	352

Source –Primary Data and BPL census 2002

Though, existence of houselessness is comparatively low, still house is one of the basic minimum need which require adequate focus. It is not so important that what is the percentage of family in any social category is houseless rather it is of importance that there are families who do not have a house of their own to live in-spite of several government welfare measures and more particularly for rural housing.

tribal families residing in 340 villages and hamlets of the block. Scheduled caste families comprise 19.12% of the total Kutcha houses spread over 188 villages of the block whereas OBC families have a share of 20.09% in the Kutcha house in 220 villages. Families of other categories have 4.55% of the total Kutcha houses of the block in 127 villages. So, overall almost all the GPs in the block have Kutcha houses.

Household Having Kutcha Houses	ST		SC		OBC		Others		Total	
	No. of Villages	No. of Kutcha Houses	No. of Villages	No. of Kutcha Houses	No. of Villages	No. of Kutcha Houses	No. of Villages	No. of Kutcha Houses	No. of Villages	No. of Kutcha Houses
0-5	58	182	80	212	117	282	101	155	356	831
5-10	53	415	33	255	39	293	15	125	140	1088
10-20	102	1526	35	523	27	371	4	64	168	2484
20-50	93	2944	33	1034	27	825	5	173	158	4976
50-100	28	1810	5	363	6	478	2	110	41	2761
>100	6	870	2	246	4	518	0	0	12	1634
Total	340	7747	188	2633	220	2767	127	627	875	13774

Source –Primary Dataand BPL census 2002

2.2.4 Housing Condition (Semi-pucca House) by Social Category

A total of 1654 semi-pucca houses are there in the block of which 55.62% belongs to tribal families

2.3 Energy / Power

Of the total 374 villages of the 20 GPs of the block 24.60% villages are electrified which mean 75.40% villages are yet to be connected with electricity. In the

Table17 : Semi-pucca houses by social category

Household Having Semi-Pucca Houses	ST		SC		OBC		Others		Total	
	No. of Vill.	No. of Semi - Pucca Houses	No. of Vill.	No. of Semi - Pucca Houses	No. of Vill.	No. of Semi - Pucca Houses	No. of Vill.	No. of Semi - Pucca Houses	No. of Vill. (cum)	No. of Semi - Pucca Houses
0-5	166	379	69	136	67	121	28	53	330	689
5-10	31	219	11	76	5	36	2	16	49	347
10-20	19	288	4	55	4	53	0	0	27	396
20-50	1	34	0	0	3	90	1	40	5	164
50-100	0	0	1	58	0	0	0	0	1	58
>100	0	0	0	0	0	0	0	0	0	0
Total	217	920	85	325	79	300	31	109	412	1654

Source –Primary Data and BPL census 2002

residing in 217 villages and hamlets of the block. Scheduled caste families share 19.65% of the total semi-pucca houses spread over 85 villages of the block whereas OBC families have a share of 18.14% in the semi-pucca house in 79 villages. Families of other categories have 6.59% of the total kutchha houses of the block in 127 villages. So, overall almost all the GPs in the block have kutchha houses while semi-pucca houses are there in most of the villages.

absence of electricity and other sources of power / energy, people normally depend upon kerosene, fuel wood and other means of energy like cow dung, dry leave etc.

Table 18 : Energy situation of the GPs in the Block

GP	Other Energy Sources	Villages Electrified	Villages not Electrified
Ratanga	Kerosene, fuel wood, Cow dung	5	12
Krandibali	Kerosene, fuel wood, Cow dung	4	11
Jajesh panga	Kerosene, fuel wood, Cow dung	4	21
Tala Dandikia	Kerosene, fuel wood, Cow dung	2	10
Dimiriguda	Kerosene, fuel wood, Cow dung	7	8
Bhrungijodi	Kerosene, fuel wood, Cow dung	4	14

Table 18 : Energy situation of the GPs in the Block

GP	Other Energy Sources	Villages Electrified	Villages not Electrified
Dindiragaon	Kerosene, fuel wood, Cow dung	4	9
Balandapada	Kerosene, fuel wood, Cow dung	11	7
Gochhapada	Kerosene, fuel wood, Cow dung	7	8
Bandhagarh	Kerosene, fuel wood, Cow dung	5	11
Phiringia	Kerosene, fuel wood, Cow dung	9	10
Kashinipadar	Kerosene, fuel wood, Cow dung	2	16
Luising	Kerosene, fuel wood, Cow dung	5	10
Pahiraju	Kerosene, fuel wood, Cow dung	0	18
Nuapadar	Kerosene, fuel wood, Cow dung	4	8
Salaguda	Kerosene, fuel wood, Cow dung	5	16
Pallabrudi	Kerosene, fuel wood, Cow dung	1	12
Pabingia	Kerosene, fuel wood, Cow dung	5	25
Kelapada	Kerosene, fuel wood, Cow dung	4	8
Sadingia	Kerosene, fuel wood, Cow dung	4	48
Source –Primary Data			

Number of villages electrified does not mean that all the household of a village is electrified. In spite of a number of rural electrification programme, majority of the villages have not yet availed the benefit of electricity. Though topography of the block can be viewed as a hurdle in this regard, but it is more of poor attempt to connect all the villages with electricity rather than the topography. Apart from that, paying capacity of the people for the units of electricity consumption is also not available with a large chunk of households for which many families remain out of the connection in the villages that are already electrified.

Rural electrification is one of the prime thrust programme of state and national government. Various schemes are under implementation for wider coverage of rural households under power supply of

which Biju Gramya Jyoti Yojana, a state sponsored programme and Rajiv Gandhi Grameen Vidutikaran Yojana, a centrally sponsored programme is the key programmes under implementation. During the NDA⁷ government, accelerated rural electrification programme, Kutir Jyoti Yojana and rural electrification component of Prime Minister Grameen Yojana were merged into a new scheme [was valid for two years] called accelerated electrification. In this context, Orissa was the first state in the whole country to take up power sector reforms, and so far the only state where both transmission and distribution have been privatised. As a result of all out initiatives, a total of 80.04% rural villages are electrified in the state. Orissa has also been successful in bringing down the commercial and transmission loss from 60% to 40% after reforms.

In the context of rural electrification, the opinion of Orissa assembly standing committee on energy is worth presenting. Orissa assembly standing committee on energy observes that there has been no significant improvement either in uniform availability or the quality of power for the common man in the state though it is claimed that the state is surplus in power generation. The committee also expressed its doubt over the Centre's claim that over 80% of the villages in the state have electricity. It cited a national survey that says only 27% of the households have access to electricity in Orissa as against the all-India average of around 56%. It also took serious note of the low voltage and abrupt load-shedding problems in rural areas. Observing that the distribution network in rural areas needed immediate replacement with conductors and poles since it is causing heavy losses; the committee suggested initiating steps to enhance rural electrification.

The Central government is also of same opinion that rural electrification work is progressing slowly due to various factors like delay in receipt of detailed project reports, finalisation of below poverty line lists and poor electricity infrastructure. When it is a state and nation wide phenomenon on rural electrification and electricity supply, Kandhamal is not an exception in this regard. Looking at the situation, Government of Orissa introduced BGJY [Biju Gramya Jyoti Yojana] to accelerate the rural electrification process in the state which also covers Kandhamal.

Again number of villages electrified does not significantly reflect that all the households in an electrified village availed electricity. Earlier consideration was if 10 households in a village availed electricity, then the village was considered electrified. But many families still remain out of the purview of getting electricity. Study reveals that 75.4% of the villages do not have electricity

connection and the remaining 24.6%, of the villages are electrified. Focus of electrification does not speak about the coverage of households as the unit rather it considers village as the unit for electrification. On the other hand, electrification demands paying capacity of the family equivalent to the consumption as per the prescribed unit charges. In spite of prescribed less unit charge for rural consumers, many families still do not have the capacity to afford.

Apart from capacity to afford, there are other factors which also do not encourage the rural mass to get the connection like voltage drop, regular blackouts, non-availability of technical person in-time for maintenance etc. Lack of awareness among villagers for taking connections, poor rural electricity infrastructure and difficult terrain are also some of the reasons for delay in rural electrification. Secondly, there are many settlements where it is also difficult to provide the connection due to cost factor. Many interior pockets remain out of the purview of electrification due to such difficulties. Along with that, the cost of poles, wires etc. for long distant connectivity does not appear to be cost effective. Alternative to electricity, kerosene is used for lighting which is purchased either from the public distribution system in a subsidised rate or from the market.

The effect of poor or no supply of power has got tremendous impact on the rural economy. Because of shortage of electricity, rural enterprise and agriculture is seriously affected in the district. Moreover, with any problems in the national grid, rural areas are affected the most, since the state electricity board provides urban areas with electricity on priority basis in uninterrupted manner.

The national scenario reflects that 63% of rural households in India do not have electricity and they

use Kerosene for lighting. Even for those rural areas, which are electrified, there is a tremendous shortage of power supply. Thus it is not uncommon for these areas to have more than 50% blackout times every day. There is a shortfall of about 15,000-20,000 mw of electricity in the country and India requires about 140,000 mw of additional capacity by 2010 with an estimated outlay of Rs 5,50,000 crore.

However, the recently enacted Electricity Act 2003, which allows for the first time in India a private utility to produce and distribute power, provides a glimmer of hope not only for the country but more so for the rural areas. Hence, small rural private and cooperative power utilities can be empowered to quickly and efficiently supply electricity. Work done at the Nimbkar Agricultural Research Institute in Phaltan, Maharashtra, has shown that each taluka [block] in the country produces enough agricultural residues so that all its electricity demands can be met by using them in 10-20 mw biomass-based power plants. The NARI⁸ study also showed that besides providing power, the taluka energy self-sufficiency plan could also create 30,000 jobs / year. With the new Electricity Act, taluka energy self-sufficiency can become a reality since the utility can produce and supply power to its customers without the need to go through SEB⁹'s. The taluka utility company can also lease the existing transmission and distribution infrastructure of SEBs so that it need not invest in developing its own. This will also help the SEBs to get regular income from their infrastructure. The NARI study also showed that the taluka energy programme could produce Rs 100 crore/year wealth for its inhabitants in terms of biomass production and setting up of new electricity-based industries. With about 3,500 talukas in the country it is therefore possible to produce about Rs 3, 50,000 crore/year extra wealth through this programme.

Recently, Rural Electricity Supply Technology ([REST] mission was set up under the Union ministry of power [MoP]. It is hoped through this mission to electrify all villages of the country by 2010. It is envisaged that a small rural power cooperative can be set up to produce 200-500 KW of power and supply all the electricity demands of one or two villages. Again this utility can lease the existing state electricity board [SEB] power line infrastructure for its purposes. NARI has recently suggested this concept to the Maharashtra Electricity Regulatory Commission. It is also envisaged that electric cooperatives may function on the lines of TV cable operators in rural areas.

However, for small power packs of 500 KW and less to function smoothly in rural areas it is necessary that they be powered by fuel from locally available resources. Thus there is a need for further research and development in producing bio-fuels from renewable energy sources. These bio-fuels can easily power the existing diesel gensets. Development of liquid fuels like ethanol and bio-diesel from multipurpose crops should be done so that the issue of food and fuel from the same piece of land is taken care of. This will help in creating fuel supply network for small rural based utilities. Besides it will create wealth in the rural areas by producing value-added items like liquid fuel from agricultural residues. Thus the Government of India should extensively fund the R&D¹⁰ programme on bio-fuels. Finally, for the rural electricity supply mission to succeed it is necessary that close cooperation between corporate sector, government and NGO¹¹'s is needed. The corporate sector can provide the necessary technological and managerial support, NGOs can create the necessary trust in such utilities and Government can help in financing for rural electrification.

8. Nimbkar Agricultural Research Institute, 9. State Electricity Board, 10. Research & Development, 11. Non Governmental Organisation,

The Centre hopes to achieve 100 per cent village electrification in the current Plan. Another 18,000 remote villages will be electrified through non-conventional energy as grid power could prove uneconomical. These villages would be electrified through decentralised plants based on biomass, gasification of biomass, hydel power, solar thermal power etc. The government plans to electrify 1, 15,000 villages under the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). In Orissa, it is planned to cover 18,000 villages under the scheme. But till now electric supply lines were put in place in 900 villages and 200 of them have already availed power supply. Further to facilitate power supply in rural pockets and to expedite rural electrification Orissa has exempted VAT¹², entry tax on materials used under RGGVY, issuance of way bill directly to CPSU¹³s, land and water given for manufacturing electricity poles and other.

So, hydro-power or coal based power is not the only solution for rural electrification rather bio-based energy generation seems vital in this regard which can feed the demand in a sustained manner. In this case, Maharashtra case may be considered for replication in the state and in Kandhamal. As Kandhamal is one of the prime producers of agricultural bio-mass, converting it to energy will not be a difficult task. By this, all villages including remote villages can be covered under power supply.

2.4 Water Resources

Of the total water sources available in the block, major segment is comprised of wells (open wells) followed by ponds and tanks. The block is having a total of 1285 wells with highest in Balandapada, Ratanga and Gochhapada. The GPs that are having lowest number of wells are in Pahiraju and Luising. The existing wells have been major source of water

for human consumption as well as for irrigation. This is one of the reasons for which the GPs having higher number of wells have greater amount of vegetable production in comparison to other Gps.

Apart from wells, the block is having a total of 210 tanks / ponds of different size which is basically used for bathing, animal drinking and for protective irrigation at the time of water scarcity. The existing 5 LI¹⁴ points are the major irrigation source in the block which is only available in 4 GPs namely Ratanga, Dimiriguda, Gochhapada and Kelapada. Because of greater scope of irrigation, these GPs have a better crop diversity in comparison to others. Apart from these, the block is also having 6 minor irrigation projects in five GPs and 22 check dams in 7 GPs. These water sources are the prime irrigation sources of the block which cater to the irrigation requirement of the farmers.

SN	GP	Well No.	Tanks/ Ponds	LI Point	MIP	Check dams
1	Ratanga	131	7	2	1	4
2	Krandibali	95	8	0	0	0
3	Jajeshpanga	75	4	0	0	0
4	Tala Dandikia	38	10		0	0
5	Dimiriguda	17	10	1	0	0
6	Bhrungijodi	32	6	0		0
7	Dindiragaon	72	7	0	1	0
8	Balandapada	175	19	0	0	0
9	Gochhapada	119	10	1	0	3
10	Bandhagarh	24	6	0	0	4
11	Phiringia	75	2	0	1	0
12	Kashinipadar	48	32	0	0	1
13	Luising	8	16	0	0	2
14	Pahiraju	4	8	0	0	0
15	Nuapadar	50	6	0	1	0

Table 19: Water Resources in the Block by GP

SN	GP	Well No.	Tanks/Ponds	LI Point	MIP	Check dams
16	Salaguda	86	9	0	0	0
17	Pallabrudi	86	11	0	0	0
18	Pabingia	45	9	0	0	5
19	Kelapada	73	18	1	2	0
20	Sadingia	32	12	0	0	3

Source – Village level data and information from GP

Water sources for irrigation remain deficient looking at the existing demand situation. Farmers, mostly the marginal ones, do not have their own source for irrigation for which saving the standing crop during water scarcity period remains a major concern for them. Secondly, adequate availability of water in the existing wells for covering up the irrigation need is not there in many cases for which area covered under irrigation using well water is not so widely adopted by the farmers. Only 24 tanks / ponds are used for irrigation and the rest are not used for various reasons like poor water retaining capacity, water seepage, siltation, use for community purposes other than irrigation etc. Many water resources remain defunct for a prolonged period for which farmers fail to use the source for irrigation. Apart from that, due to siltation, the water retaining capacity of the existing MIPs and check dams have gone down and with that the irrigation coverage.

2.5 Household Sanitary Facilities

Household sanitary provision is not so preferred practice in most of the villages largely due to tradition thinking, conditioned mind set and age old practice. Using open fields under the sky is something which gives people pleasure of attending nature's call. It is more of an attitudinal and psychological phenomenon rather than custom and tradition. Because people are accustomed with age old practice

of open defecation, it normally becomes tough for them to get confined in a four wall room to attend the nature's call. There has been some improvement in the situation where people having certain awareness and exposure prefer to have sanitary latrines of their own within the boundary of the house or in a distant place. But, in majority cases, situation is not similar. In spite of introduction of several programmes by the government, the rural sanitation situation has not improved to the desired level.

In line with national water and sanitation mission, the government of Orissa has established Orissa State Water and Sanitation Mission [OSWSM] for providing policy support and guidance for community led and participatory WATSAN¹⁵ project. Consumption of safe drinking water, proper sanitation and adoption of correct hygiene practices has a significant impact on the health of people. Diarrheal disease is one among the top three killers of children today. Since diarrheal diseases are of faecal origin all precautions required to be taken to prevent faecal matter from entering the domestic oral route. The prevailing high Infant Mortality Rate of 87/1000 at Orissa and more than 87 at district can be attributed to poor sanitation to a greater degree. Improper disposal of human excreta, improper environmental sanitation and lack of personal and food hygiene are major contributions to diseases in rural part of the district.

It was in this context that the Government of India launched the Centrally Sponsored Rural Sanitation Programme (CRSP) in 1986 primarily with an objective of improving the quality of life of the rural people. However, the CRSP programme had its own hitches. The interventions were primarily supply driven and the latrines were provided to rural beneficiaries at high rates of subsidy. The lack of a proper fund channelisation system and a standard

The objectives of TSC

1. Bring about an improvement in the general quality of life of people in the rural areas
2. Accelerate sanitation coverage in the rural areas
3. Generate a felt and informed demand for sanitation facilities through awareness creation and health education
4. Cover school in the rural areas with sanitation facilities and promote sanitary habits among students
5. Encourage cost effective and appropriate technologies in sanitation
6. Bring about a reduction in the water and sanitation related diseases.

implementation strategy led to unprecedented delays in fund utilization and adhoc interventions, which failed to achieve the primary objective of the programme. With an intention to reverse and strengthen the shortcomings of the CRSP programme, the Government of India launched the total sanitation campaign [TSC] programme in 1999. The TSC marked a paradigm shift in the way in which government programmes were designed and implemented. It aimed to bring about qualitative change in the lives of people through a demand driven participatory approach wherein the community is expected to involve in the process of planning, implementing, operating and maintaining its own system. TSP is basically a community-led, people-

centred approach as opposed to a government led and supply driven initiative.

The TSC though has a strong IEC¹⁶, human resource and capacity development activities to increase the awareness of people on sanitation and generate a demand for facilities; the effect is not so visible in rural pockets of the district. People still hesitate to have such facility at their home front. To some extent a cultural tag is also attached to it i.e. having toilet in the house will create impurity which will lead to loss of family prosperity. With all these schematic provisions for improving the sanitation status of the district, both demand and supply driven approach are already experimented and found to be not so effective. When the supply driven approach failed to yield the result, it was obvious that demand driven will not cater to the objective to the expected extent. There is a big difference in having a toilet and using it as it primarily depends upon the attitude of the person. So, what seems to be essential is change in the mindset of people and the way they think and perceive. Attitudinal change appears to be the most desired part of it and behavioural change can only make it possible. It has also been seen that using a toilet has less to do with affordability and more to do with the attitude.

Chapter THREE

3.0 Education in Phiringia Block

The literacy rate of the district is comparatively lower than the state and national average. There are 1288 primary schools and 217 middle schools in the district to spread education among the population. In addition, the district is having 88 secondary schools. Gross enrollment status shows that 81.10 % of children in the age group of 6-14 years have been enrolled in various formal and non-formal primary schools and the drop out rate calculated to be 13.51%. For secondary education, the district is having 88 high schools. The total enrollment in the Secondary schools in the district is 18517 out of which boys account for 60.56 % and girls 39.44 %. The drop out rate at secondary level estimated to be 10.69%.

Historical and regional perspective has revealed several underlying constraints because of which the block has experienced differential paths of

development over the course of time. Such reasons have greater bearing on the patterns of human development within Phiringia today, as they are in the levels of economic advancement attained by other regions of the state. Human development however, extends beyond the economic peripheries of development to encompass knowledge-building processes that enlarge upon people's future choices and opportunities. By opening new horizons for human development, knowledge-building processes ultimately raise collective levels of economic and social well-being within society. Proliferation of education among the residents of the block is thus the key to expanding personal endowments and building individual capability, so that the physical and social barriers that currently obstruct regional development within the block can be triumph over. Rising levels of education and literacy are thus among the primary

instruments that can facilitate the human development process in Phiringia block.

The knowledge components through which human development can be measured include both enabling attributes such as the state of educational infrastructure, staffing and amenities. It also encompasses standard achievement attributes which include literacy level, enrolment rates and the accessibility to education services. Longterm growth of school education in Phiringia block is assessed from information available from education department of the block. The spread of modern public education in the block can be seen to be relatively recent. Public education formally commenced since a long and perhaps after independence.

School education in Phiringia expanded progressively in its 80s which witnessed rate of institutional growth in the block. Growth in school education system occurred following independence when educational infrastructures were created in different GPs of the block. While the GP Sadingia and Nuapadar has the largest share in the cumulative number of schools established, Dindiragaon witnessed less such institutional set ups due to various factors like population, accessibility, population density etc.

3.1 Institutional Structure of Public Education

The institutional infrastructure for public education in Phiringia in 2007-08 comprised 198 recognised institutions; however, primary schools comprise 76.26% of all formal (Govt.) educational institutions in Phiringia.

SN	GP	Pri. School	Sec. School	High School	College	EGS Centres
1	Ratanga	5	2	1	0	0
2	Krandibali	8	1	1	0	0
3	Jajesh panga	9	2	1		0
4	Tala Dandikia	6	2	1	0	0
5	Dimiriguda	9	2	0	0	0
6	Bhrungijodi	6	1	0	0	0
7	Dindiragaon	2	3	0	0	0
8	Balandapada	9	1	1	0	0
9	Gochhapada	5	1	1	0	0
10	Bandhagarh	4	3	1	0	0
11	Phiringia	8	1	1	1	0
12	Kashinipadar	7	4	1	0	0
13	Luising	10	1	0	0	0
14	Pahiraju	10	1	0	0	0
15	Nuapadar	10	2	1	0	0
16	Salaguda	7	1	0	0	0
17	Pallabrudi	8	1	0	0	0
18	Pabingia	8	2	1	0	0
19	Kelapada	9	1	1	0	0
20	Sadingia	11	2	0	0	0

Source –Primary Data and information from education department

As it is observed, Nuapadar, Sadingia and Jajespanga have experienced the fastest rates of growth in terms of educational institutions over the period, followed by a lesser extent of growth in some other GPs namely Dindragaon and Bhrungijodi. Despite this, none of these GPs demonstrate remarkably high enrolments in schools in relative terms to their population. After introduction of SSA¹ and due to high thrust on primary education by government, the rate of school infrastructure have gone up remarkably in all the GPs with expansion of existing schools and addition of new infrastructures. Indicators, as discussed elsewhere, establish that despite the

proliferation of school infrastructure, access to education has not been equalised across the block, and that considerable enrolment deficits still prevail between GPs of the blocks.

3.2 Access to Public Education

While urban literacy rates in the district were relatively high at about 84 % in the 2001 Census, a vast literacy differential prevailed between urban and rural areas, with rural literacy rate is around 45.62%. Since human development specifically targets school enrolments, meaningful comparisons can thus be drawn between the distribution of primary and upper primary institutions across the Phiringia blocks and their current levels of school enrolments and rural literacy.

SN	GP	Tot. literacy Rate	Male literacy Rate	Female literacy Rate
1	Ratanga	55.54	70.08	41
2	Krandibali	26.205	43.3	9.11
3	Jajesh panga	37.01	51.03	22.99
4	Tala Dandikia	39.565	48.38	30.75
5	Dimiriguda	36	52	20
6	Bhrungijodi	24.05	33.7	14.4
7	Dindiragaon	42.84	51.79	33.89
8	Balandapada	30.965	42	19.93
9	Gochhapada	41.5	51	32
10	Bandhagarh	44	55	33
11	Phiringia	44.6	52.3	36.9
12	Kashinipadar	38.455	49.91	27
13	Luising	18.725	25.52	11.93
14	Pahiraju	35.095	50.5	19.69
15	Nuapadar	62.61	75.14	50.08

16	Salaguda	18.92	24.41	13.43
17	Pallabrudi	38	49	27
18	Pabingia	52.5	69	36
19	Kelapada	50	68	32
20	Sadimgia	31.79	44.23	19.35
Source – Education Dept. & GP Level Information				

Rural literacy rates vary quite substantially across the GPs in Phiringia while the literacy rate of the block is 45.62% with male literacy rate is 64.95% and female literacy rate is 26.57% (census 2001). Looking by GP, male and female literacy rate observed to be highest in Nuapadar where male literacy rate is 75.14% and female literacy rate is 50.08% with a total literacy rate of 62.61%. Nuapadar is followed by Ratanga where male literacy rate is 70.08% and female literacy rate is 41% with a total literacy rate of 55.54%. Total literacy rate observed to be lowest to the tune of 18.73% in Luising with male literacy rate of 25.52% and female literacy rate of 11.93%. The GP of Salaguda is also having lowest literacy rate of 18.92% with male literacy rate of 24.41% and female literacy rate of 13.43%.

Thus, distribution of basic educational institutions across the block is not consistent with the difference of literacy exhibited by the GPs. The upper primary schools which provide education at the critical Class 6-7 stage form the vital link between basic primary and high school education. Since their presence across the block is relatively low, this would imply that many rural learners enrolled at the primary stage cannot progress beyond that educational level because of the dearth of intermediate learning institutions.

Proximity to schools is another major factor that

determines the accessibility of students to rural education. Most of the primary school institutions are located within the village or within a radius of 1 km from it. Obviously, such locational differences play a major role in relation to the higher or lower primary enrolment levels. In the GPs of the block majority of rural settlements have primary school institutions within their geographical boundary, while some villages in the block have primary schools more than a radius of 1km from them. Certain GPs of the block also have several village settlements where the distances involved in getting to primary school exceed 1km, so that the problem of walking a long distance to school is seen to be most severe in such GPs. In the GPs where this occurs, there is also strong realisation that a certain proportion of school-age children either do not enrol or are unable to attend school regularly, because of difficulties of communication. Such differences in school accessibility are also in a large part responsible for existing educational disparities among the GPs in Phiringia.

Ever since elementary education was bifurcated into primary and upper primary stages under the National Policy for Education [NPE] 1986, upper primary (i.e. middle) schools have been the crucial link enabling rural learners who graduate from the primary school system to aspire for the completion of secondary education. Being better endowed with teachers and educational infrastructure, they maintain educational standards that enable rural students to overcome social and cultural barriers. However, since the number of upper primary institutions in Phiringia block is much smaller relative to the primary schools that form the base of the public education system, analysis of the present enrolments and accessibility of upper primary institutions is a

critical component in understanding human development problems in the different GPs of the block.

The proximity analysis of upper school institutions however shows that the average distance in getting to school rise substantially between the primary and upper primary stage. Many upper primary schools in the block are located in more than 2 kms or even further away from the habitations. It is also observed that in some GPs the upper primary schools that presently exist in the block are largely located between 1to3 km away from the habitations they serve. While this is consistent with the small number of middle school institutions that presently serve in the block, it also points to one of the major educational bottlenecks in Phiringia block which currently limits its educational progress.

3.3 State of Educational Infrastructure

Besides being expressed by the number of school institutions that serve current educational needs in Phiringia block and its GPs, the state of public education infrastructure is reflected in the structural quality and type of buildings that presently house these school institutions. Of the three structural categories that designate building-type, both pucca and semi-pucca school buildings have a raised plinth, and schoolrooms with brick and concrete walls. However, while the pucca structures also have a concrete roof over them, semi-pucca school buildings are covered by GI sheets or corrugated asbestos, usually without a ceiling. Unlike permanent school buildings of this type, kuchcha school premises are makeshift and easily-dismantleable structures constructed from local materials like clay, thatch and bamboo, which also require regular maintenance. Building costs now

form the most critical capital component of publicly funded education infrastructure. It is therefore usual for the composition of buildings to change with the different educational levels while primary schools, being most numerous and also most widely distributed across the block, show the widest variation in building-type, the premises of schools at the secondary or high-secondary stage are more likely to be of pucca or permanent type. However, the distribution or building-types among the schools in the Phiringia blocks leads to well-informed analysis of the infrastructural strengths and weaknesses of public education in different parts of the block.

The capacity of the public education system to retain rural learners at its higher stages is extremely bounded by infrastructural deficiencies. Of the total enrolment in the block, most rural students who enrolled themselves at the primary stage could not aspire because of the weaknesses in the infrastructure for upper primary education. Of the total schools [all school types] in the block, most of the secondary schools are located in the GP headquarters which prevent students from far off villages to access.

The ability of most rural students to educate themselves further depended on their economic ability for which the vast majority of rural students refrain from secondary education system. The urban bias of the school education system also showed up clearly in the distribution of infrastructural facilities.

Primary schools accounted for the largest number of educational institution in Phiringia. Number of schools working in pucca premises was noticeably higher in number except a few cases. Most schools at secondary and post secondary level in Phiringia are

operating either from pucca or semi-pucca premises. However at GP level, most of the school buildings are already pucca buildings. So, the persisting weaknesses of the public education system in terms of institutional facilities and its quality refrains students enrolment to a greater degree.

3.4 System Performance

The current operational status of school education in Phiringia block can be examined taking in to account the earlier discussed points. Despite continuing identification of Phiringia as a low-literacy block, there has been a vast expansion of primary education facilities in the block. Substantial improvements in educational access and achievement have subsequently been recorded by the younger-aged segments of the block population, who are much more literate and educationally aware than previous generations. However, while there has been commendable growth of the educational system at its very base, these achievements weaken further in the higher level of education. Widening at the base of the educational pyramid has not been accompanied by parallel expansion in upper primary and secondary education facilities. Thus the institutional infrastructure for post primary education is weak, both in terms of the number of educational institutions and in its intake capacity. The resulting educational bottleneck at the upper primary stage is particularly limiting. Retention of rural learners within the educational system thus becomes a problem, for many of whom the path to knowledge advancement effectively ends at the primary stage.

The spatial characteristics of education system in Phiringia block also lead to unevenness in educational facilities. Two aspects in this context can

be discussed. Firstly, rural learners face much greater difficulties in securing access to education. Students from rural areas have to cover distances if they seek to pursue education further. Secondly, the spatial profile of the block because of which educational facilities is unevenly spread across the block. Tribal segments within the block population are far less urbanised and reside mainly in the rural interior pockets thus show considerable educational backwardness, not because they are culturally unresponsive to education, but because the spatial regions where they reside in large numbers are educationally deprived.

The block-level information on school education offers more contemporary information on standard operating parameters in elementary education, including staff and student composition. These may be pulled together with the spatial profile of education in Phiringia block described above. The preceding regional analysis had indicated the presence of significant variations within the distribution of schools across the block. Similarly, although the magnitude of student enrolments differed considerably between the GPs, these were not always consistent with the variations in population. Such pattern of variation also implies that operation of system within the elementary education system vary considerably in different parts of the block.

Upper primary schools in Phiringia are notably larger institutions. The discrepancy between block and state average of students per school again points

to the severity of the bottleneck within the elementary education system of the block, arising from the acute infrastructural mismatch between the number of primary schools and the number of upper primary institutions. However, sizeable sections among rural primary students are already excluded from upper primary education because of the limited intake capacity of the system influencing directly to the education status of the block and district.

3.5 Availability of School Amenities

Besides the provision of rural school facilities with adequate teaching staff to encourage the enrolment of rural learners in Phiringia, another challenging task facing the block educational authorities has been to equip the very large number of rural schools that exist in the block with proper buildings and adequate classroom space, along with other basic requirements like drinking water and toilet amenities. A typical school having its own pucca or kuchcha building in Phiringia at primary or upper primary stage thus has between 2-3 school rooms on an average. In general comparative terms, since most primary schools have newer buildings, more of their classrooms are in relatively good condition. Besides being highly inadequate in number, rural upper primary schools in the block have older buildings.

Despite being better endowed in terms of buildings and classrooms, majority of schools in Phiringia block still do not have the provision of portable drinking water source round the year and a number of primary schools do not have basic toilet facilities.

3.6 Adult Literacy Status

Table 22 : Literacy Status (G.P. wise)						
GP Name	Illiterate	Upto primary (Class V)	Completed secondary (Passed Class X)	Graduate / professional Diploma	Post Graduate / Professional Graduate	Total
Balandapada	817	281	40	8	2	1148
Bandhagada	386	271	57	22	5	741
Burungijodi	343	213	32	14	2	604
Dimiriguda	517	353	49	18	2	939
Dindrigam	300	212	44	14	1	571
Gochhapada	478	413	51	41	6	989
Jajespanga	651	340	37	5	0	1033
Kasinipadar	440	466	51	7	0	964
Kelapada	346	624	121	33	1	1125
Krandiballi	626	149	20	9	0	804
Luisingi	756	90	8	10	0	864
Nuapadar	375	428	73	31	7	914
Pabingia	474	523	134	12	3	1146
Pahireju	538	184	7	3	0	732
Palla Brudi	450	305	36	4	2	797
Phiringia	651	521	201	99	9	1481
Ratanga	392	449	62	20	3	926
Sadingia	679	243	25	20	9	976
Salaguda	538	230	23	12	0	803
Taladandakia	325	360	39	33	9	766
Grand Total	10082	6655	1110	415	61	18323
Source – Census 2001						

Of the total 18323 adult population of the block, 55.02% are illiterate while 36.32% have completed their primary education and educated up to class V. Total adult population completed secondary education up to class X observed to be only 6.06% and 2.26% are having either their graduation or professional diploma. Only 0.33% is either post graduate or professional graduate. It reflects a state of

situation where adult education standard is comparatively poor to many other district situation of the state which is having a direct bearing on human development index. High percentage of illiteracy and poor education status of adult population has got a direct bearing on the education of their children in spite of relative progress in primary education.

3.7 Literacy Status by Social Group

Highest numbers of adult illiterates are observed in scheduled tribe category to the tune of 59.98% of the total illiterate followed by 20.15% among scheduled caste and 16.26% in other backward classes. Illiterate percentage to total illiterate in other social groups

3.8 Status of Child Education (5-14 Years)

As per the available information, of the total 18492 children of the block, 169 children from balandapada are not attending school rather they are engaged in various domestic and other activities. Children going to school and working is not observed as per the

Table 23 : Literacy Status of Adult by Social Group

Social Group	Illiterate	Up to Primary (Class V)	Completed Secondary (Passed Class X)	Graduate / Professional Diploma	Post Graduate/ Professional Diploma	Total
ST	6047	3477	409	122	23	10078
SC	2032	1392	242	61	5	3732
OBC	1639	1467	325	136	18	3585
Others	364	319	134	96	15	928
Total	10082	6655	1110	415	61	18323

Source-Block education data and school level information

observed to be less in comparison to SC, ST and OBC i.e. 3.61%. All these illiterates belong to 825 human settlements including the hamlets. Number of illiterates in ST category is also influenced by their population as the block is dominated by tribal families. Of the total, the adult population completed primary education up to class V estimated to be highest among tribal which is 52.25% while that of SC is 20.92% and 22.04% are from OBC category.

Among the adult population completed their secondary education, 36.85% are ST, 21.80% are SC, 29.28% are OBC and 12.07% are from other categories. Similarly, in graduated and post graduated adult population more or less similar trend persists. So, in a total of 2032 villages including scattered hamlets and other human settlements, literacy status of ST among total adult population marked higher only because of their population which is comparatively higher than any other social groups in that block.

available information but a larger segment of children are now going to school which comprises 99.09% of the students. Present initiatives in universalising primary education system, child tracking and over and above provision of educational infrastructure at GP level are primarily responsible in this regard.

Table 24 : Status of Children in Work and Education Sphere

Name of GPs	Status Of Children(5-14 years)[any child]			
	Not going to School and Working	Going to School and Working	Going to School and not Working	Total
Balandapada	169	0	1148	979
Bandhagada	0	0	741	741
Burungijodi	0	0	604	604
Dimiriguda	0	0	939	939
Dindrigam	0	0	571	571
Gochhapada	0	0	989	989
Jajespanga	0	0	1033	1033
Kasinipadar	0	0	964	964
Kelapada	0	0	1125	1125
Krandiballi	0	0	804	804
Luisingi	0	0	864	864
Nuapadar	0	0	914	914
Pabingia	0	0	1146	1146
Pahireju	0	0	732	732
Palla Brudi	0	0	797	797
Phiringia	0	0	1481	1481
Ratanga	0	0	926	926
Sadingia	0	0	976	976
Salaguda	0	0	803	803
Taladandakia	0	0	766	766
Grand Total	169	0	18323	18492

Source –BPL census 2002

3.9 Status of Children by Social Group

By social group, similar trend observed like that of adult education again because of the high population of tribal i.e. numbr of children between 5-14 observed going to school and not working observed to be higher among ST followed by SC and Other backward class.

Table 25 : Status of children education as per social group

Social Group	Not Going To School and Working	Going To School And Working	Going To School And Not Working	Total
ST	0	0	10078	10078
SC	0	0	3732	3732
OBC	0	0	3585	3585
Others	0	0	928	928
Total	0	0	18323	18323

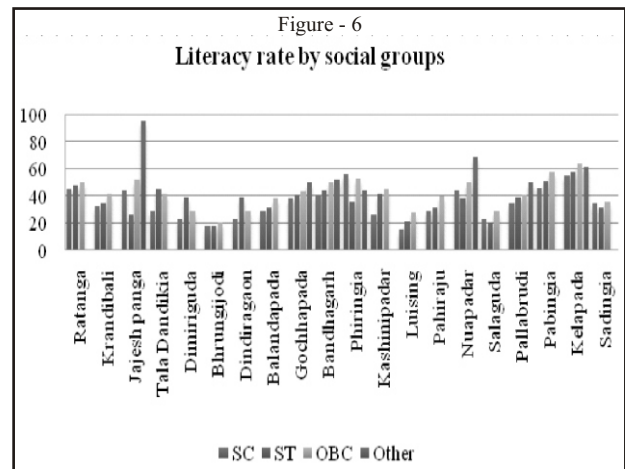
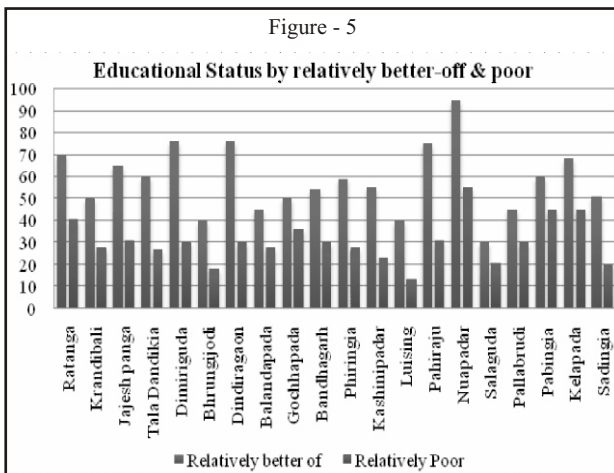
Source - Census 2001

3.10 Literacy Rate by Economic and Social Categories

Table 26 : Literacy rate by social and economic status							
SN	GP	Literacy Rate					
		Relatively better of	Relatively Poor	SC	ST	OBC	Other
1	Ratanga	70	41	45	48	50	0
2	Krandibali	50	28	32	35	42	0
3	Jajesh panga	65	31	44	26	52	95
4	Tala Dandikia	60	27	29	45	42	0
5	Dimiriguda	75.9	30	23	39	28.6	0
6	Bhrungijodi	40	18	18	18	20	0
7	Dindiragaon	75.9	30	23	39	28.6	0
8	Balandapada	45	28	29	31	38	0
9	Gochhapada	50	36	38	41	43	50
10	Bandhagarh	54	30	41	44	50	52
11	Phiringia	59	28	56	36	52.5	44
12	Kashinipadar	55	23	26	42	45	0
13	Luising	39.7	13.3	15	21.28	28.3	0
14	Pahiraju	75	31	29	31	40	0
15	Nuapadar	94.6	55.2	44	38	50	69.05
16	Salaguda	30	21	23	20	29	0
17	Pallabrudi	45	30	35	39	41	50
18	Pabingia	60	45	46	51	58	0
19	Kelapada	68	45	55	58	64	61
20	Sadingia	51	20	35	31	36	0
Source – Education mapping at village level with reference to secondary literature							

As such, the block is poor in attending the expected level of literacy which is even lower than the district [52.68%] and state average [63.08%]. Though, block as a whole is having the literacy rate of 45.62%, it varies significantly by GP and its constituent villages. There is also significant different in the literacy rate by social and economic groups. Looking by sex, the

total literacy rate of male is 64.95% contrary to the district figure of 69.79% and that of female is 26.57% against the district figure of 35.86%. Examining the literacy rate by relatively better-off and relatively poor segment, it was observed that in spite of educational premium to the poor segment, the education status of relatively better-off families are in



a comparatively higher position than that of the poor families. Similarly in caste categories, educational status of other backward classes is much ahead of SC and ST followed by SC community. In some GPs, ST

communities have better literacy rate than that of the SC due to various government support provisions along with establishment of residential schools.

Chapter FOUR

4.0 Status of Healthcare in the Block

4.1 Institutional Health Services in Kandhamal

Kandhamal has one District headquarters hospital, one sub-divisional hospital at Balliguda, 12 PHC¹'s, 34 new PHCs and 151 sub-centers. Details of the health service providing institution is given below in the matrix. MKCG² Medical College, Berhampur is nearest to this district which provides better treatment facility to the people of the district at the time of need.

Health Institutions:

The Govt. sector health institutions are the main providers of health services in the district, more specifically in the rural and tribal areas. Besides, some private hospital and dispensaries are functioning, including some Homeopathic and Ayurvedic dispensaries in the district.

Medical institutions functioning in the district

In this district the following medical institutions are functioning to render medical facilities to the patients.

1. District Head Quarter Hospital :
Dist. Hq. Hospital, Phulbani
2. Sub.Division Hospital :
Sub-Divisional Hospital , Balliguda
3. Other Hospitals
 - Govt. Hospital, Kotagarh
 - Govt. Hospital , Belghar
 - Govt. Hospital, Sarnagada
 - Govt. Hospital, Balandapada
 - Govt. Hospital, Gadapur
4. UG PHC³
 - Khajuripada.

- Phiringia
- Tikabali (30-bedded)
- Tumudibandh

5. CHC⁴

- Raikia .
- G.Udayagiri
- Daringbadi

6. PHC

- Gumagarh
- Brahmanpad
- Barakhama
- Subarnagiri
- Nuagam
- Gresingia

7. PHC (NEW)

- Katringia, Arapaju, Bisipada, Barikumpa, Sudrukumpa, Billabadi, Gochhapada, Panga Nuapadar, Khamankhole, Sudra, Sindhrigaon, Simanbadi, Budaguda, Mardipanga, Bamunigam Kalinga, Khariapada, Srirampur, Durgapanga, Judbali, Sunagaon, Lankagada, Passara, Linepada, Naringjhol, Guttingia, Ranjabrabi, Paburia, Sugudabadi, Indragarh, Badagada, Jidubadi, Kellamaha

8. MOBILE HEALTH UNIT

- Balliguda
- Balandapada

9. L.E.U.⁵

- LEU Balliguda
- LEU Tikabali

10. POLICE HOSPITAL - Phulbani

11. JAIL DISPENSARY - Dist. Jail, Phulbani

12. FILARIA SURVEY UNIT-FSU Phulbani

13. MOBILE FIELD HYGIENIC UNIT-MFHU Phulbani

people, the status of public health and hygiene, the status of maternal and child health, the extent of coverage by public healthcare services, the incidence of morbidity and disease, the regional endemicity of diseases if any and many such factors that has got direct or indirect bearing on the human life. In order to assess the current health situation of Phiringia, a broad overview of the public healthcare system required to be focused.

The healthcare system in Phiringia comprises a range of institutions (refer the table) including primary health centres [PHCs] and health sub-centres. Private health facilities are no so rampant in the block except the block headquarters. The referral healthcare chain runs from the government clinics and dispensaries which offer only out-patient treatment to the PHCs which provide basic in-patient facilities, and ultimately to government hospitals situated at the district and sub-division headquarters which offer full-fledged out-patient and in-patient services to the block population.

Looking at the health institutions prevailing at the block level and its capacity of rendering healthcare services, it is apparent that the healthcare infrastructure currently available to each GP is inadequate in relation to the requirements of the people. The block with a population of 41960 (census 2001) is having 36 beds to treat the total population i.e. population per bed estimated to be 1166 (this excludes district headquarters hospital). In terms of staffing levels too, the distribution of health workers and health professionals across Phiringia block is highly uneven, when compared to the population. In general, the block is having a total of 6 doctors and 2 nurses to look after the patients apart from village level health works. In homoeopathic, there are 2 dispensaries and each is having one doctor

Human life expectancy depends on a number of factors which includes the general health status of the

4. Community Health Centre, 5. Leprosy Eradication Unit

without any medical support personnel. The block is also having another doctor in the ayurvedic dispensary.

Since the morbidity patterns and associated healthcare needs of the block bear a closer relation to the distribution of population, mismatches between available services and needs exist in different parts of the block. Consequently, while the villages of some GPs mostly the GP headquarters are better served by local healthcare services, those residing in interior pockets or away from GP headquarter have to depend to a greater extent on services available from referral institutions located at some distance from them. This creates major service deficiencies in the delivery of public healthcare, which have unwanted impact on the health profile of less-served GPs / villages in the block.

4.2 Performance of the Hospital System

In addition to the Block Hospital in Phiringia, there is one sub-divisional hospital and PHCs serve the healthcare needs of rural communities in different GPs of the block along with health centres. These PHCs are not so well equipped with medical officers, support staff and beds but are expected to take care of the referral and hospitalisation needs of in-patients from surrounding sub-centres so that the pressure on the main Block Hospital is relieved.

In many PHC and CHCs bed turnover and bed occupancy rates at these rural hospitals are considerably lower than those recorded at Phiringia Block Hospital, providing ample evidence that pressure of patients is not allocated evenly across the block. Patient admissions at these rural health facilities are not of a routine nature, but occur only when patients have already reached a critical stage. With the percentage of delivery cases being relatively low at most rural hospital facilities because

of the high rates of non-institutional delivery, most emergency admissions occur when patients are brought to the centres in a serious state, indicating inadequate functioning of the primary healthcare system during the early stages of illnesses. Referrals to other hospitals, including the Block Hospital at Phiringia are low in most cases, except hospital generally admits fewer emergency cases. It may thus be inferred overall that while rural healthcare facilities in the GPs are relatively underutilised, those in the block headquarters are generally overutilised.

4.3 Healthcare System

To ensure equity in access to healthcare across all GPs and for all, the provision of public healthcare infrastructure in the block is designed around population parameters. Location of healthcare facilities, the hierarchies in which the referral healthcare system is framed, and the staffing patterns followed are all population-weighted. Analysis of such inequities among the GPs i.e. population Vs need based requirements, can support in identifying healthcare deprivation within the block and suggest corrective action to improve the status of healthcare in the block.

Since populations vary considerably with its density, the system pressure carried out by block-level healthcare institutions are unequal and affect the quality and delivery of healthcare services to the population. Several factors also influence the morbidity patterns of each GP. Variations in the growth rate of population determine the proportion of young children, and ultimately the need to provide paediatric care. Variations in the proportion of females in the GP population define the potential demand in each GP for institutional deliveries and maternal healthcare. Besides demographic factors

that cause variation in the nature of healthcare demand, other factors that affect the supply side include the capacity of the health service providing institutions to handle efficiently the in-patient flow, current staffing, quality of personal care that can be delivered to out-patients etc.

Looking at the existing health infrastructure, quality of services they render and staffing, it can be seen that the institutional gap between existing and required healthcare facilities across the block is considerably larger. Largest gap in the provision of health service institutions is seen in some GPs while the gap between existing and required institutions is not so wide in some GPs (refer the institution prevalence matrix). In the block, gap observed to be

at staffing level and their quality of services. Since rural health personnel play a crucial role in educating villagers about general health and reproductive health matters and their work improves health-seeking behaviour and the acceptability of public healthcare services by guiding patients into the referral system and improving maternal and child health [MCH], understaffing is indeed a critical problem for the rural healthcare system in Phiringia. While, in the absence of patient-flows, it might seem that the existing facilities at block-level are adequate to meet current healthcare demands, the truth of the matter is that a large proportion of the population in rural lives beyond the reach of the healthcare system, because of inadequacies of infrastructure as well as personnel.

Table 27 : Health Related Problems by GP [Excerpt from FGD]

GP	Common Disease	Common Health Related Problems
Ratanga	Malaria, Anaemia, STD, Diarrhoea	Although the programme has been initiated the success is limited. Productive age group are not taking family planning measure.
Krandibali	Malaria, Anaemia, STD, Diarrhoea, skin disease	Although the programme has been initiated the success is limited. Productive age group are not taking family planning measure.
Jajeshpanga	Malaria, Anaemia, STD, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Tala Dandikia	Malaria, Anaemia, STD, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Dimiriguda	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Bhrungijodi	Malaria, Anaemia, STD, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Dindiragaon	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Balandapada	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Gochhapada	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.

Table 27 : Health Related Problems by GP [Excerpt from FGD]

GP	Common Disease	Common Health Related Problems
Bandhagarh	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Phiringia	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Kashinipadar	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Luising	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Pahiraju	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Nuapadar	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Salaguda	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Pallabrudi	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Pabingia	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Kelapada	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Sadingia	Malaria, Anaemia, STD, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Source – Focus Group Discussion – GP and Village level		

Besides the institutional network of CHCs, PHCs and additional PHCs the quality of clinical healthcare services depends strongly on adequate availability of health personnel. Apart from staffing, bed availability also varies considerably across the block.

It thus becomes easily evident that the availability of in-patient and out-patient healthcare services from different institutions in Phiringia currently bears little relation to the relative size or morbidity patterns of the block population. Since in practice, overall morbidity levels in the block are likely to be much

higher than those estimated, because a large section of the rural population may either seek alternative healthcare from private practitioners, quack doctors and local healers, the current weaknesses in the public healthcare system in Phiringia block become readily apparent.

4.4 Endemicity of Diseases in Phiringia

Among the illnesses and health hazards that are endemic to certain parts of the block, several are associated with water. Apart from cold and fever,

another vector-borne disease that recurs with regular frequency is malaria. Malaria incidence was reported from all parts of the block covering all GPs. However, a number of malaria prevention activities are being carried out in the block for vector control and villagers have been sensitised to the regular use of mosquito nets. Treatment for those who have affected with is also a general activity to control it. Among other endemic water-borne diseases, the incidence of diarrhoeal infections in the block is also observed to different degree in different GP. Another health risk that also poses a major threat to the block is spreading of contaminated diseases which come with the out migrating labourers.

Tuberculosis is another disease that occurs but not so rampant or at alarming situation. To control TB, government has special free treatment provisions at existing health centres under the National Tuberculosis Control Programme. Occurrences of TB in the block are often attributed to the population that migrates seasonally for work to other places from the block.

Table 28 : Common Diseases in GPs [Excerpt from FGD]	
GP	Common Diseases by GP
Ratanga	Malaria, Anaemia, STD, Diarrhoea
Krandibali	Malaria, Anaemia, STD, Diarrhoea, skin disease
Jajeshpanga	Malaria, Anaemia, STD, Diarrhoea, skin diseases
Tala Dandikia	Malaria, Anaemia, STD, Diarrhoea, skin diseases
Dimiriguda	Malaria, Anaemia, STD, Diarrhoea, skin disease
Bhrungijodi	Malaria, Anaemia, STD, Diarrhoea, skin diseases
Dindiragaon	Malaria, Anaemia, STD, Diarrhoea, skin disease
Balandapada	Malaria, Anaemia, STD, Diarrhoea, skin disease
Gochhapada	Malaria, Anaemia, STD, Diarrhoea, skin disease
Bandhagarh	Malaria, Anaemia, STD, Diarrhoea, skin disease
Phiringia	Malaria, Anaemia, STD, Diarrhoea, skin disease
Kashinipadar	Malaria, Anaemia, STD, Diarrhoea, skin disease
Luising	Malaria, Anaemia, STD, Diarrhoea, skin disease
Pahiraju	Malaria, Anaemia, STD, Diarrhoea, skin disease
Nuapadar	Malaria, Anaemia, STD, Diarrhoea, skin disease
Salaguda	Malaria, Anaemia, STD, Diarrhoea, skin disease
Pallabrudi	Malaria, Anaemia, STD, Diarrhoea, skin disease
Pabingia	Malaria, Anaemia, STD, Diarrhoea, skin disease
Kelapada	Malaria, Anaemia, STD, Diarrhoea, skin disease
Sadingia	Malaria, Anaemia, STD, Diarrhoea, skin disease
Source – Local health personnel and community information	

Table 29 : Health Related Problems by GP

GP	Issues	Common Disease	Common Health Related Problems
Ratanga	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea	Although the programme has been initiated the success is limited Under productive age are not taking family planning measure.
Krandibali	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Although the programme has been initiated the success is limited Under productive age are not taking family planning measure.
Jajesh panga	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Tala Dandikia	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Dimiriguda	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Bhrungijodi	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin diseases	Immunization programme has not made a big headway in the GP.
Dindiragaon	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Balandapada	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Gochhapada	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Bandhagarh	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Phiringia	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Kashinipadar	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Luising	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Pahiraju	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Nuapadar	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Salaguda	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Pallabrudi	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.

Table 29 : Health Related Problems by GP

GP	Issues	Common Disease	Common Health Related Problems
Pabingia	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Kelapada	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.
Sadimgia	Communicable disease are occurring due to contaminated water	Malaria, Anaemia, Diarrhoea, skin disease	Immunization programme has not made a big headway in the GP.

Source – Focus group discussion at GP and Village level

4.5 Maternal & Child Health Issues

Maternal and child health problems in the rural areas of Phiringia block are rooted in the widely prevalent practice of high fertility and multiple births. Contraceptive prevalence is still very low in the block, as a result of which birth spacing cannot be practiced efficiently by parents. The incidence of girls being married before reaching the age of 18 years is also not uncommon. Incidence of institutional or attended deliveries is low and immunisation rates among children are unsatisfactory though it has increased. The frequency of low birth-weight incidence among infants correlates with the widespread prevalence of mother malnutrition and repeated pregnancy without proper spacing. Birth control through deeper penetration of family welfare measures appears to be a need in the block.

6	Bhrungijodi	4	1	108
7	Dindiragaon	3	1	93
8	Balandapada	5	1	57
9	Gochhapada	3	1	37
10	Bandhagarh	3	1	13
11	Phiringia	9	1	87
12	Kashinipadar	7	1	94
13	Luising	4	1	113
14	Pahiraju	3	1	124
15	Nuapadar	8	1	4
16	Salaguda	5	1	113
17	Pallabrudi	4	0	35
18	Pabingia	8	1	3
19	Kelapada	6	1	38
20	Sadimgia	5	1	129

Source –GP level information

Table 30 : Institutional faculty for Mother and Child Health Care

Sl. No.	Name of the GPs	AWC	ANM-centre	IMR ⁷
1	Ratanga	5	1	94
2	Krandibali	2	1	78
3	Jajesh panga	5	1	100
4	Tala Dandikia	4	1	87
5	Dimiriguda	7	1	92

In the prevailing scenario across the block, home delivery is something, which need be avoided with concerted effort. The Auxiliary Nursing Midwives (ANM) attached to the Sub-centres usually do not stay within their service area and do not provide any direct service during delivery. The traditional birth attendants (Dais) or the quack practitioners mostly attend the deliveries at home. Efforts have been made

to train up the traditional birth attendants through hands on training programmes. Apart from that, ASHA⁸ workers are also in place to promote institutional delivery as a result gradual increase in institutional delivery is marked in the block. The financial incentive for institutional delivery observed having some degree of impact in this regard. The practices like 5-cleans and other precautionary measures are not properly taken during delivery at home front. Quick access to health institutions still continue to be a problem for many GPs of the block due to hilly and terine topography. Because of this, it becomes more difficult to reach out to the health facilities in time in case of critical situation arising during delivery. Provision of referral transport facilities to the poor families, after identifying the critical situation of pregnancy needs further consolidation.

Immunisation of mothers and children is another area, which needs special attention. Here, wide gap exists between reported coverage and evaluated coverage of pregnant women and children with immunisation services. Every year, data generated by the health system through the process of reporting from the facilities show a very high degree of performance. But whenever we have any kind of coverage evaluation or any other kind of survey, the findings project a very dismal picture. In the absence of a comprehensive mechanism for monitoring, there is severe gap in the data of health department and ICDS⁹ is observed. Low birth weight babies reported in many villages along with prevalence of malnutrition amongst children and even the pregnant women is high in the block. This indicates an inherent flaw in the system where most of the children delivered at home are not weighed in time.

4.6 Status of maternal care in pregnancies

Maternal mortality and morbidity are severe impediments to human development. In countries like India, maternal mortality is relatively higher. Most maternal deaths are caused by infection, hemorrhage, eclampsia, obstructed labour, abortion and anemia. Lack of spacing between children occur within two years of the latest birth also exacerbates mortality rates. Lack of appropriate care during childbirth is held primarily responsible and studies show that referral to appropriate health care facilities can prevent a majority of such deaths. Antenatal care services include

1. ANC¹⁰ registration
2. ANC check up by health functionaries
3. Administration of tetanus Toxioid doses and
4. Distribution of iron folic acid

Post delivery complications are often responsible for mortality and morbidity amongst both the mothers and the newborns. Hence PNC¹¹ visit by the health worker assumes significance.

Care during delivery largely depends upon the place of delivery and the presence of skilled attendant/trained attendant at birth. One is supposed to receive trained attendance when a trained Doctor/Nurse or an ANM directly handles the delivery whereas a trained Dai also qualified as trained birth attendant.

4.7 Prevalence of malnutrition amongst children

The incidence of Grade 3 & Grade 4 malnutrition observed to be of varying degree in different GPs. Though much information is not available and whatever is available most of them is not reliable, still looking at people's opinion, it can be said that

prevalent of child malnutrition is not so uncommon in the block. However, despite the overall severity of malnutrition incidences in many parts of Phiringia block, the rate of ANC home visits do not show any particular response pattern that reflects the rate of malnutrition incidence, except GP headquarters. Through most parts of the block, ANC visits tend to be routine and do not indicate that a system of proactive MCH¹² healthcare is in fact in place, to meet rural needs.

4.8 Status of Drinking Water in the Block

Access to safe drinking water is one important precondition for long and healthy lives for the people. Thus availability of safe drinking water is a human

development concern. Among the villages, many do not have safe portable drinking water sources where people still depends upon pond or stream/nala water for drinking. But many other villages have tubewell as prime source of drinking. Pipe water supply scheme is yet to penetrate to all the villages of the GPs though some GPs are already in the process of coverage under the scheme like Phiringia and Gochhapada. In one hand people in many villages are deprived of portable drinking water due to various reasons while in other hand some people do not prefer to take tubewell water for household use because of iron content and bad test. Even some families consider such sources not appropriate for cooking as it takes lot more time to boil food items.

Table31, Drinking water sources and issues associated

GP	Issues	Drinking Water	
		Tube well	Wells [Sanitary]
Ratanga	Communicable water born disease are occurring due to contaminated water	58	61
Krandibali	Communicable water born disease are occurring due to contaminated water	24	8
Jajeshpanga	Communicable water born disease are occurring due to contaminated water	39	4
Tala Dandikia	Communicable water born disease are occurring due to contaminated water	15	59
Dimiriguda	Communicable water born disease are occurring due to contaminated water	28	23
Bhrungijodi	Communicable water born disease are occurring due to contaminated water	14	43
Dindiragaon	Communicable water born disease are occurring due to contaminated water	22	34
Balandapada	Communicable water born disease are occurring due to contaminated water	46	175
Gochhapada	Communicable water born disease are occurring due to contaminated water	30	2
Bandhagarh	Communicable water born disease are occurring due to contaminated water	19	56
Phiringia	Communicable water born disease are occurring due to contaminated water	75	17
Kashinipadar	Communicable water born disease are occurring due to contaminated water	47	63
Luising	Communicable water born disease are occurring due to contaminated water	29	4
Pahiraju	Communicable water born disease are occurring due to contaminated water	18	3
Nuapadar	Communicable water born disease are occurring due to contaminated water	31	9
Salaguda	Communicable water born disease are occurring due to contaminated water	35	25

GP	Issues	Drinking Water	
		Tube well	Wells [Sanitary]
Pallabrudi	Communicable water born disease are occurring due to contaminated water	35	104
Pabingia	Communicable water born disease are occurring due to contaminated water	82	61
Kelapada	Communicable water born disease are occurring due to contaminated water	43	124
Sadingia	Communicable water born disease are occurring due to contaminated water	42	39

Source – Information from GP and FGD with community / groups / CBOs

GP	No Source of Drinking Water Within 1.6 Km				Source of Drinking Water at distance 1.00-1.59 km				Source of Drinking Water at distance 0.50-0.99 km				Source of Drinking Water at distance less than 0.5 km				Source of Drinking Water within house			
	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH
Balandapada	7	1	2	1	134	74	31	3	143	120	11	34	118	53	26	39	11	4	2	8
Bandhagada	128	56	83	7	8	10	3	0	27	1	7	0	134	50	168	9	22	3	20	5
Bhrungijodi	2	1	0	1	12	8	1	1	31	8	4	0	435	43	48	9	0	0	0	0
Dimiriguda	3	29	10	0	15	1	11	1	74	12	24	10	394	117	95	36	30	6	44	6
Dindiragaon	2	2	1	1	55	37	0	5	95	22	5	11	199	44	63	25	3	1	0	0
Gochhapada	115	73	50	3	105	46	30	0	78	27	18	0	153	113	160	18	0	0	0	0
Jajeshpanga	51	7	24	0	22	44	5	3	216	61	39	2	306	92	119	5	25	0	12	0
Kashinipadar	133	52	93	3	183	40	59	2	78	24	25	1	79	73	67	7	16	4	4	0
Kelapada	5	8	40	12	14	4	9	0	43	145	127	7	315	102	183	15	17	1	74	4
Krandiballi	9	1	0	1	10	4	3	5	42	10	7	7	439	60	34	172	0	0	0	0
Luisingi	5	2	5	1	8	2	1	0	116	32	43	3	486	60	92	8	0	0	0	0
Nuapadar	7	0	0	0	21	1	0	0	319	69	31	27	145	77	77	107	1	21	9	2
Pabingia	135	13	17	2	39	8	8	0	55	3	4	0	564	193	91	2	5	0	1	0
Pahiraju	14	3	0	1	210	66	12	10	180	44	16	3	118	38	3	9	3	0	1	0
Pallabrudi	215	102	82	19	157	71	27	38	0	2	0	0	25	29	7	5	4	2	3	1
Phiringia	3	0	0	1	13	0	0	0	178	78	64	4	304	305	376	103	1	2	17	10
Ratanga	209	117	98	8	23	13	5	0	5	6	3	0	100	100	198	12	10	1	2	0
Sadingia	4	0	2	1	4	4	1	0	185	25	51	7	384	99	185	9	5	0	4	1

Table32 : Drinking Water Facilities in Rural Households

GP	No Source of Drinking Water Within 1.6 Km				Source of Drinking Water at distance 1.00-1.59 km				Source of Drinking Water at distance 0.50-0.99 km				Source of Drinking Water at distance less than 0.5 km				Source of Drinking Water within house			
Salaguda	47	10	3	1	125	31	14	0	128	72	33	6	160	113	54	6	0	0	0	0
Tala Dandakia	1	0	0	0	6	4	0	1	174	52	5	6	328	74	53	21	22	1	3	2
Grand total	1095	477	510	63	1164	468	220	69	2167	813	517	128	5186	1835	2099	617	175	46	196	39
Source-GP information, census 2001																				

Of the total 17884 households / families, 11.99% families do not have drinking water sources within 1.6 KM distance from their houses. So, basically they cover more than 1.6 KM everyday to fetch water for household requirement. Among the families that cover such a long distance for fetching water, 51.05% are ST while 22.24% are SC, 23.78% are OBC and remaining 2.94% are other category families. So, it is basically the ST and SC families followed by OBC who covers such a long distance to fetch water as no other portable water sources are available near by. A total of 10.74% families have drinking water sources within 1 KM to 1.6 Km which comprises 60.59% ST families, 24.36% SC households, 11.45% OBC households and 3.59% other households. It is again the tribal families that are sufferer of the situation. On the other hand, 20.27% families have drinking water sources within 0.5 Km to 1 Km and highest of 54.45% families have sources of drinking water in a distance of less than 0.5 Km. Among the families, that are have drinking water sources within 0.5 Km to 1 Km, 59.79% are ST, 22.43% are SC, 14.26% are OBC and remaining 3.53% are from general caste categories. Number of families that are having drinking water sources in less than 0.5 Km distance, 53.26% are ST, 18.85% are SC, 21.56% are OBC and 6.34% are from other caste categories. Only 2.25% families have their own sources of drinking water at their home front or within their house. So, a higher percentage of

families have drinking water sources in less than 0.5 Km but not such sources at available at home front followed by number of families covering a distance of 0.5 Km to 1 Km, distance coverage of 1.6 Km and distance coverage of 1 Km to 1.6 Km by the rural families of the block.

4.9 Sanitation in the Block

A proper sanitation facility for the people irrespective of their economic and social status is a prerequisite for human development. In this aspect too data from Census 2001 indicated the position of Phiringia in the lower state of development. Even after introduction of Total Sanitation Campaign in 2002-2003, much progress could not be made in construction of household sanitary latrines. In the Primary School category, the progress was relatively better. The sanitary situation raises some serious questions on the achievements of Total Sanitation Campaign [TSC] as a strategy to achieve coverage of all households with in-house sanitary latrines. Prior to the TSC, the block was covered under Rural Sanitation Programme. Under the programme sanitary marts were proposed for establishment to promote total sanitation. Irrespective of that, only 222 households has been covered with household sanitary latrines.

Another important bearing of TSC is the concept of no-subsidy. It is behaviour change communication

[BCC] at the household level and other IEC measures which is largely banked upon to promote construction of sanitary latrines. Only for the families living below poverty line, a partial contribution of Rs.200.00 was made by the programme as reimbursement. Naturally it was thought that the programme would capitalise upon the campaign aspect and people would be motivated to construct their own sanitary latrines with technical support from the Sanitary Marts. But analyses of performances in the block reveal that this approach could not yield expected result. In terms of achievement in construction of household sanitary latrines, Phiringia GP ranks highest in the block while Krandibali and Luising is the lowest.

The status of sanitation observed to be poor in 18323 rural households of the GP. A total of 98.04% families have the habit of open defecation due to various factors like lack of household toilet facility, lack of community toilet facility, poor understanding on hygiene etc. Only 0.56% family use group latrine where water supply is not regular whereas only 22 families use group latrine which is equipped with regular water supply. Private latrine is available with 1.21% families in the overall block. So, looking at the situation, it can be said that sanitary situation of the block is not at the expected level in spite of several measures in this regard.

Table 33 : Type of Sanitation in GPs

Name of the GP	Type Of Sanitation					Total
	Open Defecation	Group Latrine With Irregular Water Supply	Group Latrine With Regular Water Supply	Clean Group Latrine With Regular Water Supply And Regular Sweeper	Private Latrine	
Balandapada	1142	3	1	1	1	1148
Bandhagada	706	8	5	0	22	741
Brungijodi	596	1	0	0	7	604
Dimiriguda	927	2	0	0	10	939
Dindrigam	567	1	1	0	2	571
Gochhapada	954	9	0	2	24	989
Jajespanga	1032	0	0	0	1	1033
Kasinipadar	960	2	0	1	1	964
Kelapada	1082	31	3	1	8	1125
Krandibali	798	4	0	2	0	804
Luisingi	864	0	0	0	0	864
Nuapadar	892	14	7	0	1	914
Pabingia	1142	1	0	1	2	1146
Pahiraju	732	0	0	0	0	732
Pallabrudi	790	0	0	0	7	797

Table 33 : Type of Sanitation in GPs

Name of the GP	Type Of Sanitation					Total
	Open Defection	Group Latrine With Irregular Water Supply	Group Latrine With Regular Water Supply	Clean Group Latrine With Regular Water Supply And Regular Sweeper	Private Latrine	
Phiringia	1343	8	5	1	124	1481
Ratanga	917	4	0	1	4	926
Sadingia	971	4	0	0	1	976
Salaguda	797	1	0	0	5	803
Tala Dandakia	752	10	0	2	2	766
Grand total	17964	103	22	12	222	18323

Source –Primary Data and BPL census 2002

4.9.1 Sanitation Status by Social Group

It is evident from the available information on sanitary status of rural household that open defecation is a common practice in almost all GPs and observed to be more with ST and SC families followed by other backward classes. Use of group latrine with irregular

water supply is more with OBC and other categories of families in comparison to ST and SC. Apart from that, private latrines are also observed to be more with OBC and other category of families in comparison to ST and SC families.

Table 34 : Sanitary status by social groups in the block (No. of Families)

Social Group	Open Defection	Group Latrine With Irregular Water Supply	Group Latrine With Regular Water Supply	Clean Group Latrine With Regular Water Supply And Regular Sweeper	Private Latrine	Total
ST	10016	17	4	6	35	10078
SC	3680	17	6	0	29	3732
OBC	3452	38	7	3	85	3585
Others	816	31	5	3	73	928
Total	17964	103	22	12	222	18323

Chapter FIVE

5.0 Livelihood Pattern

The rural economy in Phiringia is based upon agriculture where more than 70% main workers are engaged. It is the sector that provides highest number of employment to people along with a living for more than 6 months in a year. In spite of comparative low productivity, agriculture continues to be the primary source of income for larger section. The livelihood of people is directly influenced by the forest resources to a larger extent. The economy to some extent can be called a blend of agriculture and forest based. Forest provides employment at least for three months in a year in shape of minor forest produces and non-timber forest products. Prevalence of farm or non-farm enterprises is rare in the block apart from few

initiatives taken by SHG¹s with the support of ORMAS² and other government and non-government agencies. Though scope for product value addition in forest based products and agro-produces are rampant, still no such concrete initiatives are taken in this regard. Risk taking behaviour of people is very poor due to poor investment capacity and lack of technical knowhow.

5.1 Status of the Labour Force

Adult female as labourer (earning cash) marked in 5.31% families while adult male labourer observed in case of 89.07% families.

1. Self Help Group, 2. Orissa Rural Marketing & Supply Agency

Table 35 : Labour force situation in rural households

Name of GP	Status of Rural Household Labour Force					Total
	Bonded Labour	Female & Child Labour	Only Adult female & No Child Labour	Adult Male Only	Others	
Balandapada	0	0	99	1025	24	1148
Bandhagada	0	0	42	688	11	741
Bhrungijodi	0	0	31	557	16	604
Dimiriguda	0	0	31	905	3	939
Dindiragaon	0	0	32	512	27	571
Gochhapada	0	0	41	775	173	989
Jajeshpanga	0	0	52	981	0	1033
KaShinipadar	0	0	51	912	1	964
Kelapada	0	0	93	1004	28	1125
Krandibali	0	0	17	628	159	804
Luisingi	0	0	40	824	0	864
Nuapadar	0	0	59	848	7	914
Pabingia	0	0	74	973	99	1146
Pahiraju	0	0	35	625	72	732
Pallabrudi	0	0	28	763	6	797
Phiringia	0	0	133	1096	252	1481
Ratanga	0	0	32	781	113	926
Sadingia	0	0	35	926	15	976
Salaguda	0	0	27	776	0	803
Tala Dandakia	0	0	21	721	24	766
Grand Total	0	0	973	16320	1030	18323

Source – Census 2001 and BPL information 2002

5.2 Status of the Labour Force by Social Group

Looking at the labour situation at the social categories, adult female and adult male labourer observed to be in all the GPs. Due to concentration of

ST families, number of male and female labourers observed more in number in ST category followed by SC and OBC.

Table 36 : Status of the labour force of rural household as per social group (No. of Families)

Social Group	Bonded Labour	Female And Child Labour	Only Adult Female And No. Of Child Labour	Adult Males only	Others	Total
ST	0	0	499	9112	467	10078
SC	0	0	245	3261	226	3732
OBC	0	0	169	3199	217	3585
Others	0	0	60	748	120	928
TOTAL	0	0	973	16320	1030	18323
Source – Census 2001 and BPL information 2002						

5.3 Agricultural & Rural Livelihood Situation

In human development terms, the potentialities in Phiringia block become more complex. Since the economy of the block is primarily rural, livelihood opportunities for the block population are derived mainly from agriculture or other farm-based activities including agricultural trading. However, with the low density of human settlement and the low availability of cultivable land, there is limited room for expansion of this economic base. Because of dominance of agriculture, rural artisanship and non-farm activities do not traditionally exist in Phiringia block. But it can be said that future development solutions for the block will have to be found outside the domain of agriculture because of lack of water resources and low per capita availability of agricultural land. For this to happen, the quality of human resources in the block will need to be raised substantially through the extension of basic education and also through skill development of people through vocational education. In comparison to such needs, the present educational and literacy attainments of the block are rather low, indicating that much remains to be done in human development terms.

The extension of better healthcare and education in the block of Phiringia faces huge challenges because communication and infrastructural limitations. These aspects need to be attended because the attainment of

higher educational and literacy levels will benefit in terms of gainful utilisation of the available resources, minimising morbidity, infant mortality and maternal mortality and overall increases in life expectancy. In turn this will help secure livelihood and opportunities reducing absolute poverty and increasing the block per capita income.

Despite this huge human development potential that presently lies before the block, the present state of advancement in the socioeconomic and healthcare sectors is far from satisfactory due to human development limitations. This would suggest that several sociocultural factors contribute to the present state of general backwardness, which includes the large presence of socially backward communities, the continuance of social practices that are detrimental to active gender discrimination and the prevalence of illiteracy particularly among women. Once again, for these current institutional constraints to be overcome, the human development agenda has to be aggressively pursued in Phiringia block in active partnership with civil society, in a manner that replaces the old social and institutional bottlenecks with a new social consensus built around human development needs.

The block is known for its agriculture based economy where potentiality of other sectors are yet not explored or harvested fully. Major food crops

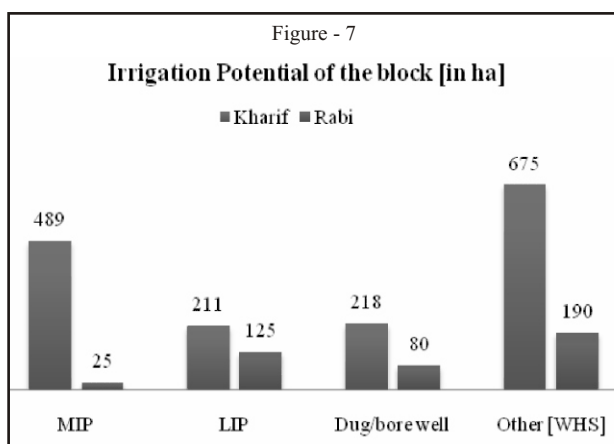
produced in the block are like paddy, maize and vegetables. Apart from that the block also produces commercial crops like mustard, turmeric and ginger. Phiringia is an important agricultural block of the district and economic wellbeing of its population is having a close relation to the current state of agriculture in the block. Physiographic and agroclimatic conditions almost correspond to that of the district with a difference in crop yield and cropping intensity within the block. Agriculture depends primarily on the availability of arable land and its irrigation status. Rainfall in the block is moderate and most of the rain drains away immediately as runoff due to its location at high land and the terrain. Since this rainwater fails to percolate and recharge local aquifers, the flow in most minor rivers is seasonal, and groundwater-based irrigation is unviable except some plane regions of the block.

Because of undulating and high altitude location, that area is free from waterlogging during the monsoon. Agriculture mostly depends upon the rain and hence, monocropping is the primary practice of the block. Because of its topography canal and channel-based irrigation is uncommon. Due to variation in the availability of surface and ground water resources, highly uneven distribution of irrigated land across the block is observed. The block is not an exception in

this regard within the district. The irrigation potential so far created in the district can hardly irrigate 12.2 % of cultivated land during Khariff and 3.5 % of the total cultivated area during Rabi. The actual area irrigated is reported to be less than the potential created for irrigation. Of the gross cropped area of 1,66,051 hectares during 2001-2002, 22,257 hectares was irrigated which means 13.40 % of cropped area enjoyed irrigation from all sources, while 86.60 % of cropped area depends upon monsoon rain.

The block is devoid of any major or medium irrigation projects. Irrigation in the block is primarily through minor irrigation projects, lift irrigation points, dugwell / borewell and through water harvesting structures. Comparatively other sources irrigate much more cultivated area during kharif and Rabi in comparison to any other irrigation sources. Total area irrigated in kharif is estimated to be 1593 hectares while all the sources irrigate 420 hectares during Rabi. Some GPs like Ratanga report highest vegetable production in the block which includes brinjal, cauliflower, potato, radish, ginger etc.

In general, irrigation intensity has got a direct bearing on the cropping intensity. The agricultural situation in the block somehow appears to be inconsistent due to various factors. Such apparent anomalies in local cropping situations and productivity are closely related to the undulations of terrain, which keep certain regions high above the reach of water while subjecting several others to the threat of periodic flash flood. It has consequently been observed that cropping patterns vary considerably across the block. Cropping intensity is visibly higher in areas which have secured sources of irrigation while areas which have less irrigation potential, reported poor cropping intensity. Such differences have a profound impact on the productivity of agriculture in different parts of the block. For instance, the yield rate of paddy from



relatively plane land is comparatively higher than that of paddy cultivated in slopes or in undulating pockets.

The block is having different facilities for input supply which is primarily instituted by the agriculture department. The block is having 2 seed supply centres, one fertiliser and one pesticide supply centres which basically make the inputs available to the farmers. It has been a concern of the farmers about the adequacy of the supply, quality of inputs and its in-time availability.

5.4 Agricultural Productivity

In terms of sociocultural characteristics, the population of the block which is mainly Hindu includes a large proportion of Scheduled Castes and Scheduled Tribes. Christian also has a sizeable population in comparison to any other religion believers. ST settlement dominates any other social groups of the block. Because of relatively large presence of the SC/ ST groups in the block, the education level of people has been low which is again lower in case of female than that of male. In fact, there is much higher variation in the literacy in Phiringia as far as male and female is concerned. Low literacy in the block is culturally influenced by the higher rural SC and ST presence and the gap between male and female literacy levels.

The differing population density across Phiringia block seems directly related to livelihoods and work opportunities in different subregions. Work participation is highest in some GPs like that of Phiringia GP which has the highest density of settlement. However, the livelihood stress caused by rapid growth of the population against a limited land and resource base means that work participation rates are well below 50 percent in all parts of the block. Each worker in the block thus has to support an average of two dependents looking at the present

pattern of engagement. Despite numerical differences in the absolute size of the working population, around 48.83% of the workforce comprises main workers.

Accordingly, the proportion of marginal workers in the total workforce is also less. In the block, majority of main and marginal workforce is engaged directly in cultivation, and also as agricultural labour. Proportion of household industry workers is low along with engagement in off-farm activities. The differences in land use patterns across the block reflect the same set of settlement intensities, agrarian features and agricultural constraints. Differences are marked in agricultural yields across the block which reflects intrinsic differences in soil quality, water availability and land husbanding practices. Again, the yields for most undulating high land settlements is much lower because of discussed factors along with less/no irrigation source. The higher yield of paddy overall for the block in comparison to any other crop types is actually a consequence of the vast extent of land cultivated with paddy during the rainfed season.

5.5 Type of Operational Holdings

Operational holding by ST category reflect that more number of ST households hold land irrespective of the quantum of land in comparison to any other social group followed by OBC and SC. Number of tenants also observed more among tribal along with a dual situation of tenant and owner of the land. Numbers of families observed not associated with land based activities are more with SC followed by ST and OBC. So, comparing SC and ST, land holding situation is more in favour of ST than SC while non-holding situation is more with SCs than STs.

Table 37 : Operational holding by social category

Social Category	Owner	Tenant	Both Owner and Tenant	None	Total
ST	3605	1422	3615	1436	10078
SC	445	819	756	1712	3732
OBC	705	608	986	1286	3585
Others	83	164	187	494	928
Total	4838	3013	5544	4928	18323

Source – GP information (agriculture dept. official) and BPL information 2002

5.5.1 Size of Operational Holdings as Per Social Group

Of the total 10078 ST families those hold land, 62.33% either have less than 1 ha of unirrigated land or less than 0.5 ha of irrigated land. 13.55% have 1ha to 2 ha of unirrigated or 0.5 ha to 1 ha irrigated land under their possession. In the remaining, 0.53% families have land 2 ha to 5 ha of unirrigated or 1 ha to 2.5 ha irrigated land. Only 0.53% families of the total 10078 ST families have greater than 5 ha of

than 1 ha of unirrigated or 0.5 ha of irrigated land observed more comprising 35.56% of the total SC land holder followed by 2.63% families those hold 1 ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land. Only 0.46 % families have 2 ha to 5 ha of unirrigated or 1 ha to 2.5 ha of irrigated land under their possession. Number of SC families having more than 5 ha of unirrigated or 2.5 ha of irrigated land observed only in case of 0.13 % families.

More or less same holding pattern observed with OBC families where 45.83% families have less than 1 ha of unirrigated or 0.5 ha of irrigated land. Among the remaining, 5.75% families have possession of land which is of size 1 ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land. Families having land of 2 ha to 5 ha of unirrigated or 1 ha to 2.5 ha of irrigated land is with 1.39% families and remaining 0.03 % families have greater than 5 ha of unirrigated or 2.5 ha of irrigated land under their possession. Among others 33.62% have less than 1 ha of unirrigated or

Table 38 : Size of land holding by social category

Size of Land Holding	ST	SC	OBC	Others	TOTAL
Nil	1945	2285	1685	566	6481
<1 ha. (Unirrigated) or <0.5 ha. (irrigated land)	6282	1327	1643	312	9564
1 ha.-2ha. (Unirrigated) or 0.5 ha.-1.0 ha. (irrigated)	1366	98	206	39	1709
2 ha. - 5ha. (Unirrigated) or 1.0 ha.-2.5 ha. (irrigated)	432	17	50	8	507
> 5ha. (Unirrigated) or 2.5 ha. (irrigated)	53	5	1	3	62
Total	10078	3732	3585	928	18323

Source – GP information (agriculture dept. official) and BPL information 2002

unirrigated or 2.5 ha of irrigated land. So, it is basically the small and marginal farmers that are more prevalent among the ST families as far as holding is concerned.

Similarly, among SC number of families holding less

0.5 ha of irrigated land, 4.20% have 1 ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land, 0.86% families are having 2 ha to 5 ha of unirrigated or 1 ha to 2.5 ha of irrigated land and 0.32% have greater than 5 ha of unirrigated or 2.5 ha of irrigated land under

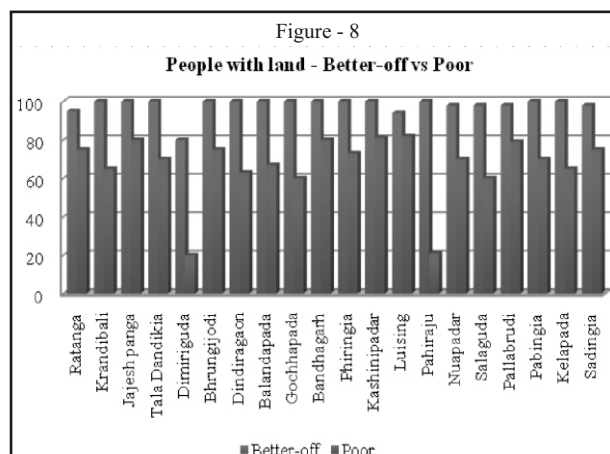
their possession. So, among the total 18323, majority i.e. 52.20% families hold less than 1 ha of unirrigated or 0.5 ha of irrigated land, 9.33% have land size of 1 ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land, 2.77% have land of 2 ha to 5 ha of unirrigated or 1 ha to 2.5 ha of irrigated land and remaining 0.34% families are having greater than 5 ha of unirrigated or 2.5 ha of irrigated land under their possession.

Table 39: Land holding by social and economic groups

SN	GP	% of people with Land					
		Rich	Poor	SC	ST	OBC	Other
1	Ratanga	95	75	45	95	48	0
2	Krandibali	100	65	58	95	65	0
3	Jajeshpanga	100	80	85	90	50	80
4	Tala Dandikia	100	70	60	98	67	0
5	Dimiriguda	80	20	30	95	40	0
6	Bhrungijodi	100	75	60	100	75	0
7	Dindiragaon	100	63	13	82	44	0
8	Balandapada	100	67	60	95	60	0
9	Gochhapada	100	60	65	95	75	50
10	Bandhagarh	100	80	65	95	79	90
11	Phiringia	100	73	40	94	68	0
12	Kashinipadar	100	81	69	98	76	0
13	Luising	94	82	54	90	46	0
14	Pahiraju	100	21	48	95	40	0
15	Nuapadar	98	70	65	75	55	58
16	Salaguda	98	60	65	96	71	0
17	Pallabrudi	98	79	65	98	75	75
18	Pabingia	100	70	60	95	78	0
19	Kelapada	100	65	58	98	75	76
20	Sadingia	98	75	65	98	70	0

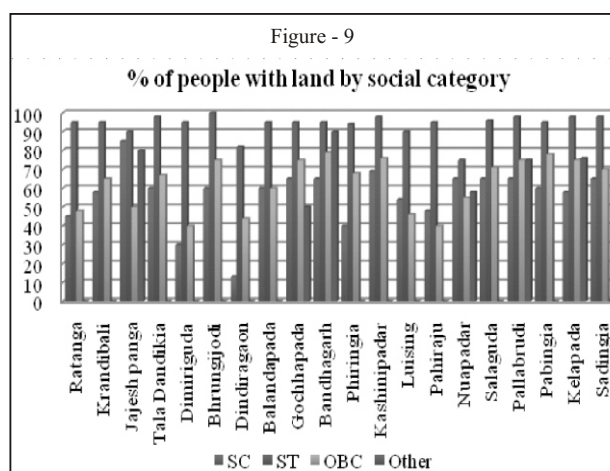
Source – Village and GP Information, BPL census

Land is one of the most valued assets as it is the basic means of livelihood for a majority of section. Existing pattern of land ownership is more in favour of better



off families than the poor segment of the society. In many GPs, all the better-off families have the land while in other GPs highly significant proportion of better-off families possess land in comparison to poor families. It is not only having or not having land rather it is the quantum of land they possess and its quality. Discussion reveals that lands of better quality and quantum of land possessed by is high in better off families in comparison to poorer families. So, agriculture as a means of livelihood is more ensured for better off section with regard to its production in comparison to poorer families.

Land holding status by social categories reflect that more percentage of ST families in comparison to SC and OBC hold land followed by OBC and SC. In



some GPs, more percentage of OBC families holds land while in some GPs more SC families have land. But the recent development reflects altogether a different trend. Gradually the ST families are losing their quantum of holding to SC, OBC and other castes due to various factors one of which is indebtedness. Normally, to meet the daily expenses, especially during cultural events or festivals, they mortgage a patch of land with SC or higher caste families who have the capacity to lend them cash. In due course, due to usurious rate of interest, the borrower fails to repay the loan in time and by that the operational ownership gets shifted to the lender. Mere legal ownership does not stand anywhere as operationally it belongs to the lender who cultivates the land and also harvests the crop. This is the process for which, though many tribal families are reported having land, but operationally many of them do not possess the land. This situation has been a matter of concern for social thinkers but much has not been done in this regard. This is one of the reasons for which tribal and non-tribal especially the SC families have been locking their horns in several incidents at district level.

5.6 Landlessness & Poverty

Even though an overwhelmingly large segment of the rural workforce depends on agriculture as its main source of livelihood, the extent of landlessness in the block has also been high. The land reform does not have any bearing on this. In many cases, landless agriculturists are in informal crop-sharing agreement with the land holders in shape of share cropping. Assignment of vested lands has also transformed the status of many of the landless agriculturists to that of landholders or pattadars. However, those who still remain landless have yet to benefit from land reforms. Land redistribution in the form of patta lands is not observed consequently; the impact of land

reforms has been relatively producing for the farming community.

Official surveys of households living below the poverty line in Phiringia estimated to be more than 75% including women-headed households, SC & ST families, as well several from other classes and communities. Although the position has improved a bit over the period still the situation remains to be grave. Most of the BPL families are either landless or are small and marginal holding which does not produce substantially for annual maintenance of the family.

Although no such estimates of income at GP level exist at present, sufficient indication of the prevalence of poverty at GP level is marked during analysis of the available information and with reference to government records. High levels of rural poverty that exist in nearly all GPs of the block closely reflect the livelihood crisis that has overtaken the agricultural areas because of constant growth of the population and shrinking availability of cultivable land. On the other hand there is limited initiative for promotion of non-farm based livelihood activities across the block, on a scale sufficient to draw large sections of the rural marginal workforce, including women, into main work. Among the many schemes launched in the block for the uplift of BPL sections and landless, skill & capacity building programmes occupy an important place, since these seek to direct the rural poor into alternative livelihoods. Small entrepreneurship is therefore an avenue that can be developed further, with required financial and non-financial support from financial institutions.

5.7 Land Particulars

Cultivated area of the block is comparatively low to the geographical area not because of increasing

domestic settlements rather because of undulating and terrain pockets and unsuitability of the land for cultivation. Of the total cultivated area, 50.78% are up land which is not suitable for long duration paddy cultivation but favours cultivation of pulses and vegetables. Medium land observed to be to the tune of

28.24% while low land is 20.98% of the total cultivated land of the block. Total area available for cultivation marked to be more in Kelapada followed by Krandibali and Sadingia. Lowest amount of cultivated area marked to be in Pahiraju and Dindragaon.

Table 40 : Land Particulars of the Block by GP

Sl. No	GP	Cultivated Area	Up Land	Med. Land	Low Land
1	Ratanga	705.851	352.925	211.755	141.171
2	Krandibali	1149	413.64	264.27	471.09
3	Jajesh panga	670.07	302.371	215.077	152.622
4	Tala Dandikia	627.546	363.976	131.784	131.786
5	Dimiriguda	985	581.15	226.55	177.3
6	Bhrungijodi	593.394	356.036	130.546	106.812
7	Dindiragaon	453.73	200.25	136.3	117.18
8	Balandapada	777.45	373.176	225.46	178.814
9	Gochhapada	936.21	468.105	355.759	112.346
10	Bandhagarh	805.815	312.537	288.822	204.456
11	Phiringia	740.3	518.21	170.269	51.821
12	Kashinipadar	834.061	484.061	242.03	107.97
13	Luising	615	338.25	184.5	92.25
14	Pahiraju	325.4	201.748	87.858	35.794
15	Nuapadar	814.924	365.656	285.223	164.045
16	Salaguda	729.906	423.342	218.971	87.593
17	Pallabrudi	556.606	306.133	155.846	94.627
18	Pabingia	838.76	410.145	164.457	264.158
19	Kelapada	1813.1	756.66	546	510.44
20	Sadingia	1024.882	594.431	276.718	153.733
Source – GP level Information , BPL census					

The land type influences cultivation according to its suitability to various crop types. Though people do not take in to account many scientific factors for

cultivation, still age old farming practice normally adhere to many such crops that grow in the prevailing land type. Pulses are preferred more in up lands and

medium land along with short duration paddy and vegetables while low lands are the preferred area for paddy cultivation.

5.8 Irrigation

Of the total cultivated area (15997 Ha.), area irrigated is 1650.5 hectares i.e. 10.32% of the total cultivated area. Irrigation basically covers low and low medium land through various irrigation sources. Canal irrigation system is not commonly observed in the block due to lack of major irrigation projects. The minor irrigation projects have the limited capacity to irrigate the land. Irrigation for saving standing crop is more prominent than provision of irrigation for new crop cultivation.

SN	GP	Irrigation in Kharif	Irrigation in Rabi	Gross Irrigated Area
1	Ratanga	130	14	144
2	Krandibali	16	0	16
3	Jajeshpanga	27	0	27
4	Tala Dandikia	124	0	124
5	Dimiriguda	394	0	394
6	Bhrungijodi	83.6	23	106.6
7	Dindiragaon	47.4	0	47.4
8	Balandapada	141	29	170
9	Gochhapada	18	6	24
10	Bandhagarh	39	0	39
11	Phiringia	45	0	45
12	Kashinipadar	55	0	55
13	Luising	18	2	20
14	Pahiraju	22.2	0	22.2
15	Nuapadar	32.3	0	32.3
16	Salaguda	25	0	25
17	Pallabrudi	12	0	12

18	Pabingia	35	0	35
19	Kelapada	160	80	240
20	Sadingia	48	24	72
Source – Field data and secondary information available at GP level				

Of the total irrigated area, 89.22% are irrigated in Kharif while only 10.78% area is irrigated during Rabi. So, it is basically protective irrigation coverage to crops during Kharif. Of the total 20, 3 GPs namely Dimiriguda, Kelapada, Balandapada and Ratang have more coverage of area under irrigation during Kharif in comparison to any other GP of the block. Similarly, more area covered under irrigation during Rabi is in Kelapada followed by Balandapada and Sadingia. Overall, the gross irrigated area is highest in Dimiriguda followed by Kelapada and Balandapada.

Table 42 : Sources of irrigation in the block by GP

Sl. No	GP	Irrigation				
		Rabi				
		Dug well	Minor [Flow]	Minor [Lift]	Tank/Pond	Total
1	Ratanga	0	0	14	0	14
2	Krandibali	0	4	0	0	4
3	Jajesh panga	0	23	0	0	23
4	Tala Dandikia	0	0	0	0	0
5	Dimiriguda	0	0	0	0	0
6	Bhrungijodi	0	23	0	23	
7	Dindiragaon	0	0	0	0	0
8	Balandapada	0	29	0	0	29
9	Gochhapada	1	0	5	0	6
10	Bandhagarh	0	0	0	0	0
11	Phiringia	0	0	0	0	0
12	Kashinipadar	0	0	0	0	0
13	Luising	0	2	0	0	2
14	Pahiraju	0	0	0	0	0
15	Nuapadar	0	0	0	0	0
16	Salaguda	0	0	0	0	0
17	Pallabrudi	0	0	0	0	0
18	Pabingia	0	0	0	0	0
19	Kelapada	0	0	80	0	80
20	Sadingia	0	0	0	24	24

Source – GP level information and BPL census

Of the total irrigated area of 1650.5 hectares, 84.3% area is irrigated through dug well, minor flow, minor lift and through tanks / ponds. A total of 60.79 hectares are irrigated through dug wells while 703.02 hectares are irrigated through minor flows (check dams), 326 hecters through minor lift irrigation and 301.50 hecters are irrigated through tanks / ponds. Remain of the total irrigated are is irrigated through other means like stream etc. There are a number of

GPs that depend upon one or two sources for irrigation like Sadingia, Pabingia etc. while there are some other GPs that are having more number of effective sources of irrigation like Dindiragaon, Ratanga etc. Because of poor irrigation infrastructure, the block has not come up to the expected level of agricultural production coupled with many other factors discussed elsewhere.

Table 43 : Irrigation Sources and Area Irrigated

SN	GP	Irrigation				
		Kharif				
		Dug well	Minor [Flow]	Minor [Lift]	Tank/Pond	Total
1	Ratanga	10	44	61	15	130
2	Krandibali	0	20	0	0	20
3	Jajesh panga	9.2	12.3	0	5.5	27
4	Tala Dandikia	0	123.824	0	0	123
5	Dimiriguda	10	0	180	174	364
6	Bhrungijodi	0	83.6	0	0	83.6
7	Dindiragaon	10.36	20	5	12	47.4
8	Balandapada	0	141	0	0	141
9	Gochhapada	0	18	0	0	18
10	Bandhagarh	0	39	0	0	39
11	Phiringia	9	30	0	6	45
12	Kashinipadar	0	0	0	0	0
13	Luising	0	10	0	8	18
14	Pahiraju	2.23	10	0	10	22.2
15	Nuapadar	0	29.293	0	3	32.3
16	Salaguda	10	0	0	15	25
17	Pallabrudi	0	12	0	0	12
18	Pabingia	0	35	0	0	35
19	Kelapada	0	75	80	5	160
20	Sadingia	0	0	0	48	48

Source – Dept. of agriculture and community data

5.9 Agricultural Productivity

Paddy is the major crop grown in all the GPs though paddy area varies significantly. Of the total cultivated area, paddy area estimated to be more than 50% in all the GPs excluding a few where other crops are grown in more area due to the topographic situation and land suitability for such crop types. Highest paddy area marked to be in Bhrungijodi while lowest in Sadingia due to undulating land type. Use of synthetic fertilisers as an agricultural input for higher productivity is not

rampantly used as it is done in relatively plain areas. Average fertiliser use varies between 3-5 KG per hectare which favours low production along with low production cost. It is not by design that people prefer to grow crops using low fertiliser and pesticides rather it is by default that organic way of farming is preferred by people. This is the reason for which the district is well known for organic farming and some of its produces like ginger and turmeric is famous as organic product.

Table 44 : Fertiliser input and Productivity by GP

SN	GP	Major Crop	Paddy area [%]	Fertiliser/Ha. [KG]	Productivity [Qt/Ha.]
1	Ratanga	Paddy	69	3	11.5
2	Krandibali	Paddy	48	3	13.50
3	Jajesh panga	Paddy	63	3	11.00
4	Tala Dandikia	Paddy	60	3	9.50
5	Dimiriguda	Paddy	75	3	13.50
6	Bhrungijodi	Paddy	78.86	3	10.00
7	Dindiragaon	Paddy	65	3	11.25
8	Balandapada	Paddy	68	3	11.00
9	Gochhapada	Paddy	57	3	13.00
10	Bandhagarh	Paddy	66.33	3	12.50
11	Phiringia	Paddy	67	3	11.25
12	Kashinipadar	Paddy	55	3	8.50
13	Luising	Paddy	45	3	11.25
14	Pahiraju	Paddy	53	3	9.25
15	Nuapadar	Paddy	61	3	6.00
16	Salaguda	Paddy	65	3	8.50
17	Pallabrudi	Paddy	65	3	12.00
18	Pabingia	Paddy	65	3	12.50
19	Kelapada	Paddy	58	3	9.90
20	Sadingia	Paddy	40	3	8.00

Source – Village Information

To a larger extent low fertiliser use is influenced by traditional farming and poor agricultural investment capacity of farmers coupled with the tribal culture and believes system. It is normal situation in tribal dominated areas that use of fertiliser and pesticide is less in farming making the farm products more hygienic and healthy. Because of low rate of use of such productivity enhancing inputs, low productivity is a common characteristic of the block covering almost all the GPs. Taking into account the input used, farming technology adopted, use of existing irrigation potential etc., average paddy production

vary between 8 quintals to 12 quintals per GP per hecter. Highest productivity of paddy reported in Krandibali, Dimiriguda and Gochhapada while lowest rate of production marked in Nuapadar and Sadingia.

5.10 Non-Farm Activities and Engagement

As discussed earlier, a large segment of rural residents in the block are landless and normally depends upon wage-employment in the agricultural sector for their livelihood. Urbanisation in the block has so far been slow apart from some part of the GP

and block headquarters. Absence of industrial activity limited the transfer of the working population from rural to urban areas. Since no new labour demands are being generated within the block, rapid growth of the rural workforce has depressed wage-levels and has also led to greater seasonality of rural work in Phiringia block. Because of resulting wage differentials, a trend has thus developed for marginal workers to outmigrate seasonally from the block during the agricultural loan season, when work is hard to come by in the rural areas. Gradually, as migrant networks have been extended, migration has expanded with them, and unskilled workers from rural Phiringia today can be found seasonally working as construction workers. Even now a days, migration has become rampant to southern states of the country namely to Tamilnadu and Kerala.

Despite the recent growth of such trends, migration from the block does not offer a sustained solution as far as landless rural families are concerned, because of the uncertainties and exploitation that migrant workers are routinely subject to, and because of the disruptive impact that migration has on the education, health and nutritional priorities of children in rural families. Consequently, a solution to the current problems of rural joblessness and poverty has to be found by focusing on the development of rural work opportunities outside the domain of agriculture. This focus ultimately comes to bear on the small manufacturing units, trade and service establishments, and traditional rural manufacturing activities that collectively constitute the non-farm sector.

Since the predominant production activity is agriculture, rural non-farm activities can be initially based upon processing of agricultural and horticultural produces along with utilisation and improvement of traditional skill base. Although in the

absence of largescale processing and manufacturing units, downstream linkages to ancillary units have not been strong in the block. Thus initially agro-based processing and skill based service and manufacturing units in a micro and small scale can bring certain change in the employment scenario of the block.

Cottage and household-based non-farm activities in Phiringia block presently include traditional artisanal crafts like weaving, black smithy, gold smithy & carpentry, oil-pressing, pottery, & tile-making, bamboo craft, etc., all of which fulfil local needs and are therefore a common constituent of rural non-farm activity in most Phiringia blocks. Masonry is an upcoming non-farm activity in some GPs

5.11 Average Monthly Income

Kandhamal has an agriculture based economy and agriculture, horticulture, animal husbandry, forest produce trading and tourism are the mainstay of the economy. The district is mostly rural and urbanisation rate is poor. It has the lowest population density and is dominated by tribal population. The district is major producer of ginger, turmeric and has created a name for itself at the national level for growing spice. Apart from agriculture and allied sector, a variety of non-timber forest produces are collected from the district due to wide forest coverage. As no valid data is available, the district domestic product is difficult to estimate. However, as agriculture is subsistence and industrial growth is absence, it can be said that contribution of the district economy to the overall state economy is not as it has been by developed or industrialised district.

Monthly income of rural households depends upon a number of factors that influence the engagement days and overall engagement pattern in various income areas. The income of a family is calculated here based upon total income from all sources generated by a

family through its engagement which is direct in nature. Pseudo or indirect means of income like household activities etc. which does not have a direct bearing on the family income is not considered here. Here, income of a family is considered combining the income of both male and female works of a family earn in a month through various engagements in different sectors.

As the data shows, pattern of income is more towards a total earning of less than Rs. 250 per month by the families from all sources in most of the GPs of the block. So, prevalent trend is majority of the rural families have an earning less than Rs.250 i.e. \$ 5.32 USD per month (\$ 1 = Rs. 47/-) against the expected level of at least \$ 30 USD per month per person at the rate \$ 1 a day.

Table 45: Average monthly income of rural families

Name of the GP	Total Rural Families	Rural Families with Average Monthly Income (In Rupees)						Total
		Less than 250	250 - 499	500 - 1499	1500 - 2500	More Than 2500	No Specific Response	
Balandapada	1148	680	377	62	12	13	4	1148
Bandhagada	741	292	375	25	9	40	0	741
Bhrungijodi	604	244	297	46	2	15	0	604
Dimiriguda	939	303	352	250	16	12	6	939
Dindiragaon	571	330	187	24	2	28	0	571
Gochhapada	989	276	330	295	34	54	0	989
Jajespanga	1033	473	465	70	14	11	0	1033
Kasinipadar	964	845	87	6	5	9	12	964
Kelapada	1125	401	505	162	18	39	0	1125
Krandibali	804	503	266	16	8	11	0	804
Luising	864	443	392	19	6	4	0	864
Nuapadar	914	311	354	180	19	50	0	914
Pabingia	1146	963	127	18	4	30	4	1146
Pahireju	732	630	78	12	5	0	7	732
Pallabrudi	797	575	167	23	4	17	11	797
Phiringia	1481	1037	173	37	34	194	6	1481
Ratanga	926	107	465	304	17	21	12	926
Sadingia	976	365	368	179	28	19	17	976
Salaguda	803	447	267	74	6	9	0	803
Tala Dandakia	766	405	169	148	8	32	4	766
Grand Total	18323	9630	5801	1950	251	608	83	18323

Source– GP information and BPL census

Looking at the situation at the GP level, it is evident that highest of 87.66% families in Kasinipadar earn less than Rs. 250 per month followed by 86.07% families in Pahiraju and 84.07% families in Pabingia. More than 70% families having the same level of earning per month reported to be in Pallaburdi (72.15%) and Phiringia (70.02%). Less than 50% of the total families of the GP reported having the same amount of earning per month observed in Bandhagarh (39.41%), Bhrungijodi (40.40%), Dimiriguda (32.27%), Gochhapada (27.91%), Jajespanga (45.79%), Kelapada (35.64%), Nuapadar (34.03%), Ratanga (11.56%) and Sadingia (37.40%). In the remaining GPs, income level of more than 50% families remains to be below Rs.250/- per month. Number of families falling in to this income group observed to be lowest in Ratang and highest in Kashinipadar. Overall 52.66% families of the total fall in to this income segment among all other income segments.

Number of families having monthly income more than Rs.250/- but less than Rs.500/- is highest in Bandhagarh where 50.61% families fall into this income category followed by 50.22% in Ratang and 49.17% in Bhrungijodi. Lowest percentage of families having the same income level is in Kashinipadar (9.02%), Pahiraju (10.66%) and Pabingia (11.08%). So, it is evident that distribution of families across the block is different in different GPs and significantly they vary by income level. A specific pattern based on the level of income does not exist at GP level within the geographical area of the block. Among the total families, 31.66% have the income above Rs.250/- but below Rs.500/- per month.

In a relatively higher income category i.e. monthly income level of more than Rs.500/- to Rs.1499/- (less than Rs. 1500/-), percentage of families falling in to

this level is highest in Ratang with 32.83% followed by Gochhapada with 29.83% and 26.62% families in Dimiriguda. Lowest percentage of families having this level of monthly income is in Kasinipadar, Pabingia and Pahiraju with 0.62%, 1.57% and 1.64% families respectively. Of the total families of the block, 10.64% fall in to this income category.

Of the total families of the block, only 1.37% fall in to the income level of Rs.1500/- to Rs.2500/- and highest percentage of families to the total of the GP falling in to this category is in Gochhapada where 3.44% families have this income level followed by 2.87% families in Sadingia and 2.30% families in Sadingia. Lowest percentage of families is in Bhrungijodi (0.33%), Dindiragaon (0.35%), Pabingia (0.35%) and Pallaburdi (0.50%). So, number of households with this level of monthly income is comparatively less among all the income categories in the block. Even comparing to this level of income percentage of families having monthly income level more than Rs.2500/- observed to be more i.e. a total of 3.32% families have monthly income more than Rs. 2500/- at teh block level. The GPs having greater percentage of families in this category are 13.10% families in Phiringia, the block headquarter followed by 5.47% families in Nuapadar, 5.46% in Gochhapada and 5.40% in Bandhagarh. Among all the GPs of the block, lowest percentage of families having this level of monthly income is in Pahiraju where not a single family is having this category of income followed by 0.46% in Luising and 0.93% in Kasinipadar. Looking at the overall income trend at block level, it is evident that majority of the families are at the lower income end i.e. a total of 82.44% families of he block have monthly income less than Rs.500/- which is \$ 10.64 USD per month against the minimum expected income level of \$ 30 USD per person per month.

5.11.1 Average Monthly Income among Social Groups

Looking at level of income among different social groups, distribution of families according to the level of income seems more in a favourable situation among other social groups and to some extent among the OBCs. But similar trend of income distribution, as discussed earlier by GP, persists among SC and ST families. Of the total ST families, 57.16% have income less than Rs. 250/- per month per family while it is 54.80% in SC, 40.75% in OBC and 39.12% in other social categories. Similarly, 31.30% ST families are in the income category of Rs.250/- to Rs. 499/- followed by 35.87% OBC families, 30.33% SC families and 26.83% families from other social groups. Lowest percentage of tribal families is observed in the income category of Rs.500/- to Rs.1499/- in tribal i.e. 8.87% of the total tribal families whereas highest of 14.84% OBC families, 13.47% other social group families and 10.69% SC

and 1.75% ST families having monthly income more than Rs.2500/-.

So, from income vulnerability, it is mostly the ST and SC families who have poor level of income in comparison to OBC and other social groups. It is also observed that higher percentage of ST and SC families are at the lower level of income i.e. 88.26% ST families and 85.13% SC families who have earning of less than Rs.500/- per month.

5.12 Means of Livelihood

Based on the livelihoods, the families can be segregated in to 5 categories i.e. families earning their livelihood through casual labour, through cultivation / farming, using the acquired skill in artisan work, salaried job and other category of activities like transport, communication etc. including other service sectors. Casual labour work contributes significantly to household earning and

Table 46 : Average monthly income of families by social category

SN	Name of the GP	Total Rural Families	Rural Families with Average Monthly Income (In Rupees)					Total	
			< than 250	250 - 499	500 - 1499	1500 - 2500	> Than 2500		No Specific Response
01	ST	10078	5761	3134	894	71	176	42	10078
02	SC	3732	2045	1132	399	37	109	10	3732
03	OBC	3585	1461	1286	532	103	187	16	3585
04	OTHERS	928	363	249	125	40	136	15	928
	Total	18323	9630	5801	1950	251	608	83	18323

Source – GP information and BPL census

families have this level of income in the whole block. Per family income more than Rs.2500/- observed to be highest among the families of other social categories in comparison to any other social categories i.e. 14.66% families from other social categories earn this level of income per month whereas 5.22% OBC families, 2.92% SC families

52.57% families earn their livelihood, partially for fully, from this source. Percentage of families earning their livelihood observed varying significantly by GP and highest percentage of total family of a GP having dependency on casual labour is in Pabingia where 86.56% families depend upon casual labour. There are other GPs where percentage of families

depending upon casual labour is high like 85.56% in Bandhagarh, 73.27% families in Pallaburdi, 72.98% in Taladandikia and 70.56% in Phiringia. Lowest percentage of families depending upon casual labour marked in Dimiriguda (12.03%), Luising (17.94%) and Krandibali (19.40%).

Of the total families of the block, 37.08% depends upon subsistence agriculture and highest among all the GPs, 76.86% families of Luising, 72.39% families of Krandibali and 58.47% families of Jajeshpanga depends upon this source for livelihood. Lowest magnitude of dependency in terms of percentage of families across the block is marked in Bandhagarh

Table 47 : Means of livelihood of people in the block

Name of the GP	Means of Livelihood					
	Casual Labour	Subsistence Cultivation	Artisan	Salary	Others	Total
Balandapada	301	590	32	34	191	1148
Bandhagada	634	34	2	60	11	741
Bhrungijodi	393	171	16	15	9	604
Dimiriguda	113	537	55	27	207	939
Dindiragaon	435	98	1	34	3	571
Gochhapada	650	250	4	74	11	989
Jajeshpanga	386	604	8	20	15	1033
Kashinipadar	546	382	2	22	12	964
Kelapada	842	175	14	63	31	1125
Krandiballi	156	582	14	25	27	804
Luising	155	664	14	14	17	864
Nuapadar	497	340	3	53	21	914
Pabingia	992	103	3	42	6	1146
Pahiraju	278	404	4	3	43	732
Pallabrudi	584	157	14	25	17	797
Phiringia	1045	130	21	214	71	1481
Ratanga	462	408	7	30	19	926
Sadingia	327	561	26	34	28	976
Salaguda	277	461	20	19	26	803
Tala Dandakia	559	144	10	44	9	766
Grand Total	9632	6795	270	852	774	18323
Source – Primary information and BPL census						

(4.59%), Phiringia (8.78%) and Pabingia (8.99%). A total of 1.47% families are engaged in the block in artisan works because of their acquired skill base on specific artisan activity. In Dimiriguda, highest of the block i.e. 5.86% families are engaged in artisan work, 2.79% in Balandapada, 2.66% families in Sadingia and 2.65% families in Bhrungijodi are also engaged in this work for their livelihood.

Among the total, people from 4.65% families are engaged in salaried jobs of different nature and salaried engagement is highest in Phiringia with engagement of people from 14.45% families followed by 8.10% families in Bandhagarh and 7.48% families in Gochhapada. The remaining 4.22% families depend upon other sector engagement for livelihood. In Dimiriguda, 22.04% and 16.64% families in Balandapada are engaged in other sectors for their livelihood. So, it is basically the casual labour which is the major livelihood source for larger section (52.57%) followed by subsistence agriculture employing 37.08% families, salaried job which is a means of livelihood for 4.65% families and other sector engagement which provides livelihood to 4.22% families. Engagement in artisan work is

negligible to the tune of 1.47% of the total household of the block.

5.12.1 Means of Livelihood Social Groups

Means of livelihood by social group indicate that percentage of tribal engaged in agricultural activity is more (51.62%) than any other sector engagement. For the tribal, agricultural engagement is followed by casual labour where 43.51% families are engaged. Work of artisan as a means of livelihood is not so rampant in the block as it provides support to a total of 0.87% families while other sector engagement of tribal is 1.47% i.e. 1.47% families are engaged in other sector activities. In comparison to artisan and other sector engagement, service sector engagement is in a better situation where 2.53% tribal families are engaged for livelihood. In scheduled castes, of the total 3732 families which is 20.37% of the total family of the block, 73.87% are engaged in casual works followed by 14.26% in agriculture, 5.81% in other activities, 4.80% in salaried jobs and 1.26% in artisan works. So, agricultural engagement of SC is comparatively less than that of tribal but more in remaining other sectors of engagement.

Table 48 : means of livelihood as per social group

Social Group	No.of Villages	No. of Families	Means of Livelihood					Total
			Casual Labour	Subsistence	Artisans	Salary	Others	
ST	826	10078	4385	5202	88	255	148	10078
SC	398	3732	2757	532	47	179	217	3732
OBC	497	3585	2053	875	109	266	282	3585
Others	254	928	437	186	26	152	127	928
Total	1975	18323	9632	6795	270	852	774	18323

Source – Primary information and BPL census

Among other backward classes (OBC), which is 19.57% of the total family of the block, 57.27% are engaged in casual works while 24.41% are engaged in agriculture. Percentage of family engaged in other sectors is like 3.04% in artisan work, 7.42% in salaried job and 7.87% in other livelihood activities. Though engagement of OBC families is more in casual labour, still the pattern of engagement in other livelihood areas is more in a favourable situation than that of SC and ST. Engagement of families belonging to other categories reflect that 47.09% are engaged in casual labour while in agriculture, 20.04% families are there. Of the total other category families, 2.80% do artisan work, 16.38% do salaried job and 13.69% are engaged in other activities for livelihood.

Overall, Engagement of other category families in salaried job is more (16.38%) in comparison to any other social groups followed by OBC (7.42%) and SC (4.80%) while engagement of tribal families is comparatively less (2.53%) to other social groups. In the casual labour work, more percentage of SC families is engaged (73.87%) followed by other backward classes (57.27%), families of other categories (47.09%) and scheduled tribe (43.51%). So, casual labour engagement of scheduled tribe is less than any other social segment in the block. In the agriculture sector, more tribal families are engaged (51.62%) in comparison to other social groups. Apart from that 24.41% OBC, 20.04% others and 14.26% SC families are engaged in agriculture.

5.13 Livestock, a Supportive Livelihood

SN	GP	% of HH having Livestock					
		Rich	Poor	SC	ST	OBC	Other
1	Ratanga	80	65	50	95	85	0
2	Krandibali	95	70	68	98	78	0
3	Jajesh panga	95	42	75	80	70	50
4	Tala Dandikia	99	90	60	99	75	0
5	Dimiriguda	35	72.3	33	95	44	0
6	Bhrungijodi	98	90	80	98	90	0
7	Dindiragaon	46	72.5	33	85	44	0
8	Balandapada	90	80	60	95	80	0
9	Gochhapada	100	80	65	95	90	0
10	Bandhagarh	100	85	70	100	85	80
11	Phiringia	98	14	53	90	41	95
12	Kashinipadar	98	80	70	98	88	0
13	Luising	95	75	51	95	55	0
14	Pahiraju	48	68	41	97	75	0
15	Nuapadar	98	70	65	70	55	48
16	Salaguda	100	85	85	100	90	0
17	Pallabrudi	100	90	70	95	85	80
18	Pabingia	95	90	80	95	85	0
19	Kelapada	98	89	70	95	90	81
20	Sadingia	100	80	70	100	85	0

Source—GP information, information from animal husbandry dept. official and BPL census

Percentage of better off families having livestock observed to be more in most of the GPs except a few percentage of poor families like that of Pahiraju and Dindiragaon. Livestock is rampantly domesticated in all the GPs as it is one of the prime sources of meeting emergency family requirements. Though a large section rear livestock, but in most cases its number is not so significant. Livestock in a farming mode is not so common in the block. Livestock rearing is not a

common practice in any social segment rather it crosscuts all the social groups and observed in SC, ST and OBC families. But in comparison to all social groups, percentage of tribal families having livestock is comparatively more than any other social segment irrespective of the number of livestock. In some GPs like Salaguda, Bandhagarh etc. most of the tribal families are having livestock.

Livestock is treated as supportive and supplementing source of income. At the time of need, families either sell them out or utilise for household consumption. Especially during cultural festivals and common household gathering, the reared livestock is used for consumption. Livestock is a way of people's life in the block and also a source of income.

5.13.1 Animal Resource Base

Domestication of animal is a common rural characteristic and it is predominant in tribal society. As a livelihood means, its domestication is preferred by all category of social groups though rate of prevalence in a particular family depend upon the investment capacity and rearing ability. All the GPs have three basic livestock species i.e. Dairy, rearing of goat / sheep and backyard poultry. In numbers, poultry is observed to be reared commonly by most of the families and its number is also highest among all other categories of domesticated species followed by rearing of Goat/sheep and Dairy. Investment factor counts a lot for dairy promotion for which number of cattle population existing in the block is comparatively less. Buffalo is not so commonly reared by people in the block.

SN	GP	Animal Resource		
		Dairy	Goat/ Sheep	Poultry/Duck
1	Ratanga	1513	945	1843
2	Krandibali	1948	1531	2770
3	Jajeshpanga	1955	1690	3426
4	Tala Dandikia	1650	1383	3720
5	Dimiriguda	1218	1045	1745
6	Bhrungijodi	1287	1007	1634
7	Dindiragaon	878	645	920
8	Balandapada	1719	1583	3037
9	Gochhapada	1935	1577	2456
10	Bandhagarh	1291	1133	2599
11	Phiringia	1208	879	1840
12	Kashinipadar	1782	1758	2002
13	Luising	2420	2217	4006
14	Pahiraju	1633	1356	2671
15	Nuapadar	1638	1195	2359
16	Salaguda	1681	1566	2862
17	Pallabrudi	993	969	3060
18	Pabingia	1754	969	2171
19	Kelapada	1583	1622	2624
20	Sadingia	2313	2207	2923
Source – GP information, information from animal husbandry dept. official and BPL census				

Highest number of cattle population marked to be in Kelapada followed by Luising and Nuapadar while lowest marked in Pallaburdi and Dindrugaon. Population of sheep/goat is highest in Luising and Sadingia while poultry population is highest in Luising and Taladandikia. So, as the trend shows, some GPs have substantial livestock population while some other GPs are deficient in many livestock categories but sufficient in some other. Commercial way of animal husbandry is not observed commonly apart from a few cases that exist at some GP headquarters.

5.14 Rural Livelihood and Fishery

Of the total 210 tanks, fishery activity is performed in 200 tanks of the block with a total production of 32.6 MT of fish per annum. Major part of the total production is consumed locally and some parts sold out in the open market. In most of the tanks, fishery is not a regular activity rather it is seasonal and performed mostly during monsoon. As water content of a number of tanks reduces during summer, no such fishery activity is performed in these tanks during that period.

Table 51 : Fishery activity in the Block by GP			
SN	GP	Fishery	
		No. of Tanks	Production [MT]
1	Ratanga	7	1
2	Krandibali	8	0.35
3	Jajesh panga	4	0.8
4	Tala Dandikia	10	2
5	Dimiriguda	10	1.5
6	Bhrungijodi	5	0.1
7	Dindiragaon	7	0.7
8	Balandapada	19	1.5
9	Gochhapada	1	6
10	Bandhagarh	6	0.6
11	Phiringia	2	6
12	Kashinipadar	32	3.6
13	Luising	16	0.6
14	Pahiraju	8	0.2
15	Nuapadar	6	1.9
16	Salaguda	9	1.5
17	Pallabrudi	11	1
18	Pabingia	9	1.15
19	Kelapada	18	1.02
20	Sadingia	12	1.08
Source – GP level information and department of fisheries (ground level officials)			

5.15 Income and Expenditure pattern

Using the existing livelihood means, families have different amount of earning from the available sources but source wise earning reflects a poor economic situation of all the livelihood sectors in the block. Commercial way of sector growth is not yet realised to the existing level of potential due to various factors. Traditional way of practicing the livelihood means has not substantially contributed to sector growth in various areas like livestock, non-timber forest produces etc. People basically use different livelihood means only to manage their requirement rather than making it a full commercial venture. Engagement of family members as wage labourer is a common phenomenon in all the GPs though numbers of persons engaged vary by GP. Still, wage engagement is one of the major sources of income for the families especially during agriculture lean period. Collection of forest products to a larger extent support and supplement the family income.

Table 52 : Income Pattern and Sources

GP	Income (in Rs.)				
	Agriculture	Livestock	Wage	NTFP	Service / Business
Ratanga	9000	500	1000	1500	960
Krandibali	9300	1000	1350	1200	0
Jajesh panga	6200	700	6500	1500	700
Tala Dandikia	7365	1000	1500	3000	2000
Dimiriguda	8000	3000	5500	3500	3100
Bhrungijodi	9000	1000	2500	3500	500
Dindiragaon	8000	1000	2000	1500	0
Balandapada	8000	1000	2500	3000	1000
Gochhapada	7500	1000	2000	2500	500
Bandhagarh	8250	1000	2000	2700	500
Phiringia	8000	400	1675	3200	500
Kashinipadar	8000	1000	2000	2500	960
Luising	5380	1100	3000	3150	450
Pahiraju	6860	1020	1180	2965	225
Nuapadar	5000	500	4000	500	1000
Salaguda	6000	500	1500	2500	200
Pallabrudi	7600	1500	2500	2200	500
Pabingia	7000	1500	2800	3000	500
Kelapada	8000	500	2000	3000	500
Sadingia	6000	1500	2000	1800	2000

Source – Primary information, Household Survey

People collect a variety of forest products like Mahua flower, Mahua seeds, char, herbs etc. which is sold to the local traders in a throw away price. Lack of proper storage system and value addition units; prevent the primary collectors to get a proper remuneration of their labour. Looking at the existing abundance of forest resources and people's dependency, it can be said that forest is the major livelihood support system

in the block after agriculture. People's dependency on forest normally remains for 3-4 months in a year and during this period people earn their major part of income from forest resources. Apart from that forest dependency also continue to remain round the year for fuel wood, leaves, herbs and for other forest products.

Livestock, though considered being one of the means for earning for majority of section, still it is at the subsistence level. It is basically the age old traditional practice which is still continuing. Livestock is yet to come up to a commercial scale where people can harvest their livelihood round the year with greater productivity. Input incurred in this regard is also at poor status in spite of various promotional measures initiated at government and non-government agency level including banks. It seems more of awareness gap than investment as people yet to foresee it as a potential livelihood means. The economics of livestock rearing is yet to percolate down to the major population section of the block for which sector growth potential is yet not realised.

Along with this, at the household level, poor investment capacity also contributes significantly to commercialise and enhance the scale of domestication and rearing of livestock. In one hand, people do not have the capacity to invest and in other side accessibility to formal credit for the operational scale up is not available. The existing local market and required infrastructure is not yet flourished to that extent which can play a significant contributing role in livestock sector promotion. Poor communication has been a major hurdle in this regard. Market play a critical role in flourishing any sector and when that mechanism is at rudimentary stage, people, do not find the required opportunity to capitalise on it.

As the overall pattern of income reflects, agriculture contributes substantially to the overall income of the family followed by forest resources and wage. The average annual income of families in the block, irrespective of their engagement typology, estimated to be Rs.14174.5 including prime sources of income like agriculture, wage, livestock, forest resources and

business / services. The level of income in Dimiriguda GP observed to be higher than that of average income level of the block followed by Bhrungijodi and Jajespanga. Lowest level of family income observed to be in Salaguda, Nuapadar and Pahiraju which is lower than the block average income.

GP	Expenditure				
	Food	Education	Health	Festivals	Others
Ratanga	11000	500	1000	500	3000
Krandibali	9500	300	800	1500	1100
Jajesh panga	12000	200	600	400	3000
Tala Dandikia	11000	500	1000	1000	3000
Dimiriguda	18000	1000	1500	2000	7900
Bhrungijodi	11000	500	1000	2000	3000
Dindiragaon	9400	100	500	1000	1500
Balandapada	11000	500	800	1000	3000
Gochhapada	9000	200	1000	1000	3500
Bandhagarh	9600	500	1000	800	4500
Phiringia	11500	200	500	1000	2200
Kashinipadar	10880	400	1200	1000	3000
Lusing	9250	400	800	1200	3850
Pahiraju	9000	200	400	1000	4600
Nuapadar	10950	200	300	150	1700
Salaguda	10600	200	500	500	3000
Pallabrudi	11000	500	800	1200	3500
Pabingia	11000	500	1000	1500	3000
Kelapada	10800	500	500	1500	2200
Sadingia	10100	300	500	500	2000
Source – Primary Information, Household Survey					

More or less, expenditure normally supersedes the income in all the GPs except few cases like that of Dindiragaon resulting with indebtedness, selling of household articles, mortgaging of household articles and adaption of other coping mechanisms. Around 67% of the total income is spend on food consumption while 19% of the income including credit or similar income types is spend for other household purposes. Share of education spending to the total is only 2% while 5% of the income is spent in health. Less spending in education and health is perhaps due to free of cost support services people receive from the government.

People's spending on cultural festivals and traditional rituals is as high as 7% which is comparatively higher than spending in education and health. The pattern of spending is indicative of the economic status of the family in the block. It is normally observed that a significant proportion of income is spent on meeting food consumption requirement in lower income group as it is the basic need preferred to be fulfilled first followed by health and education. So, with more emphasis on food security dimensions, other human development requirements gradually gets less focus and normally a family fail to concentrate upon adequately. When security concern for food

availability to the family is at stake; education and other human development parameters normally suffer to a larger degree resulting with poor human development status.

5.16 Size of Operational Holdings

Of the total land holding in the block, 35.37% families do not hold any land across all the social groups and GPs. Highest percentage of families to the total of the GP having no land is in Phiringia block headquarters where 77.25% families do not have land. The GP of Phiringia is followed by Pabingia, Lusing and Bandhagarh where 45.29%, 45.14% and 43.18% respectively. A total of 52.20% families in the block are having less than 1 ha of unirrigated land or less than 0.5 ha of irrigated land. The GPs that are having more percentage of families in this category of land holding are 79.47% families in Bhrungijodi, 67.25% in Dindiragaon, 65.15% in Kasinipadar and 64.38% in Salaguda. Lowest percentage of families having land less than 1 ha of unirrigated land or 0.5 hectors of irrigated land are in Phiringia where only 20.53% families have this amount of land. Apart from Phiringia, in all the GPs there are significant numbers of families that hold land of this category.

Table 54 : Size of operational holding of land by rural households

GPName	Size Group of Operational Holdings of Land					Total
	Nil	Less than 1ha. of un-irrigated land (or less than 0.5 ha. of irrigated land)	1ha. - 2ha. of un-irrigated land (or 0.5-1.0 ha. of irrigated land)	2ha. - 5ha. of un-irrigated land (or 1.0-2.5 ha. of irrigated land)	More than 5 ha. of un-irrigated land (or 2.5 ha. of irrigated land)	
Balandapada	443	595	68	31	11	1148
Bandhagada	320	402	17	2	0	741
Bhrungijodi	62	480	43	19	0	604
Dimiriguda	210	517	150	62	0	939
Dindiragaon	145	384	38	4	0	571

Table 54 : Size of operational holding of land by rural households

GPName	Size Group of Operational Holdings of Land					Total
	Nil	Less than 1ha. of un-irrigated land (or less than 0.5 ha. of irrigated land)	1ha. - 2ha. of un-irrigated land (or 0.5-1.0 ha. of irrigated land)	2ha. - 5ha. of un-irrigated land (or 1.0-2.5 ha. of irrigated land)	More than 5 ha. of un-irrigated land (or 2.5 ha. of irrigated land)	
Gochhapada	398	488	73	26	4	989
Jajespanga	238	544	220	30	1	1033
Kasinipadar	224	628	84	26	2	964
Kelapada	468	622	34	1	0	1125
Krandiballi	244	416	112	26	6	804
Luisingi	390	397	66	11	0	864
Nuapadar	247	513	118	31	5	914
Pabingia	519	579	42	6	0	1146
Pahireju	164	345	139	66	18	732
Palla brudi	195	503	87	11	1	797
Phiringia	1144	304	27	5	1	1481
Ratanga	329	477	98	17	5	926
Sadingia	329	430	116	95	6	976
Salaguda	146	517	115	25	0	803
Taladandakia	266	423	62	13	2	766
Grand total	6481	9564	1709	507	62	18323
Source – BPL Census, Dept. of Agriculture						

Percentage of families having 1 ha to 2 ha of unirrigated land or 0.5 ha to 1 ha of irrigated land amounts to 9.33% with a highest percentage of 21.30% in Jajespanga followed by 18.99% in Pahiraju, 15.97% in Dimiriguda and 14.32% in Salaguda. Lowest percentage of family having land of this category is in Phiringia with 1.82%, 2.29% in Bandhagarh and 3.02% families in Kelapada. A total of 2.77% families in the block have 2 ha to 5 ha of unirrigated land and or 1 ha to 2.5 ha of irrigated land. Highest percentage of families having land of this category is in Sadingia where 9.73% families have

land of this category followed by 9.02% families in Pahiraju and 3.15% in Bhrungijodi. Lowest percentage of families having this category of land exists in Kelapada (0.09%) followed by 0.27% in Bandhagarh and 0.34% in Phiringia. More than 5 ha of unirrigated land or 2.5 ha of irrigated land exist with 2.46% families of Pahiraju, 0.96% in Balandapada and 0.75% in Krandibali. In many GPs, families do not have land occupancy of this category like Bandhagarh, Bhrungijodi and Dimiriguda etc.

5.16.1 Size of Operational Holdings by Social Group

Size of Land Holding	Social Groups				
	ST	SC	OBC	OTHERS	TOTAL
Nil	1945	2285	1685	566	6481
<1 ha.(unirrigated land) or <0.5 ha. (irrigated land)	6282	1327	1643	312	9564
1 ha.-2ha. (Unirrigated land) or 0.5 ha.-1.0 ha. (irrigated land)	1366	98	206	39	1709
2 ha. - 5ha. (Unirrigated land) or 1.0 ha.-2.5 ha. (irrigated land)	432	17	50	8	507
> 5ha. (Unirrigated land) or 2.5 ha. (irrigated land)	53	5	1	3	62
No Response	0	0	0	0	0
Total	10078	3732	3585	928	18323

Source – BPL Census, Dept. of Agriculture

5.16.2 Size of Operational Holdings as Per Income

Looking at the holding size and monthly income level of families, it is evident that highest percentage of families without land is in lowest income category i.e. where family income is less than Rs. 250/- per month. Of the total families that have no land holding, 59.34% fall in to income level of below Rs 250/- while 25.21% fall in to the income category of Rs.250/- to Rs. 499/-. In the remaining, 7.53% families those do not have land have monthly income between Rs.500/- to Rs.1499, 1.57% have income between Rs.1500/- to Rs.2500/- and 6% families have income greater than Rs.2500/-. So, it is basically the low income group that have no land in comparison to families that are at a high income level.

Of the total, percentage of families having less than 1 ha of unirrigated land or 0.5 ha of irrigated land observed more in low income groups. Total families that are having land of this category is 52.20% which comprises 57.57% families that are having monthly income less than Rs.250/-, 34.38% families that are having income between Rs.250/- to Rs. 499/-, 9.41% families that are having income between Rs.900/- to Rs. 1499/-, 0.88% families having income between Rs. 1500/- to Rs.2500/- and 1.35% families that are having income greater than Rs.2500/-. So, it is basically families of lower income group that have land of less than 1 ha of unirrigated land or 0.5 ha of irrigated land.

Table 56: Size of operational holding of land as per monthly income by rural households

Size of Holding	Monthly Income (in Rs.)						
	<250	250-499	500-1499	1500-2500	>2500	No Specific Response	Total
Nil	3846	1634	488	102	389	22	6481
<1 ha (Unirrigated land) or <0.5 ha. (Irrigated land)	5123	3288	900	84	129	40	9564
1 ha.-2ha. (Unirrigated land) or 0.5 ha.-1.0 ha. (irrigated land)	533	716	364	21	59	16	1709
2 ha. – 5 ha. (Unirrigated land) or 1.0 ha.-2.5 ha. (Irrigated land)	111	144	189	36	22	5	507
> 5ha. (Unirrigated land) or 2.5 ha. (Irrigated land)	17	19	9	8	9	0	62
Total	9630	5801	1950	251	608	83	18323
Source – BPL Census and Primary information							

Land holding between 1ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land is with 9.33% families which is much lower than earlier two categories of land holding. So, prevalence of land holding in this category is restricted to some of the families of the block. OF the total families having this category of land, 31.19% have income less than Rs.250/- while 41.90% have income between Rs.250/- and Rs.499/-. Similarly in the income group of Rs.500/- to Rs.1499/-, 21.30% families hold the same amount of land while 1.23% families in the income category of Rs.1500/- to Rs.2500/- hold this quantum of land. The remaining 3.45% families who hold this amount of land have income greater than Rs.2500/-. It is basically the higher income group that have more land under their possession in comparison to families that are having less income. Secondly, the distribution pattern of land holding is in a better situation in comparison to earlier two categories.

In the block, 2 ha to 5 ha of unirrigated land or 1 ha to 2.5 ha irrigated land is with 2.77% families of which 21.89% have income less than Rs.250/-, 28.40% have income between Rs.250/- to Rs.499/-, 37.28% have income between Rs.500/- to Rs.1499/-, 7.10% having income between Rs.1500/- to Rs.2500/- and 4.34% have monthly income greater than Rs.2500/-. Greater than 5 ha of unirrigated or 2.5 ha of irrigated land is with only 0.34% families. Looking by holding of this category of land by income group, 27.42% families having this quantum of land have income less than Rs.250/-, 30.65% have income between Rs.250/- to Rs.499/-, 14.52% have income between Rs.500/- to Rs.1499/-, 12.90% have income between Rs.1500/- to Rs.2500/- and 14.52% have income more than Rs.2500/-.

5.16.3 Size of Operational Holdings as Per Social Group and Income

Table S7: Land holding by social category

Size of Land Holding	Monthly Income Level (in Rs.)																								Total								
	<250						250- 499						500 - 1499						1500-2500						> 2500						No Response		
	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ST	SC	OBC	OTH					
Nil	1416	1338	883	209	364	659	471	140	63	11	17	45	29	77	78	119	115	4	2	6	10	1945	2285	1685	566								
<1 ha. (Unirrigated land) or <0.5 ha. (irrigated land)	3767	680	533	143	2029	432	732	95	52	23	14	40	7	51	20	46	12	24	4	9	3	6282	1327	1643	312								
1 ha.-2ha. (Unirrigated land) or 0.5 ha.-1.0 ha. (irrigated land)	463	24	37	9	592	37	75	12	10	12	1	8	0	30	6	17	6	9	4	1	2	1366	98	206	39								
2 ha. - 5ha. (Unirrigated land) or 1.0 ha.-2.5 ha. (irrigated land)	98	3	8	2	131	4	8	1	0	20	3	10	3	13	3	4	2	5	0	0	0	432	17	50	8								
> 5ha. (Unirrigated land) or 2.5 ha. (irrigated land)	17	0	0	0	18	0	0	1	0	5	2	0	1	5	2	1	1	0	0	0	0	53	5	1	3								
No Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
TOTAL	5761	2045	1461	363	3134	1132	1286	249	125	71	37	103	40	176	109	187	136	42	10	16	15	10078	3732	3585	928								

Source- BPL Census, GP information and Primary HH survey

5.17 Category of Farmers

The block is dominated by small and marginal farmers as far as land holding size is concerned. GP wise discussion and village planning process reveal that there are no big farmers exist with greater size of land holding. In many GPs like Sadingia, Ratanga, Krandibali, Jajespanga etc. number of Marginal Farmers are more in comparison to small farmers while in some other GPs like Tala Dandikia, Jajespanga, Bandhagarh etc. number of small farmers are more than marginal farmers.

Table 58 :Category of Farmers in the Block

SN	GP	Farmers		
		SF	MF	BF
1	Ratanga	303	523	0
2	Krandibali	138	508	0
3	Jajesh panga	340	530	0
4	Tala Dandikia	316	298	0
5	Dimiriguda	285	514	0
6	Bhrungijodi	23	401	0
7	Dindiragaon	155	217	0
8	Balandapada	395	249	0
9	Gochhapada	176	505	0
10	Bandhagarh	382	127	0
11	Phiringia	172	517	0
12	Kashinipadar	270	403	0
13	Luising	229	426	0
14	Pahiraju	174	338	0
15	Nuapadar	203	637	0
16	Salaguda	170	350	0
17	Pallabrudi	219	381	0
18	Pabingia	419	553	0
19	Kelapada	298	243	0
20	Sadingia	282	530	0
Source – Village level information from available secondary data & FGD				

History of Land Revenue Administration in Kandhamal:

Kandhamal which adjoins the tracts of Ganjam predominately inhabited by Kondhs was a part of Princely state Boudh till 1855. In the year 1855, the British Government took over the Administration of the tract and appointed Tahasildar under the control of the Superintendent of Tributary Mahals. In Kondhamals, the system of general administration was enforced through the traditional Headman ' the Mallik' and ' the Sardar' of Mutha (a group of villages). No land revenue was assessed. In the year 1875, payment of plough Tax (calculated on the basis of ploughs) was introduced. This tract was forced as a sub-division and continued to be a part of Angul District. The Angul Law Regulation, 1891 was enforced in this tract and subsequently the Kondhamals Law Regulation 1936 (Regulation IV of 1936) was in force till 3.10.85 being replaced by Govt. in Law department Notification.

Balliguda sub-division was formerly a part of the Ganjam district and was in charge of a special Assistant Agent under the control of Collector, Ganjam who was the Agent to the Governor. After formation of the state of Orissa during the year 1936, this tract was under the Ganjam district till formation of the district of Boudh - Khondamal in the year 1948. The land Revenue Administration of this tract was governed by Agency Tract Interest and Land Transfer Act (Act I of 1917) under the Madras Presidency. The principal state, Boudh merged in this district of Boudh- Khondmals is on 1st January, 1948.

History of Settlement Operations: The survey and settlement operation in khondmals sub-division were taken up under the British Rule during the year 1921 in pursuance of Letter No. 199-P dt. 08.01.1918 of Political Department. The Settlement was started

during the year 1921 and completed by 1925. In that settlement 645 villages of Khondmals were surveyed.

The survey and settlement Operation within the circular road of Phulbani town was completed during the year 1930. Again the settlement operations within the circular road of Phulbani town was taken up during the year 1944 but left un-published. In Balliguda sub - division, the entire area was left unsurveyed excluding the 56 villages of Chakapad Khandam. These 56 villages were surveyed during the year 1916 under the Madras Presidency.

Present Settlement Operation: Kandhamal sub-division: The first regular survey and settlement Operations in Khondmals sub-division were taken up

in pursuance of the notification. Survey and Settlement Operations in 892 villages of this sub-division have been completed by 1982.

Balliguda sub-division: The first regular survey and settlement Operations in the Balliguda sub-division were taken up in pursuance of the notification. Survey and Settlement Operation in 1611 villages of this sub-division have been completed since 1982.

Revisional Settlement Operation: As per the Notification No. 13590 / R dt. 17.3.97 of Govt. in Revenue & Excise Department revisional survey and settlement Operation in respect of 892 villages have been taken up in Khondmals sub division of Kandhamal district. So far kistwar and Khanapuri operations of 427 villages have been completed.

Chapter SIX

6.0 Cultural Heterogeneity in Phiringia

Among the cultural features that give the human population of Phiringia a distinctive demographic mixture are the assemblage of several forward and backward castes and community groups, which also give a highly heterogeneous character to the Hindu sections within the block population, and the presence of several distinctive tribal groups in the block, who reside within their own cultural domains, speaking distinct languages and dialects and practicing customary ways of economic and community-life. The block also has sizeable Christian population who are mostly converted in recent past due to missionary intervention.

Consequent to these differences, the communities that make up the composite population of the block

show vastly differing human development responses, even when their economic circumstances and the developmental opportunities offered to them are broadly similar. For instance, where the state provision of educational or healthcare opportunities seeks to equalise the access available to the block, the extent to which this access is actually availed by each cultural or community group depends on its ability to leverage the subsequent flow of development benefits. Certain population segments are innately privileged within this exercise by cultural liberties that allow them to participate to the fullest extent in developing their capabilities and availing opportunities. Yet at the same time, certain cultural groups – women or backward social communities or

scheduled tribes show an inhibited response because of cultural or socio-economic or awareness factors.

Principal cultural distinctions seen presently within Phiringia block are between the Hindus and Christians and between the socially backward tribes and scheduled caste communities vis-à-vis more socially privileged and forward groups. However, all these three broad community groups are not culturally homogeneous within themselves. Several subgroups among the Hindus demonstrate different cultural peculiarities. The scheduled caste communities of the block are similarly subdivided according to their occupation. For the tribal groups that reside in the block, vast cultural differences can be marked among different tribal section like Kandha, Koya etc. In addition to this multitude of formal communities and cultural subgroups, Phiringia is also home to several linguistically / dialectically distinctive groups who have migrated into the block and gradually assimilated into a more dominant cultural or religious identity. Even after several generations, many of these migrant groups retain strong cultural associations with their original modes of life that marks them apart from the other communities residing within the block. Different social groups/subgroups have different responses to human development initiatives and their status also differ considerably.

6.1 Cultural Features in the Phiringia Population

The nature of cultural divisions within the block population of Phiringia can be analysed in terms of the figures of census 2001. The religious composition of the population in the block is more favoured to Hindus taking tribal in to the fold of Hindu. Presence of Christian though significantly less but they are the second important religious group of the block.

Presence of other religious communities is insignificant as they are proportionately very low.

The SC and ST groups in Phiringia account for approximately 75% of the total block population respectively. Gender ratio varies significantly across these cultural communities. Sex ratio for each community group varies and the tribal communities generally have a women favouring situation. The overall sex ratio estimated to be 1008 in the block with 1008 female in 1000 male population. The sex ratio among the SC and ST estimated to be 1022 and 1014 respectively. The SC groups in Phiringia block are relatively more urbanised than the scheduled tribe. However, some ST communities like Koya are much more urbanised than their other ST counterparts. In a block such cultural differences become highly significant especially when human development aspects are considered.

6.2 The Tribal Economy in Phiringia Block

Although several tribes in the state still pursue a variety of customary livelihood activities like hunting-gathering, shifting or jhum cultivation, and subsistence agriculture combined with home-based artisanry and daily wage-labour, the tribal segments of the block are predominantly sedentary cultivators. More than 70% of the tribal population are engaged in agricultural activities along with other livelihood sources. The practice of hunting as a traditional subsistence activity has now reduced to a greater degree with the inactment of forest laws. Collection of minor forest produces and non-timber forest produces still is a major source of income for the tribal families. Livestock husbandry in the form of the rearing of cattle and pigs, as well as of poultry chickens and ducks are pursued as supplemental economic activities. Livelihood-based activity in fact plays a more important role among tribal

communities than it does among rural non-tribal groups, because of two interrelated factors. First is marginal character of agricultural lands, sparse settlement patterns and remoteness of locations occupied by tribal communities, which make market-based agriculture a limited livelihood alternative and secondly, proximity to forest resources.

However, as far as agriculture is concerned, the methods of cultivation adopted by tribal farmers in Phiringia are still primitive and unscientific, with little or no use of advanced implements and agricultural machinery. Partly because of their ignorance about contemporary methods of crop husbandry involving the use of chemical fertilisers, hybrid seeds and pesticides, the yield per hectare obtained on tribal croplands is considerably lower than that obtained in non-tribal areas. Lack of access to irrigation water is another serious limitation which restricts the productivity and promotes monocropping. In such circumstances, the tribal community remains essentially poor despite lower levels of landlessness among them. Of serious concern is the grip that rural moneylenders still have over these tribal areas, where they extend short-term credit for agricultural and consumption purposes to the ST communities, at compound rates of interest touching on an average 5-10% per month.

Non-accessibility to formal credit services and absence of alternative institutional credit compel the tribal to fall in to this debt trap. While the reasons for this are multidimensional, one of the principal factors is the less willingness of banking and cooperative officials to do business with tribal due to their poor asset base, insecure income and non-availability of mortgagable cash and assets. Another important set of factors that limit the flow of institutional credit to tribal is the formal paper-work required before disbursement of a loan, and the prudential

requirements of proper and sufficient collateral security. Most members of the ST communities are either illiterate or semi-literate and are therefore unable to cope with the complicated paper procedures of formal credit institutions, and moreover do not possess the kinds of asset-holdings that can be offered as collateral against institutional loans. The moneylenders, in marked contrast, are willing to extend credit to them on personal bonds, without accompanying paper-work and often without formal security, and are thus able to perpetuate their usurious rate of interest.

Another factor observed in this regard is that formal institutional loans are extended solely to meet productive purposes, whereas tribal borrowers often need credit support to cover short-term consumption needs and credit requirement is also relatively small in quantum but more frequent which banks and cooperatives hesitate to accommodate. However, the problem urgently needs to be addressed for comprehensive economic upliftment of the ST communities. Again, rural credit operations by institutional credit agencies are physically restricted by their fixed hours of work, while the credit operations of rural moneylenders are accompanied by substantial flexibility. For new institutional headway to be made, particularly by cooperative credit agencies like the Large-Sized Agricultural Multi-purpose Cooperative Societies [LAMPS], their working hours need to be adjusted more flexibly so that their financial services are also available to rural borrowers at unconventional times. A humane attitude involving personal flexibility and much less officialdom also needs to be inculcated. Because of cultural conditioning within the ST community, wilful default by ST borrowers is comparatively less than that of other community groups. While so far this has mainly worked for benefitting the moneylenders and other informal credit providers.

Another issue that is increasingly affecting the tribal of the block in a highly adverse manner is the problem of growing land alienation. Under various circumstances ST borrowers often mortgage their agricultural lands to other cultivators who are usually non-tribal. The mortgage value varies significantly from situation to situation ranging between Rs. 2000/- to Rs.10000/- depending upon the size of agricultural land and amount of requirement. Under the prevailing mortgage system, the crop yielded by the mortgaged land accrues to the persons to whom the land has been mortgaged. This is considered as payment of interest against the loan. The mortgaged land is released only when the borrower returns the principal amount. Practically, in most of the cases the borrower fails to pay back the principal amount and as a result loses the patch of land which was mortgaged. The value of this crop is deemed to be the interest on the original amount borrowed rather than a partial repayment of the principal. Among the ST communities, such informal mortgage systems have generated a vicious cycle of poverty, indebtedness, land alienation and further tribal economic failure.

6.3 Current Tribal Development Programmes

Through special arrangements and programmes under the Integrated Tribal Development Project [ITDP], the Orissa Tribal Development Cooperative Corporation [OTDCC] has been striving to break this vicious cycle in the tribal block of Phiringia. The ITDA operates across the block and implement various development programmes for safeguarding the interest of the tribal. The programmes basically include income generation, skill development, restriction on shifting cultivation, promoting alternate livelihood options etc.

Despite their relatively large presence within the block, development of ST communities is still inferior to those of the other communities. The

Department for SC ST development offers several incentives to ST and SC families in the block, in order to mainstream them in the education front. Facilities provided to ST students are like scholarship, establishment of residential schools, fee exemption / support, book grants and fee grants etc. However in spite of such encouraging provisions, the education level of tribal has not come up to a satisfactory level though it has increased to some extent.

6.4 Tribal Healthcare and Sanitation

For the ST communities in Phiringia, modern and the traditional healthcare go hand in hand. The traditional tribal healers are popular even among educated tribals who believe that the herbal healing systems they use have curative value. Looking at the rate of dependency on tradition healing system, it can be said that the traditional tribal healing systems are deeply rooted within the culture and customs of the tribal communities, and thus receive social acceptance among them. Though, modern healthcare systems is also another option before the tribal, but persisting weaknesses within the available health infrastructure coupled with the problem of communication refrain many such health care seeking persons from availing the benefit. Many of the resident communities thus fall back on their traditional healing systems, because of the inadequate outreach of modern healthcare systems to the remote tribal villages.

To deal with such problem, the primary healthcare system has to be strengthened considerably, with an increased number of health service centres, adequate medicine supply and regular availability of doctors and other medical personnel. Besides improving treatment and recovery rates, access to modern healthcare will also reduce the dependence of tribal communities on their traditional healers and could help in transforming their health-related practices and perceptions. In spite of prevailing weaknesses in

healthcare coverage, immunisation programmes such as the pulse polio programme encounter no social resistance within the tribal communities, and in fact receive a spontaneous response. So, some other factors seems responsible in this regard like lack of adequate social awareness, the distances from health service centres, paying capacity to purchase medicines etc.

Sanitation programme in tribal pockets of the block is more or less a failure, the reasons for this being partly rooted in tribal customs. Although the government subsidies provided for the construction of sanitary toilets have been utilised by several tribal families, most tribals are reluctant to use these, because of tribal traditions that regard these amenities as impure.

6.5 Other Living Amenities

Use of electricity or non-conventional energy is still limited and forest remains to be the major sources for availing energy. Traditional fuelwood collection system is widely practiced in all the villages. These

primarily comprise agro wastes, dry leaves, dried branches from trees, etc. Dung-cakes are also used by many families. Rural electrification in the tribal areas is still inadequate, as a result of which kerosene remains the primary source of lighting for the rural families. In most of the villages, safe drinking water is accessible from the installed tubewells but some families still continue to depend upon unhygienic sources due to various reasons like test of the water, cooking preference etc.

Lack of information is another important area which is not so easily accessible to tribal. Remoteness, awareness on the importance of the information and its utility etc. keep them away from the other world. As a consequence of this, even educated tribal youth remain unaware about the job opportunities or vacancies that exist, while positions reserved for the STs go vacant. Most tribal communities remain equally unaware about the ongoing development schemes of the Government, and the village panchayats presently appear to do little to apprise them about these.

Chapter SEVEN

7.0 Gender and Development Situation

In any development framework, greater equality between women and men become important means of achieving human development. Development for women also means the provision of equal opportunities and capabilities that enable them to assert their social and economic rights. The achievement of gender justice therefore means real improvement in the material and social conditions of women.

The social roles prescribed for Indian women for generations, which have kept them confined within the four walls of their homes, have also kept them beyond the outreach of most development programmes. Various development indicators substantiate that women lag behind their male counterparts in most of yardsticks that measure gender justice and human development, such as in gender ratios, patterns of school enrolment and

dropout rates, morbidity patterns and age-specific death rates etc. Women particularly belonging to socially and economically backward sections face formidable problems in achieving development justice and progress. Women in general are routinely denied prescribed minimum wages and equal remuneration. Participation of women in economic activities has generally been well accepted, which is the primary reason why work participation among rural women go one better than the participation rates of women in urban society. Along with peasant cultivators, artisans and others who provide certain category of services to the traditional village economy, rural women have traditionally played a distinctive role in production and marketing. Wherever traditional economic frameworks prevail, Indian women continue to play such roles.

Women workers remains to be low-wage workers in

the unorganised sector who work in extremely insecure labour conditions. Long hours of work and excess workload for discriminated price are commonly prevalent. The shrinkage of the natural resource-base that supports the rural economy, because of overexploitation, adversely affects rural women forcing them to spend greater amounts of time and effort in fetching drinking water, livestock-fodder and fuel for their homes.

Despite the fact that the political empowerment of women has been on the policy agendas of governments for several year, the pace of progress has been slow and largely ineffectual. In the backdrop of decentralisation, devolution and empowerment, the participation of women in leadership roles and in the political process is limited. While one-third reservation of all panchayat seats for women has increased their political representation, practical experience indicate that the role of such elected women representatives is very minimal as their male counterpart normally takes decision of her behalf.

Another facet of the women maginalisation is in shape of increasing evidences of crime, harassment, trafficking, dowry harassment etc. Tribal society in general favours some sort of gender balance especially in the work front as in most cases, women are the prime working force in tribal society.

Comparison the existing gender differentials between the SC, ST and general population of Phiringia block may initially be made in terms of female-male ratios [FMR or females per 1000 males]. FMR, which are the reciprocal of the sex ratio [males per 1000 females] commonly used in other countries of the world, are more suitable indicators of gender differentials in India because of the commonly observed deficit in the female population in most parts of the country, in what has come to be

known as the problem of 'Missing Women'. Similar female deficits are only endemically observed in a few other countries in South Asian region, and gender ratios through the rest of the world are more favourable towards women, based on the biological fact that since female infants are born innately stronger than infant boys, survival rates during infancy are better among females. Reversal of this biological position in India and certain other parts of South Asia indicates high differential rates of mortality among women and girl children, arising out of general neglect of the girl child and the social premium traditionally attached by society to the birth of sons, or 'son-preference'. Census 2001

As discussed earlier, female-male ratio in the block exceeds the national average of 933 in 2001. The block female:male in Phiringia exceeded the female-male ratio for the state both in 1991 and 2001. Demographic change in the block has also been strongly influenced by migration particularly the in-migration of people from other districts and out migration of people from the block.

7.1 Gender Gaps in Literacy

Large gender gap persists in the block as far as literacy is concerned. Comparison of GP wise rates of male and female literacy in the block, it reflects that many GPs of the block have literacy rates well below the state and district average.

A common characteristic of development is that the males in rural society are better placed to leverage the new opportunities created by development. School education is among the most important constituents of the human development process which is primarily accessed by male in comparison to female. However, the spread of school education across genders is generally uneven in the block because of the

stereotypical attitude of parents and little importance towards girl child education. Gender difference in school education is generally marked in two forms i.e. lower enrolment of girls in the formal education system and higher rate of dropout from the school system at different education stages. The block with low literacy show much higher levels of school dropout among children subsequent to their initial enrolment at the class-1 stage. Because of high dropout rate, overall attainment of school education is much lower among girls.

A very large number of girls in Phiringia do not complete their primary education due to various social, cultural and economic factors. A larger number of girls are denied access to education which results with increasing poor education status and related socio-economic deprivation.

7.2 Work Participation among Women

Women contribute to household economy in several ways. They contribute directly and indirectly to the work productivity of family earners. Additionally, they contribute directly to production by participating in the work process as labourer. Particularly in rural areas where agricultural activity is carried out collectively by family labour, women contribute considerable amounts of labour towards livestock and crops and also to crop harvesting and post-harvest activities. Since her work contributions do not result in direct income, she is not classified as a worker. Under such definitions, many women are therefore perceived as being unproductive and idle, since their participation in paid work is much lower than that of their male counterparts.

Work participation rate [WPRs] is generally defined as the proportion of women or men who are economically active, compared to their total number within the population. Since much of the work

women do is unpaid, WPRs of women is generally remains low in comparison to male. Over time, there has been some increase in women participation rate mainly because of their increasing participation in various labour works. In the block, as it is observed from the available information, work participation rate of women is around 17734 against male work participation rate of 20009. Since the economic pressure to participate in paid work is higher among women in poorer social groups, female work participation rate also reflects a increasing trend in comparison to relatively better off families.

7.3 Empowering Women

Empowerment has been defined as the process by which the powerless gain greater control over the circumstances of their lives. Paid employment, particularly out of their traditional household chores endow women with financial independence and alternative social identity and give them power to have choices of their own. It also exposes them to social structures that more or less control the human behaviour and design the destiny. As earning of women support and supplement family income, earning women also acquire greater access and control over resources. Various studies observe that working women participate more effectively in intra household decision-making whether it is financial or social. So, economic independency is a prime measuring tool for women empowerment and policy implementation should concentrate on this aspect in a greater way.

One such initiative that has sought to empower poor rural women in Phiringia by applying this strategy is the Self-Help Group [SHG] programme which was later supported by various government schemes like Mission Shakti, Swarna Jayanti Swarojgar Yojona (SGSY) etc. A number of government and non-

government agencies including commercial banks, cooperatives and apex bank like NABARD¹ is associated with the movement. SHG is viewed as one of the empowerment tools which can foster social, political and economic empowerment of women.

7.4 Reproductive & Child Health Issues

Besides having prolonged reproductive span, rural women experience repeated pregnancies accompanied by birth complications that lead to higher incidence of maternal and child mortality and other health problems that reduce the probabilities of their survival to a later age. Comparatively higher child mortality is experienced along with higher fertility rate. Women mortality rate is higher in the block in comparison to state figure as a whole. Such gender differentials in mortality are generally the result of a mix of cultural and demographic factors that include low rates of institutionalised or attended deliveries.

Use of contraceptive in is still low at present and birth rates continue to be high. In rural families, decisions

regarding the use of contraception are generally a male prerogative, partly because of conservative social values that prevail among the rural communities and partly because of the ignorance of many women about reproductive health matters. To some extent, temporary family planning methods continue to be used and adoption of terminal family planning methods is still an uncommon practice. Due to male choice, vasectomy is rarely observed in comparison to tubectomy. Effort required to be made to implement family welfare programmes in a more productive manner. For this, women in the block have to be educated about their reproductive rights and subsequent complications in maternal & child health that has so far been a common occurrence in the block. Rural women who share livelihoods and economic work have no control over their own earning because of the social control exercised over them by their spouses. Even, in many cases, they do not enjoy the liberty of spending for their own even for their health.

1. National Bank for Agriculture and Rural Development

Chapter EIGHT

8.0 Human Vulnerability

Whether measured in purely economic terms or in terms of human development, development processes has yield expected result over the period. In Phiringia, sustained losses of economic opportunities and personal distress have repeatedly affected people. It is a direct consequence of loss of natural resource base and poor exchanable skill base.

Several economic and social factors contribute to people's vulnerability as a result of which social inequalities is widening amid the process of development. In such instances, certain vulnerable

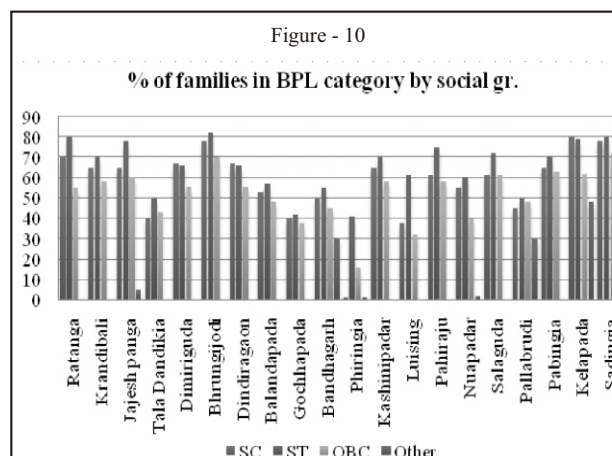
sections within the population who have not been able to leverage new development opportunities to the same extent as their counterparts has remained economically backward. Human vulnerability in Phiringia block is rooted in certain development lapses like losses of livelihood due to degradation of natural resource base and loss of productive asset, poor productive / remunerative employment opportunities promoting rate of migration to other states, poor human resource base which can be exchanged with the market demand etc.

8.0.1 Distribution of BPL families

SN	GP	% of BPL					
		Rich	Poor	SC	ST	OBC	Other
1	Ratanga	0	75	70	80	55	0
2	Krandibali	4	62	65	70	58	0
3	Jajeshpanga	15	70	65	78	60	5
4	Tala Dandikia	0	42.4	40	50	43	0
5	Dimiriguda	0	62	67	66	55.5	0
6	Bhrungijodi	0	81	78	82	70	0
7	Dindiragaon	0	62	67	66	55.5	0
8	Balandapada	3	57	53	57	48	0
9	Gochhapada	0	41	40	42	38	0
10	Bandhagarh	0	52	50	55	45	30
11	Phiringia	1	58	1	41	15.7	1
12	Kashinipadar	2	69.4	65	70	58	0
13	Luising	0	74	38	61	32	0
14	Pahiraju	0	71.1	61	75	58	0
15	Nuapadar	5	60	55	60	40	2
16	Salaguda	0	68	61	72	61	0
17	Pallabrudi	0	46	45	50	48	30
18	Pabingia	5	69	65	70	63	0
19	Kelapada	0	78	80	79	62	48
20	Sadingia	3	81	78	80	72	0

Source – Village information, HH survey and FGD

Families below the poverty line encompass all social segments existing in the block. So, it cannot be said that poverty is a tribal or scheduled caste phenomenon rather it is a common characteristics of the block. In some GPs, percentage of scheduled caste families below the poverty line are more while in some other GPs it is the higher percentage of ST families that are below the poverty line. Percentage of SC families below the poverty line observed to be more in Kelapada followed by Sadingia and Bhrungijodi while the lowest percentage of SC



families under BPL observed to be in the block headquarters of Phiringia followed by Taladandikia and Gochhapada. Percentage of ST families that are below the poverty line found to be of highest order in Bhrungijodi followed by Sadingia and Ratang. Lowest percentage of ST families below the poverty line reported to be in Phiringia and Gochhapada. So, looking at the prevalence of BPL, it can be said that GPs like Kelapada, Sadingia, Bhrungijodi houses majority of the poor families while least in Phiringia and Gochhapada. Many better off families are also observed enumerated as below the poverty line in some GPs like Krandibali, Jajeshpanga, Balandapada, Nuapadar, Pabingia etc. which is identified during community discussion.

8.1 No. of SCs Not Having Bare Minimum

Cloth as one of the basic need of human being is attempted to map here against the other family conditions in scheduled caste families. Families of SC categories, who have two square meal per day with occasional shortage of food also have less than 2 cloths per person. A total of 6 houseless persons and 73 families having kuchha house fall in to this category. Cloths more than 2 pieces but less than 4 pieces per person observed to be with families who have the capacity to arrange two square meals per day

with occasional shortage along with families having enough food round the year. A Total of 99 houseless families and 2404 families with kutchha houses have this situation. More than four and less than six pieces of cloth is available with 2 houseless and 112 families living in kuchha house who manage to get two square meals per day with occasional shortage. On the other hand, a total of 24 SC families who live in kutchha houses but have enough food to consume throughout the year have this amount of cloths.

8.2 Number of STs Not Having Bare Minimum

Situation of clothing in ST families more or less follow the same pattern like that of SC families in the block. In scheduled tribe families, 128 families are there who have less than 2 cloths per person in their family though they arrange two square meals per day with occasional shortage of food. A total of 10 houseless persons and 128 families having kuchha house fall in to this category. Cloths more than 2 pieces but less than 4 pieces per person observed to be

Table 60: No. of SC families not having minimum living requirements

Food Security	Less than one square meal per day for major part of the year		Normally, one square meal per day but less than one square meal occasionally		One square meal throughout the year		Two square meal per day with occasional shortage		Enough Food throughout the year		Total	
	Houseless	Kutchha House	Houseless	Kutchha House	Houseless	Kutchha House	Houseless	Kutchha House	Houseless	Kutchha House	Houseless	Kutchha House
Availability of Clothing (per person in pieces)												
<2	0	0	0	0	0	0	6	73	0	0	6	73
>=2 And <4	0	0	0	0	0	0	95	2374	4	30	99	2404
>=4 And <6	0	0	0	0	0	0	2	112	0	24	2	136
>=6 And <10	0	0	0	0	0	0	0	11	0	5	0	16
More Than 10	0	0	0	0	0	0	0	4	0	0	0	4
Total	0	0	0	0	0	0	103	2574	4	59	107	2633
Source – BPL census and GP information (primary source)												

More than 6 pieces of cloth but less than 10 pieces per person observed only in case of 16 families who live in kuchha houses and 11 of them have occasional food shortage though they manage to get two square meals on day basis. Even there are 4 families who have more than 10 cloths but they reside in kuchha houses and also realise food shortage. This is the situation in these 4 families perhaps due to donation of cloths during social ceremonies or support received from other sources.

with families who have the capacity to arrange two square meals per day with occasional shortage along with families having enough food round the year. A Total of 148 houseless families and 7166 families with kuchha houses have this situation. More than four and less than six pieces of cloth is available with 2 houseless and 281 families living in kuchha house who manages to get two square meals per day with occasional shortage. Cloths of similar number also observed available with one houseless and 100 families living in kuchha house and have enough food through out the year.

Table 61 : Number of ST families not having minimum living requirements

Food Security	Less than one square meal per day for major part of the year		Normally, one square meal per day but less than one square meal occasionally		One square meal throughout the year		Two square meal per day with occasional shortage		Enough Food throughout the year		Total	
	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House
Availability of Clothing (per person in pieces)												
<2	0	0	0	0	0	0	10	118	0	6	10	124
>=2 And <4	0	0	0	0	0	0	147	6803	1	363	148	7166
>=4 And <6	0	0	0	0	0	0	2	281	1	100	3	381
>=6 And <10	0	0	0	0	0	0	0	56	0	10	0	66
More Than 10	0	0	0	0	0	0	0	8	0	2	0	10
TOTAL	0	0	0	0	0	0	159	7266	2	481	161	7747
Source – BPL census and GP information (primary source)												

More than 6 pieces of cloth but less than 10 pieces per person observed only in case of 66 families who live in kutch houses and of them only 10 families have sufficient food round the year and 56 families manage to get two square meals per day with occasional shortage of food. Only 10 families, all having kutch houses are having more than 10 pieces of cloths and of them 8 families face occasional food shortage and remaining 2 families have required quantum of food round the year.

8.3 Number of OBCs Not Having Bare Minimum

Of the total 2767 OBC families who have kutch houses, 3.07% families have less than 2 cloths and 84

of them manage to get two square meals per day with occasional shortage. Number of families having more than 2 pieces of cloth but less than four amounts to 90.50% of the total OBC families who have kutch houses and of them 96.96% experience occasional food shortage through they manage to get to meals a day. In the remaining, 5.06% families having kutch houses have more than 4 cloths but less than 6 pieces of cloth per person and 63.57% of them face occasional difficulties in arranging food. More than 6 cloths but less than 10 per person is available with 1.23% families living in kutch houses and 52.94% of them observe occasional food shortage in a year. Only 0.14% families have more than 10 cloths per person but they live in kutch houses.

Table 62 : Number of OBC families not having minimum living requirements

Food Security	Less than one square meal per day for major part of the year		Normally, one square meal per day but less than one square meal occasionally		One square meal throughout the year		Two square meal per day with occasional shortage		Enough Food throughout the year		Total	
	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House	Houseless	Kutch House
Availability of Clothing (per person in pieces)												
<2	0	0	0	0	0	0	2	84	0	1	2	85
>=2 And <4	0	0	0	0	0	0	64	2428	2	76	66	2504
>=4 And <6	0	0	0	0	0	0	1	89	1	51	2	140
>=6 And <10	0	0	0	0	0	0	1	18	0	16	1	34
More Than 10	0	0	0	0	0	0	0	2	0	2	0	4
Total	0	0	0	0	0	0	68	2621	3	146	71	2767

Source – BPL census and GP information (primary source)

A total of 71 houseless families are there in OBC category and of them, 2.82% have less than 2 cloths, 92.96% have more than 2 but less than 4 cloths per person and 2.82% families have cloths more than or equal to 4 pieces but less than 6 cothes. Of the total 71 houseless families 95.77% experience occasional food shortage while 94.72% of the total 2767 families living in kuchha houses experience occasional food shortage though they manage to get two square meals per day from their livelihood sources.

8.4 Food Security Situation

Food security situation of the block reflect that of the total 18323 famiies, 91.91% families face occasional

food shortage while 8.09% families have enough food round the year to meet the family consumption requirements. Of teh total families of the GP, lowest percentage of families experiencing food shortage is in Pahiraju where 74.45% families experience occasional food shortage. Similarly, in food sufficiency highest percentage of families having sufficient food round the year is in Pahiraju where 25.55% families have required food stuff to manage round the year.

Table 63 : Food security situation of rural households

GP	Food Security					
	Less than one square meal per day for major part of the year	Normally, One square meal per day, but less than one square meal occasionally	One Square meal per day throughout the year	Two square meals per day, with occasional Shortage	Enough food throughout the year	Total
Balandapada	0	0	0	1060	88	1148
Bandhagada	0	0	0	692	49	741
Burungijodi	0	0	0	544	60	604
Dimiriguda	0	0	0	877	62	939
Dindrigam	0	0	0	552	19	571
Gochhapada	0	0	0	928	61	989
Jajespanga	0	0	0	1008	25	1033
Kasinipadar	0	0	0	947	17	964
Kelapada	0	0	0	974	151	1125
Krandiballi	0	0	0	714	90	804
Luisingi	0	0	0	770	94	864
Nuapadar	0	0	0	828	86	914
Pabingia	0	0	0	1108	38	1146
Pahireju	0	0	0	545	187	732
Palla Brudi	0	0	0	769	28	797
Phiringia	0	0	0	1269	212	1481
Ratanga	0	0	0	902	24	926
Sadingia	0	0	0	955	21	976
Salaguda	0	0	0	688	115	803
Taladandakia	0	0	0	711	55	766
Grand Total	0	0	0	16841	1482	18323
Source – BPL Census						

Percentage of families having occasional food shortage marked to be highest in Kashinipadar (98.24% families) followed by Sadingia (97.85%), Jajespanga (97.58% families) and Ratang (97.41%). In case of families having food

sufficiency, lowest percentage of families having food sufficiency situation marked in Kasinipadar (1.76% families) followed by Sadingia (2.15% families) and Ratang (2.59% families).

8.5 Stating of Food Security among Social Group

Looking food security situation in social categories, of the total 91.91% families who experience occasional food shortage, 55.25% of them are scheduled tribe, 21.21% are scheduled caste, 19.24% are other backward classes and 4.30% are from other social groups. OF the remaining 8.09% families who have food sufficiency, 52.23% belongs to tribal category whereas 10.80% are from SC, 23.21% from OBC and 13.77% are from other social categories.

Food security is more of a national concern which is not confined to any specific district or block. In one hand it looks at increasing agricultural production and productivity while in other side it demands equitable distribution of the produces to the population. Special provisions are made for easy accessibility of people to the food grains through various schematic provisions. Different roots are created for its distribution at the rural pockets so that people can easily meet their demand.

Table 64: Stating of Food security among social groups

Social Group	Less than one square meal per day for major part of year		Normally, One square meal per day but less than one square meal occasionally		One square meal throughout the year		Two square meal per day with occasional shortage		Enough Food Throughout the year		Total (villages are cumulative)	
	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families
ST	0	0	0	0	0	0	343	9304	151	774	494	10078
SC	0	0	0	0	0	0	197	3572	51	160	248	3732
OBC	0	0	0	0	0	0	223	3241	75	344	298	3585
OTHERS	0	0	0	0	0	0	137	724	56	204	193	928
TOTAL	0	0	0	0	0	0	900	16841	333	1482	1233	18323
Source – BPL Census												

Among the tribal, 92.32% families experience occasional food shortage while remaining 7.68% have required food round the year. In 95.71% scheduled caste families there is occasional food shortage while sufficiency of food is maintained in 4.29% families. In other backward class and other caste categories, 90.405 and 78.02% families have food shortage while 9.60% and 21.98% families have food sufficiency. So, as far as food security is concerned, families belonging to other social groups are in an advantageous position while situation is not so favourable for SC and ST families.

Table 65 : Social Welfare and Food Security

Sl. No.	Name of the GP	BPL HH	Antodaya	Annapurna	PDS-BPL	OAP/ WHP
1	Ratanga	722	147	6	722	118
2	Krandibali	501	85	20	501	64
3	Jajesh panga	640	248	8	640	140
4	Tala Dandikia	303	59	0	303	94
5	Dimiriguda	499	69	8	499	76
6	Bhrungijodi	431	46	5	431	89
7	Dindiragaon	391	50	2	260	85
8	Balandapada	571	135	6	679	68
9	Gochhapada	444	110	6	444	97
10	Bandhagarh	369	63	2	369	68
11	Phiringia	817	213	9	817	215
12	Kashinipadar	619	164	9	619	95
13	Luising	489	83	14	489	103
14	Pahiraju	446	87	5	446	52
15	Nuapadar	586	47	10	586	80
16	Salaguda	488	50	25	559	47
17	Pallabrudi	350	55	4	350	116
18	Pabingia	728	194	6	728	110
19	Kelapada	794	182	6	794	97
20	Sadingia	800	95	8	800	120

Source – GP level information

The block is the house of 10988 BPL families which is 65.67% of the total households of the block. Of course, many are of the opinion that it is wrongly enumerated and BPL percentage in the block is much higher than the enumerated figure. Still for the purpose of evaluating the development status of the

block, community ranking as well as government BPL enumeration is discussed here. Community ranking normally project a higher percentage of families below the poverty line than that of the government BPL enumeration.

Table 66 : PDS Commodities supplied and its amount by GP

S.N.	GP	PDS Commodities		
		Fair price Shop	Rice per month [MT]	Kerosene per month [Lt]
1	Ratanga	1	148.05	2661
2	Krandibali	1	111.91	2505
3	Jajeshpanga	2	6485	2000
4	Tala Dandikia	1	68.83	1515
5	Dimiriguda	2	108	1566
6	Bhrungijodi	1	85.56	2155
7	Dindiragaon	1	-	-
8	Balandapada	1	108.64	2855
9	Gochhapada	1	110.14	2220
10	Bandhagarh	1	56.04	1845
11	Phiringia	1	207.59	2451
12	Kashinipadar	1	213.05	3095
13	Luising	1	108.68	1600
14	Pahiraju	1	102.51	1180
15	Nuapadar	1	129.76	1172
16	Salaguda	1	99	2795
17	Pallabrudi	1	7565	1775
18	Pabingia	1	184.98	3640
19	Kelapada	1	262.8	3970
20	Sadingia	1	1685	4000
Source – GP level information				

The food security schemes that are universally implemented in the block are Antodaya, Annapurna and food materials through public distribution system [PDS]. Annapurna is free supply of rice which is availed by 1.45% families while rice supplied under Antodaya is accessed by 19.86% BPL families. Contrary to this, 88.63% BPL families have accessibility to public distribution system. So, it can

be said that such schemes has been of immense help for the people for which PDS accessibility is comparatively more in-spite of some fallouts in the overall distribution system.

Apart from Jajeshpanga, where two fair price shops are there, all other GPs are having one fair price shop with differential allocation of essential commodities. As per the norm, allocation is made based on the prevalence of households and population. Increasing demand for foodstuff and other essential items like kerosene is not considered as amount of supply for each household is fixed under the scheme. There is no free flow in the supply of essential commodities with the present price tag for the unit of supply. As a result, market dependency for essential commodities still continues and economically poor families are the major sufferers. Poor purchasing / affording capacity of such families compel them to purchase the commodities on a higher price either by mortgaging / selling the household articles or in shape of borrowing with an assurance of making payment later. This is a situation which is rampantly observed in rural pockets.

Table 67 : Supply gap and need of extra quota of various commodities

Sl. No.	GP	Issues Associated with PDS
1	Ratanga	There is need of 44 quintals wheat & 1829 Liters kerosene
2	Krandibali	Need of 76.1qt. Wheat, 15.22qt. Sugar & 1300lt. Kerosene
3	Jajeshpanga	Required 1500qt. Wheat, 587.3 qt. Sugar & 600lt. Kerosene
4	Tala Dandikia	Required 435.7qt. Wheat, 257.64 qt. Sugar & 24660 lt. Kerosene
5	Dimiriguda	Required 14.60 qt. wheat, 10.41qt sugar, 1015 lt. kerosene
6	Bhrungijodi	Required 53.10qt. wheat, 15.93 qt. sugar, 500 lt. kerosene
7	Dindiragaon	Commodities like wheat & sugar are not distributed & kerosene is not sufficient.
8	Balandapada	Required 57 qt. Wheat, 11.42 qt. Sugar & 2138 lt. Kerosene
9	Gochhapada	Required 44.4 qt. Wheat, 8.8qt. Sugar & 2300 lt. Kerosene
10	Bandhagarh	Required 36.9qt. Wheat, 14.02qt. Sugar & 1805 lt. Kerosene
11	Phiringia	Required 53.10qt. Wheat, 21.24qt. Sugar & 735 lt. Kerosene
12	Kashinipadar	Required 61.9qt. Wheat, 18.57qt. Sugar & 819 lt. Kerosene
13	Luising	Required 12.24 qt. Wheat, 11.72qt. Sugar & 408 lt. Kerosene
14	Pahiraju	Required 784qt. Wheat, 8.92qt. Sugar & 324 lt. Kerosene
15	Nuapadar	Required 45.25qt. Wheat, 23.44 qt. Sugar & 957 lt. Kerosene
16	Salaguda	Required 37.2 qt. Wheat, 421qt. Sugar & 775 lt. Kerosene
17	Pallabrudi	Required 35.5 qt. Wheat, 12qt. Sugar & 2085 lt. Kerosene
18	Pabingia	Required 36.4qt. Wheat, 14.56 qt. Sugar & 1635 lt. Kerosene
19	Kelapada	Required 79.4qt. Wheat, 20.92 qt. Sugar & 1185 lt. Kerosene
20	Sadingia	Required 99qt. Wheat, 16.35qt. Sugar & 4955 lt. Kerosene
Source – Discussion with GP officials, community and findings of FGD		

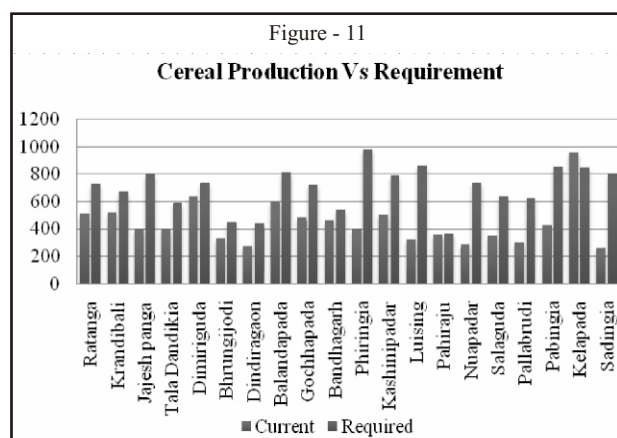
When it comes to availability Vs adequacy, people's preference is always for regular availability of food grains and other essential commodities with affordable price. As market price of the supplied commodities is comparatively high, people's dependency on these items is always there. Focus group discussion with villagers and fair price shops highlight that there is always deficiency in supply of these commodities and fair price shops need more

quantum of supply to meet the emerging local demand. Demand and supply gap is presented in the table which reflects quantum of extra requirement of the commodities by GP. Some other facets of PDS operation also came in to notice like irregular opening of the fair price shop, in spite of availability of food commodities, denial of procurement, less supply to the consumers than the prescribed norm etc. People are also of the opinion that over the period, quantum

of supply has increased but quality issue still remains as a challenge. Sometimes, the quality of the supplied commodities is not so good but as no other way is out, people forced to receive the same from the fair price shops.

Production of foods to the required quantum is the top most priority in food security. Though some place higher importance to market mechanism and market accessibility, but argument here is if production is less than the demand, supply becomes costlier and all people cannot purchase the required quantum of food paying a higher cost. So, ensuring required supply and maintain the balance in price demand adequate production of food stuff. All GPs or blocks can be viewed as “unit of self sufficiency” as far as food production is concerned. As production means are static, it is required to deploy high technologies with increased productivity in all food items so that production can be adequate to meet the demand.

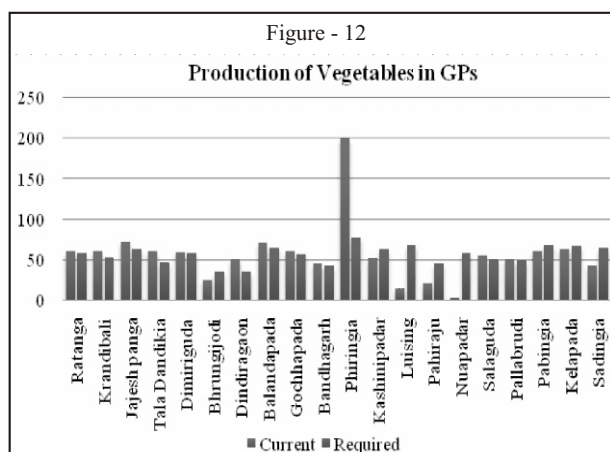
Considering the block from this perspective, it is observed that in all the food items, the block is not sufficient in production side to meet the consumption



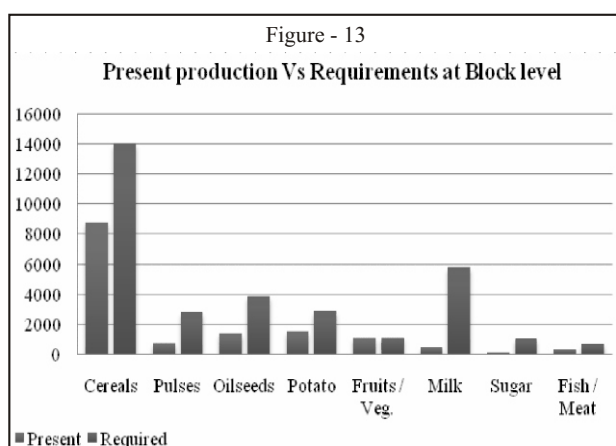
requirement of its population. Taking in to account the Indian Council of Medical Research [ICMR] parameters of consumption and in view of the increasing population, there is visible gap in the present rate of production and expected level of

production. Among all the GPs, Kelapada is having highest production of cereals which is more than sufficient but in the remaining all the GPs there is deficit in cereal production. So, 19 GPs have external dependency for cereals to meet the consumption demand. In pulses and oilseeds production, all the GPs have a deficit production level i.e. pulses are poured in to the GPs from external sources to meet the demand. As consumption of pulses is not so high among the people of the block at present, so it can be said that inflow is also not at a higher level. Due to cost factor, use of pulses is restricted to some occasions and most of the households do not consume it on daily basis.

As far as production of potato is concerned [potato is one of the important food item in rural parts], two blocks namely Taladandikia and Dimiriguda are having surplus production while the vegetable basket



of the block i.e. the GP of Ratang is also deficit in potato production though it is the prime supplier of green vegetables to the block and the district headquarters. In fruits and vegetables, as the agro-climatic condition of the block is more suitable for vegetable production, many GPs are observed to be self sufficient in production of vegetables excluding a few. In production of high end food products like sugar, milk, meat/fish and egg, almost all the GPs are



deficit at production level. So, looking at the production and requirement status, it can be said that the block is a major producer of vegetables which is also produced at surplus level. Though rice is the staple food of the people, production is not sufficient though it is cultivated largely by all the farmer's segments. Scope of mono-cropping is primarily responsible for deficit cereal production in the block along with poor land suitability in many parts of the block for cereal production. At the block level,

highest quantum of deficit marked to be with regard to production of cereals apart from number of eggs that are expected to be produced.

8.6 Indebtedness and Its Typology

Indebtedness situation of a family in the rural area can be thought of from three different angles i.e. meeting the consumption requirements if the family, for productive investment and for other purposes. Consumption requirement normally dominates the production needs as 54.78% families, across the block have taken credit for this purpose from informal sources. Taking credit from informal sources for production purpose observed in 7.85% families. Taking credit from informal sources for other purposes also marked in 5.04% families. Borrowings from institutional agencies are only in 16.77% families which mean remaining families have borrowed credit from various other informal sources. Only 15.55% families have no indebtedness and also they possess various assets.

Table 68 : Type of indebtedness of rural households

Name of the GP	Type Of Indebtedness					Total
	For Daily Consumption Purposes From Informal Sources	For Production Purpose From Informal Sources	For Other Purpose From Informal Sources	Borrowing Only From Institutional Agencies	No Indebtedness And Posses Assets	
Balandapada	722	229	99	85	13	1148
Bandhagada	580	21	11	85	44	741
Bhrungijodi	450	29	35	62	28	604
Dimiriguda	254	24	18	284	359	939
Dindiragaon	439	48	11	52	21	571
Gochhapada	487	69	23	321	89	989
Jajeshpanga	425	174	209	82	143	1033
Kashinipadar	451	41	82	264	126	964
Kelapada	695	192	19	146	73	1125

Table 68 : Type of indebtedness of rural households

Name of the GP	Type Of Indebtedness					Total
	For Daily Consumption Purposes From Informal Sources	For Production Purpose From Informal Sources	For Other Purpose From Informal Sources	Borrowing Only From Institutional Agencies	No Indebtedness And Posses Assets	
Krandiballi	267	37	14	184	302	804
Luisingi	740	26	8	79	11	864
Nuapadar	360	27	7	126	394	914
Pabingia	951	35	12	123	25	1146
Pahiraju	275	175	170	58	54	732
Pallabrudi	491	108	26	121	51	797
Phiringia	1074	8	20	170	209	1481
Ratanga	515	87	119	190	15	926
Sadingia	473	60	19	103	321	976
Salaguda	273	39	14	221	256	803
Tala Dandakia	116	10	8	316	316	766
Grand Total	10038	1439	924	3072	2850	18323

Source – Primary data and BPL census

Of the total families of the GP, percentage of families taking credit from informal sources observed to be more in Luisingi (85.65%) followed by 82.98% families in Pabingia, 78.27% in Bandhagarh and 76.88% families in Dindiragaon. Credit from informal sources for production purpose is not as rampant as it is for consumption. Highest percentage of family taking credit from informal sources for production investment is in Pahiraju where 23.91% families have taken loan for the purpose followed by 19.95% in Balandapada and 17.07% in Kelapada. Lowest percentage of families having access to informal credit for production is in Phiringia (0.54% families) followed by Tala Dandikia (1.31% families), Dimiriguda (2.56% families) and

Bandhagarh (2.83% families). Credit from informal sources for other purposes, apart from production and consumption needs, is highest in Pahiraju where 23.22% families have taken credit for other utility followed by 20.23% in Jajeshpanga and 12.85% in Ratang. Lowest percentage of family having loan from informal sources for other purposes marked to be of low order in Nuapadar (0.77% families), Luisingi (0.93% families), Tala Dandikia (1.04% families) and Pabingia (1.05% families).

Families having institutional credit is lowest in the order in Balandapada where 7.40% families have accessed credit from institutional sources followed by Pahiraju (7.92% families) and Jajeshpanga (7.94% families). Whereas, highest in the order as far as

institutional credit is concern is in Taladandikia where 41.25% families have accessed formal institutional credit subsequently by 32.46% families in Gochhapada, 30.24% families in Dimiriguda and 27.52% in Salaguda. Overall, informal source of credit meets demand of 67.68% families in the block while institutional credit only meet the requirement of 16.77% families in spite of its wide network and operational mechanism. As far as overall credit is concerned, 84.45% families are indebted irrespective of formal or informal sources of credit.

8.6.1 Credit needs of Rural Households

Type Of Indebtedness	No.Of Villages	No. Of Families
For Daily Consumption Purpose from Informal Sources	319	10038
For Production Purposes From Informal Sources	220	1439
For Other Purposes From Informal Sources	171	924
Borrowing only from Institutional Agencies	257	3072
No Indebtedness And Posses Assets	217	2850
TOTAL (village cumulative)	1184	18323
Source – Primary data and BPL census		

No. of Borrowers	Type Of Indebtedness					Total
	For Daily Consumption Purposes From Informal Sources	For Production Purpose From Informal Sources	For Other Purposes From Informal Sources	Borrowing Only from Institutional Agencies	No Indebtedness and posses Assets	
<25	2156	955	690	1416	1075	6292
25-50	2101	265	234	1039	573	4212
50-100	2416	219	0	466	347	3448
100-200	2070	0	0	151	855	3076
200-500	1295	0	0	0	0	1295
>=500	0	0	0	0	0	0
Total	10038	1439	924	3072	2850	18323
Source – Primary data and BPL census						

8.6.2 Indebtedness and Monthly Income

Numbers of persons who have taken credit from informal sources for consumption purpose, 63.57% have income less than Rs.250/- i.e. majority of credit accessing families are from the lower income. Apart from that 29.28% families who have income between Rs.250/- and Rs.499/- have accessed credit from

informal sources to meet their consumption requirement. The trend shows gradual declining as level of income goes up. A total of 6.16% families having income between Rs.500/- to Rs.1499/- also accessed informal credit for consumption purpose followed by 0.62% families having income between Rs.1500/- to Rs.2500/- and 0.61% families having income more than Rs.2500/- per month.

Similarly, loan taken by the families for production purpose is more in lower income group than the families having higher level of income. A total of 57.41% families having income below Rs.250/- have taken loan from informal sources for production purpose followed by 34.43% families having income between Rs.250/- and Rs.499/-, 6.83% families having income between Rs.500/- to Rs.1499/-, 0.77% families having income between Rs.1500/- to Rs.2500/- and 0.28% families having income greater than Rs.2500/-.

marked to be in 42.91% families who have monthly income less than Rs.250/-. Formal credit by 35.95% families having monthly income Rs.250/- to Rs.499/-, by 18.43% families having income between Rs.500/- to Rs.1499/-, 2.08% families having income between Rs.1500/- to Rs.2500/- and 2.91% families having monthly income more than Rs.2500/-. So, it is basically the informal sources of credit which meets the demand of majority of credit accessing family in comparison to formal institutional credit.

Table 71 : Indebtedness and monthly income of families

Type of Indebtedness	For daily consumption purposes from informal sources		For production purpose from informal sources		For other purpose from informal sources		Borrowing only from institutional agencies and regular sweeper		No indebtedness and possess assets		Total (villages are cumulative)	
	No.of Villages	No.of Families	No. of Villages	No. of Families	No.of Villages	No.of Families	No. of Villages	No. of Families	No.of Villages	No.of Families	No.of Villages	No.of Families
<250	288	6342	165	824	107	422	182	1281	117	761	859	9630
250-499	226	2921	117	494	99	353	184	1073	127	960	753	5801
500-1499	98	615	37	98	43	101	93	550	82	586	353	1950
1500-2500	28	62	8	11	15	22	34	62	46	94	131	251
>2500	27	61	3	4	18	24	36	87	87	432	171	608
No Response	24	37	7	8	2	2	14	19	11	17	58	83
Total	691	9977	337	1435	284	900	543	2985	470	2418	2325	18323

Source – Primary data and BPL census

Taking loan from informal sources to meet other requirements is in 46.89% families who have monthly income less than Rs.250/-. Informal credit for other utility is also availed by families belonging to other income groups like 39.22% families have taken loan with an monthly income range between Rs.250/- to Rs.499/-, 11.22% families with monthly income of Rs.500/- to Rs.1499/-, 2.44% families with monthly income of Rs.1500/- to Rs.2500/- and 2.67% families with monthly income of more than Rs.2500/-. Borrowing credit only from the institutional sources

8.6.3 Indebtedness among Social Groups

Examining indebtedness among social groups, it is apparent that accessing credit from informal source for consumption purpose is high in ST families to the extent of 54.97% followed by credit accessibility by 20.95% SC families, 20.27% OBC families and 3.81% families belonging to other social groups. For production purpose, availing credit from informal sources is by 61.71% ST families, 14.80% SC families, 20.08% OBC families and 3.41% other class families.

Table 72 : Indebtedness by social groups in rural

Social Group	For daily consumption purposes from informal sources		For production purpose from informal sources		For other purpose from informal sources		Borrowing only from institutional agencies		No indebtedness and possess assets		Total	
	No. Of Villages	No. Of Families	No. Of Villages	No. Of Families	No. Of Villages	No. Of Families	No. Of Villages	No. Of Families	No. Of Villages	No. Of Families	No. Of Villages	No. Of Families
ST	303	5518	190	888	139	583	229	1579	190	1510	1051	10078
SC	167	2103	60	213	56	163	115	739	70	514	468	3732
OBC	193	2035	71	289	55	148	106	556	94	557	519	3585
Others	87	382	27	49	25	30	61	198	58	269	258	928
Total	750	10038	348	1439	275	924	511	3072	412	2850	2296	18323

Source – Primary data and BPL census

Informal credit accessed by families for other purposes is by 63.10% ST families, 17.64% SC families, 16.02% OBC families and by 3.25% families belonging to other social categories. So it is the tribal families who have accessed more informal credit for other purposes rather than any other social group. In the formal credit, 51.40% ST families have accessed institutional credit while institutional credit is accessed by 24.06% SC families, 18.10% OBC families and 6.45% families belonging to other social groups. Again, among the all social groups who have not taken any credit from any sources, tribal families take the lead with 52.98% families followed by 18.04% SC, 19.54% OBC and 9.44% other social groups.

It can be observed in the overall credit pattern that institutional credit accessibility by percentage of

families in other social groups is more in comparison to informal sources; it is either for production or for consumption. Whereas, among the tribal families and SC families, informal source credit accessibility is comparatively more than formal source credit. Apart from that, comparing credit utility for production and consumption needs, it is evident that credit for meeting consumption requirement is more in SC families in comparison to ST where productive investment is more in comparison to consumption. The findings establish that there is sufficient requirement for credit by the families which remains unmet by the formal financial institutions due to various reasons for which they prefer to access informal sources of credit either for consumption or for production or for both.

8.6.4 Indebtedness and Land Holding Pattern

Land Holding	For daily consumption purposes from informal sources		For production purpose from informal sources		For other purpose from informal sources		Borrowing only from institutional agencies and regular sweeper		No indebtedness and possess assets		Total (villages are cumulative)	
	No.of Villages	No.of Families	No.of Villages	No.of Families	No.of Villages	No.of Families	No.of Villages	No.of Families	No.of Villages	No.of Families	No.of Villages	No.of Families
< 1 ha.(unirrigated land) or < 0.5 ha.(irrigated land)	199	2677	115	450	69	274	154	954	108	483	645	4838
1 ha.-2 ha.(unirrigated land) or 0.5 ha.-1.0 ha.(irrigated land)	162	2103	62	264	39	103	73	356	40	187	376	3013
2 ha.-5 ha.(unirrigated land) or 1.0 ha.-2.5 ha.(irrigated land)	173	2246	93	568	74	362	145	1115	114	1253	599	5544
> 5 ha.(unirrigated land) or 2.5 ha.(irrigated land)	277	3012	67	157	86	185	134	647	134	927	698	4928
Total	811	10038	337	1439	268	924	506	3072	396	2850	2318	18323
Source –BPL census												

A total of 54.78% families have taken credit from informal sources which comprises different category of land holders. Of the total families that have taken credit from informal sources for consumption, 26.67% families hold less than 1 ha of unirrigated or 0.5 ha of irrigated land, 20.95% families hold 1ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land, 22.37% families have 2 ha to 5 ha of unirrigated land or 1 ha to 2.5 ha of irrigated land and 30.01% families have more than 5 ha of unirrigated or 2.5 ha of irrigated land. So, it is basically the number of families who have highest quantum of land holding

have accessed consumption credit in comparison to other land holding segments followed by families who do not have high land holding i.e. those families who hold less than 1 ha of unirrigated or 0.5 ha of irrigated land.

A total of 7.85% families in the block accessed informal credit for production purposes which contains 31.27% families who have less than 1 ha of unirrigated or 0.5 ha of irrigated land, 18.35% families hold 1ha to 2 ha of unirrigated or 0.5 ha to 1 ha of irrigated land, 39.47% families have 2 ha to 5 ha

of unirrigated land or 1 ha to 2.5 ha of irrigated land and 10.91% families have more than 5 ha of unirrigated or 2.5 ha of irrigated land. So, it is basically the small holder and marginal land holders who accessed credit from informal sources for production investment. Credit from informal sources for other purposes is accessed by 5.04% families. Of the total those accessed informal credit for other purposes, 29.65% have land less than 1 ha of unirrigated or 0.5 ha of irrigated land, 11.15% have land 1 ha to 2 ha of unirrigated land or 0.5 ha to 1.0 ha of irrigated land, 39.18% families having 2 ha to 5 ha of unirrigated land or 1.0 ha to 2.5 ha of irrigated land and 20.02% families have more than 5 ha of unirrigated land or 2.5 ha of irrigated land. Borrowing credit from institutional sources is by 16.77% families in which 31.05% families hold less than 1 ha of unirrigated or 0.5 ha of irrigated land, 11.59% have land 1 ha to 2 ha of unirrigated land or 0.5 ha to 1.0 ha of irrigated land, 36.30% families having 2 ha to 5 ha of unirrigated land or 1.0 ha to 2.5 ha of irrigated land and 21.06% families have more than 5 ha of unirrigated land or 2.5 ha of irrigated land. So, whether it is production or consumption, accessing credit from informal sources is a feature which is not land holding specific rather it is the need which compel them to access informal credit sources in absence of adequate formal credit provision.

8.6.5 Indebtedness and Rural Labour Force

Comparing indebtedness and means of livelihood, it is apparent that loan taken by families from informal sources for consumption is high in the families where

only adult males are the labourers (89.35% families) followed by families having adult female workers only (7.39% families) and other (3.26% families) which includes both male and female workers. Loan taken from informal sources for production purpose is also high in families having male labourers (93.75% families) in comparison to female labourers (3.13% families) and other labour categories (3.13% families). But a different trend persists as far as utilisation of credit taken from informal sources for other purposes is concerned i.e. percentage of families taken loan from informal sources for other purposes is high in families having male labourer (88.64% families) followed by other category which includes both male and female labourer (6.49% families) and families with women labourer (4.87% families). Borrowing only from institutional agencies is also high in families having male labourers (92.84% families) followed by families of other labour categories (5.76% families) and women labour families (1.40% families). Among the total families having no indebtedness, number of families having male labourer is high (81.79% families) in comparison to families having women labourer (3.44% families) and other categories (14.77% families). Overall, indebtedness by families having women labourer is less than families having male labourer.

Table 74 : Indebtedness and household labour force in rural areas

Means of Livelihood	For daily consumption purposes from informal sources		For production purpose from informal sources		For other purpose from informal sources		Borrowing only from institutional agencies		No indebtedness and possess assets		Total (villages are cumulative)	
	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families
Only Adult Females & No Child Labour	187	742	27	45	32	45	35	43	41	98	322	973
Adult Males Only	319	8969	218	1349	162	819	255	2852	203	2331	1157	16320
Others	58	327	18	45	28	60	45	177	67	421	216	1030
Total	564	10038	263	1439	222	924	335	3072	311	2850	1695	18323
Source –BPL census												

8.6.6 Indebtedness and Means of Livelihood

Means of livelihood and income sufficiency has a direct bearing on the indebtedness situation of a family. As per the information, there are 91.69% casual labour families who are indebted i.e. either they have taken credit from informal sources for production/ consumption requirement or taken credit from the institutional sources. Similarly, 81.80% families engaged in subsistence agriculture have taken credit from these sources to meet their requirements. Of the total artisans, salaried and families engaged in other activities, 81.85%, 39.91%

and 67.44% have also taken loan from different sources to meet their needs. Numbers of families having salaried persons are less indebted in comparison to persons engaged in other livelihood sectors followed by families engaged in other livelihood activities. Highest indebted families are the casual labourers who have comparatively less income than the families engaged in any other activities. Families engaged in agriculture, which is basically subsistence in nature, also highly indebted after casual labourers.

Table 75 : Indebtedness and means of livelihood in rural areas

Means of Livelihood	For daily consumption purposes from informal sources		For production purpose from informal sources		For other purpose from informal sources		Borrowing only from institutional agencies and regular sweeper		No indebtedness and possess assets		Total	
	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families	No. of Villages	No. of Families
Casual Labour	301	6637	128	498	109	298	181	1399	86	800	805	9632
Subsistence Cultivation	266	2919	167	835	109	482	208	1322	165	1237	915	6795
Artisans	63	128	16	24	9	11	37	58	28	49	153	270
Salary	68	155	17	23	27	45	49	117	106	512	267	852
Others	65	199	25	59	32	88	70	176	57	252	249	774
Total	763	10038	353	1439	286	924	545	3072	442	2850	2389	18323

Source –BPL census

Looking at credit typology and indebted situation, credit from informal sources for consumption need is availed by 66.12% casual labour families of the total families that accessed credit from informal source for meeting consumption requirements. It is followed by accessing credit from informal sources for consumption by 29.08% families engaged in agriculture, 1.28% artisan families, 1.54% families engaged in salaried services and 1.98% families engaged in various other livelihood activities. So, accessibility to consumption credit from informal sources is high in casual labour families followed by families engaged in subsistence agriculture. On the other hand, credit from informal sources for production purposes is accessed by 34.61% casual labour families, 58.03% subsistence farming families, 1.67% artisans, 1.60% salaried families and by 4.10% families engaged in other livelihood activities. Credit for production purposes is accessed more by farming families followed by families engaged in casual labourer and other activities.

Credit from informal sources for meeting other requirements is by more number of families who are engaged in subsistence agriculture (52.16% families) followed by families doing casual labourer works (32.25% families), families engaged in other livelihood activities (9.52% families), families having salaried members (4.87% families) and 1.19% artisan families. Accessing credit from institutional sources is more or less same in families engaged in casual labourer (45.54% families) and agriculture (43.03% families) followed by families engaged in other livelihood activities (5.73%), families having salaried persons (3.81% families) and by 1.89% artisan families.

Among the number of families those have not taken credit for any purpose, either from formal or from informal sources, majority are the farming families who are doing subsistence agriculture (43.40% families). Percentages of families in other livelihood areas who have not taken credit are 28.07% casual labourers, 1.72% artisans, 17.96% families having

salaried persons and 8.84% families engaged in various other livelihood activities. So, the overall indebtedness situation as discussed is not favourable for casual labourers and families engaged in subsistence farming as they are the major credit accessing families among the all livelihood engagement areas.

8.7 Migration

Migration has many facets but it is basically the non-availability of employment opportunities at the domestic locality during certain period of time or

throughout the year which compel family members to migrate to certain places for employment and livelihood. Migration of families from the block for regular casual labour is not observed whereas 22.29% families migrate for seasonal employment and 1.21% families for other purposes which are not necessarily for economic purposes. But migration is not characterised the way it is observed in some other districts and blocks of the state as 76.49% families normally do not migrate for any such economic or livelihood purposes.

Table 76 : Reasons of migration from families in rural areas

Name of the GP	Reason For Migration From RURAL Household					Total
	Casual Work	Seasonal Employment	Other Forms of Livelihood	Non-Migrant	Other Purposes	
Balandapada	0	111	0	1037	0	1148
Bandhagada	0	14	0	718	9	741
Bhrungijodi	0	371	0	232	1	604
Dimiriguda	0	160	0	758	21	939
Dindiragaon	0	281	0	262	28	571
Gochhapada	0	113	0	860	16	989
Jajeshpanga	0	23	0	997	13	1033
Kashinipadar	0	267	0	695	2	964
Kelapada	0	729	0	379	17	1125
Krandibali	0	24	0	771	9	804
Luising	0	13	0	851	0	864
Nuapadar	0	312	0	593	9	914
Pabingia	0	390	0	728	28	1146
Pahiraju	0	2	0	723	7	732
Pallabrudi	0	196	0	599	2	797
Phiringia	0	399	0	1078	4	1481
Ratanga	0	307	0	612	7	926

Table 76 : Reasons of migration from families in rural areas

Name of the GP	Reason For Migration From RURAL Household					
	Casual Work	Seasonal Employment	Other Forms of Livelihood	Non-Migrant	Other Purposes	Total
Sadingia	0	5	0	952	19	976
Salaguda	0	72	0	717	14	803
Tala Dandakia	0	296	0	454	16	766
Grand Total	0	4085	0	14016	222	18323
Source –BPL census and primary data						

Of the total families of the GP, persons migrating are highest in Kelapada where members from 64.82% families migrate to different places for seasonal employment followed by member migration from 61.42% families in Bhrunjojodi and members from 49.21% families in Dindragaon. Lowest migration in the order is in Pahiraju (members from 0.27% families), sadingia (members from 0.51% families) and Bandhagarh (members from 1.89% families). Migrating to other places for other purposes marked highest in Dindragaon (members from 4.90% families) followed by Pabingia (members from 2.44% families) and Dimiriguda (members from 2.24% families) while lowest is in Luising (no migration), Balandapada (no migration) and Bhrunjojodi (members from 0.17% families). Apart from migrating families, non-migrant families are highest in Pahiraju (98.77%), Luising (98.50%) and Sadingia (97.54%) and non-migrant families are

lowest in Kelapada (33.69%), Bhrunjojodi (38.41%) and Dindragaon (45.88%). So, some GPs are more prone to migration while some others have less migration intensity. It may be said that the GPs which are having high migrating families are poor in scope of employment and less scope of resource base utilisation while the GPs with less migration have higher scope of employment along with provision of other facilities. Apart from that, there are also other factors which have got a direct bearing on the migration like scope of higher income in the migrating place, better opportunity to use one's skill, earlier contacts with the employer in the migrating place etc. Apart from that, new generation intends to migrate not only for employment or higher income but also for getting exposure to a new working environment and searching scope for settling down their.

Table 77 : Reasons of migration of rural households

No. of BPL Families	No. of Villages	No. of Families	Reason For Migration					Total	% Age of Families Migrated
			Casual Work	Seasonal Employment	Other Forms of Livelihood	Non Migrant	Other Purposes		
<25	433	3377	0	1049	0	2106	222	3377	37.64
25-50	107	3826	0	1012	0	2814	0	3826	26.45
50-100	68	4506	0	1003	0	3503	0	4506	22.26
100-200	31	4323	0	804	0	3519	0	4323	18.6
200-500	7	2291	0	217	0	2074	0	2291	9.47
>=500	0	0	0	0	0	0	0	0	0
Total	646	18323	0	4085	0	14016	222	18323	23.51

Source –BPL census and primary data

8.7.1 Migration among Social Groups

Pattern of migration by social category reflect that persons migrating from highest number of families is in OBC category (25.47%) followed by SC with 24.92% and ST with 23.07% families. Migration from other social categories in the block is lowest to the tune of 14.98%. The non-migration is reported to be highest in other categories (85.02%) followed by ST (76.93%), SC (75.08%) and OBC (74.53%). Of the total seasonal migrants, number of families having migrant member/s is more in case of tribal (54.25%) rather than any other categories followed by SC (21.74% families), OBC (21.32% families) and families from other social groups (2.69%

families). Similarly, of the total families migrating for other purposes marked to be highest in tribal (49.10% families) in comparison to any other type of social group followed by SC and OBC where member/s from 18.92% families in each social category migrate. Migration for other purposes is also there with families belonging to other social categories where people migrate from 13.06% families. More or less similar trend persists with non-migrating families i.e. tribals are highest in the order (55.32% families) followed by scheduled caste (19.99% families), OBC (19.06% families) and others (5.63% families).

Table 78 : Reasons of migration in social group

Social Group	No. of Villages	No. of Families	Reason for Migration					Total	% age of Families Migrated
			Casual Work	Seasonal Employment	Other Forms of Livelihood	Non Migrant	Other Purposes		
ST	568	10078	0	2216	0	7753	109	10078	23.07
SC	295	3732	0	888	0	2802	42	3732	24.92
OBC	341	3585	0	871	0	2672	42	3585	25.47
OTHERS	196	928	0	110	0	789	29	928	14.98
TOTAL	1400	18323	0	4085	0	14016	222	18323	23.51

Source –BPL census and primary data

8.8 Social Welfare

Government is having pension support mechanism for the wellbeing of the disable and widows. The block is having a total of 2665 such persons who are either disable or widow. In both the cases, they are not the primary bread earner of the family. Disables / physically challenged / otherwise able are basically a dependent entity while aged widows also carry the same characteristic. Of the total such persons, 44.69% families are having accessibility to government sponsored pension whereas 55.31% families do not have any accessibility to such type of government support provisions. Either such persons are not enrolled under the schemes intentionally or left out during the course of planning. Whatsoever it may be, it is reflective of the local governance process and its lacuna to identify and enrol such persons under various social welfare measures. On the other hand, initiatives from family side also seem not adequate especially with regard to applying for the same and following it up in a continuous manner. While illiteracy condition do not allow them to apply independently, poor awareness on the scheme and lack of self confidence refrain them to go to higher

authority and approach them for the benefit. In the present situation, a support of Rs.200/- per month for such families can be considered as a booster and primary survival means for the person concerned.

Table 79 : Social welfare situation in the block

Sl. No.	GP	Social Welfare			
		Disabled	Landless	Widows	Allowance to
1	Ratanga	25	37	101	43
2	Krandibali	22	67	107	64
3	Jajeshpanga	23	25	86	45
4	Tala Dandikia	33	51	95	57
5	Dimiriguda	19	168	51	31
6	Bhrungijodi	15	30	176	89
7	Dindiragaon	9	23	48	14
8	Balandapada	15	141	111	37
9	Gochhapada	10	62	111	60
10	Bandhagarh	29	63	97	59
11	Phiringia	43	175	245	228
12	Kashinipadar	12	63	91	40
13	Luising	27	104	144	71
14	Pahiraju	16	63	61	25

Sl. No.	GP	Social Welfare			
		Disabled	Landless	Widows	Allowance to
15	Nuapadar	59	61	58	59
16	Salaguda	4	133	23	24
17	Pallabrudi	10	36	137	45
18	Pabingia	54	35	110	48
19	Kelapada	33	85	235	110
20	Sadingia	29	105	91	42

Source – Village and GP level information

Highest numbers of such person [disable and widow] observed to be in Phiringia, followed by Kelapada and Bhrungijodi but highest percentage of schematic government support rendered in Salaguda GP followed by Phringia and Krandibali. It indicates faulty planning, poor inclusive and equitable distribution of schematic benefits at the block level across the GPs. As a result, many families having such persons fail to avail the benefit which could have substantially supported the family income.

8.9 Development Supportive Infrastructures

8.9.1 Economic Infrastructures

In the present market situation, infrastructure plays a critical role in the overall development of the rural economy. In this context, seven different aspects that are important are considered for discussion i.e. road network, irrigation scope, marketing infrastructure, storage systems, financial infrastructure and communication means.

All the GP headquarters are more or less well connected with the block through road network and many villages have the approach road. Pradhan

Mantri Gram Sadak Yojana contributed significantly in this regard along with other road network development projects of government. But, in spite of that, many villages still remain cut off from the main stream of development due to poor communication. Poor communication restricts easy approachability and overall trading and business development opportunities. The condition of road in most cases is poor which the contribution of non-maintenance of quality dimensions during road construction. Because of poor construction quality, recurring investment in existing roads is comparatively high for which emphasis on construction of new roads gets secondary treatment. Economic activities in many villages get slower due to non-availability of appropriate communication means.

Along with communication, means of transportation play a significant role for business growth and economic prosperity. As it is evident from the data, there are a number of GPs where means of transportation is either not available directly to approach district and other big market places or it is not adequate enough to cater to the local need. In such cases, transportation of goods to and from the villages of the GP becomes problematic. Some GPs like Bhrunjojodi, Phiringia and Bandhagarh etc. have better communication means in comparison to some other GPs of the block. On the other hand, though the GP headquarter remains connected, many villages are approachable only through cycle or by walk as no other means are available there. The geographical condition / topography of the region also play a role in non-availability of communication means.

SN	GP	Categories of Economic Infrastructure						
		Road [Km]	Irrigation [Ha.]	Market [No.]	Godown [No.]	Bank [No.]	Post off [No.]	Transport [No]
1	Ratanga	54	130	0	0	0	2	0
2	Krandibali	37	24	1	0	0	1	1
3	Jajesh panga	22	27	0	1	0	2	0
4	Tala Dandikia	49	123.82	0	0	0	1	0
5	Dimiriguda	33	364	0	1	0	1	0
6	Bhrungijodi	30	86	0	0	0	1	5
7	Dindiragaon	16.5	47.36	0	0	0	0	0
8	Balandapada	49	141	1	1	0	2	2
9	Gochhapada	29	25	1	1	1	2	3
10	Bandhagarh	45.7	39	0	0	0	3	5
11	Phiringia	25	45	1	1	1	1	5
12	Kashinipadar	36	0	0	0	0	3	2
13	Luising	16	20	1	0	0	1	1
14	Pahiraju	25	22.23	1	0	0	1	1
15	Nuapadar	33	32.29	5	0	0	1	5
16	Salaguda	45	25	1	0	0	1	0
17	Pallabrudi	43	12	1	0	0	1	1
18	Pabingia	42	35	0	1	0	2	5
19	Kelapada	36	240	5	0	0	2	5
20	Sadingia	43	72	1	1	0	2	3

Source – GP level information, information from concerned dept.

As discussed elsewhere, irrigation system in the block is at its infancy hardly irrigating 12-15% of the total cultivable land. So, agriculture is at subsistence stage and agricultural input is rudimentary to the requirement as in practice in many other districts and states. Lack of required irrigation means restricts the input supply and by that the rate of production of various agricultural commodities and land productivity. Poor investment capacity of the people for irrigation infrastructure development compels them to depend primarily upon government investment which is inadequate in nature and do not

serve the requirement of small and marginal farmers. In such a case, agriculture is mostly dependent on monsoon rain. Mono-cropping in the region is a direct product of poor irrigation infrastructure.

Market infrastructure plays a crucial role in trading with external world which basically contribute to the overall economic growth of the region promoting business exchange of commodities. Stable market mechanism is not available in many GPs of the block and wherever it is available, mostly it is “weekly” in nature rather than “regular”. Except the block

headquarter, most of the markets are weekly in nature where people exchange their commodities with a price. People continue to wait for the market day to come where they fetch a better price of the product. Informal way of marketing of the products at the village level is a common phenomenon. Apart from that, for storage of the agricultural produces and other forest products, the existing storage system is also not adequate. Even many GPs do not have a storage facility for the produces as a result market regulation mechanism is mostly in the hand of the traders. Due to poor stage system, people compel to sell their products in a lower price to avoid wastage and economic loss by that.

In the financial service sector, there are only two branches of financial service providing agency on which total population of the block is dependant. A considerable section of people in the block do not visit the bank as they do not have the bank transaction account. As level of income is low, whatever amount people generate out of their engagement, prefer to keep it at home front rather than keeping it in the bank. Of course, there is a gradual improvement by which many families have now their bank account especially the higher and middle income groups and youths. On the other hand, direct credit access from to formal financial institutions is also poor due to poor family asset base for collateral. In such a situation, where financial services are poor and approachability of people to financial service provider is low, prosperity of economy seems more of a distant possibility in the coming near future. The weaknesses

of formal financial service is capitalised upon by the non-formal and informal credit providing individuals and agencies. Informal credit with usurious rate of interest is a common rural phenomenon where dependency of people especially to meet their various requirements is high. On the other hand, because of SHG movement, many families are now associated with SHGs and accessing institutional credit from SHG-Bank linkage programme. Apart from that, credit availability for such families has also become an easy affair along with savings.

8.9.2 Social Infrastructures

Adequacy of social infrastructure can be gauged from the social infrastructure matrix which reflects health and education infrastructures available at the block level along with other infrastructures that contribute to skill development of the people and their collectiveness. Only six GPs have the health centre facility for community health care i.e. health centres are available in Jajeshpanga, Balandapada, Gochhapada, Phiringia, Nuapadar and Pabingia. No other GP have such institutional facilities at the GP level. People of rest of the GPs depend upon these sources for meeting their health care needs. All the GPs have the anganwadi centres (AWC) which mandated to provide mother and child health care facilities to people along with health care. The block headquarter GP of Phiringia is having highest number of anganwadi centres in comparison to any other GP of the block.

Table 81 : Social Infrastructure of the block

GP	Categories of Social Infrastructure								
	Health centre	AWC [No]	Tube wells [No.]	Prim. School [No.]	Sec. School [No.]	High School [No.]	College [No]	Comm Centres [No]	Training Infra [No]
Ratanga	0	5	58	5	2	1	0	3	0
Krandibali	0	2	24	8	1	1	0	7	0
Jajeshpanga	1	5	39	9	2	1	0	5	0
Tala Dandikia	0	4	15	6	2	1	0	4	0
Dimiriguda	0	7	28	9	2	0	0	13	0
Bhrungijodi	0	4	14	6	1	0	0	5	0
Dindiragaon	0	3	22	2	3	0	0	0	0
Balandapada	1	5	46	9	1	1	0	2	0
Gochhapada	1	3	30	5	1	1	0	0	0
Bandhagarh	0	3	19	4	2	1	0	0	0
Phiringia	1	9	75	7	1	1	1	10	1
Kashinipadar	0	7	47	7	4	1	0	0	0
Luising	0	4	29	10	1	0	0	1	0
Pahiraju	0	3	18	10	2	0	0	0	0
Nuapadar	1	8	31	10	2	1	0	0	0
Salaguda	0	5	35	6	1	0	0	3	0
Pallabrudi	0	4	35	8	1	0	0	0	0
Pabingia	1	8	82	8	2	1	0	0	0
Kelapada	0	6	43	9	1	1	0	0	0
Sadingia	0	5	42	11	2	0	0	1	0
Source – GP Information									

For community health and hygiene and making drinking water available, all the GPs are equipped with tube wells as portable drinking water sources. The block headquarter GP is having highest number of tube wells than any other GP of the block. Most of the villages are covered with tube wells so that people can avail secure source of water. In education sector, it was observed that all the GPs have primary and secondary schools though numbers of institutions vary by GP. The GP of Sadingia is having highest number of primary schools followed by Luising,

Pahiraju and Nuapadar. Lowest number of primary schools observed to be in Dindragaon and Bandhagarh. No. of secondary schools are more in Kasinipadar than any other GP of the block while eight GPs do not have a high school for higher education of children. So, people those pass out from secondary level, normally depend upon external high schools as it is not available at the GP level. For skill and knowledge building, training infrastructure is available only in block headquarter GP and no other GP has such facility.

Mere prevalence of infrastructure does not sufficiently comply with the quality of service provision though it makes a difference in creating an environment. In spite of the existence of a number of primary school infrastructures, rate of dropout is comparatively high in the block and completion of primary education has yet to make a great stride. But it has definitely contributed to create an environment of education and looking at overall performance, it can be said that the education situation has improved in comparison to the previous decade.

8.10 Rural Connectivity

Of the total 374 villages of the block, 51.34% villages are connected with all-weather roads while remaining 48.66% villages are yet to have the same facility. The block altogether has 681.5 Km of Kutchha road and 232.2 Km of Pucca road that connects the villages with the GPs and the block.

Table 82: Villages with Connectivity

GP	Rural Connectivity				
	Total Village	Village with all weather road	Village without all weather road	Kutchha road-Km	Pucca road-Km
Ratanga	17	10	7	36	18
Krandibali	15	8	7	31	6
Jajeshpanga	25	6	19	57	20
Tala Dandikia	12	6	6	45	7
Dimiriguda	15	9	6	30	10
Bhrungijodi	18	10	8	5	20.3
Dindiragaon	13	3	10	5	10
Balandapada	18	15	3	30	26.5
Gochhapada	15	9	6	15	18.7
Bandhagarh	16	7	9	35	10.7
Phiringia	19	10	9	25	10
Kashinipadar	18	8	10	28	8
Luising	15	6	9	50	20
Pahiraju	18	3	15	65	10
Nuapadar	12	6	6	21.5	0
Salaguda	21	11	10	65	6
Pallabrudi	13	9	4	38	5
Pabingia	30	10	20	24	18
Kelapada	12	10	2	36	5
Sadingia	52	36	16	40	3

Source – Information from GP and Village

8.11 Association of Non-Governmental Organisations

Growing involvement of NGOs and other civil society organisations in the process of human development is gradually becoming important. Thus in recent years, a number of NGOs / CBOs (Community Based Organisation) have begun to function in Phiringia, where they work in close collaboration with government departments in extending development support to the common people. Different organisations have different mandates and working thrusts in the block by which they attempt to contribute to the development process. Such non-government agencies have been playing a significant role in addressing social transformation processes involving the local community. A considerable number of local NGOs are also closely involved in rural development and capacity building activities. But many such agencies, because of their background, fail to mobilise external resources for putting extra effort for development of their operational area. Even, due to lack of funds, many philanthropic agencies are gradually losing their interest to serve the mass.

8.12 Institutions of Local Governance

The apex institution for local governance of the block is the Phiringia Panchayat Samiti (Block Council). For each of the 20 GPs, the corresponding local governance institution is the respective Gram Panchayat. At grassroots level, each revenue village is having a Palli Sabha and each GP is having a Gram Sabha in the block, covering a total of 20 GPs and all the revenue villages that fall within the jurisdiction of the Panchayat Samiti. The block is devoid of any municipalities. Since the block is primarily rural, there are no other statutory towns although three small fast-urbanising clusters at Phiringia, the block

headquarter can be observed. The three-tier Panchayat system in the district including Phiringia has functioned effectively since activation of 73rd constitutional amendment in the state.

All plans and programmes initiated by the GPs are approved by the Panchayat Samiti [PS] and forwarded to Zilla Parishad for approval. The Zilla Parishad sanctions funds for the developmental schemes that are taken up at block-level by the Panchayat Samitis within its jurisdiction. All block-level schemes sent up by the Panchayat Samiti that require larger funding support are also considered by the Zilla Parishad. The Zilla Parishad also arranges for technical vetting of the schemes executed by the Panchayat Samitis. Additionally, the Zilla Parishad also directly executes developmental schemes through its own machinery in the block areas. The Block Development Officer of the block functions as the ex-officio Executive Officer of the Phiringia PS. Within the panchayat system, each Gram Panchayat is headed by the respective Sarpanch. Each Gram Panchayat functions through Gram Sabha and Palli Sabha along with seven standing committees.

Within the 3-tier panchayat system, involvement of the local people in the developmental activities implemented by the Phiringia PS and 20 Gram Panchayats is drawn at all levels through their open participation in Gram Sabha. At village-level, the local stakeholders also attend Palli Sabha.

The form of decentralisation; its content and purpose, reflect the different traditions of politics and administration operating in the different parts of the state. In a backward district like Kandhamal, the challenge is to find the proper balance between centralised and decentralised arrangements and to link them in ways that promote development most effectively.

At present, the district has two Notified Area Councils located at Phulbani and G.Udayagiri under the Orissa Municipal Act, 1950. The other local self-governing bodies are the Gram Panchayats, the Panchayat Samities and the Zilla Parishad.

Urban Local Bodies: The Phulbani Notified Area Council was constituted on 14th February, 1963 with an area of 7.77 sq. km. having population of 4,031 and 12 villages. Now the NAC covers an area of 1600 ha with 11 wards. The population as per 1991 Census was 27154. Like wise, the G.Udayagiri Notified Area Council has 13 wards with the population of 8508.

The General administration is managed by a council which elects its chairman and vice-chairman. The resolution passed by the councils are executed by the Executive Officer, who is an officer deputed by the state Govt. The financial resources of the NACs are mainly derived from various taxes within the urban area and the grants received from Govt. The council discharges the duties as provided under the Orissa Municipality Act, 1910 with regard to finance, public health, public works, education and any other special subject relating to the purpose of the Act. Executive Officer with the supporting staff carries out day to day administration.

Urban Planning: There is a special Planning Authority at Phulbani playing active role in urban planning and administration for Phulbani & G.Udayagiri. This organisation looks after urban regional planning for development of the urban area. Besides it also act as executing agency for area development programmes in infrastructure and social service sectors.

Panchayati Raj Institutions (PRI)

Zilla Parishad: The Panchayati Raj as democratic decentralisation of power came into force in the

district during 1961 with the constitution of Zilla Parishad. This body was an advisory body at the district level to advise the government in all developmental matters relating to the district. Under three-tier system of democratic decentralisation, Zilla Parishad is the apex body at the district level followed by Panchayat Samitis at Block level and G.Ps as second-tier & third-tier.

Panchayat Samities: At present, there are 12 Panchayat Samities in the district. Each Panchayat Samiti is coterminus with the Community Development Blocks created by the government in the Panchayati Raj Department.

Each Panchayat Samiti consists of official and non-official members. The official members are the Block Dev. Officer and the Officers of various State Govt. dept. ordinarily stationed at the Block level. The non official members include the Panchayat Samiti members and the Sarapanchas of the Gram Panchayats. Chairman is the head of the body and is elected directly by the Panchayat Samiti members. The main functions of the Panchayat Samitis are planning, execution and supervision of all developmental programmes in the Block. It also supervises the works of Gram Panchayats within its Jurisdiction.

Gram Panchayats: Gram Panchayat is the primary unit of Panchayati Raj Institutions. The district has 144 Gram Panchayats. Each Gram Panchayat comprising some villages and is divided into wards. The election of Sarapanch, Naib-Sarapanch & members are conducted according to the provisions of the Orissa Gram Panchayat Election Rules, 1965. Sarapanch as the head of the GP is directly elected by the voters of the GP But the Naib-Sarapanch is elected from among themselves by the Panchayat members.

Chapter NINE

9.0 The Way Forward

The block of Phiringia has made notable strides in many development spheres over recent decades though its adequacy according to the need differ significantly. Among these are agriculture, horticulture, rural communications and road infrastructure etc. However, its performance in the three core human development areas of education, public health and livelihoods has had to negotiate the twin challenges posed by shrinkage of the land unit per family along with increasing population and depleting forest and other natural resources. Since the livelihood profile of the block is primarily rural, the main challenge lies in providing essential development services and infrastructural inputs to the people in a highly decentralised rural framework. Substantial resources have to be mobilised for this, which have to be allocated with considerable farsight and wisdom to build a development platform that meets the aspirations of the people of the block.

Because of the composite character of human development, another challenge would be to coordinate the development activities of several agencies and departments, so that the benefits from each development programme or scheme reinforce each other. For this a process of dialogue will have to be initiated between the departments and the people so that regional development needs are met holistically. The existing decentralised framework of Panchayat institutions can be brought in to effect in this regard with more devolution. This process required devolution of more powers to institutions of local governance along with fund, functions and functionaries.

Among the peculiarities that define the current development situation in Phiringia many are rooted in geographical and cultural set up. As a result of this, the regional development approach to be followed

has to be tuned to these regional and cultural situations. The cultural constituents of the block population, for instance the SC and ST group, follow a set of traditional norms that defines their distinctive identity. Yet their human development needs have homogenous content, requiring the provision of health services, education and vocations that lift them out of the common trap of rural poverty. A social consensus built around this human development strategy can potentially overcome the hurdles imposed by certain cultural codes and conventions. The ultimate beneficiaries of this would be the women of the block, who presently share a common plight despite belonging to heterogeneous groups and communities.

In view of the local development requirements, the block development scenario can be thought of from some important angles i.e. education for all, health for all and secured livelihood for all. Universalisation of education for human resource development can lead such process in Phiringia catering to the requirement of toher two important areas i.e. health and livelihood. Educational outreach with quality, improving the health status of people and improving the livelihood opportunities available with people through skill development appears to be important apart from improvement in the performance of various other associated sectors and sub-sectors.

In the Sphere of education, though Phiringia still lags behind many other blocks of the state, the growth of primary schools and primary enrolments in recent times has improved in comparison to earlier years. Increased student-teacher ratio in primary education indicate that there is no dearth of rural learners, and also that conservative norms such as those that once kept girls away from school have undergone substantive transformation. However, increasing school infrastructure indicates the health of education

system which intends to accommodate more local students. Ultimately, as seen in Phiringia block, increased primary enrolments are followed by subsequently high dropouts at the upper primary and post-primary stage, because of economic, communication and allied factors apart from the lapses in public education system. There are also certain GPs in the block (refer earlier discussions) where many children are compelled to remain out of school because of the problem of communication. Thus, despite the apparently satisfactory evolution of primary school education in Phiringia block, the infrastructure for primary schools will have to undergo substantial expansion.

In primary education, the rate of completion is low at upper primary and secondary education level. Low retention rates in the school system are attributable to student-teacher ratio, quality of education, limited infrastructural facilities, staffing inadequacy etc. The rate of expansion of upper primary and secondary school institutions has not kept pace with the expansion of primary enrolments. Hence, considerable dropouts occur at the transitional stage, since the existing upper primary and secondary school institutions lie at much greater distances from the places where the new primary learners reside.

Urban schools are more favoured in this respect since they have better infrastructure, better student-teacher ratio, quality of education and more over its locational advantage. Since very few rural families in Phiringia can afford to relocate to urban areas in pursuit of a better education, most students in Phiringia block still find that the portals of formal education close upon them after they have acquired a few years of rudimentary education. In the long term, the adult population of the block formed when these age groups have grown to maturity is therefore constrained to remain under-trained and under-

skilled. While special education programmes under the Sarva Shiksha Abiyan, have improved enrolment and retention ratios in school education in Phiringia block, these do not provide the level of training that would equip rural students to move into new vocational spheres. As a result unless basic changes are made within the education strategies for the block the working population of the block shall continue to crowd into unskilled and under-skilled rural jobs, instead of fully participating in the process of human development that would enable them to break out of the traditional rural work-roles of their parents and predecessors.

Ultimately, the institutional framework for education in Phiringia block will need to be synchronised to the needs of a large mass of new rural learners, for which the present school infrastructure is inadequate. Since substantial expansion has occurred at the base, at the level of primary school enrolments, forwards planning of secondary and tertiary level institutions becomes necessary for the educational system to have the continuing capacity to absorb new students. At present, the structure of schools in Phiringia block is unbalanced and there are too few higher secondary to cater to the needs of the students. The infrastructure for school education therefore needs to be rationalised with more secondary and higher secondary schools which can match the earlier expansion of school infrastructure at the base.

The present approaches to education seem focus more towards increasing enrolment and retention at the base. Looking at the critical livelihood situation of the block, only primary education cannot be a viable foundation rather it should be followed by secondary and higher education system which can give a better footing to the people of the block. A more integrated approach is therefore called for, which visualises the future human resource needs of the block and

expands secondary and tertiary education accordingly. Apart from this, pre-school education of ICDS need to be strengthened to provide a basic orientation to the first-generation learners.

Special educational needs exist for SC and ST families which are not adequately covered by the programme approach though special initiatives have been taken by government in this regard. Improved retention of girls within the school system is essential for improving gender balance in education system. A strong higher education programme that includes vocational elements can also be thought of to develop the skill base of the block population and improving the employability and earning potential of the youths of the block.

9.1 In the Sphere of Healthcare Services

In the public health sphere, Phiringia currently suffers from serious spatial limitations within its health infrastructure. Most of these problems are rooted in poor communication experienced in many parts of the block. The present distribution of public healthcare facilities follows an administrative model that is increasingly inadequate to meet the emerging healthcare needs of the people in remote places. Basic health services, such as nutrition, immunisation and sanitation are also inadequate, leading to high incidence of preventable diseases. MCH service delivery is also relatively poor, particularly in the case of institutional delivery system.

The health problems of the block are also aggravated by social and cultural factors, such as the high incidence of multiple fertility, as well as high maternal mortality. The problems of undernutrition of children and mother are also concomitant to this, and have a highly damaging impact on the health profile of the block. Given the high incidence of malnutrition in certain parts of the block and its strong correlation

with rural poverty, the supplementary nutritional programme in Phiringia should be strengthened further to cover the nutritional needs of children suffering from Grade 2, 3 & 4 malnutrition.

Many administrative measures that have an important bearing on the improvement of public health targeting are currently neglected in Phiringia block. Although an effective Civil Registration System is the backbone for focused health intelligence and healthcare planning, the implementation of the registration system in Phiringia block is weak. A wide gap shows up, with regard to ICDS and health department data with regard to immunised and health check up. The health services need to be further made effective considerably, if the current position is to be reversed. Effective monitoring of the health system seems a necessity with strict enforcement of basic requirements that an Eligible Couple & Children Register be maintained at GP-level in the block. Simplification of procedures for registering births and deaths under the Civil Registration System can also improve the collection of health intelligence in the block.

The delivery of health services in several parts of Phiringia block is restricted by the inaccessibility of the regions. In the face of communication difficulties, ANMs seldom visit such areas and doctors are reluctant to reside at the health centres where they have been posted, preferring instead to stay elsewhere. In many cases, accessibility can be improved by the development of road communications in such isolated areas. Inaccessibility of some of the GPs where people remain cut off from basic health services. An extension health approach therefore required to be adopted to meet the needs of such areas, where

residents currently have difficulty in accessing the referral health system.

To check maternal and infant mortality that still prevails in Phiringia to a greater deal, emphasis has to be laid on the institutionalisation of deliveries. At present, people living in the block headquarter somehow have alternate access to private healthcare facilities. Such alternatives are not available to other rural residents in the block especially that are far from such township areas. To redistribute service loads and to reduce the burden on Block and Subdivisional hospitals, the PHCs and SCs have to be equipped to provide more health services locally. Local NGOs may also be assigned with the responsibility of improving the rate of institutionalised deliveries. Although current schemes like the Janani Suraksha Yojana are expected to improve the rate of safe deliveries in the block, their impact is not yet visible to the expected level. Therefore, incentive-linked schemes like ASHA will play a vital role in improving institutionalised delivery in the coming days.

Current sanitation standards in Phiringia block are highly inadequate and mismatch to people's expectation. The sanitary mart scheme could not achieve desired result due to various factors like providers fail to match the local demands that are being driven by the provision of subsidies, people's interest towards sanitation, involved cost in establishing latrines etc. Groundwater-based drinking water schemes have limited viability in some GPs where people feel to use other sources for cooking. They feel that ground water sources are not of good quality for cooking and drinking. In some GPs the source is inadequate while in some other people prefer to use other sources in spite of the prevalence of ground water source. It is also a part of the system failure where defunct tubewells are not

repaired for months together though many rural youths are trained in this.

The health impact of seasonal migration of labourers from different parts of Phiringia block to distant regions in search of work needs to be assessed immediately. At present, such migration has reached high volumes in comparison to earlier situation but it is yet to be registered and monitored. The returning migrants bring a variety of contagious diseases back with them that can spread quickly among the local population, who have low resistance to them. A system of health monitoring for migrants should therefore be instituted which conducts general checkups as well as compulsory blood tests, etc. during the exit and reentry of migrant workers. Apart from that labour registration system need to be strengthened further and it should be made mandatory at GP level.

9.2 In the Economic Sphere

Perhaps the most testing challenges faced in Phiringia block today are in the economic sphere. The block is land-scarce, it has a rapidly growing population, and its principal economic sector namely, agriculture has not yet developed to the expected level but have potential for enhanced production and employment generation. The block mostly suffers from irrigation which is a key input to boost agriculture. Because of regional topography, limited accessibility to groundwater use for agriculture is more or less a common phenomenon through out the block. Direct or indirect engagement of people in farming is not so remunerative and seasonal in nature. Thus in recent years, a sizeable section among the population that has entered working-age, especially youths, has only been able to secure seasonal or marginal livelihoods. This has promoted migration of people to various parts of the country, mostly to southern region. Since rural wage-rates in the block too are low, being driven

down by the excess local supply, a significant proportion of rural households in each village live at levels close to absolute poverty, with poverty incidence being highest of the states in many parts of the block.

An important aspect of stabilisation of rural livelihoods in Phiringia block and to unleash the full productive potential of the block's rural economy to some extent depends upon the ability of the block to manage its water resources in a productive and efficient manner. To raise the farming to its full potential, the storage capacity of the land must be increased through check dams and construction of surface water tanks that intercept monsoon runoff and store the water for meeting lean season needs. Adoption of the micro watershed approach is closely linked to economic rejuvenation of the block, the full potential of which has not been realised till date though a number of watershed projects are under implementation. This could be taken up in a mission mode in all the GPs of the block wherever it is feasible.

The non-farm activities across the block have been weak due to many factors. Phiringia suffers from having its economic resources bounded within the scope of agriculture which is again substance in return. Non-timber forest products have been a supportive source of income for the people living in the villages and having proximity to the forest resources. The potential for artisanal and industrial development across the entire block needs to be seriously explored, given the strategic location of Phiringia [block headquarters is 22 Kms from the district headquarters] and its pool of growingly literate workers with very low wage demands.

Although a trend towards seasonal out-migration of labour [periodical six months to annual] from Phiringia block to places that offer higher wages or

regular work is now strongly visible, particularly in certain GPs of the block like Ratang, Phiringia, Gochhapada etc. Worker migration brings in sociological problems, gender and family insecurity as well as threat of epidemic diseases and HIV/AIDS. The current livelihood crisis in Phiringia therefore needs to be tackled within the peripheries of the block, by redirecting labour from purely agricultural activities into non-farm work encompassing agro-processing, manufacturing etc. Vocational education programmes have a strong role to play here, as well as the development of an agro processing sector in Phiringia, linked to its agricultural and horticultural economy. But for that, base of agricultural and allied sectors need to be made strong enough so that these sorts of MSME clusters can emerge promoting direct and indirect employment.

Sometimes, nature too behaves in an expectable manner though it is not so frequent. As most of the area is hilly and terrine, splash flood affects agricultural productivity and by that farming community suffer from losing their farm based livelihood opportunity. Among the new initiatives for bringing the people of the block into the development process as partners, the SHG programme stands out and holds greatest potential. So far, the SHG movement in Phiringia has come up to a stage where they can be strengthened more to take up various livelihood based activities in non-farm sectors. A large number of SHGs have now come up in the block and in most of such SHGs rural women of the block are involved. Looking at the number of existing SHGs and emerging new ones, they can no longer be ignored during the development activities rather they

can be the potential partner to development especially when strengthening the local livelihood system is considered. Looking at the emerging scenario, drawing upon the strength of SHGs for economic activities seems a feasible option which can be done through provision of technical support and micro finance. Capacity-building activities also need to be conducted for the SHGs in order to train them for performance of a future economic role. Apart from capacity building, the most important aspect of promoting non-farm sector through such community units would be through appropriate market linkage, infrastructural support and in-time productive financial assistance.

Tourism potential of the block can be explored further and places of interest can be further modernised with required basic amenities to give rural tourism a boost. Phiringia also produces artisanal products that can be profitably linked to the tourist economy. So far, the lack of good communications infrastructure and the dearth of tourist facilities and information has impeded the development of this sector. Adoption of a modern approach to tourism can offer a solution, through the development of tourist circuits that traverse the hilly terrain and dense forest coverage besides offering interesting explorations at potential ecotourism sights. These sorts of potential of the block have so far remained unexplored. Benefits of the economic growth can be brought down to the tribal communities who have so far been excluded from mainstream development process and benefits. Such a holistic and integrated approach can provide a local solution to the livelihood problem of the rural mass.

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