

# Socio-economic Profile of Phukiaguda Village, 2010



**M S Swaminathan Research Foundation  
Chennai**

# **Socio-economic Profile of Phukiaguda Village, 2010**

**February 2013**



**M S SWAMINATHAN RESEARCH FOUNDATION**  
Chennai

MSSRF/R/02/13

PA 500: INTERN'S REPORT - 1

## CONTRIBUTORS

### Report Preparation

*Anu Mariam Philipose*  
*Anuradha G*  
*Rukmani R*

### Data Collection and Compilation

*Tusar Ranjan Nayak*  
*Akshaya Kumar Panda*  
*Namita Panigrahi\**

---

\* *Left MSSRF in 2011*

## Contents

Acknowledgement.....	7
1. Introduction.....	9
2. Salient Aspects of Phukiaguda Village.....	12
3. Agriculture and Land use.....	16
4. Employment Pattern.....	30
5. Household Income and Assets.....	35
6. Nutritional Status and Food Entitlements.....	46
7. Summing up.....	56
References.....	59
Annexure – I.....	60

## List of Tables

Table 2.1: Classification of Population According to Caste/ Tribe and Sex, 2010.....	12
Table 2.2: Classification of Population by Age group and Sex, 2010.....	13
Table 2.3: Classification of Population above 7 years According to Level of Education and Sex, 2010.....	14
Table 2.4: Classification of Children by Main Activity, 2010.....	15
Table 3.1: Classification of Landless Households by Caste/ Tribe.....	17
Table 3.2: Classification of Households by Caste/ Tribe and Size of Landholding Owned .....	18
Table 3.3: Classification of Households by Caste/ Tribe and Type of Landholding Owned .....	18
Table 3.4: Classification of Households by Size and Type of Landholding Owned .....	19
Table 3.5: Average Size of Land Holding of Households According to Caste/Tribe, Land type (in acres) .....	20
Table 3.6: Classification of Households According to Caste/ Tribe and Size of Leased in Land .....	20
Table 3.7: Classification of Households According to Caste/ Tribe and Size of Leased out Land.....	21
Table 3.8: Classification of Households According to Size of Operational Area and Caste/ Tribe.....	22
Table 3.9: Average Area under Cultivation of Different Crops .....	23
Table 3.10: Classification of Households According to Area under Paddy Cultivation .....	24
Table 3.11: Cost of Paddy Cultivation per Acre across Different Size Class of Holdings .....	25
Table 3.12: Paddy Yield across different size of Landholding .....	27
Table 3.13: Salient Features of Paddy Production and Marketing.....	27
Table 3.14: Estimated Net Income from Paddy Cultivation .....	29
Table 4.1: Classification of Workers by Primary Occupation and Sex .....	31
Table 4.2: Number of days of wage employment .....	33

Table 5.1: Average Annual Household Income from Various Sources, 2009-10 .....	36
Table 5.2: Monthly <i>per capita</i> Income According to Size of Operational Holding .....	37
Table 5.3: Details of Households above Poverty Line .....	39
Table 5.4: Classification of Households by Ownership of Animals .....	41
Table 5.5: Classification of Households by Ownership of Agricultural Implements .....	42
Table 5.6: Ownership Pattern of Agricultural Implements .....	43
Table 5.7: Percentage of Households Owning Durables .....	44
Table 5.8: Percentage of Households Owning Cycle/Motorcycle .....	44
Table 6.1: Classification of Households by Access to PDS .....	47
Table 6.2: Households Access to Various Government Programmes .....	48
Table 6.3: Borrowing Details in CFB, Gunthaguda (June 2009 – May 2010) .....	49
Table 6.4: Households Access to Various Health Facilities.....	50
Table 6.5: Households Source of Drinking Water .....	51
Table 6.6: Classification of Population by Body Mass Index (BMI), Gunthaguda Hamlet .....	52
Table 6.7: Percentage of Adult Population (15-49 years) with CED .....	53
Table 6.8: Number of Children, Gunthaguda Hamlet.....	53
Table 6.9: Nutritional Status of Children, Gunthaguda Hamlet .....	54
Table 6.10: Incidence of Malnourishment among Children, Gunthaguda Hamlet .....	54
Map 1.1: Location of Phukiaguda .....	11
Figure 3.1: Share of Different Crops in Gross Cropped Area.....	23



# Acknowledgement

For nearly a decade M S Swaminathan Research Foundation has been working in the villages in Koraput region with a major focus on conservation of agrobiodiversity, promotion of sustainable agriculture and improvement in livelihoods . In Gunthaguda hamlet, which is part of the revenue village of Phukiaguda, MSSRF's interventions are going on over the last 5 years. The "Socio-economic Profile of Phukiaguda Village", is an attempt towards providing a brief description of the socio-economic aspects of a village where MSSRF has intervened.

Tusar, Akshay and Namitha conducted the socio-economic survey in the hamlets and completed the data entry as well; Anu Mariam Philipose, a second year M A Economics student from Central University, Hyderabad, worked with great dedication and alacrity in analysing the data and writing this report, during her two-month internship at MSSRF; G Anuradha analysed the data partly and contributed to the chapter on food security; Drs Nampoothiri and Smitha Mishra went through the draft carefully and gave very useful comments; Drs. Smitha Mishra and A A Nambi shared their insights on Odisha village society and economy generously; but for the sincere efforts of each and every one of them this Report would not have been possible.

I am happy to have initiated this effort in profiling the socio-economic aspects of a village society. I thank Dr. Nampoothiri and Dr. Ajay Parida for their support.

**R Rukmani**  
February 2013





# 1. Introduction

“Socio-economic Profile of Phukiaguda Revenue Village” as the title suggests details the major socio-economic characteristics of one village, Phukiaguda, located in the Koraput district of Odisha State. Covering a total geographical area of 8,379.30 sq. km, this district is located towards the south of Odisha state and shares its borders with Andhra Pradesh and Madhya Pradesh, besides Nabarangpur, Rayagada and Malkangiri districts of Odisha<sup>1</sup>. The district is characterized by scattered, sharp, isolated hills with thin forest cover. The climate is warm and humid with an average temperature of 32<sup>o</sup> C with a wide range of temperature difference between the summer (40<sup>o</sup> C) and winter months (10<sup>o</sup>C). The soils are mostly red, mixed red and yellow with a varying texture of sandy loam to sandy clay loam. Soils are acidic and poor in fertility status, highly eroded, but rich in iron and aluminium and deficient in Boron and Zinc. The district receives almost eighty percent of its rainfall during the south west monsoon season, June to September. The normal rainfall of the district is 1521.8 mm in 82 rainy days. Agriculture, which is the main activity of the villagers, is almost entirely rain-fed. While paddy is the major crop in the district, other crops are finger millet, small millets, maize, horse gram, black gram, green gram, niger, castor and vegetables. Sugarcane, ginger and turmeric are important cash crops cultivated in irrigated areas. Farmers continue to follow traditional methods of cultivation with traditional tools and implements and with minimum external inputs. Compared to the coastal areas of Odisha, crop productivity in Koraput district is low. This district is a bio-diversity hot spot and home to many tribal communities. It is rich in biological diversity and human cultural diversity. The district consists of two sub divisions, 14 Community Development Blocks, 197 Panchayats and 1997 revenue villages as on 2001.

The present study relates to Phukiaguda revenue village<sup>2</sup> which belongs to Kundra Community Development (CD) Block and comes under Lima Gram Panchayat (Refer Map1.1). This village consists of three hamlets: Gunthaguda, Phukiaguda and Khandaguda. Gunthaguda hamlet is the largest among the three constituting

- 
1. The basic information on the district is drawn largely from a publication by MANAGE: National Institute of Agricultural Extension Management (MANAGE), 2001.
  2. A revenue village is the smallest unit for purposes of collecting taxes and other revenues by the government. It may or may not be different from the smallest administrative unit called the village panchayat.

hamlets of this revenue village, having 78 households. An interesting feature of Gunthaguda is that about ninety two percent of the entire population belongs to a tribe named Paroja. Phukiaguda hamlet has a larger population than Gunthaguda, even though the number of households is only 70, about eight short of Gunthaguda. In Phukiaguda, about sixty percent of its population belong to Scheduled Caste. The major tribes of this hamlet are Kandha and Paroja. Khandaguda is a very small hamlet with only three households. For the sake of convenience, the current analysis considers the 3 households in Khandaguda as part of Phukiaguda.

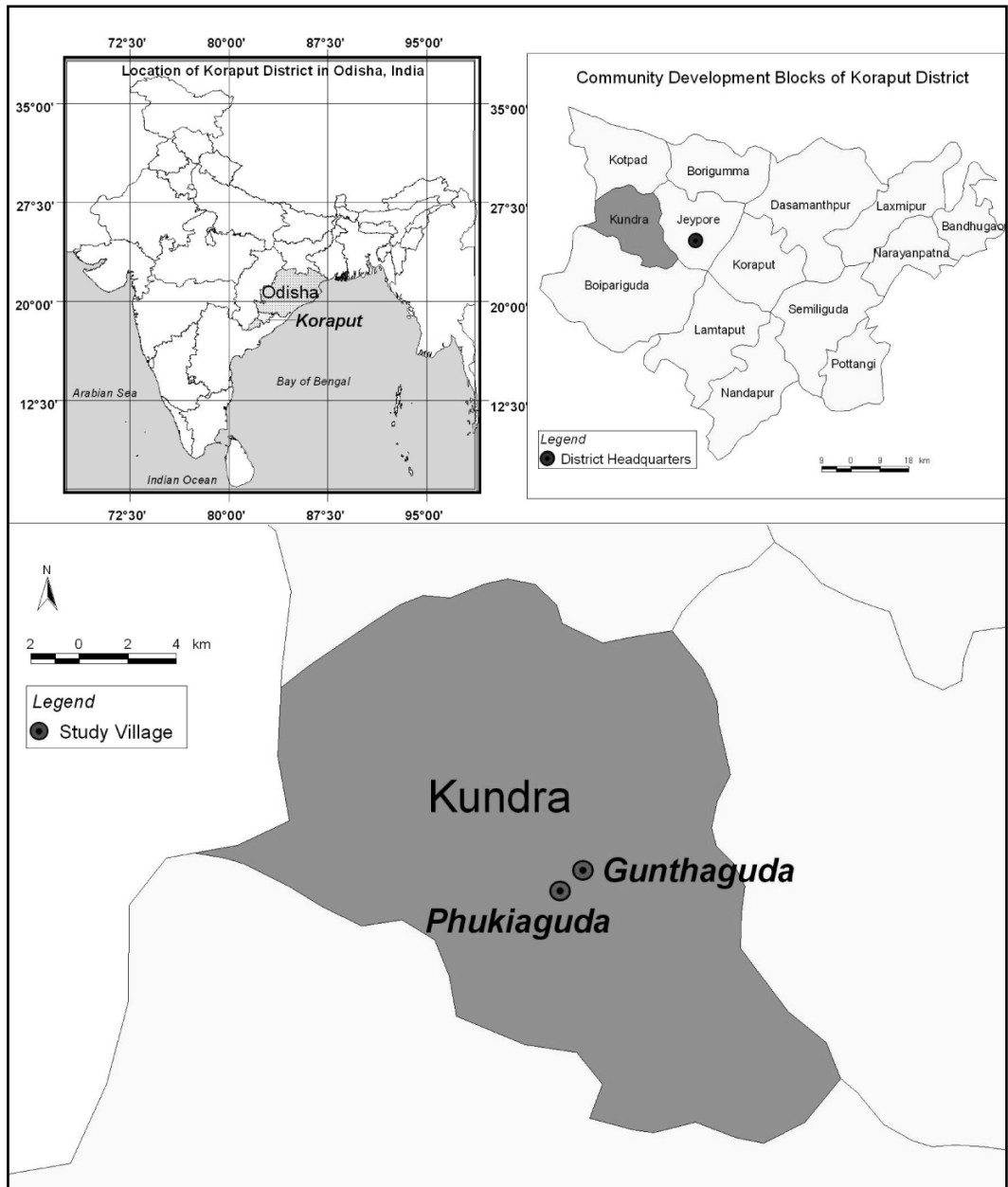
M S Swaminathan Research Foundation (MSSRF) has been working in the villages in Koraput region for nearly a decade now. In Gunthaguda hamlet, which is part of the revenue village of Phukiaguda, MSSRF's interventions are going on over the last 5 years. A survey was conducted in May 2010, using a structured questionnaire, covering all the 151 households in the village, by the Food Security Team of MSSRF, Jeypore. One member from each household was the respondent for the questionnaire<sup>3</sup>. The questionnaire was designed in such a way so as to elicit information from the respondent on a wide range of aspects pertaining to her/his household- demographic characteristics, income, details of cultivation, ownership of assets and their value, periods of employment, food scarcity, access to various government schemes, health care facilities etc. Besides, the height and weight of every member of the household was recorded to calculate the Body Mass Index (BMI). For details on income, employment, periods of food scarcity etc, the reference period was June 2009 – May 2010. This report is an attempt to provide a snap-shot picture of the socio economic conditions of Phukiaguda, based on the detailed analysis of primary data collected in May 2010.

The report begins with a description of the general and demographic features of the village. It is followed by a detailed discussion on land and agriculture in chapter three. The occupational structure of the village is discussed in chapter four. Chapter five discusses the various components of household income and assets. Chapter six discusses the food and nutrition security status of the village while chapter seven provides the concluding observations.

---

3. The Questionnaire that was used is enclosed in Annexure -1.

Map 1.1: Location of Phukiaguda



## 2. Salient Aspects of Phukiaguda Village

### Demography and Education

Phukiaguda village has a total population of 651. Fifty five percent of this population belongs to Phukiaguda hamlet while forty five percent belong to Gunthaguda hamlet. The gap between the total number of men and women in the village is extremely narrow, with women exceeding men by 5 numbers. In Gunthaguda, the population is almost entirely constituted by Paroja tribe (92%) while in Phukiaguda the Scheduled Caste (SC) population constitutes almost 57% of the population. The OBC population is about 5% or lower in both the hamlets (Refer: Table 2.1).

**Table 2.1: Classification of Population According to Caste/Tribe and Sex, 2010**

Residence	Caste/ Tribe Group	Name of Tribe/ Caste	Population			No. of house holds	Average Size of Family
			Females	Males	Total		
<b>Gunthaguda Hamlet</b>	ST	Paroja	138	134	272	70	4
	SC	Harijan	5	3	8	3	3
	OBC	Komar	8	7	15	5	3
		<b>Total</b>	<b>151</b>	<b>144</b>	<b>295</b>	<b>78</b>	<b>4</b>
<b>Phukiaguda Hamlet</b>	ST	Paroja	44	40	84	20	4
		Kandha	14	20	34	5	7
		Santha	12	11	23	4	6
		<b>Total</b>	<b>70</b>	<b>71</b>	<b>141</b>	<b>29</b>	<b>5</b>
	SC	Barik	4	6	10	2	5
		Harijan	92	85	177	36	5
		Sagoria	2	2	4	1	4
		Takiri	4	8	12	2	6
		<b>Total</b>	<b>102</b>	<b>101</b>	<b>203</b>	<b>41</b>	<b>5</b>
	OBC	Komar	5	7	12	3	4
	<b>Total</b>	<b>177</b>	<b>179</b>	<b>356</b>	<b>73</b>	<b>5</b>	
<b>Phukiaguda Revenue Village</b>		<b>Total</b>	<b>328</b>	<b>323</b>	<b>651</b>	<b>151</b>	<b>4</b>

**Note:** ST-Scheduled Tribes; SC-Scheduled Caste; OBC- Other Backward Classes

**Source:** Field Survey, May 2010

The village as a whole has a higher proportion of both Scheduled Tribes (at 63%) and Scheduled Caste (at 32%) population when compared to the state as a whole as well as the Koraput district<sup>4</sup>.

**Table 2.2: Classification of Population by Age Group and Sex, 2010**

Residence	Age - Group	Population					
		Females		Males		Total	
		No.	Percentage	No.	Percentage	No.	Percentage
<b>Gunthaguda Hamlet</b>	Below 6 years	29	19.21	36	25.00	65	22.03
	7 to 14 years	19	12.58	22	15.28	41	13.90
	15 to 59 years	87	57.62	77	53.47	164	55.59
	Above 60 years	16	10.60	9	6.25	25	8.47
	<b>Total</b>	<b>151</b>	<b>100.00</b>	<b>144</b>	<b>100.00</b>	<b>295</b>	<b>100.00</b>
<b>Phukiaguda Hamlet</b>	Below 6 years	41	23.16	41	22.91	82	23.03
	7 to 14 years	21	11.86	26	14.53	47	13.20
	15 to 59 years	103	58.19	106	59.22	209	58.71
	Above 60 years	12	6.78	6	3.35	18	5.06
	<b>Total</b>	<b>177</b>	<b>100.00</b>	<b>179</b>	<b>100.00</b>	<b>356</b>	<b>100.00</b>
<b>Phukiaguda Revenue Village</b>	Below 6 years	70	21.34	77	23.84	147	22.58
	7 to 14 years	40	12.20	48	14.86	88	13.52
	15 to 59 years	190	57.93	183	56.66	373	57.30
	Above 60 years	28	8.54	15	4.64	43	6.61
	<b>Total</b>	<b>328</b>	<b>100.00</b>	<b>323</b>	<b>100.00</b>	<b>651</b>	<b>100.00</b>

Source: Field Survey, May 2010

About fifty seven percent of the population in the village falls into the working age (15 – 59 years). The number of women above 60 years far exceeds the number of men in the same category in both hamlets. The age group composition in both the hamlets is more or less similar with only minor variations between the two. The working population is slightly more in Phukiaguda while the proportion of population above 60 years is more in Gunthaguda. (Refer: Table 2.2) Children below six years constitute about twenty three percent of the population. Unlike in Gunthaguda where the number of girls below six years is lower than that of

4. While corresponding figures are not available from 2011 census for the State and district, this statement can categorically be made given the 2001 figures. In Odisha, as per the 2001 Census, the ST and SC population constituted only about 22 percent and 16.5 percent respectively of the total population. In Koraput district ST population accounted for 49.62% and SC accounted for 13.04% in 2001. About 94.5 percent of the ST population of the state resides in villages. Gunthaguda hamlet is a clear example of how certain hamlets/ villages in Odisha are almost entirely tribal in nature.

boys, the Phukiaguda hamlet has an equal number of boys and girls of the same category<sup>5</sup>.

Literacy level in the village is only 37.3%. The male literacy rate is 48%, about 20 percentage points higher than that of women. The female literacy rate is the lowest in Gunthaguda with only 24% of women being literate. The male literacy rate is also lower for Gunthaguda compared to Phukiaguda (Refer: Table 2.3). The male and female literacy rates in Koraput, according to Census 2011, are 61.29% and 38.92% respectively. The literacy rates for village population above the age of seven fall below the district average for males and females.

It is found that a majority of the literate population has restricted its education to primary school level. This is true regardless of the social group they belong

**Table 2.3: Classification of Population above 7 years According to Level of Education and Sex, 2010**

Residence	Level of Education	Population					
		Female		Male		Total	
		No.	Percentage	No.	Percentage	No.	Percentage
Gunthaguda Hamlet	Illiterate	93	76.23	60	55.56	153	66.52
	Can only sign	4	3.28	2	1.85	6	2.61
	Class 1- 4	16	13.11	20	18.52	36	15.65
	Class 5 - 7	7	5.74	26	24.07	33	14.35
	Class 8 -10	2	1.64	0	0.00	2	0.87
	<b>Total</b>	<b>122</b>	<b>100</b>	<b>108</b>	<b>100</b>	<b>230</b>	<b>100</b>
Phukiaguda Hamlet	Illiterate	94	69.12	69	50.00	163	59.49
	Can only sign	0	0.00	1	0.72	1	0.36
	Class 1- 4	28	20.59	37	26.81	65	23.72
	Class 5 - 7	12	8.82	22	15.94	34	12.41
	Class 8 -10	2	1.47	8	5.80	10	3.65
	ITI	0	0.00	1	0.72	1	0.36
<b>Total</b>	<b>136</b>	<b>100</b>	<b>138</b>	<b>100</b>	<b>274</b>	<b>100</b>	
Phukiaguda Revenue Village	<b>Total</b>	<b>258</b>	<b>100</b>	<b>246</b>	<b>100</b>	<b>504</b>	<b>100</b>

**Note:** 1. Only sign refers to ability to sign without any formal schooling. 2. ITI-Industrial Training Institute

**Source:** Field Survey, May 2010

5. According to Census 2011, Koraput district has a Child Sex Ratio of 970. Though this figure is way above the national average of 914 in 2011, it is important to note that the previous census recorded a much higher figure of 983 for the district indicating a sharp decline in child sex ratio.

to. Table 2.3 suggests that there is only one person in the entire village who is pursuing higher education beyond tenth standard. He stays in a hostel away from the village to complete his course in Industrial Training<sup>6</sup>. As many as 10 students in the village, ranging from 5 to 20 years, stay outside their village. Interestingly, 7 out of these 10 children are girls. One of the reasons why many people have quit studying after primary school is because there are no secondary and higher secondary schools in the village. Students mainly cycle to attend these schools and this has a more serious impact on girls who generally are not allowed to travel long distances in cycle.

In the village, 91% of the children belonging to the age group 7 to 14 years attend school. The total number of children who stay away from school is eight, out of which six are girls. Thus 84% of the girls in Gunthaguda attend school, while the corresponding number for Phukiaguda is slightly higher – 86%. The number of boys who do not attend school is one each from both the hamlets. Children who do not attend school mainly engage themselves in wage labour.

**Table 2.4: Classification of Children by Main Activity**

Residence	Caste/ Tribe	Number of Children Attending School			Number of Children Not Attending School			Total
		Girls	Boys	Total	Girls	Boys	Total	
Gunthaguda Hamlet	ST	15	21	36	3	1	4	40
	OBC	1	-	1	-	-	-	1
	<b>Total</b>	16	21	37	3	1	4	41
		(84)	(95)	(90)	(16)	(5)	(10)	(100)
Phukiaguda Hamlet	ST	5	6	11	1	-	1	12
	SC	13	19	32	2	1	3	35
	<b>Total</b>	18	25	43	3	1	4	47
		(86)	(96)	(91)	(14)	(4)	(9)	(100)
Phukiaguda Revenue Village		34	46	80	6	2	8	88
		(85)	(96)	(91)	(15)	(4)	(9)	(100)

**Note:** Figures in brackets represent corresponding percentage values; Children in the age group 7-14 are considered here.

**Source:** Field Survey, May 2010

6. Though the survey adopted the census definition of a household whereby only members who share food from a common kitchen are considered as members of one household, the boy who stays in hostel is counted as part of the household because he was at home in the month of May when the survey was considered.



## 3. Agriculture and Land Use

### 3.1. Land: Features and Size of Holding

Land in Odisha consists of three types- Upland, Medium Land and Low Land-based on its topography. The uplands mostly consist of hilly areas. These lands have low fertility level and have a dry system of crop cultivation. The water holding capacity of the land is low and are cultivated only once in a year during the *kharif* season. Low lands have high water holding capacity and are the most fertile among the three. Medium lands lie in between the other two types, both in terms of proximity to water source and fertility of the soil.

In Koraput land is classified into five types<sup>7</sup> such as:

1. **Donger** is unbunded hill slopes mostly used for shifting cultivation of non-paddy crops. These areas mostly have red soil which is not very fertile. These are located at an altitude of 600 to 800 metres above sea level. These lands belong to the upland category.
2. **Bhata Beda**- These are bunded uplands used for cultivation of short duration paddy. In some areas, mixed cropping is followed. Soil is sandy, which is excellent for millet cultivation. The altitude of these uplands is similar to that of Donger.
3. **Tikira Beda** – It refers to the rain-fed bunded medium land suitable for medium duration paddy cultivation. The soil could be very hard when dry, but has a unique quality of being soft and sticky when wet. Compared to the uplands, these lands have a better fertility level. The altitude ranges from 200 to 400 metres above sea level.
4. **Khala Jamin** – These are rainfed lowlands which have perennial water supply and are suitable only for cultivation of long duration paddy crops. Soil is mostly blackish in colour and is loamy, having less sand and more clay. These are very fertile lands and are found at altitudes less than 200 metres above sea level.
5. **Atal Jamin** - These are located along the riverbanks. Non-paddy crops like groundnuts, black gram, horse gram and castor are cultivated here. Soil is sandy and loamy and is fertile with deposition of silt from the river.

---

7. *Unpublished reports prepared by Biodiversity Programme Area, MSSRF which were obtained through discussions with Dr Arivudai Nambi and Dr Smitha Misra.*

Thus, while Donger and Bhata Beta are uplands, Tikira Beda and Khala Jamin belong to medium and low land categories respectively. The last category has all the three types of land. Phukiaguda village is mostly a hilly area. Nevertheless, it has some medium and low lands too. Gunthaguda has comparatively lesser land area than Phukiaguda.

About 129 households (85% of all households) own agricultural land. The total number of landless in the village adds up to twenty two households (15%). Gunthaguda has a higher number as well as higher percentage of landless households (14 households and 18%) when compared to Phukiaguda (8 households and 11%). Landlessness is more prevalent among Scheduled Tribe households in Gunthaguda while in Phukiaguda it is among Scheduled Caste households. Table 3.1 shows the classification of landless households in the village according to caste/ tribe.

**Table 3.1: Classification of Landless Households by Caste/ Tribe**

Residence	Classification of Landless Households by Caste/Tribe			Total Landless Households
	ST	SC	OBC	
Gunthaguda Hamlet	13	-	1	14
Phukiaguda Hamlet	2	6	-	8
Phukiaguda Revenue Village	15	6	1	22

Source: Field Survey, May 2010

Table 3.2 reveals the preponderance of small and marginal holdings in the village. Nearly half the landed households in the village own only marginal holdings. In Gunthaguda 52% of the landed households have marginal holdings while the corresponding percentage in Phukiaguda is 46%. While 20% of all holdings are small in Gunthaguda, this percentage is higher at 35% in Phukiaguda. In other words, 72% of all holdings in Gunthaguda and 81% in Phukiaguda are small and marginal holdings. In both the hamlets medium holdings account for 5 to 6% of all holdings. There are no large land holders, owning above 25 acres, in either of the hamlets. While in the Phukiaguda revenue village, five out of seven households that own medium landholdings (10-25 acres) belong to Scheduled Tribes, majority of the landless also belong to Scheduled Tribes indicating visible inequalities within Scheduled Tribes with respect to ownership of land (Refer: Table3.2).

**Table 3.2: Classification of Households by Caste/Tribe and Size of Landholding Owned**

Residence	Size of Landholding (in acres)	Classification of Landed Households by Caste/Tribe				
		ST HHs	SC HHs	OBC HHs	Total	
					HHs	Percentage
Gunthaguda Hamlet	<2.5	29	1	3	33	52
	2.5 to 5	11	1	1	13	20
	5 to 10	14	1	-	15	23
	10 to 25	3	-	-	3	5
	<b>All</b>	<b>57</b>	<b>3</b>	<b>4</b>	<b>64</b>	<b>100</b>
Phukiaguda Hamlet	<2.5	11	18	1	30	46
	2.5 to 5	8	13	2	23	35
	5 to 10	5	3	-	8	12
	10 to 25	2	2	-	4	6
Phukiaguda Revenue Village	<b>All</b>	<b>26</b>	<b>36</b>	<b>3</b>	<b>65</b>	<b>100</b>
	<b>All</b>	<b>83</b>	<b>39</b>	<b>7</b>	<b>129</b>	<b>100</b>

**Note:** Marginal: up to 2.5 acres; Small: 2.5 to 5 acres; Semi-Medium: 5 to 10 acres; Medium: 10-25 acres;

**Source:** Field Survey, May 2010

**Table 3.3: Classification of Households by Caste/Tribe and Type of Landholding Owned**

Residence	Caste/Tribe	Classification of Households by Type of Landholding Owned							Total
		All 3 Types	UL	ML	LL	UL & ML	ML & LL	UL & LL	
Gunthaguda Hamlet	ST	21	8	1	1	13	3	10	57
	SC	-	3	-	-	-	-	-	3
	OBC	3	-	-	1	-	-	-	4
	<b>Total</b>	<b>24</b>	<b>11</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>10</b>	<b>64</b>
Phukiaguda Hamlet	ST	11	3	-	1	1	-	10	26
	SC	8	3	1	3	1	-	20	36
	OBC	1	-	-	-	-	-	2	3
	<b>Total</b>	<b>20</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>-</b>	<b>32</b>	<b>65</b>
Phukiaguda Revenue Village	<b>Total</b>	<b>44</b>	<b>17</b>	<b>2</b>	<b>6</b>	<b>15</b>	<b>3</b>	<b>42</b>	<b>129</b>

**Note:** UL - Up Land; ML - Medium Land; LL - Low Land

**Source:** Field Survey, May 2010

Table 3.3 suggests that most of the households in Gunthaguda own all three types of land; while in Phukiaguda a majority (49%) own a combination of low and uplands. In both the hamlets medium land is owned the least. Most of the landed ST households in both the hamlets own a combination of all three lands. In Phukiaguda 56% of the landed SC households own a combination of hilly uplands and low lands, both of which are suitable for paddy cultivation. Table 3.4 suggests that 34% (44 households) of all the landed households in the village own a combination of all three types of land while 33% (42 households) own a combination of low and uplands.

**Table 3.4: Classification of Households by Size and Type of Landholding Owned**

Size of holding (in acres)	Number of households classified by the type of landholding							Total
	All 3 Types	ML&UL	UL&LL	ML&LL	UL	ML	LL	
< 2.5	10	10	20	2	13	2	6	63
2.5 to 5	15	4	14	0	3	0	0	36
5 to 10	15	1	5	1	1	0	0	23
10 to 25	4	0	3	0	0	0	0	7
<b>Total</b>	<b>44</b>	<b>15</b>	<b>42</b>	<b>3</b>	<b>17</b>	<b>2</b>	<b>6</b>	<b>129</b>

**Note:** UL - Up Land; ML -Medium Land; LL - Low Land

**Source:** Field Survey, May 2010

The average size of the landholding for the entire village is 2.4 acres: the average is 2.6 acres in Gunthaguda and 2.2 acres in Phukiaguda (Refer: Table 3.5). The average size of landholding of the Paroja ST households in Gunthaguda which own all three types of land is 6.2 acres. In Phukiaguda, the average land holding of the ST households is 3 acres and that of SC households is 1.8 acres. The average size of landholdings is the highest for those who own a combination of all three types of land (5.2 acres), followed by those who own low and uplands (3.5 acres).

An accurate figure about the lease pattern in the village could not be arrived at due to lack of complete information about it. Nevertheless, it could be concluded that the proportion of leased in land area with respect to the total owned area in the village would lie within the range of 10 to 15%. A total of 53 households in the village had leased in lands for cultivation during the survey period. This accounts to a little more than one third of the total number of households in the village. Despite being predominantly tribal in nature, Gunthaguda has a larger number

of households that have leased in lands (41%) compared to Phukiaguda (29%). On the whole, ST households accounted for 72% of the total number of households that leased in lands in the village. (Refer: Table 3.6)

**Table 3.5: Average Size of Land Holding of Households According to Caste/Tribe, Land Type (in acres)**

Land Type	Gunthaguda Hamlet			All	Phukiaguda Hamlet			All	Average Size of Ownership Holding (in acres) Phukiaguda Revenue Village
	Average Size of Ownership Holding among Caste/Tribe				Average Size of Ownership Holding among Caste/Tribe				
	ST	SC	OBC		ST	SC	OBC		
<b>All three Types</b>	6.2	-	2.0	5.7	5.9	3.1	2.8	4.6	5.2
<b>UL</b>	1.1	3.2	-	1.6	1.3	2.0	-	1.7	1.7
<b>ML</b>	0.5	-	-	0.5	-	0.5	-	0.5	0.5
<b>LL</b>	1.5	-	1.5	1.5	1.0	1.5	-	1.4	1.4
<b>UL &amp; ML</b>	2.1	-	-	2.1	3.5	0.5	-	2.0	2.0
<b>ML &amp; LL</b>	3.2	-	-	3.2	-	-	-	-	3.2
<b>UL &amp; LL</b>	3.6	-	-	3.6	3.1	3.4	2.9	3.3	3.5
<b>Any Type</b>	<b>2.6</b>	<b>3.2</b>	<b>1.8</b>	<b>2.6</b>	<b>3.0</b>	<b>1.8</b>	<b>2.8</b>	<b>2.2</b>	<b>2.4</b>

Source: Field Survey, May 2010

**Table 3.6: Classification of Households According to Caste/ Tribe and Size of Leased-in Land**

Residence	Holding Size of Leased-in Land (in acres)	Classification of Households that have Leased-in Land among Caste/ Tribe			Total
		ST	SC	OBC	
<b>Gunthaguda Hamlet</b>	<2.5	23	0	1	24
	2.5 to 5	8	0	0	8
	<b>Total</b>	<b>31</b>	<b>0</b>	<b>1</b>	<b>32</b>
<b>Phukiaguda Hamlet</b>	<2.5	6	11	0	17
	2.5 to 5	1	3	0	4
	<b>Total</b>	<b>7</b>	<b>14</b>	<b>0</b>	<b>21</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>38</b>	<b>14</b>	<b>1</b>	<b>53</b>

Source: Field Survey, May 2010

There is only one household in the village belonging to Gunthaguda that has leased in all three types of lands. Most of the villagers have leased in low lands which again emphasises the importance of paddy cultivation. The largest leased - in land was only 4.5 acres. The SC households in Gunthaguda have not leased in any land at all while in Phukiaguda the average size of leased in lands of the same community is about 1.4 acres.

More number of households have leased in land compared to households that have leased out (Refer: Tables 3.6 and 3.7). The largest leased out area is 11 acres by an ST household in Gunthaguda. Lowlands are the most commonly leased out land, constituting about 46% of the total leased out lands. Barring one household, the rest of the households in the village have leased out only small extent of land.

The rent from leasing out does not constitute a major share in the annual incomes of most of the households. Rent is generally paid in terms of paddy in the village. The lowlands fetched a better rent, about an average of four quintals of paddy per acre per annum compared to medium lands which fetched only 2 to 3 quintals per acre per annum. The uplands commanded the least rent of the three.

**Table 3.7: Classification of Households According to Caste/Tribe and Size of Leased-out Land**

Residence	Holding Size of Leased-out Land (in acres)	Classification of Households that have Leased-out Land among Caste/Tribe			Grand Total
		ST	SC	OBC	
<b>Gunthaguda Hamlet</b>	<2.5	6	-	3	9
	2.5 to 5	1	-	-	1
	10 to 25	1	-	-	1
	<b>Total</b>	<b>8</b>	<b>-</b>	<b>3</b>	<b>11</b>
<b>Phukiaguda Hamlet</b>	<2.5	4	5	-	9
	2.5 to 5	1	1	-	2
	5 to 10	1	-	1	2
	<b>Total</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>13</b>
<b>Phukiaguda Revenue Village</b>	<b>Total</b>	<b>14</b>	<b>6</b>	<b>4</b>	<b>24</b>

Source: Field Survey, May 2010

Operational area of landholdings, which was arrived at by deducting the leased-out area from the total of owned and leased-in area, does not significantly alter the pattern of ownership holdings in the village.

**Table 3.8: Classification of Households According to Size of Operational Area and Caste/Tribe**

Residence	Operational Area (in acres)	Classification of Households by size of operational holdings among Caste/Tribe				
		ST	SC	OBC	Total	Percentage
Gunthaguda Hamlet	<2.5	27	1	3	31	46
	2.5 to 5	13	1	1	15	22
	5 to 10	17	1	-	18	27
	10 to 25	3	-	-	3	4
	<b>Total</b>	<b>60</b>	<b>3</b>	<b>4</b>	<b>67</b>	<b>100</b>
Phukiaguda Hamlet	<2.5	12	21	2	35	52
	2.5 to 5	5	12	1	18	27
	5 to 10	7	3	-	10	15
	10 to 25	2	2	-	4	6
	<b>Total</b>	<b>26</b>	<b>38</b>	<b>3</b>	<b>67</b>	<b>100</b>
<b>Phukiaguda Revenue Village</b>	<b>Total</b>	<b>86</b>	<b>41</b>	<b>7</b>	<b>134</b>	<b>100</b>

Source: Field Survey, May 2010

## 2.2 Cropping Pattern

Agriculture constitutes the single most important economic activity of the village society. The total area under cultivation is 398 acres. Paddy is the most important crop cultivated in the village. Nearly 92% of the cultivating households undertake paddy cultivation. In terms of area, it accounts for almost 56% of the total area under cultivation. (Refer: Figure 3.1). The average area of paddy holdings (1.8 acres) is lower than that of cashew (2.38 acres). (Refer: Table 3.9). Out of 134 cultivating households, 123 households (92%) cultivate paddy.

Considering the importance of paddy in the cropping pattern of the village, various aspects relating to paddy cultivation is discussed here. Paddy cultivation is done mostly in the Kharif season making use of the heavy rainfall in the area. It is cultivated on all three types of lands, but the duration varies across the land types. Paddy varieties with the longest duration (over 120 days) such as *Kalajeera*, *Lalat*,

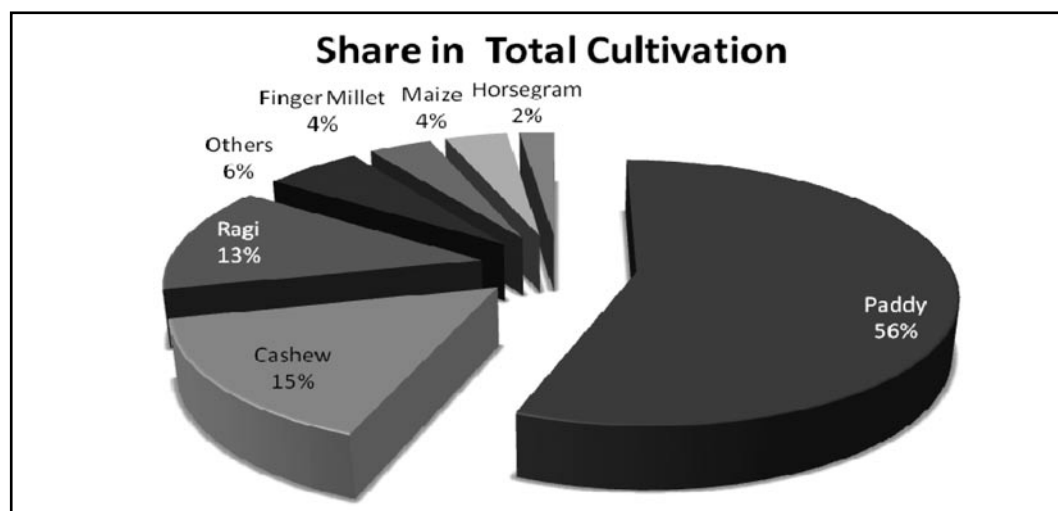
Table 3.9: Average Area Under Cultivation of Different Crops

Crop	Average Area Under Cultivation (in acres)/Household	Number of Cultivating Households
Paddy	1.80	123
Cashew	2.38	26
Ragi	0.88	59
Finger Millet	0.60	25
Maize	0.23	66
Horsegram	0.42	20
Others	0.68	34

**Note:** Others include crops like Arhar, Greengram, Suan, Little Millet, Tomato, Alasi etc.

**Source:** Field Survey, May 2010

Figure 3.1: Share of Different Crops in Gross Cropped Area



**Source:** Field Survey, May 2010

*Umriachudi* and *Haldichudi* are cultivated on low lands. *Khandagiri*, which matures within a short duration of 100 days, is the most important variety cultivated on uplands<sup>8</sup>. It could be observed from Table 3.10 that 64% of the households cultivate

8. Long duration varieties fetch a better price in the market compared to short duration ones. Those households that cultivate paddy on uplands mostly consume the produce. The produce from the medium lands is sometimes sold in the market. Though some of the low land and medium land varieties of rice reach the local markets, they are mostly not demanded outside. But the situation is slowly changing as organisations such as MSSRF help the farmers to get 'purified' seeds whose yields are much higher and uniform in quality. Though MSSRF started with only one variety of purified seeds (*Kalajeera*), it has now added two more varieties to the list – *Haldichudi* and *Machhakanta*.



paddy in less than 2.5 acres. Phukiaguda has a lesser proportion of small and marginal paddy holdings as compared to Gunthaguda. There is only one household (in Gunthaguda) that cultivates paddy on large holdings. As there is some noise in the data regarding paddy production of this household, it is excluded from the discussions in the forthcoming sections.

**Table 3.10: Classification of Households According to Area under Paddy Cultivation**

Residence	Area Under Paddy Cultivation (in acres)	No. of Households
Gunthaguda Hamlet	<2.5	49
	2.5 to 5	11
	5 to 10	2
	10 to 25	1
	<b>Total</b>	<b>63</b>
Phukiaguda Hamlet	<2.5	47
	2.5 to 5	9
	5 to 10	4
	<b>Total</b>	<b>60</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>123</b>

Source: Field Survey, May 2010

Costs incurred for paddy cultivation are mainly classified as input and labour costs. The details about these costs were collected in the field survey. Expenses on land preparation, seeds, fertilisers, pesticides and farmyard manure mainly constituted the input cost. Among these fertiliser is the most expensive item on the list for all farmers, regardless of the size of the farm. Small farmers spend a greater share of the total cost of cultivation towards fertiliser compared to large farmers; cost incurred on fertiliser is thus inversely related to size of holding in both the hamlets. Farmers incur labour costs in the form of wages paid out to labourers for land preparation, nursery, transplantation, weeding, harvest and other post harvest activities. Transplantation is the most expensive activity for all farmers in the village. The interest paid on loans taken for cultivation is another type of cost incurred by many in the village. The interest rate varied depending on from whom the credit was availed, but generally it varied between 2 to 4% per month during the period of study.

It could be observed from Table 3.11 that an average household in Gunthaguda incurs, on an acre of land, labour costs which are three times more than the cost of inputs. In Phukiaguda, the average labour cost incurred for paddy cultivation per acre is equivalent to three times the value of inputs bought. The cost incurred per acre is highest for small households in Gunthaguda (Refer: Table 3.11), whereas it is the semi-medium households in Phukiaguda. On an average, both labour and input costs per acre are higher for Phukiaguda when compared to Gunthaguda and the factors underlying this pattern could not be explored<sup>9</sup>.

**Table 3.11: Cost of Paddy Cultivation per acre across Different Size Class of Holdings**

Residence	Size of Holdings (in acres)	Cost incurred per acre (in Rs.)		
		Input Cost	Labour Cost	Total Cost
Gunthaguda Hamlet	<2.5	554	1532	2086
	2.5 to 5	737	1796	2533
	5 to 10	630	1776	2406
	<b>All</b>	<b>621</b>	<b>1950</b>	<b>2571</b>
Phukiaguda Hamlet	<2.5	710	1597	2307
	2.5 to 5	594	1954	2548
	5 to 10	789	3321	4110
	<b>All</b>	<b>729</b>	<b>2435</b>	<b>3164</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>669</b>	<b>2203</b>	<b>2872</b>

Source: Field Survey, May 2010

The retained seeds from previous year's production constitute the most important source of seeds for paddy cultivation. Farmers also source seeds from the government agencies and NGOs like MSSRF which has a seed bank in Gunthaguda. Farmers, therefore, have access to many high yielding varieties of seeds like 1001, 1010, R Jel etc. In Gunthaguda the expenditure on seeds was the least for small farmers at 5% of total costs. In Phukiaguda, it ranged from 4 to 11%, with the larger land holdings having a smaller share. Fertiliser is the most important component of input costs; it constitutes, on an average, about 20% in Gunthaguda and 15% in Phukiaguda of the total cost incurred per acre.

Marginal farmers of Gunthaguda spend about 22% of their total cost of cultivation incurred per acre on fertilisers. The proportion is high among the marginal

9. It is important to note that cost of cultivation estimates provided here do not include family labour.

cultivators of Phukiaguda also, but comparatively lesser than the amount spent by farmers in Gunthaguda. On an average, households in Phukiaguda spend relatively more on seeds and land preparation in comparison to Gunthaguda. Again, specific factors underlying this pattern remain unexplored.

Labour costs are substantial in paddy production. Transplantation incurs the maximum cost in the entire crop cycle. Only women labourers were engaged in transplantation activity. Weeding and harvesting, the other two activities which are carried out by women workers in most of the cases, also have high costs when compared to the activities done by male wage labourers like land preparation and post harvest activities (carrying the produce from the farm in bamboo baskets or on cycles). On the whole, labour costs constitute about 77% of the total costs incurred per acre.

The small and marginal landholdings in Gunthaguda have a higher average yield than the corresponding categories of landholdings in Phukiaguda. (Refer: Table 3.12). But the average produce from the semi- medium sized landholdings in Phukiaguda (876kg/acre) is almost the double of that of Gunthaguda landholdings (457 kg/acre) of the same category. The average yield per acre was the highest for the marginal holdings in Gunthaguda (1080 kg/acre), followed by those in Phukiaguda (1026 kg/acre). The lowest yield was recorded for the medium holdings in Gunthaguda (457 kg/acre) which was 2.4 times lower than the marginal holdings in the same hamlet. But on the whole, Gunthaguda has a higher yield per acre than Phukiaguda. The average yield per acre for the village was 1026 kg/acre. The yield per acre decreased with increasing size of the holdings. This observation supports the findings of Sen (1962) and Bharadwaj (1974) and contradicts that of Rao (1967) and Rudra (1968a, 1968b) on the relationship of productivity and farm size<sup>10</sup>.

---

10. An early attempt to study the relationship between farm size and productivity was undertaken by A. K. Sen in an article published in 1962 in which he stated that by and large, productivity per acre decreased with increase in size of holding. Sen (1964) subsequently gave three alternative lines of explanation for this phenomenon, (i) technique-based, (ii) labour-based, and (iii) fertility-based. However A. P. Rao (1967) came up with contradicting results based on his analysis of dis-aggregated data relating to individual holdings. Rudra's (1968a) analysis of individual holding, in 20 villages also supported Rao's findings. In another follow-up study, working with size-group data Rudra (1968b) challenged the validity of generalising the inverse relation for the whole of India. But Krishna Bharadwaj (1974) investigated the relationship between productivity and size of farm using aggregated data relating to individual districts for the period between 1954 and 1957, and found that in the majority of cases, an inverse relationship existed; however, it was not statistically significant. Rudra and Sen (1980) attempted to review the main findings and the general conclusion was that the negative relation may hold in certain parts of the country at certain times but not everywhere and not at every time. Rudra (1983) concluded that: "there is no scope for propounding a general law (for an inverse relationship or even for a positive relationship)."

Table 3.12: Paddy Yield across different size of Landholding

Residence	Size of land holding (in acres)	Average yield of paddy per acre (in Kg)
Gunthaguda Hamlet	<2.5	1080
	2.5 to 5	989
	5 to 10	457
	<b>All</b>	<b>1042</b>
Phukiaguda Hamlet	<2.5	1026
	2.5 to 5	984
	5 to 10	876
	<b>All</b>	<b>1009</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>1026</b>

Source: Field Survey, May 2010

Table 3.13: Salient Features of Paddy Production and Marketing

Residence	Size of Land holding (in acres)	Percentage of Households that do not sell their produce	Average Share of Marketed Produce in Total Production (in %)
Gunthaguda Hamlet	<2.5	45	24.52
	2.5 to 5	0	26.35
	5 to 10	0	38.59
	<b>Total</b>	<b>45</b>	<b>25.73</b>
Phukiaguda Hamlet	<2.5	34	18.95
	2.5 to 5	22	29.04
	5 to 10	0	31.94
	<b>Total</b>	<b>30</b>	<b>21.23</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>33</b>	<b>23.48</b>

Source: Field Survey, May 2010

In order to get a rough approximation of *per capita* availability of paddy in cultivating households the quantity of produce retained for consumption by a household is divided by the respective household size. In Gunthaguda 841.5 gm of paddy *per capita* per day is estimated to be available in paddy cultivating households while in Phukiaguda it is lower at 615.8 grams<sup>11</sup>.

11. Though this is higher than the Required Daily Allowance as per ICMR norms of 420 gms of cereals *per capita* per day, it is important to note that we have no information regarding *per capita* availability of other food items such as pulses, oil, vegetables, fruits, milk etc

The share of produce retained for marketing increased with the size of landholding. For marginal cultivators the marketed produce, on an average, constitutes only about 22% of the total produce. Phukiaguda records a lower figure than Gunthaguda in this regard. In both the hamlets, all the medium cultivators had access to market for selling their produce. In Phukiaguda about 22% of the small cultivators did not market their produce. In Gunthaguda barring 45% of the marginal cultivators, the rest of the farmers marketed their produce.

There used to be practices of barter for agricultural produce. However, now-a-days villagers mostly trade in the local markets. The nearest markets that are accessed by the villagers are:

- Pradhaniguda weekly market at a distance of 6km from the village, which is held on Thursdays only.
- Kundura weekly market at a distance of 6km from the village, which is held on Wednesdays only.
- Taraput weekly market at a distance of 5km, which is held on Mondays only.

The estimated net income from paddy was calculated for the survey period, 2009-10 and this calculation assumes that the entire produce is marketed. This estimate was arrived at by deducting the sum of all costs from the Gross Value of Output. For this The Gross Value of Output was determined by multiplying the total produce of a household by the average price, Rs.9/kg. From the GVO, the total of costs (as defined by Cost A1 method) was deducted to find out the net income from paddy<sup>12</sup>. The average of net income was found out for each category of households<sup>13</sup>. (Refer: Table 3.14).

---

12. According to Commission for Agricultural Costs and Prices (CACP), **Cost A1** = Value of purchased material inputs (seed, insecticides and pesticides, manure, fertilizer), hired human labour, animal labour (hired and owned), hired farm machinery, depreciation on farm implements and farm buildings, irrigation charges, land revenue cesses and other taxes, and interest on working capital. However, in our calculation depreciation on farm implements and farm buildings, irrigation charges, land revenue cesses and other taxes, and interest on working capital have not been included.

13. Cost A2 method, which included the rent as well along with the rest of the costs in A1 method, was not used mainly because of the lower incidence of leasing out in the village. It was only 10 – 15 percent of the total owned area that was leased out. The rents, therefore, did not figure in as an important cost component.

**Table 3.14: Estimated Net Income from Paddy Cultivation**

Residence	Size of Land holding (in acres)	Estimated Average Value (in Rs/acre) if entire produce was marketed		
		GVO	Total Cost	Net Income
Gunthaguda Hamlet	<2.5	9848	2086	7762
	2.5 to 5	8847	2533	6314
	5 to 10	4216	2406	1810
	<b>All</b>	<b>9868</b>	<b>2571</b>	<b>7297</b>
Phukiaguda Hamlet	<2.5	9160	2307	6853
	2.5 to 5	8961	2548	6413
	5 to 10	8223	4110	4113
	<b>All</b>	<b>9737</b>	<b>3164</b>	<b>6573</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>9829</b>	<b>2872</b>	<b>6957</b>

**Note:** GVO - Gross Value of Output

**Source:** Field Survey, May 2010

Table 3.14 suggests that the net income from paddy cultivation was higher for small and marginal holdings compared to semi-medium holdings in Gunthaguda as well as in Phukiaguda. On the whole, the average net income per acre of paddy cultivation in the village was Rs.6957. Actual net income per acre received by households in all the categories were much lower than the figures shown in table 3.14 because all households marketed only a proportion of their produce (Refer: Table 3.13) and the major proportion of the produce, nearly three fourths, was retained for self consumption. In terms of area under cultivation the next important crop after paddy is cashew in the village. Only a few households cultivate cashew, around five times lower than that of paddy. But the average area under cultivation per household is about 2.4 acres, the highest among all the cultivated crops in the village. Mostly local varieties of cashew are grown in the village. Maize is cultivated by 49% and ragi by 44% of all cultivating households in the village. Other crops are usually cultivated following a mixed cropping pattern. The cultivation costs of all these crops are not available as villagers incur only negligible costs on them. They are generally grown for own consumption. Hence, an accurate record of the production and cost details were not available in most of the cases.

## 4. Employment Pattern

Different types of occupations pursued by workers are classified under the following major heads – cultivation, wage employment, non-agricultural employment, agriculture-allied activity and trade. In Gunthaguda as well as Phukiaguda hamlets, the most important primary occupation among males is cultivation followed by wage employment whereas for females wage employment has an edge over cultivation<sup>14</sup>. (Refer: Table 4.1). Wage employment can be in the agricultural or non agricultural sector and within the village employment generated in this category is largely related to agriculture. Labourers are hired for different works depending on the stage of the crop cycle. There are also gendered demands of labour at times as both the sexes do not perform all types of agricultural works. Land preparation is done by men. Some of the activities like transplantation are done exclusively by women. Women do both transplantation and harvesting of crops, while the post harvest activity of carrying the produce in bamboo baskets on their shoulders is done mostly by men. In 2009-10, a woman wage labourer received Rs.25 to Rs.30 as wages for a day. For a male worker, wages per day was Rs.40 to Rs.50. While both the wages are way below even the wage level set by the government under MGNREGS, the discriminatory practice of wage payment followed in the village puts the woman at a greater disadvantage. Though a woman might work for more number of days as wage labourer than her husband, she might be earning an amount less than him, annually.

The types of non agricultural wage employment available within the village and outside are slightly different. There is a clear demarcation regarding works done by men and women within the village. Men thatch roofs, dig ponds or participate in house and road constructions when they work within the village as wage labourers. Outside the village, they engage themselves in levelling and digging the land (both jobs usually provided by the Soil Conservation Department, Government of Odisha), besides working in road construction, digging ponds, crushing stones for construction etc. Women also do the same type of work as men outside the village. However, within the village, they mostly confine themselves to digging ponds or as helpers in road construction. These are activities which do not require labour

---

14. According to NSSO definition, for a person pursuing more than one occupation, primary occupation is the one in which maximum labour time is spent. The other occupations will be considered as secondary occupations.

on a continuous basis. The concrete road inside the village does not get repaired very often and only a limited labour is required to maintain the village pond. Thus women often find non agricultural employment only outside the village.

The category 'non agricultural employment' includes all nonfarm activities in the village. Watchman, tailor, cycle mechanic, vehicle driver, blacksmith, ICDS and ASHA workers - all belong to this category. There are only a few who are engaged in trade. Majority of the tradesmen are cattle traders. Grocery shop owners are also found in the village. Cattle herders were placed in the category of allied agricultural activities. Two labourers in Gunthaguda were under a contract to stay for a year with the landlords who employed them. They were male labourers, 15 and 20 years of age and were required to do both agricultural and non agricultural work for the respective employers. About 33 persons were reported to be unemployed in the survey period.

**Table 4.1: Classification of Workers by Primary Occupation and Sex**

Residence	Primary occupation	Number of Workers		
		Females	Males	Total
<b>Gunthaguda Hamlet</b>	Cultivation	38	42	80
	Wage Employment	53	34	87
	Non-Agricultural Employment	21	3	
	Agriculture- allied Activity	05	5	
	Trade	11	2	
	<b>Total</b>	<b>94</b> <b>(623)</b>	<b>83</b> <b>(576)</b>	<b>177</b> <b>(600)</b>
<b>Phukiaguda Hamlet</b>	Cultivation	47	54	101
	Wage Employment	40	24	64
	Non-Agricultural Employment	215	17	
	Agriculture- allied Activity	05	5	
	Trade	14	5	
	<b>Total</b>	<b>90</b> <b>(508)</b>	<b>102</b> <b>(570)</b>	<b>192</b> <b>(539)</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>184</b> <b>(561)</b>	<b>185</b> <b>(573)</b>	<b>369</b> <b>(567)</b>

**Note:** Figures in brackets provide the Worker Participation Rate

**Source:** Field Survey, May 2010



From table 4.1 it is clear that work participation rate is higher in Gunthaguda hamlet compared to Phukiaguda for males as well as females. However, WPR is higher for males compared to females in Phukiaguda hamlet whereas in Gunthaguda hamlet the pattern is reversed<sup>15</sup>.

Of the 369 workers in the village 10 are child workers, below the age of 14 years. Gunthaguda hamlet reported 4 child workers while Phukiaguda reported 6 child workers. Child workers comprised of 7 girls and 3 boys in all. Of the 7 girls, one girl is engaged as a Tailor while the rest are all engaged in agricultural activities. Among the 3 boys, one is a cowherd and the rest are engaged in agricultural activities.

Of the female workers, 67 percent in Gunthaguda hamlet and 80 per cent in Phukiaguda hamlet report having a secondary occupation. As regards male workers, the corresponding percentage is 80 and 71 in Gunthaguda and Phukiaguda hamlet respectively.

In order to study the pattern of wage employment, data was collected on the number of days of employment in various seasons for both agricultural and non agricultural wage labour<sup>16</sup>. There are mainly three seasons of employment – June to September, October – January and February to May. In the first season workers are mainly employed in cultivation related activities. Some of the short varieties of paddy also get harvested in the month of September. October to January is the season of harvest. Workers are engaged in harvest and post harvest activities in these months. In February to May workers are mostly engaged in non agricultural activities. Thus keeping this broad seasonal classification in the background, data was collected for both male and female workers separately on the number of days employed in each season. Though care has been taken to ensure accuracy, it is important to note that the data on employment days that is used in this study was collected at one time point, in a single survey. Moreover, we were unable to collect details on number of days of wage employment from 48 female workers

---

15. Work participation rate for rural Orissa according to NSSO is 243 for females and 578 for males in 2009-10. In this study we have not attempted to explore the factors underlying the different patterns that prevail in the two hamlets regarding WPR (or other variables). Therefore, we are unable to comment about the relatively much higher WPR reported for females in our survey except to note that the survey is among poor households.

16. It is a major limitation that the number of days of employment generated by the MGNREGS has not been recorded separately but gets included in non-farm employment.

and 47 male worker in our survey. Therefore table 4.2 pertains only to 136 female workers and 138 male workers.

**Table 4.2 Number of days of wage employment**

Residence	Sex	Average number of days of wage employment per worker			
		Agriculture	Non-agriculture	Agriculture and non-agriculture	All
Gunthaguda	Females	23	86	85	65
	Males	40	49	97	80
Phukiaguda	Females	27	52	60	43
	Males	21	141	65	68
Phukiaguda	Females	26	80	72	53
Revenue village	Males	31	111	83	74

**Note:** 1) The three given categories are mutually exclusive, while 'All' refers to the average figure of all three categories.

2) The number of workers reporting under each category varies widely.

**Source:** Field Survey, May 2010

Table 4.2 brings out the following points:

- In general, the average number of days of wage employment is at a very low level, though higher for males compared to females, in both the hamlets. For Phukiaguda Revenue village as a whole, average number of days of wage employment for females is 53 and for males it is 74 for the period 2009-10. However in non-agricultural employment in Gunthaguda and agricultural employment in Phukiaguda hamlet the pattern is reversed whereby females report higher days of employment;
- In Gunthaguda hamlet, number of days of employment for males is the highest for those engaged in agricultural and non-agricultural activities whereas for females those engaged only in non-agricultural activities is the highest;
- In Phukiaguda hamlet, number of days of employment for females is the highest for those engaged in agricultural and non-agricultural activities;
- In Phukiaguda for male workers engaged in non-agricultural activities the average number of wage employment is relatively high, at 141 days. The presence of tailors, drivers, vehicle mechanics, truck helpers etc. in this hamlet seem to boost up the number of days of employment.

Even while the Phukiaguda village remains essentially agricultural in nature, in terms of number of days of employment generated, non-agricultural employment scores over agricultural employment for all categories of workers except for females in Phukiaguda hamlet. In Phukiaguda hamlet, percentage of non-agricultural employment for females is 33 while for males it is 71. In Gunthaguda hamlet, percentage of non-agricultural employment of total employment days generated over 2009-10, for females is 65 while for males it is 54.

The above analysis provides a broad, general picture of the status of employment for males and females in the two hamlets without getting into a discussion on factors underlying the prevalent pattern or the differences across various social groups or across the two hamlets.

## 5. Household Income and Assets<sup>17</sup>

Household income of the village was calculated by taking into account all the sources of income a household usually receives. The data on these sources of income were collected for a period of one year, from June 2009 to May 2010. As discussed earlier, all details including income was collected through a structured questionnaire in a survey conducted at one time point. Though there were measures taken to cross check the inputs given by them, these figures on income cannot claim complete accuracy. So the data given in this section could be taken as a rough approximation of the actual situation. Though the individual income data may be subject to slight variations from what has been reported here, the percentage contribution of various income sources to total income would be valid.

### 5.1. Components of Household Income

In general, there are five sources of income for a household: *crop husbandry, animal husbandry, non agricultural employment, non timber forest produce and wage labour*<sup>18</sup>. Discussion on wage employment in the previous chapter indicated the importance of wage employment in agriculture and non-agriculture for the working population of Gunthaguda and Phukiaguda hamlets. The non timber forest produce collected by villagers also fetch them some earnings. But not many households undertake to sell these products in significant quantities. Hence, the contribution of this source to the total income of a household is low when the average is taken. The main non timber forest produce which fetches money for a majority of the villagers is *kendu* leaves. These leaves are used to make beedis. The villagers do not make the beedi themselves but sell these leaves to the agents from the *Kendu* Leaves Division of the Forest Department. Each bundle of fifty leaves was priced at 62 paisa, and more recently, this has been revised to 70 paisa. Some of the villagers also earn a part of their income through animal husbandry. The details of the types of animals owned by the villagers are discussed in the next section.

On the analysis of average household incomes in both the hamlets, it is evident that Gunthaguda receives, on an average, a higher share of income from crop

---

17. It is a well recognised fact that the calculation of household income is quite problematic given the uncertainties involved in agricultural production, prices, wage employment etc. Nevertheless, the data provided may provide a broad indication of the situation that prevailed at the time of the survey.

18. A major lacuna has been the non-collection of data pertaining to remittances.

Table 5.1: Average Annual Household Income from Various Sources, 2009-10

Residence	Size of Operational Holding (in acres)	Average Income Received from Various Sources (in Rs.) per Household						Average Annual Household Income (in Rs.)
		Crop Husbandry	Agricultural Wage Employment	Non-Agricultural Wage Employment	Non-Agricultural Employment	Animal Husbandry	Non Timber Forest Produce	
Gunthaguda Hamlet	0	0	1740	1056	222	197	0	3215
	<2.5	1448	2504	5541	1769	551	0	11813
	2.5 to 5	5401	2713	5683	3358	954	267	18376
	5 to 10	8328	2131	5077	1851	3539	0	20926
	10 to 25	19167	1803	1500	1667	1767	0	25904
	All	4465	2334	4747	1921	1366	54	14887
Phukiaguda Hamlet	0	0*	3347	4913	2500	0	133	10893
	<2.5	3323	1767	5041	8681	395	293	19500
	2.5 to 5	4329	3617	3067	4811	3444	78	19346
	5 to 10	8261	2079	4684	4178	869	67	20138
	10 to 25	9075	1240	450	12350	6000	0	29115
	All	4272	2371	4237	6813	1495	181	19369
Phukiaguda Revenue Village	All	4370	2352	4496	4333	1430	117	17098

Note: \*Excluding one household that leases out land.

Source: Field Survey, May 2010

husbandry and non agricultural wage employment. Phukiaguda receives a higher share from the rest of the sources. The amount received from non agricultural employment (Rs.6,813) is particularly high in Phukiaguda when compared to that of Gunthaguda. Interestingly, this figure is also the highest average income received from any source in both the hamlets. The average annual income of the households with no operational landholdings in Gunthaguda is the lowest in the village (only Rs.3,215 per annum).

### Per Capita Income (PCI)

The mean monthly *per capita* incomes of Gunthaguda and Phukiaguda were Rs.342.68 and Rs.371.32 respectively. The poverty line estimated for rural Odisha using Tendulkar methodology for 2004-05 is Rs.407.78<sup>19</sup>. Using the Consumer Price Index for Agricultural Labourers in Odisha for 2004-05 and 2009-10, the poverty line can be estimated for 2009-10. This estimate indicates that rural poverty line for Odisha in 2009-10 is Rs.632.06 *per capita* per month. Although a few households are above the poverty line, our estimate indicates that the average *per capita* income

**Table 5.2: Monthly *per capita* Income According to Size of Operational Holding**

Residence	Size of Operational Holding (in acres)	Average Monthly <i>per capita</i> income (in Rs.)
Gunthaguda Hamlet	0	220.85
	<2.5	296.79
	2.5 to 5	359.58
	5 to 10	465.72
	10 to 25	329.07
	<b>All</b>	<b>342.68</b>
Phukiaguda Hamlet	0	282.38
	<2.5	397.99
	2.5 to 5	352.20
	5 to 10	264.54
	10 to 25	396.94
	<b>All</b>	<b>360.17</b>
<b>Phukiaguda Revenue Village</b>	<b>All</b>	<b>351.31</b>

Source: Field Survey, May 2010

19. Government of India. 2011. *Press Note on Poverty Estimates*. Planning Commission

in the village is far below the poverty line irrespective of the size of landholding operated by the household.

The median PCI per month for Gunthaguda is only Rs.289 and that of Phukiaguda is Rs.287. Poverty head count ratio, as calculated using Tendulkar methodology, indicated that rural Odisha fared the worst among all Indian states accounting for 60.8% while the All India figure was 41.8%<sup>20</sup>. Our estimates support the Planning Commission's estimate of poverty that an exceedingly high percentage of people are poor in rural Odisha.

There are 17 households (11% of the total number of households) which are above the poverty line according to the data collected from the survey, eight in Gunthaguda and the rest nine in Phukiaguda. (Refer: Table 5.3). The major sources of income for these households are non agricultural employment. More than half of these households own only marginal holdings (less than 2.5 acres). There are two marginal households (both in Phukiaguda) which do not receive any income from wage employment. These households are mainly dependent on incomes received from other sources - making and selling country liquor, being a tractor driver, an artist taking part in cultural programmes etc. Six out of eight marginal households receive income from crop husbandry too. There are three small households which are above poverty line. The main source of income for these households is wage employment, both agricultural and non agricultural. The main source of income for the semi - medium households which are above poverty line is crop husbandry, although these households also receive a major proportion of their income from animal husbandry too. There is only one household which owns semi - medium landholdings that is above the poverty line. The main source of income for this household is crop husbandry. One of the members in the household is an artist who performs for local stage shows and therefore the income received from this source also contributes to the household income. Another reason for these 17 households to have a higher PCI per month than the rest of the village is the relatively smaller size of the households. The mean, median and modal values of the household size are all equal to 3 while the average family size in the village is 4.

---

20. *ibid*

Table 5.3: Details of Households Above Poverty Line

Residence	Size of Operational Holdings (in acres)	Classification of Above Poverty Line Households by Caste/Tribe			Grand Total
		ST	SC	OBC	
Gunthaguda Hamlet	<2.5	1	-	1	2
	2.5 to 5	1	-	1	2
	5 to 10	3	1	-	4
	<b>Total</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>8</b>
Phukiaguda Hamlet	<2.5	1	6	-	7
	2.5 to 5	-	1	-	1
	10 to 25	1	-	-	1
	<b>Total</b>	<b>2</b>	<b>7</b>	<b>-</b>	<b>9</b>
Phukiaguda Revenue Village	All	7	8	2	17

Source: Field Survey, May 2010

### Other Assets

Various other types of assets owned by villagers besides land are broadly classified as:

- Animals
- Agricultural Implements
- Houses
- Other Domestic Durables
- Vehicles
- Other Assets

### Animals

Nearly all cultivating households in Gunthaguda and Phukiaguda as well as two non cultivating households in Phukiaguda own cattle. The percentage of households owning cattle is positively related to size of operational holdings; even among marginal farmers 83% in Gunthaguda and 77% in Phukiaguda own cattle. In the village three fourths of all households own cattle, two thirds own chicken, one third own pigs, one fourth own goat and one fifth own sheep.

Buffalo is used for ploughing in the fields. Both cattle and buffalo provide milk to the households. Unlike a few other tribes in Odisha, the Paroja tribe consumes milk.



Only a minority of the households earn a regular income from animal husbandry by selling milk or eggs. A vast majority keeps the animals for own consumption and earns income once or twice in a year by selling the off springs of the animals they own. The details about contribution of animal husbandry to a household's annual income were discussed earlier.

Most of the village households own one type of agricultural implement or the other. Sickle is owned by most households regardless of the size of the operational holding they possess. Almost 75% of the households own implements like plough, axe, yoke and spade. Only few own winnower (which is used to separate the grain from the chaff) and bamboo basket (which is used to carry the produce from the field to the place where it is stored) and even fewer number own *Suala Danga* (a type of bamboo basket). These implements are mostly demanded for post harvest activities. A higher proportion of households in Phukiaguda owned agricultural implements than Gunthaguda, except for implements like sickle, rope and leveller. But in both the hamlets one could observe that the large and medium households owned more number of implements than the rest of the households. Not surprisingly, the least number of implements was owned by the households which did not possess any operational holding. There is a positive correlation between the ownership of cattle and plough in all the categories of households. In the village, buffaloes are also used for ploughing, a practise not common in other parts of India.

### **Agricultural Implements**

The number of households that do not own any agricultural implements is 9, which is about 6% of all households. Households in Phukiaguda hamlet own implements of an average value of Rs.945, a value higher than that of Gunthaguda (Refer: Table 5.6). Around 54% of the households in the village own implements less than the average value.

Table 5.4: Classification of Households by Ownership of Animals

Residence	Size of Operational Holdings (in acres)	No. of Households Owning Various Animals				
		Cattle	Goat	Sheep	Chicken	Pig
Gunthaguda Hamlet	0	0	1	0	4	4
		(0)	(9)	(0)	(36)	(36)
	< 2.5	26	6	1	22	19
		(84)	(19)	(3)	(71)	(61)
	2.5 to 5	13	2	6	12	9
		(87)	(13)	(40)	(80)	(60)
	5 to 10	16	10	10	16	13
		(89)	(56)	(56)	(89)	(72)
	10 to 25	3	2	3	3	1
		(100)	(67)	(100)	(100)	(33)
All	58	21	20	57	46	
	(74)	(27)	(26)	(73)	(59)	
Phukiaguda Hamlet	0	2	0	0	3	0
		(33)	(0)	(0)	(50)	(0)
	< 2.5	27	7	6	16	1
		(77)	(19)	(17)	(44)	(3)
	2.5 to 5	14	3	3	10	0
		(78)	(18)	(18)	(59)	(0)
	5 to 10	10	4	4	5	1
		(100)	(40)	(40)	(50)	(10)
	10 to 25	4	2	1	3	0
		(100)	(50)	(25)	(75)	(0)
All	57	16	14	37	2	
	(78)	(22)	(19)	(51)	(3)	
Phukiaguda Revenue Village	All	115	37	34	94	48
		(76)	(3)	(23)	(62)	(32)

**Note:** Figures in brackets give the 'percentages to no. of households in each category'

**Source:** Field Survey, May 2010

Table 5.5: Classification of Households by Ownership of Agricultural Implements

Residence	Size of Operational Holding (in acres)	No. of Households that Own Various Agricultural Implements									
		Plough	Leveller	Sickle	Axe	Spade	Shovel	Bamboo Basket	Carrier*		
Gunthaguda Hamlet	0	0	0	7	1	2	0	1	0	0	
	< 2.5	(0)	(0)	(64)	(9)	(18)	(0)	(9)	(0)	(0)	
	2.5 to 5	24	17	30	23	28	10	8	12	12	
	5 to 10	(77)	(55)	(97)	(74)	(90)	(32)	(26)	(39)	(39)	
	10 to 25	13	11	15	12	12	5	6	11	11	
	All	(87)	(73)	(100)	(80)	(80)	(33)	(40)	(73)	(73)	
		17	15	18	16	17	8	9	13	13	
		(94)	(83)	(100)	(89)	(94)	(44)	(50)	(72)	(72)	
		3	3	3	3	3	2	2	2	2	
		(100)	(100)	(100)	(100)	(100)	(67)	(67)	(67)	(67)	
Phukiaguda Hamlet	0	57	46	73	55	62	25	26	38	38	
	< 2.5	(73)	(59)	(94)	(71)	(79)	(32)	(33)	(49)	(49)	
	2.5 to 5	0	0	1	1	1	0	0	1	1	
	5 to 10	(0)	(0)	(17)	(17)	(17)	(0)	(0)	(17)	(17)	
	10 to 25	27	13	35	29	27	22	16	21	21	
	All	(75)	(36)	(97)	(81)	(75)	(61)	(44)	(58)	(58)	
		16	13	17	16	12	11	5	11	11	
		(94)	(76)	(100)	(94)	(71)	(65)	(29)	(65)	(65)	
		10	6	10	8	7	7	5	9	9	
		(100)	(60)	(100)	(80)	(70)	(70)	(50)	(90)	(90)	
Phukiaguda Revenue Village	0	4	4	4	4	3	3	3	4	4	
	< 2.5	(100)	(100)	(100)	(100)	(75)	(75)	(75)	(100)	(100)	
	2.5 to 5	57	36	67	58	50	43	29	46	46	
	5 to 10	(78)	(49)	(92)	(79)	(68)	(59)	(40)	(63)	(63)	
	10 to 25	114	82	140	113	112	68	55	84	84	
	All	(76)	(54)	(93)	(75)	(74)	(45)	(36)	(56)	(56)	

Note: \*Carrier is a bamboo frame to which a basket can be attached and is carried on the shoulders. Usually harvested produce is carried in baskets from field.

Source: Field Survey, May 2010

Table 5.6: Ownership Pattern of Agricultural Implements

Residence	Average value of agricultural implements owned by a household (in Rs.)	% of households that own agricultural implements whose value is less than the average value	Median value of agricultural implements owned by a household (in Rs.)	% of households that do not own any agricultural implements
Gunthaguda	926	55 (41)	835	5 (4)
Phukiaguda	945	54 (37)	855	7 (5)
Phukiaguda Revenue Village	935	54 (78)	840	6 (9)

**Note:** Figures in brackets represent the number of households.

**Source:** Field Survey, May 2010

### House: Ownership Pattern and Facilities Available

Almost 96% of the households in the village own a house. Only five households, four belonging to Gunthaguda hamlet do not own a house. Again, four out of five of these are households which neither own nor have leased in any agricultural lands. The built area of the houses in the village, on an average, is 256 square feet. The houses are mostly *kuccha* in nature. 70% of the houses have thatched roofs. The pucca houses have either RCC or tiled roofs. As many as 35 households (23%) have RCC roofs. The number of houses with RCC is more in Gunthaguda (26%) than in Phukiaguda hamlet (19%).

Nearly 86% of the houses have mud walls and another 24% have brick walls<sup>21</sup>. Even houses with brick walls mostly have mud floors. Only 13% of the houses have cement floors and an even lesser number, around 8%, have plastered walls. Around 52% of the houses have access to electricity. But none of the houses in the village have a toilet facility.

### Other Domestic Durables

Few households possess domestic durables like cell phone and radio. Around 15% of the households in Phukiaguda and 5% in Gunthaguda have a cell phone. Two households in the village have a land phone<sup>22</sup>.

21. Some of these houses have a combination of both brick and mud walls.

22. These figures are lower than the national rural tele-density (the number of landline telephones in use for every 100 individuals living within an area) which stood at 24.29 percent according to the latest figures released by the Telecom Regulatory Authority of India (TRAI) in March 2010.

8% of the households in the entire village own a radio. The number of households that own a tape recorder is just four, two in each hamlet. Only one household in the entire village owns a television. One household in Gunthaguda owns a CD player. These figures vary from the findings of the surveys conducted by Foundation for Agrarian Studies from 2005 to 2009 in 14 villages in States other than Odisha - three in Andhra Pradesh (2005), two each in Uttar Pradesh (2006), Maharashtra (2007), Rajasthan (2007) and Madhya Pradesh (2008), and three in Karnataka (2009). The data reveal that the incidence of ownership of TV dominates other durables and services. The proportion of households owning a television is about 50 per cent in most villages according to this survey. (The Hindu - Opinion, August 27, 2010)

**Table 5.7: Percentage of Households Owning Durables**

Residence	Percentage of households that own			
	Cell Phone	Radio	Tape Recorder	Television
Gunthaguda	5 (4)	10.3 (8)	2.6 (2)	0
Phukiaguda	15 (11)	5.5 (4)	2.7 (2)	1.4 (1)
Phukiaguda Revenue Village	9.9 (15)	7.9 (12)	2.6 (4)	0.7 (1)

**Note:** The figures in brackets represent the number of households.

**Source:** Field Survey, May 2010

## Means of Transportation

There is a concrete road within the village. Villagers mostly go by foot to nearby places. However they do use cycles also. More number of households in Gunthaguda own a cycle than in Phukiaguda hamlet. Four households in Phukiaguda own motor cycles. One household in the village owns a mini pick up van and another owns a tractor<sup>23</sup>.

**Table 5.8: Percentage of Households Owning Cycle/Motorcycle**

Residence	Percentage of households that own	
	Cycle	Motorcycle
Gunthaguda	60	0
Phukiaguda	55	6
Phukiaguda Revenue Village	58	3

**Source:** Field Survey, May 2010

23. These were not included in the discussion on agricultural implements.

---

There is a metalled road which connects the village to the main road, around two kilometres long. The villagers use this road to access bus facility from the main road. They travel by bus mostly to go to the nearest town, Jeypore.

**Other Assets: Energy Sources**

Around 60% of the houses have access to electricity in Gunthaguda. The corresponding figure for Phukiaguda hamlet is only about 43%. Around 90% of the households use kerosene. The main source for obtaining kerosene is the PDS shop in the village. But around 10% buy from the local markets. Out of the fifteen households that do not use kerosene, only one had access to electricity. Both kerosene and electricity are used mainly for lighting purposes. For cooking, either dried cow dung cakes or firewood is used in most of the households. Many of the villagers collect cow dung from the grazing grounds. Firewood is collected from the forest.

## 6. Nutritional Status and Food Entitlements

Food security exists when “all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”<sup>24</sup>. This definition covers the three basic elements, namely, availability, access and absorption of food.

### 6.1. Availability and Accessibility

According to the findings of the survey, food scarcity is quite high during June-September, in particular in the months of July and August<sup>25</sup>. In all, nearly 58% of the households have reported having experienced food scarcity at various points of time in the year. December to March is the period with the least food scarcity.

About 35% of village households report having borrowed money during the survey period. Among those who borrowed cash, around 44% borrowed from the local money lenders or big farmers; another 22% borrowed from the Utkal Gramya Bank, which is in Kundura, 6 km away from village; and 32% borrowed from friends and relatives. These households, on an average, borrowed around Rs.3,316 in 2009-10. The highest amount that was borrowed during the period was Rs.11,000 and the least was Rs.100. The interest charged on these principals varied widely between 6 and 100% per annum. Those who borrowed in kind mostly approached the Community Food grain Bank (CFB) set up by MSSRF, the details of which are discussed in the next section.

Unlike in many other villages in the country, migration does not appear to be an option to cope with food scarcity by the Phukiaguda people. Only seven persons (all men) in the entire village had migrated for work during the survey period. They migrated to nearby places like Kundura, Jeypore, Malkangiri etc for jobs on a contract basis – as helpers in road construction, digging for telephone cables, masonry work etc. They stayed in these places for a short period ranging from 15 to 45 days. While the villagers mostly did not migrate for work, as many as 10 students in the village stayed in hostels outside their village.

---

24. This definition was derived by FAO in the Rome Declaration on World Food Security in 1996. This definition is adopted by MSSRF.

25. Households receive very low income during this period. Paddy is sown mostly in the month of July and long duration paddy crops are harvested by December. The short duration ones are harvested as early as October itself. A household's availability of food depends on the type of crop cultivated.

About 57 households (73%) in Gunthaguda and 59 households (81%) in Phukiaguda have access to subsidised food grains under the Public Distribution System. While considering the access to PDS on the basis of size of operational area, it could be observed that only one out of a total of 6 households which owned no operational holding in Phukiaguda had access to PDS. The targeted PDS system that is in operation in the state of Odisha categorizes people into BPL and APL for deciding their entitlements. But the BPL card is not easily accessible to many in the village as there is a cap on number of BPL households that can be identified in a Village Panchayat. Ironically, the access to PDS increases as we move up from marginal to medium sized households in Phukiaguda hamlet. (Refer: Table 6.1). In Gunthaguda the situation is entirely different. Only 33% of the medium sized households have access to PDS. The data clearly indicates the arbitrariness involved in identifying BPL households. This analysis also brings out the importance of moving away from a targeted public distribution system to a universal public distribution system.

The villagers mostly depended on PDS for Rice, Sugar and Kerosene. As most of the villagers prefer rice over wheat as their staple food, only a few households

**Table 6.1: Classification of Households by Access to PDS**

Residence	Size of Operational Holding (in acres)	Access to PDS	
		No. of households	Percentage of households
Gunthaguda Hamlet	0	8	73
	<2.5	27	87
	2.5 to 5	10	67
	5 to 10	11	61
	10 to 25	1	33
	<b>Total</b>	<b>57</b>	<b>73</b>
Phukiaguda Hamlet	0	1	17
	<2.5	28	80
	2.5 to 5	16	89
	5 to 10	10	100
	10 to 25	4	100
	<b>Total</b>	<b>59</b>	<b>81</b>
<b>Phukiaguda Revenue Village</b>	<b>Total</b>	<b>116</b>	<b>77</b>

Source: Field Survey, May 2010



purchase wheat from the shop. The quantity of rice that is bought in a month and the cost incurred on it are almost the same for all households, around 25 kg and Rs.50 respectively.

Villagers have to walk a distance of 6 km to purchase goods from the fair price shop which is in Lima, the block head-quarters. Almost all those who access PDS for food grains make only a single trip to the ration shop. Nearly 86% of the households that buy kerosene make more than a single trip to the shop.

No household in the village purchases all four goods rice, wheat, sugar and kerosene. Among those who have access to PDS 62.4% of the households buy a combination of rice, kerosene and sugar. Only 11 households purchase rice, wheat and kerosene. These were the only households that consume wheat in the village. Around 38% of the households do not buy sugar at all. During the period of study only two households which had access to PDS did not buy rice from it, while kerosene was not bought by one household.

Antyodaya Anna Yojana (AAY) scheme of the government which aims to reach the poorest of poor by providing foodgrains at a rate lower than that offered for BPL card holders is accessed by 44 households (29%). Old age pension is received by 29 people in Gunthaguda, while in Phukiaguda the corresponding number was 30. Only one lady in Phukiaguda hamlet claims her widow pension. Schemes like Indira Awas Yojana, which supports people to build pucca houses, and Employment Guarantee Scheme, is accessed by more households in Phukiaguda hamlet. With regard to Mid day Meal Scheme, 38% of the households in Gunthaguda and 51percent in Phukiaguda have school going children who access this scheme.

**Table 6.2: Households Access to Various Government Programmes**

Hamlet	No. of Households that have access to various government programmes			
	AAY	Annapoorna	MGNREGS	IAY
Gunthaguda	26 (33)	3 (4)	29 (37)	4 (5)
Phukiaguda	18 (25)	6 (8)	41 (57)	7 (10)
<b>Phukiaguda Revenue Village</b>	<b>44 (29)</b>	<b>9 (6)</b>	<b>70 (47)</b>	<b>11 (7)</b>

**Note:** Figures in brackets are percentage figures; 2. AAY- Antyodaya Anna Yojana; IAY- Indira Awas Yojana; EGS- Employment Guarantee Scheme

**Source:** Field Survey, May 2010

Access to Integrated Child Development Scheme, which aims at improving the nutritional status of children below 6 years, is accessed by 21 households in Gunthaguda and 23 households in Phukiaguda. There are ICDS centres in both Gunthaguda and Phukiaguda.

An initiative by MSSRF, the Community Food Grain Bank (CFB) is a community managed food security system, where the community is trained to setup a bank of foodgrains from which they can borrow during times of need and repay after harvest in kind, with interest also in kind<sup>26</sup>. This is an attempt to make food grain available to villagers at all times, even during the lean months. The main advantage of the CFB is that the interest could also be paid back in kind. The interest rate is collectively decided by the villagers. A member of the CFB has to make an annual contribution in food grains to the corpus which is again decided collectively.

There are proper records for each transaction in these centres. There is a committee formed by the villagers to look after the functioning of the CFB. Nevertheless, the entire community helps in the process of monitoring and management of the activities of the CFB. The CFB is located in Gunthaguda and it was established in 2006. About 81% of the households in Gunthaguda are members of this CFB. Twelve households from Phukiaguda hamlet are also members of Gunthaguda CFB. Paddy, Rice, Ragi and Horse gram are available for the members to borrow. The details of the borrowing from CFB in Gunthaguda are given in table 6.3.

**Table 6.3: Borrowing Details in CFB, Gunthaguda (June 2009 – May 2010)**

Details of borrowing	Paddy	Rice	Ragi
Percentage of households that borrowed	75 (47)	62 (39)	87 (55)
Average quantity borrowed (in Kg)	49.19	15.38	7.71
Modal quantity borrowed (in Kg)	40 (20)	10 (17)	5(23)
% of HHs that borrowed below the modal quantity	28 (13)	26 (5)	20 (11)
Maximum quantity (in Kg)	150	41	25
Minimum quantity (in Kg)	15	5	3

**Note:** Figures in brackets refer to the number of households.

**Source:** Field Survey, May 2010

26. MSSRF, 2009

Ragi is borrowed by the largest number of households, but it is paddy that is borrowed in the largest quantity. The average amount of paddy that is borrowed by a household is 49.19 kg. The maximum amount that was borrowed during the survey period was 150 kg. Rice is borrowed in smaller quantities, the mean amounts only up to 15.4 kg. All the 12 members of the Phukiaguda hamlet approached the CFB for loans on paddy only. Out of the twelve, ten members borrowed 100 kg of paddy each. The other two members took loans of 200kg and 50 kg of paddy.

## 6.2. Aspects related to Food Absorption

Access to healthcare is one of the key factors which aids in achieving a better nutritional status of the people. In this tribal village, the traditional healer is approached by most villagers for almost all sorts of ailments. Though, naturopathy proves very useful in many cases, access to Primary Health Centres (PHC), sub centres, government hospitals etc are equally important. The nearest PHC is in Sagarguda, five km away from the village.

In the village, people of Phukiaguda report better access to government hospitals and sub centres. In Gunthaguda, almost 95% of the households depend on traditional healer and about 86% on traditional birth attendants (mid wives) in case of delivery. The dependence is slightly less in Phukiaguda. Only one person in the entire village has visited a private hospital. The access to government hospital (6.4%) and sub centre (7.7%) is extremely low in Gunthaguda. (Refer Table 6.4). A factor that hinders the access to these facilities is the distance of these healthcare centres from the village, more than 5 km in most of the cases.

Another important factor for better nutritional status is the access to safe drinking water and sanitation facilities. Seventy percent of the households in Gunthaguda

**Table 6.4: Households Access to Various Health Facilities**

Residence	Percentage of households that use various health facilities					
	PHC	Sub-centre	Government Hospital	Private Hospital	Traditional Healer	Traditional Birth Attendant
<b>Gunthaguda</b>	92.3	7.7	6.4	1.3	94.9	85.9
<b>Phukiaguda</b>	93.2	24.7	23.3	.0	83.6	64.4
<b>Phukiaguda Revenue Village</b>	93.4	15.9	14.6	0.7	88.7	75.5

Source: Field Survey, May 2010

depends on hand pumps for drinking water, while the corresponding figure in Phukiaguda is about 93%. In Gunthaguda, as much as 28% of the households depend on both wells and hand pumps for drinking water while the corresponding percentage in Phukiaguda is 7. As water from the wells is not considered to be a safe drinking water source, Phukiaguda households are comparatively better off.

**Table 6.5: Households Source of Drinking Water**

Residence	Access to Drinking Water Source (%)		
	Well	Well and Hand Pump	Hand Pump
Gunthaguda	2.6	28.2	67.9
Phukiaguda	0	6.9	93.1
Phukiaguda Revenue Village	1.3	17.9	79.5

Source: Field Survey, May 2010

None of the households have a toilet attached to the house. This is a very serious issue as access to toilets is regarded as one the major factors that influence food absorption and thereby the food security levels. Houses do not have bathrooms too. Villagers mostly take bath in common spaces using water from tube well or pond. In Gunthaguda hamlet a common bathroom, constructed jointly by the villagers and MSSRF, is being exclusively used by women.

### 6.3 Nutritional Status

To assess the nutritional status of Phukiaguda village, the height and weight of the population were collected during the survey, but due to large number of missing data the analysis could be undertaken only for Gunthaguda hamlet. The nutritional status of Gunthaguda hamlet was assessed by obtaining the BMI from the data collected in May 2010, on the height and weight of 78 households consisting of 295 persons. Among 295 persons in the hamlet only 261 were considered for the nutritional assessment as 22 women were lactating, 7 were pregnant, 4 were not staying in the village and one person was unable to stand due to illness. Among the 261 persons considered for nutritional assessment, 157 were adults and 104 were children (0-14 years) in this hamlet. Among the 157 adults, 73 were females (46.5%) and 84 were males (53.5%). There were 66 males and 48 females in the reproductive age group of 15-49 years. Among 104 children in the age group of 0-14 years there were 47 (45.2%) females and 57 males (54.8%).

A simple anthropometric measure to assess the nutritional status of an individual is the Body Mass Index (BMI) calculated using his/her height and weight. BMI is a widely used indicator for the assessment of the adequacy of energy intake in adults as it reflects the effect of both acute and chronic energy deficiencies or excesses. However, BMI does not bring out clearly the entire extent of chronic under-nutrition, but would provide a broad measure of nutritional status of a person. BMI is calculated by dividing the weight in kilograms by squaring height in meters. As per Indian standards, the nutritional status of persons is classified into four different categories:

- a.  $< 18.5 \text{ kg/m}^2$  - Undernourished
- b.  $18.5 - 22.9 \text{ kg/m}^2$  - Normal
- c.  $23 \text{ to } 24.9 \text{ kg/m}^2$  - Overweight
- d.  $25 \text{ kg/m}^2$  - Obese

As given in Table 6.6, among 157 adults who were assessed 92 (59%) were undernourished or suffering from Chronic Energy Deficiency (CED) (CED was 60% among females and 57% among males); 60 persons were normal; 4 were overweight and only one person belonged to the obese category. When the percentage of CED among men and women in the age group (15-49 years) of Gunthaguda is compared with the NFHS-3 (2005-06) data for rural Orissa, the number is alarmingly high in the hamlet (Refer: Table 6.7)<sup>27</sup>. Among 48 males with CED 38 were in the age group of 15-49 years and 32 out of 44 females suffered from CED in the reproductive age group. In sum, 56 out of 78 households have adults suffering from CED.

**Table 6.6: Classification of Population by Body Mass Index (BMI), Gunthaguda Hamlet**

Categories of Nutritional Status	Population		Percentage of	
	Males	Females	Males	Females
Undernourished ( $< 18.5 \text{ kg/m}^2$ )	48	44	57.1	60.3
Normal ( $18.5 - 22.9 \text{ kg/m}^2$ )	35	25	41.7	34.2
Overweight ( $23 - 24.9 \text{ kg/m}^2$ )	1	3	1.2	4.1
Obese ( $>25 \text{ kg/m}^2$ )	0	1	0	1.4
<b>Total</b>	<b>84</b>	<b>73</b>	<b>100.0</b>	<b>100.0</b>

Source: Field Survey, 2010

27. Though the data referring to Gunthaguda and rural Odisha are not strictly comparable it is used to give a broad idea.

**Table 6.7: Percentage of Adult Population (15-49 years) with CED**

Persons	Gunthaguda Hamlet, 2010	Rural Orissa, 2005-06
Male	57.6	37.8
Female	66.7	44.1

**Note:** Percentage of undernourished population as given in table 6.6 and 6.7 differ because in the earlier table the reference is to the entire adult population while here the reference is to adult population in the (15-49 years) age group.

**Source:** NFHS-3 (2005-06) and field survey 2010

Nutritional status of children (up to 14 years) is assessed using three indices:-

1. Weight for age (Underweight),
2. Height for age (Stunting),
3. BMI for age (Undernourishment).

Using WHO growth chart, the nutritional status of children is assessed which provides values for weight for age index up to 10 years of age. The percentage of children malnourished based on the different indices are given in Table 6.9 and 6.10.

**Table 6.8: Number of Children, Gunthaguda Hamlet**

Children	Number of Children Classified by age group			
	Below 5 years	5 to 10 years	11 to 14 years	Total
Boys	28	20	9	57
Girls	17	23	7	47
<b>Total</b>	<b>45</b>	<b>43</b>	<b>16</b>	<b>104</b>

**Source:** Field Survey, 2010

Underweight, is a very simple measure to assess whether the child has normal weight for his/her age. Among the 88 children below 10 years of age 42 (41.6%) were underweight for age in Gunthaguda hamlet. 22 (46%) out of 48 boys were underweight in the age group 0 to 10 years and similarly 20 out of 40 (50%) girls were underweight in the same age group.

Stunting, is a measure to assess the chronic nutritional status. Around one-fourth of the children were stunted in this hamlet. 15 (26%) out of 57 boys were stunted; similarly 10 (21%) out of 47 girls were stunted. About 27 out of 78 households have stunted children in Gunthaguda hamlet.

Among 104 children, 44 (42.3%) are undernourished based on the BMI for age. 23 boys (40.4%) out of 57 were undernourished based on the BMI and 21 (44.6%) out of 47 girls were undernourished in this age group. Undernourishment is more pronounced in below 5 years category than in the 5 to 14 years both among boys and girls. 30 households had undernourished children with regard to BMI. Around 12 households had more than one undernourished child each. (Table 6.9)

Among 78 households there are 9 households with 9 children who are malnourished as per all the three indices mentioned above, i.e., underweight, stunted and undernourishment. When we classify the households with malnourished children with regard to any two indices - there are 10 households with stunted and undernourished children, 4 households with stunted and underweight children and only one household with underweight and undernourished child.

It is found from Table 6.10 that, the percentage of underweight boys and girls below 5 years of age is 42.9% and 58.8% in Gunthaguda against the State average of

**Table 6.9: Nutritional Status of Children, Gunthaguda Hamlet**

Children	Number of Children Classified by Nutritional Status								
	Underweight			Stunted			Undernourished		
	Below 5 years	5 to 10 years	Total	Below 5 years	5 to 14 years	Total	Below 5 years	5 to 14 years	Total
Boys	12	10	22	10	5	15	18	5	23
Girls	10	10	20	5	5	10	10	11	21
<b>Total</b>	<b>22</b>	<b>20</b>	<b>42</b>	<b>15</b>	<b>10</b>	<b>25</b>	<b>28</b>	<b>16</b>	<b>44</b>

Source: Field Survey, 2010

**Table 6.10: Incidence of Malnourishment among Children Gunthaguda Hamlet**

Children	Percentage of children classified by nutritional status					
	Underweight		Stunted		Undernourished	
	Below 5 years	5 to 10 years	Below 5 years	5 to 14 years	Below 5 years	5 to 14 years
Boys	42.9	50.0	35.7	17.2	64.3	17.2
Girls	58.8	43.5	29.4	16.7	58.8	36.7
<b>Total</b>	<b>48.9</b>	<b>46.5</b>	<b>33.3</b>	<b>16.9</b>	<b>62.2</b>	<b>27.1</b>

Source: Field Survey, 2010

39.4% among boys and 41.9% among girls respectively<sup>28</sup>. However, the percentage of boys and girls who are stunted below 5 years of age in Gunthaguda hamlet is lower at 35.7% and 29.4% respectively against the State average of 43.6% and 46.4% respectively. The indicator of undernourishment (BMI for age), which takes into account the height, weight and age of a child, is perhaps the most comprehensive indicator of nutritional status. In Gunthaguda hamlet, incidence of undernourishment was higher among boys than girls in the age group below 5 years. However in the age group 5 to 14 years, a much larger percentage of girls were undernourished compared to boys.

In sum, children as well as adult population in Gunthaguda fair very poorly with regard to nutritional status.

---

28. While the data for the State refers to 2005-06, the data for Gunthaguda refers to 2010. Though the data is not strictly comparable, it gives us a broad idea and hence the comparison.



## 7. Summing up

A primary survey was undertaken to prepare a base document of the socio economic conditions of the people in Phukiaguda revenue village in Koraput district, in which M S Swaminathan Research Foundation has had many interventions over the past five years. The two constituting hamlets of the revenue village, viz., Gunthaguda and Phukiaguda exhibit striking similarities and differences at the same time. In Gunthaguda, the population is almost entirely constituted by Paroja tribe, while in Phukiaguda the Scheduled Castes are the majority with 57%. Literacy rates of males and females, in both the hamlets, are lower than the Odisha State average and the female literacy rate is about 20 percentage points lower than that of male literacy rate. Gunthaguda has a female literacy rate of 24% and male literacy rate of 44% and fares worse than Phukiaguda where the corresponding rates are 31% and 50%. In both the hamlets about 10% of children do not attend school and of these there are more girls than boys.

About 85 % of all households in Phukiaguda revenue village own agricultural land. The total number of landless in the village adds up to twenty two households (15%). About 18% of all households in Gunthaguda are landless while the corresponding percentage in Phukiaguda is 11. Nearly half the landed households in the village own only marginal holdings of less than 2.5 acres and about three fourths of all landed households own either small or marginal holdings of below 5 acres. There is no household in the village that owns large land holding, above 25 acres and the average landholding size is 2.4 acres. Paddy is the most important crop cultivated in the village (56% of the total area under cultivation). Nearly 92% of the cultivating households undertake paddy cultivation. In terms of paddy production and availability per person, the small and marginal farmers of Gunthaguda were better off than their counterparts in Phukiaguda. More households from Gunthaguda market their produce compared to Phukiaguda hamlet. However, marketed produce as a share of total production of paddy is just about one fourth indicating the subsistence nature of farming in the village.

Gunthaguda has a higher work participation rate than Phukiaguda. The most important primary occupation among males is cultivation and among females is wage employment. In order to study the pattern of wage employment, data was collected on the number of days employed in various seasons for both agricultural

and non agricultural wage labour. There are mainly three seasons of employment – June to September, October – January and February to May. It is during the months of June to September that most of the agricultural workers get employed. In case of non agricultural wage employment the peak season is in the months of February to May. The average number of working days for female workers who reported for agricultural wage employment during the entire year, 2009-10, is as low as 48 days in Gunthaguda and 31 days in Phukiaguda. For male workers, number of days of agricultural employment is even lower. As regards non agricultural wage employment the average number of working days was higher for male workers at 57 days in Gunthaguda as compared to 53 days for females and 48 days and 36 days respectively for males and females in Phukiaguda , for the entire year 2009-10. In case of average household incomes, in both the hamlets, cultivation and wage employment are the main sources of income. It could be observed that the *per capita* income levels of Gunthaguda remain lower than that of Phukiaguda, Rs.342.68 against Rs.360.17; both these figures remain below the poverty line estimated for rural Odisha.

While 96% of the households in the village own a house, they are mostly *kucha* houses. About five households, of which four belong to Gunthaguda hamlet, do not own a house. None of the households in the village have access to toilet facility and very few households possess cell phone, radio etc. Around 60% of the houses in Gunthaguda hamlet and 43% in Phukiaguda hamlet have access to electricity. In the village three fourths of all households own cattle, two thirds own chicken, one third own pigs, one fourth own goat and one fifth own sheep.

People in both the hamlets experience high food scarcity in the months of July and August. The situation is somewhat eased in the months of September and October when the short-duration paddy crops are harvested. Most of the crops get harvested by November which eases the food scarcity situation. Analysing the access of households to PDS clearly brings out the exclusionary errors that have crept into the targeted approach. Data clearly indicates that number of asset poor households has been left out of the public distribution system. The nutritional status of adults as well as children in Gunthaguda is far from satisfactory: considering adult population in the age group 15 to 49 years, the percentage of persons suffering from chronic energy deficiency is as high as 67 for females and 58 for males; as regards children, the incidence of undernourishment which takes

into account the height, weight and age of a child shows that 59% of girls and 64% of boys below the age of 5 years are undernourished.

This base document, on the prevalent socio economic conditions of the population in Gunthaguda and Phukiaguda hamlets, has thrown up a number of questions concerning the lives of the villagers - What prevents a section of the eligible households from accessing the BPL card? What are the factors that go into fixing the wages as low as Rs.40 - 50 for a male labourer and Rs.25 - 30 for a female worker? What are the factors underlying the differential pattern of employment across males and females and across the two hamlets? What are the impacts of the interventions made by the M S Swaminathan Research Foundation?- To answer each of these questions, one would require a separate enquiry. This is just a starting point for more research and action to be undertaken.

## References

1. Bharadwaj, Krishna (1974): "Production Conditions in Indian Agriculture - A study based on Farm Management Surveys", Cambridge University Press.
2. Government of India (2011): Poverty....
3. MSSwaminathan Research Foundation. 2009. "The Experience of Community Food Grain Banks: An Evaluation", Research Report/09/20
4. National Institute of Agricultural Extension Management (MANAGE) (2001): "Strategic Research and Extension Plan of Koraput District", MANAGE, Hyderabad.
5. Rao, A.P (1967): "Size of Holdings and Yield per Acre", Economic and Political Weekly, November.
6. Rudra, Ashok (1968a): "Farm Size and Yield per Acre", Economic and Political Weekly, July.
7. \_\_\_, (1968b): "More Returns to Scale in Indian Agriculture", Economic and Political Weekly, October 26, Review of Agriculture.
8. \_\_\_, (1983): "Indian Agriculture Economics- Myth and Reality", Allied Publishers, Pvt. Ltd.
9. Rudra, Ashok and Amartya Sen(1980): "Farm Size and Labour Use: Analysis and Policy", Economic and Political Weekly, Vol. 15, February.
10. Sen, A.K (1962): "An Aspect of Indian Agriculture", The Economic Weekly, February.
11. \_\_\_, (1964): "Size of Holdings and Productivity", The Economic Weekly, February.
12. Sridhar, V. and Shamsher Singh, "Rural India's Communication Divide", The Hindu, Op - Ed, 28 September, 2010. <<http://www.thehindu.com/2010/08/28/stories/2010082856861500.htm>

## Annexure - I

### Operation 2015: An Integrated Approach to Achieving UN MDG 1 in the Koraput-Balangir-Kalahandi Region of Orissa

Baseline Survey, 2010

Hamlet:

Revenue Village:

Panchayat:

Interviewers:

Date:

*Name and tribe/caste of Respondent:*

#### I. Household Composition

Sl. No.	Name	Relation to respondent	Sex	Age (in completed years)	Education (completed years of schooling)	Primary occupation	Secondary occupation	Ht in Cms	Wt In Kg
1.									
2.									
3.									
4.									
5.									

#### II. Assets

##### 1. Land (in acres and cents)

Category	Upland	Medium Land	Low Land	Other (Specify)	Total
Owned (O)					
Leased In (LI)					
Leased Out (LO)					
Net operated area (O + LI-LO) (To be filled up later after the survey)					



### III. Income (All data to relate to the period June 2009 to May 2010)

#### III.1 a Details on Crop Husbandry (Cover seasonal, annual and perennial crops)

Sl. No.	Particulars	Crop1	Crop2	Crop3	Crop4	Remarks
1.	Name of the crop					
2.	Area in Acres and cents					
3.	Variety (List the most important)					
4.	Source of Seed Own/Local Mkt./ Farmers/ Other(Specify)					
5.	Method of sourcing Seed: Retained/govt. extension/ MSSRF/market					
6.	Nutrients used: FYM/Vermi/ Other org./other					
7.	Production (Kg), after payment of wages as produce					
8.	Retained for own Consumption					
9.	Marketed					
10.	Value of Sales of agricultural produce (in Rs)					

#### III.1 b. Cost of Cultivation

Sl. No.	Particulars	Crop1	Crop2	Crop3	Crop4	Remarks
1.	Input Cost					
	Seed					
	Land Preparation					
	Fertiliser					
	FYM/compost					
	Pesticide					
	Others (specify)					
2.	Labour Cost					
	Land Preparation					
	Nursery					
	Transplanting/Broadcasting					
	Weeding1					
	Weeding2					
	Harvesting					
	Post Harvesting					
3.	Interest on Credit					
4.	Others, if any					
5.	Total Cost of Cultivation((To be filled up later after the survey)					

**III.1 c Income from Crop Husbandry (To be filled up later after the survey)**

Sl. No.	Particulars	Crop1	Cro.2	Crop3	Crop4	Remarks
	Value of Sales of agricultural produce					
	Total Cost of Cultivation					
	Net Income from cultivation					

**III.2 Income from Animal Husbandry**

Sl. No.	Item	Output consumed (Qty)	Output Sold Qty. Value, Rs.	Income net of costs, Rs.
				Cost involved in AH to be collected as in CH

**III. 3 Income from Non Farm Business**

Type of Business (Brief Description)	Net Income, Rupees (Specify-annual/seasonal/monthly)

**III.4 Income from Wage Employment**

Sl. No of HH Member from Table I	Days of Agricultural Wage Work June-Sept. Oct.-Jan. Feb.-May	Agri Wage Earnings Rupees	Non Agri. Work Days June-Sept. Oct-Dec Jan-May	Non Agri Wage Earnings Rupees	Total Wage Income Rupees



### III.5 Income from collection of Non-traditional Forest Produce

Sl. No.	Item collected	Quantity	Net Income, Rs.
<b>Total</b>			

III Income from all other sources (Rupees):

Total Income From All Sources (Rupees), June 09-May 10 :

To be filled up later

### IV. Food security, Money lending and Migration (Data period June 05-May06)

#### 1.Periods of Unemployment

Sl. No of HH Member from Table I	Periods of Unemployment (Specify season, months and days):

2.Periods of food scarcity: (Specify season, months and days):

3.Coping mechanisms: Borrowing/ migration/ collection from the forest/ other (Specify)

#### 4.Borrowing

Sl. No.	Date	Purpose	Amount in Rs.	Source	Ann.Int.Rate,%

## Migration Details:

Sl. No. of HH Member from Table I	Period	Destination	Type of Work	Income Earned (in Rs.)

## V. Kitchen garden (Data to relate to the year June 2009 to May 2010)

Sl. No. Rs.	Vegetables	Quantity	Qty. consumed	Qty. Sold	Value
	TOTAL				

## VI. Access to PDS

Sl. No.	Item	Monthly Quantity purchased	Cost Rs.	Avg. no. Of visits	Difficulty if any
	Rice, Kgs.				
	Wheat, Kgs.				
	Kerosene,Lts.				
	Sugar, Kgs.				
	Other (Specify)				

## VII. Access to other Government Grain Programmes (AAY, Annapoorna, ICDS, MDM, EGA etc.,)

Sl. No.	Scheme	Benefit availed Yes/No

**VIII. Other benefits availed (Include all subsidies/benefits availed)**

Sl. No.	Scheme	Benefit availed

Community Foodgrain Bank (CFB)

**1. Member: Y/N. Why/Why not?**

**2. If member, contribution to Grain Bank, Kgs.**

**3. If landless, how was the contribution made?**

**4. If loan availed from Foodgrain Bank in current year, details of loan :**

Grain	Total Quantity (Kg)	Quantity Repaid (Kg)	Quantity Due ( Kg)

**5. Problems, if any, faced and handled in repayment:**

**6. Do you think the CFB is useful? Explain.**

**XI Energy Sources and Uses (Note use of energy saving devices if any)**

Type	Source	Purpose
Cow Dung		
Charcoal		
Fuel wood (Note species)		
Kerosene		
Electricity		
Other(Specify)		

## XII Access to Health Facilities:

Health System followed: Allopathic/ Indigenous Tribal/Other (Specify)

Health Facility Used (Tick as appropriate: More than one option can also be there)

Type of Need	Sub Centre	PHC	Govt. Hosp.	Private Hosp.	Traditional Healer	Other (Specify)
Minor Illness						
Pregnancy, Delivery						
Emergency (snakebites etc.)						
Other (Specify)						

Name of Investigator:

Name of Respondent:

Name of the Hamlet:

Date: