

A Published Research Report

on

Impact of Soil and Moisture Conservation Works  
(under National Rural Employment Guarantee  
Scheme) on ‘Micro-Level Hunger’ in Tribal Areas of  
Andhra-Pradesh in India

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## ABSTRACT

The first goal of the Report of India Millennium Development Goals (MDG), 2009 has 2 targets set, to halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day and to halve within the same period the proportion of the people who are suffering from Hunger. Much of the report provides the official statistics at the national level for many MDG indicators, a deeper decomposition of the measures of MDG indicators down below State levels could be more revealing of the micro-dimensions, which help demonstrating precise locales of the problems when spatially mapped.<sup>1</sup> Participatory approach to assessing hunger demonstrates that macro-data on ‘hunger’ masks important elements of it that a Participatory Rural Appraisal brings out. There are of course, few studies which have focused on these aspects of hunger in contemporary India; however most of them are restricted to the study of Telangana region in Andhra Pradesh and in other States in India. This research is a humble attempt to study whether there is any reduction in the level of hunger of the beneficiaries under a work scheme called NREGS-AP as a consequent of the increase in their incomes. The research methodology involved the usage of Qualitative and Quantitative methods and also the usage of GIS technology in generating the spatial mapping of the watershed areas of the two villages in question. It is an action research also as the study involves the evaluation of the implementation of the EGS in two villages of PaderuMandal of Visakhapatnam District, A.P, India. Primarily, it is an empirical investigation with a purposive sample of 145 persons collected randomly from Guttuluputtu&Ubbariputtu villages of PaderuMandal consisting of 100% ST Population who had participated in the EGS. The Hypothesis of the research states that “The Micro-level hunger is not dependent on the rise of income level” and the hypothesis was found to hold good due to various socio-economic-cultural and political factors typical of these tribal areas. The research has tried to probe deep into these factors through various PRA/PLA tools and through the understanding of the local people; it was inferred that the greatest menace affecting their lives was extreme alcoholism which is prevalent in the people irrespective of their gender or classes. The research attempted to arrive at a convergence development model which integrates the efforts of Government officials, other departments, Non-officials, NGOs, Linkages with the external markets and people at large as they are the arbiters of their well-being. This study, in no way negates the beneficence of the schemes implemented to alleviate poverty and hunger through generation of employments to the BPL households.

## I. INTRODUCTION

**The Millennium Declaration of the United Nations** set 2015 as the Time-Line for achieving most of the Millennium Development Goals (MDGs), which provide quantitative benchmarks for eradication of extreme poverty, hunger, illiteracy and diseases apart from achieving gender equality and empowerment of women, environmental sustainability and global partnership for development. India’s national development plan for 2007-2012 has reaffirmed its commitment to attain the MDGs. In fact, the first goal of the Report of India MDG 2009 has 2 targets set; to halve within the period between 1990-2015 the proportion of people whose income is less than one dollar a day and to halve, within 1990 to 2015, the proportion of people who suffer from **Hunger**. Much of the report provides the official statistics at the national level for many MDG indicators, a deeper

decomposition of the measures of MDG indicators down below state levels could be more revealing of the micro-dimensions, which help demonstrating precise locales of the problems when spatially mapped.<sup>1</sup>

The issue of hunger and deprivation in India has agitated many great minds and engaged numerous agencies including the UN, often based on the perspectives of the experts (nutritionists, economists et al). Participatory approach to assessing hunger demonstrates that macro-data on hunger masks important elements of it that a participatory approach brings out, including the fact that women often know better, than men, the real state of hunger at the house-holds and community levels.<sup>2</sup> It seems that though there is apparently food security and absence of hunger at the national level, food security at the micro-level is in jeopardy and hunger haunts millions of people<sup>3</sup>. What we need to seek is consistent translation of human rights thinking into normative culture, at once emphasizing the basic needs entitlement. This general view on rights approach to poverty eradication for development, leads us to theory of how to relate right to food with development. We need a clear image of goals of food we are seeking, so that we know what is right to protect or promote. In doing this, we would emphasize structure and automaticity.<sup>4</sup> We would also bear in mind that the right to food is also related to human needs comprising the broad classes of needs for survival, well-being, identity and freedom<sup>5</sup>, bearing in mind that production and distribution to satisfy needs are necessary but not sufficient conditions to satisfy needs. When we are looking at the right to food, we are not considering it in isolation because it is an essential aspect of the entire discourse of development. Particular Human Rights, made specific to local culture and historical context, may be as significant as Universal Human Rights. Fortunately enough, none of the approaches such as the one-dimensional and the more holistic (multi-dimensional) approaches is excluding mechanisms.

There is little doubt that much more emphasis should be placed on local level approaches for development and human rights, and on the structural approaches for achieving both of them.

## II. NEED FOR THE STUDY

Much of the literature is available relating to the evaluation studies on the Poverty Alleviation Programmes and their impact on the reduction of poverty level in India but these macro-level generalities alone cannot fully explain problems impinging at the local level. There are of course, few studies which have focused on these aspects of hunger in contemporary India; however most of them are restricted to the study of Telangana region in A.P and in other States.

This kind of evaluation and impact assessment study is important to observe the implementation of the Soil and Moisture Construction works and their effectiveness in natural resources conservation and increasing the productivity of the land, bringing additional area under agriculture, employment generation and social upliftment of beneficiaries living in the rural areas.

The assumption is that communities are ‘by right’ the primary arbiters of their destiny. In the specific context, the assumption is that watershed provides a geo-social setting amenable to the structuring of governmental, NGO and other developmental management program as platforms for convergence, change management and empowerment of marginalized segments such as landless, poor and women<sup>6</sup>. This macro-level generality holds well to some extent however, there is a need to look into the state of ‘Hunger’ at the micro-level which throws

some important insights for policy-making suggesting that mere increase in incomes is not sufficient in empowering the marginalized groups. It has to be assessed through socio-economic, political, policy and gender dimensions.

### III. OBJECTIVES

This report is an attempt to examine the face of hunger at the micro-level giving the picture of food security from the two villages of two Gram Panchayats of the same Mandal from the perspectives of those who suffer from the pangs of hunger. It focuses on the temporal dimension of hunger, in terms of seasonality and inter-month variations in food consumed and in the variety, palate and nutritional content of the people's diet<sup>7</sup>. The attempt has been made to study the impact of Soil and Moisture Conservation Works (SMC) under Employment Guarantee Scheme on 'Hunger' in these villages and to test the **hypothesis** which states that "the micro-level hunger is not dependent on the rise of incomes". The research work also attempted to compare and analyze the execution of the SMC works in the selected villages and to arrive at a convergence development model.

### IV. DEFINITION OF CONCEPTS

**Participatory Rural Appraisal (PRA tool)** is a set of tools developed initially to understand the rural villages and agriculture by involving people themselves. This was to understand a given situation from the perspective of the people who have the first hand experience of the situation and to overcome professional and other biases of the outside development personal.

**Mapping** is a process of two dimensional depiction of a situation, normally a village. In social mapping the village habitation is depicted and in the resource mapping the natural resources are depicted.

**Watershed**<sup>8</sup> is a geo-hydrological unit or an area that drains at a common point. A watershed is typically defined by a ridge line (which is an imaginary line that joins all the highest points in the given watershed area) and drainage lines (through which water flows, along the slope) and an outlet (a point through which entire rain water that falls on the watershed surface drains out).

Watershed Development Projects include all SMC works which are a set of engineering and vegetative interventions that aim at improving the conditions of natural resources and productivity at the same.

Soil and Moisture Conservation Works (SMC works) are the works which are carried out to conserve the moisture content in the soil and to prevent soil erosion in order to increase the productivity of the region.

### V. RESEARCH METHODOLOGY

The analysis here is based on secondary and primary data, but principally on 'participatory' primary data. The micro-study was carried out in Guttuluputtu village of Guttuluputtu Gram Panchayat and Ubbariputtu village of Chintalaveedhi Gram Panchayat of Paderumandal of Visakhapatnam District in Andhra Pradesh, India.

*A. Data collection and the Tools used*

S. No	Data	Source	Primary/Secondary	Purpose
1.	Thematic layers	GIS Center, CNRM, AMR-APARD, Hyd.	Secondary	GIS spatial analysis
2.	Expenditure details of SMC works	MCC Records	Secondary	GIS layering
3.	Job Cards	MCC Records	Secondary	Raise in income levels
4.	% Area under cultivation	PRA	Primary	Resource Mapping
5.	Natural Resources	PRA and Records	Primary/Secondary	Resource Mapping
6.	Livelihoods	PRA	Primary	Economic Mapping
7.	Horticulture	PRA and Records	Primary/Secondary	Resource mapping
8.	Food Calendars	PRA	Primary	Food security
9	Population	Revenue records	Secondary	Social Mapping
10.	Land Survey Records	Revenue records	Secondary	Resource Mapping
11.	Soil classification	Revenue records	Secondary	Resource mapping
12.	Rainfall	Revenue records	Secondary	Climate assessment
13.	Level of Water Table	Focused group discussion/Ground Water Dept.	Secondary	Research analysis
14.	Cadastral Maps	Revenue records	Secondary	GIS mapping

15.	Force Field Data	PRA	Primary	Force Field Analysis
16.	Household Survey	PRA	Primary	Social Mapping
17.	Livestock details	HH survey/Records	Primary/Secondary	Social Mapping
18.	Literacy	PRA/Records	Primary/Secondary	Social mapping
19.	Migration	HH survey	Primary	Social Mapping
20.	CBOs	HH Survey	Primary	Participatory development
21.	Infra-structure Facilities	Village walk or historical transect	Primary	Social mapping
22.	Land Use Pattern	Revenue records	Secondary	Resource mapping
23.	Details of CPR	Revenue records	Secondary	Resource Mapping
24.	Agriculture Implements	HH survey	Primary	Social Mapping
25.	Crop Classification	Revenue records	Secondary	Scope for agriculture development
26.	Cropping pattern	Revenue records/ Focused group discussion	Primary / secondary	Livelihoods
27.	Irrigation facilities	Revenue records	Secondary	Augmentation of water resources
28.	Food Habits	PRA	Primary	Cultural mapping
29.	Political associations	PRA	Primary	Political mapping

### *B. Research Approach*

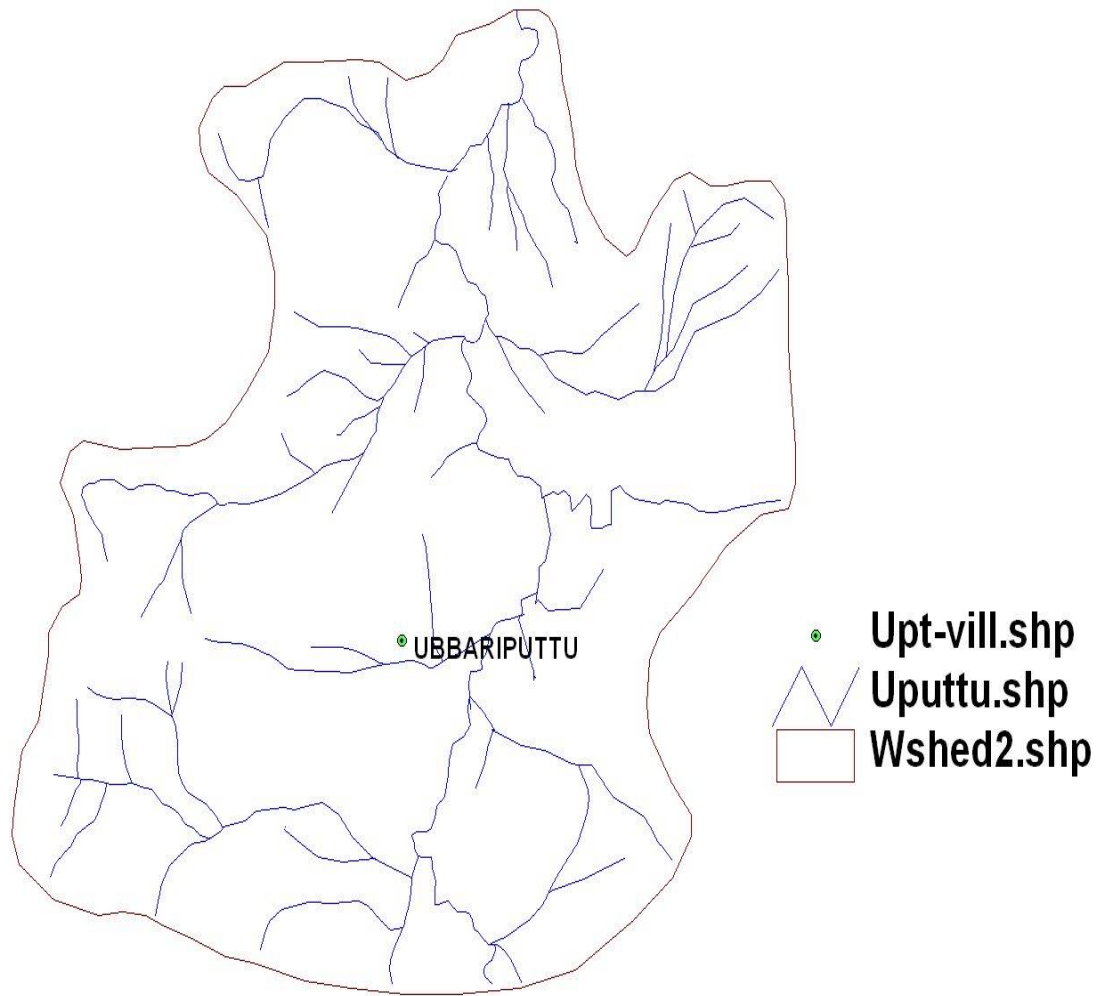
The study was principally an empirical investigation involving Qualitative and Quantitative Methodologies using PRA tools; Social Mapping, Resource Mapping , GIS layering and Mapping, Resource Time-Lines, Historical Transects, Administering interviewing schedules, Food calendars , Situational analysis and Statistical analysis. It also involves action research as regards the evaluation of the implementation of the NREGS-AP in the selected villages. A purposive random sample of 109 and 36 of 100% ST population was taken from Guttuluputu and Ubbariputtu villages respectively of PaderuMandal for an empirical investigation of Micro- Level hunger after the implementation of SMC works in these areas. Also a focused participatory observation methodology using PRA tools was followed to obtain details of Hunger which could have gone amiss via the interviewing schedules. A study was made to find out the causes of poor execution of SMC works in Ubbariputtu village as compared to Guttuluputtu village using PRA tools and focused participatory observation methodology.

The preparation of food calendars was done using participatory rural appraisal tools as described in the Standard Publication of Amitava Mukherjee 2009 - The Frontiers in PRA and PLA in Applied Research quoted under reference no.4.

The **GIS Methodology** involved the following procedures:

- Base Map Preparation
- Geo-referencing
- Digitizing and editing
- Geo-processing of the drainage maps of the watershed areas of the selected villages –the Ground truth preparation
- Unsupervised classification of land use/ land cover.

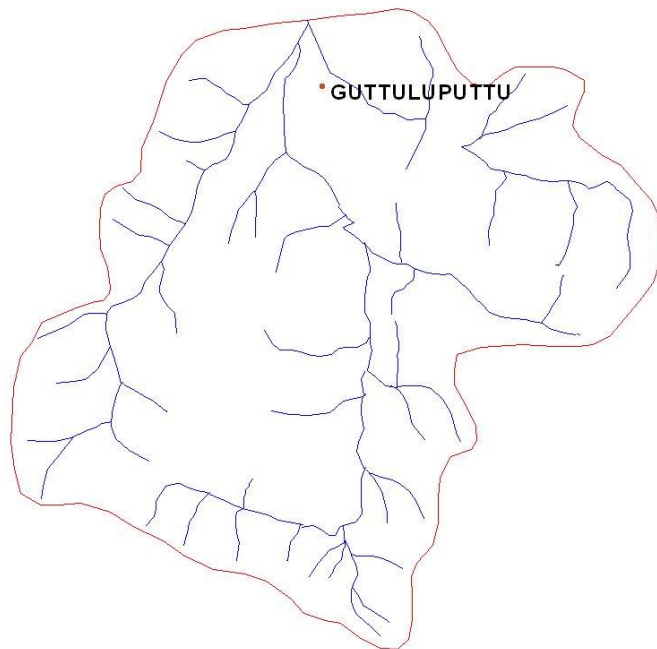
UBBARIPUTTU WATERSHED AREA, PADERU MANDAL - VISHAKAPATNAM DISTRICT



Drainage Maps of the watershed area of the village constructed using GIS Tools on Dt/19.12.2010 at the GIS Center, AMR-APARD, Rajendranagar, Hyderabad, India.



## GUTTULUPUTTU WATERSHED AREA, PADERU MANDAL - VISHAKAPATNAM DISTRICT



**Drainage Maps** of the watershed area of the village constructed using **GIS Tools** on Dt/19.12.2010 at the GIS Center, AMR-APARD, Rajendranagar, Hyderabad, India.

### Spatial Mapping

The **Geo-Positioning** of Ubbariputtu village lies at  $82^{\circ}40'47.417^{\circ}E$  &  $18^{\circ}5'52.21^{\circ}N$  and Guttulupulu is geographically positioned at  $82^{\circ}38'57.923^{\circ}E$  &  $18^{\circ}7'23.05^{\circ}N$  in India. The Village-Wise Watershed Drainage Mapping was constructed using GIS Tools (such as Arc GIS & Arc View G.2 from Erdas Imagine 9.0) with the support of the GIS Center, CNRM, AMR-APARD, Hyd. For the purpose, Topo sheets of the scale 1:50,000 and 1:25,000 were obtained from the Survey of India, Uppal, Hyderabad and they were scanned up to 300dpi (dots per index) for geo-referencing and delineation of the boundaries of the watersheds for both the villages. Arc view GIS 3.2 software proved handy in digitization, editing and coding purposes to construct the drainage mapping of the watersheds, they were then geo-processed for clipping and superimposition on the cadastral maps.

This activity facilitates

- Spatial depiction of the action plan at the project level under EGS;
- In verifying the viability of the SMC works in the region; and

- To check whether they are not mere adhoc interventions in the name of employment generation of the government.

#### *C. Overview of the report:*

As this study reveals that there is in fact, a rise in the food production, change in cropping patterns and rise in incomes through wage employments and reduction in the hunger levels and as per the findings of the interviewing schedules however, the deeper approbation using the PRA/PLA tools ( food calendars) provided the insights that there was no impact on the reduction of the hunger level in these villages after the implementation of SMC works and the development efforts must be so focused as to reach those who are still suffering from hunger in the villages and it can be achieved only if we arrive at a convergence development model integrating and improving the outreach of government services, NGOs, people's representatives and people at large. Whether the development policies can address this problem with more sensitivity is a question which remains to be answered.

#### *D. Limitations of the study:*

Due to time constraints, only two villages were taken for the purpose of study and as far as possible the impact of SMC works was studied by adopting a sample which is random at the same time selective. More attention was paid to only those people who were coming from households suffering from acute hunger. Our interaction with the rich farmers was not much except in knowing the economics of the crops and their cultivation. Whereas their observations were also taken into consideration while assessing the force field analysis, however in the selected villages there was not found to be much of any political or other kind of influence on the people who were predominantly wage- seekers; the people whose botheration was to find wages for the day. The question of survival was predominant in this area; therefore the study was restricted only to the suffering population as regards hunger and food security.

The impact assessment study of this kind needs more amount of time in data collection from all sources and therefore we relied much on the participatory primary data in arriving at the inferences. The food calendars were prepared for the current year (2010) only because it was difficult for them to remember the food intake of the previous years and also it was not proper to probe deeply into such delicate issue as hunger. For the purpose of the study it was sufficient, as the data relating to the raise in income was available through official records for comparison purposes and in spite of that increase in incomes the primary data suggests that still hunger exists. The study could have concentrated more on cultural, political and historical causes of poverty and hunger instead of collecting data on matters of policy, socio-economic and geographic delineations, had there been enough time to pursue in those lines.

#### *E. Criteria of Selection of Villages:*

The villages have been so chosen that they fall within the watershed areas with more potential for the execution of SMC works and this was verified by satellite imagery and using GIS tools during the study. In spite of that, it was not apparent why more number of works was executed in Guttuluputtu village over the other, also why less

number of wage-seekers reported to SMC works since the inception in Ubbariputtu village with almost 90% ST population falling below poverty line and suffering from acute hunger.

*F. The Concept of Hunger<sup>10</sup>:*

Hunger has been variously defined. For our purposes, a nation or a community or a household is considered to be free from hunger if six conditions are met:

1. Food is available at all times. That is, there is enough food in the system. In the absence of enough food in the system at all times, people cannot access food and must, therefore, go hungry;
2. Food that is systemically available should be culturally acceptable;
3. People have economic access to food. That is people should have the purchasing power to buy food;
4. People have physical access to food;
5. Food that people consume has the requisite nutritional value for a healthy life; and
6. People have access to potable water for absorption of food by the body.

Whenever, any of these conditions or some combination thereof are violated, food security is jeopardized and hunger sets in.

In official parlance, hunger is often defined in terms of calorie intake. The “subjacent hungry comprise those consuming between 1800-2200 calories per day; medial hungry are those who with calorie intake between 1600-1800 a day; and the ultra- hungry have the lowest calorie intake (less than 1600 calories per day)”<sup>11</sup>

Poverty reduction has been an important goal of development policy since the inception of planning in India. The XI Finance Five- Year Plan of India (2002-07) envisaged **inclusive growth of development** to improve the conditions and inclusion of the marginalized groups into the main stream of the society.

Various anti-poverty, employment generation and basic services programmes have been in operation in decades in India.

*G. Some anti-poverty, employment generation and basic services programmes are:*

1. PradhanMantri Gram SadakYojana (PMGSY);
2. Indira AwasYojana(IAY);
3. Swarnjayanti Gram SwarozgarYojana (SGSY);
4. National Food for Work Programme (NFFWP);
5. Drought Prone Areas Programme (DPAP);
6. SampurnaGrameenRozgarYojana (SGRY);
7. Desert Development Programme (DDP) and Integrated Wasteland Development Programme (IWDP);
8. SwarnaJayantishahariRozgarYojana (SJSR); and
9. ValmikiAmbedkarAwasYojana (VAAY).<sup>12</sup>

The ongoing reforms attach great importance to removal of poverty, and addressing specifically the wide variations across states and the rural-urban divide. Anti- poverty strategy has three broad components:

1. Promotion of economic growth;
2. Promotion of human development and
3. Targeted program of poverty - alleviation to address multi-dimensional nature of poverty and its resultant – the hunger.

The various programs targeted at the poor have been streamlined and strengthened in recent years, including through the NREGS-2005.

The primary objective of the NREGA-2005 is to be able to provide rural employment and for the creation of durable assets. This beneficial legislation aims at raising the standards of those marginalized groups who are living below the poverty line in our society. Various SMC works under the scheme such as of farm ponds, field channels, CCTs, Stone-Bunding works, earthen bunding works have been constructed in order to provide wage employment to the wage-seekers.

In this Article , we propose an integrated model of Human Resource Development in a symbiotic relationship between supply chain management and sustainability, a model conceived by Becker et al<sup>13</sup>as following:

The sustainable livelihoods approach involves starting from people’s real lives and drawing localized development strategies from their every day struggles for survival. Sustainable livelihoods approaches work within a specific local context to solve a particular set of issues, drawing upon tools and understandings generated from many different areas.<sup>14</sup> Sustainable Rural Livelihoods should base their strategies to meet the needs on local livelihood skills and systems. Ultimately the creation of sustainable livelihoods in a community requires a collection of locally identified strategies implemented over time. In a broader sense, sustainable rural livelihoods approaches are about informing enabling, initiating and supporting appropriate socio-economic choices for sustainable well-being of communities in ways that involve all sections of society across class, caste, and gender divides and giving meaningful role and voices to the landless, poor, women and those marginalized.

**“The prosperous way down”-** Precedents from ecological systems suggest that the global society can turn down and descend prosperously, reducing assets, population and unessential baggage while staying in balance with its environmental life support system.<sup>15</sup>

*H. Summing a new perspective:*

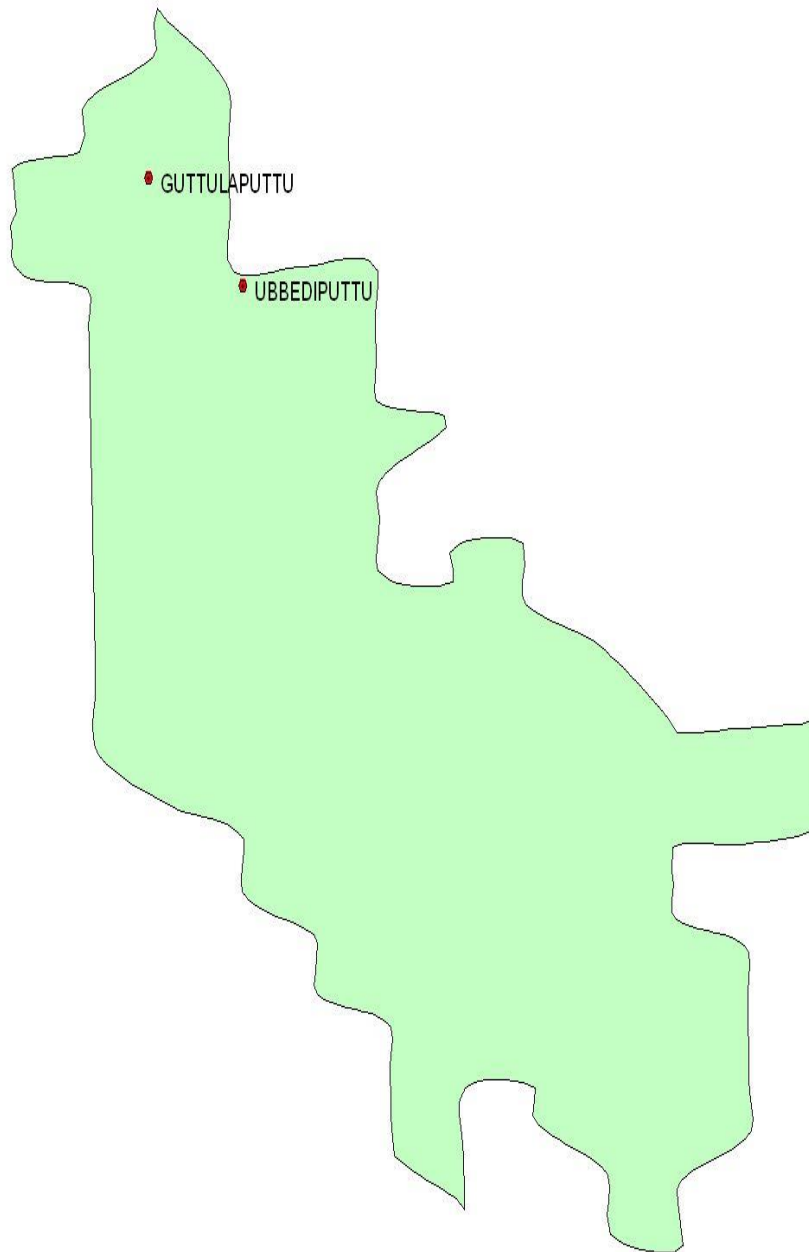
1. Communities are by right the primary arbiters of their destiny.
2. Development has to begin with local contexts, needs and aspirations of local communities and opportunities for integration with larger environmental and political contexts or equitable terms.
3. Sustainable development initiatives based on the above premises have to enable convergence of the state machinery (Depts., Projects etc.) NGOs, Institutions and organizations and other resource prospects in areas of technology, knowledge, funds, communications, mediation and negotiation.

## RESEARCH FINDINGS 1

1. 90% of the Guttuluputtu village and 98.23% of the Ubbariputtu village were married persons of the selected population which suggests that the sample selected viable consisting of responsible and mature persons.
2. 27.52% and 30.55% from the G.Puttu and U.Puttu villages participated in the research which is the highest in the different categories of the age-groups analyzed.
3. 81.65 % and 75% from G.Puttu and U.Puttu villages are total illiterates. Educated youth are also participating in the EGS due to unemployment situation in the countryside.
4. Maximum number of people is living in Red-tiled houses in U.Puttu village than in the other village showing that they need to incur less expense towards house repairs and re-construction purposes.
5. 31.19 % and 25% of the sample were landless and daily wage labourers. Rest of the sample has land but in a place which is mainly rain-fed and having no proper watershed development structures.
6. 100% of Ubbariputtu villagers were below the poverty line and 95.42% of the sample were earning less than Rs.12,000/p.ainGuttuputtuvillage.
7. The infrastructure of Guttuluputtu village is better than the other village.
8. After the execution of the works in Gutthuluputtu village of Paderumandal, there is a remarkable improvement in terms of the food security, wage employment, protection of common resource pool, development of market linkages, and reduction in migrations; however, there is only marginal increase in the agricultural extension services and value additions to the beneficiaries.
9. After the execution of the works in Ubbariputtu village of Paderu mandal, there is a remarkable improvement in terms of the food security, wage employment, protection of common resource pool, development of market linkages, NRM and reduction in migrations; however, there is only marginal increase in the agricultural extension services and value additions to the beneficiaries. Observations: The people of Ubbariputtu village were very not happy about the various linkages with their village in terms of services and goods extended to them, however in terms of social aspect and the functioning of the CBOs they have rated themselves better than the other villagers.
10. As per the official records there is over-all a better implementation of the NREGS-AP in Guttuluputtu village. Observation: There is plenty of rainfall recorded in the Paderu mandal throughout the years
11. The cropping patterns and the productivity of the land have increased over the years and especially after the implementation of EGS through the execution of the SMC works.
12. Alcoholism was rated the greatest menace for the cause of poverty and hunger by the participants of the process in both the villages,



## STUDY VILLAGES IN PADERU MANDAL

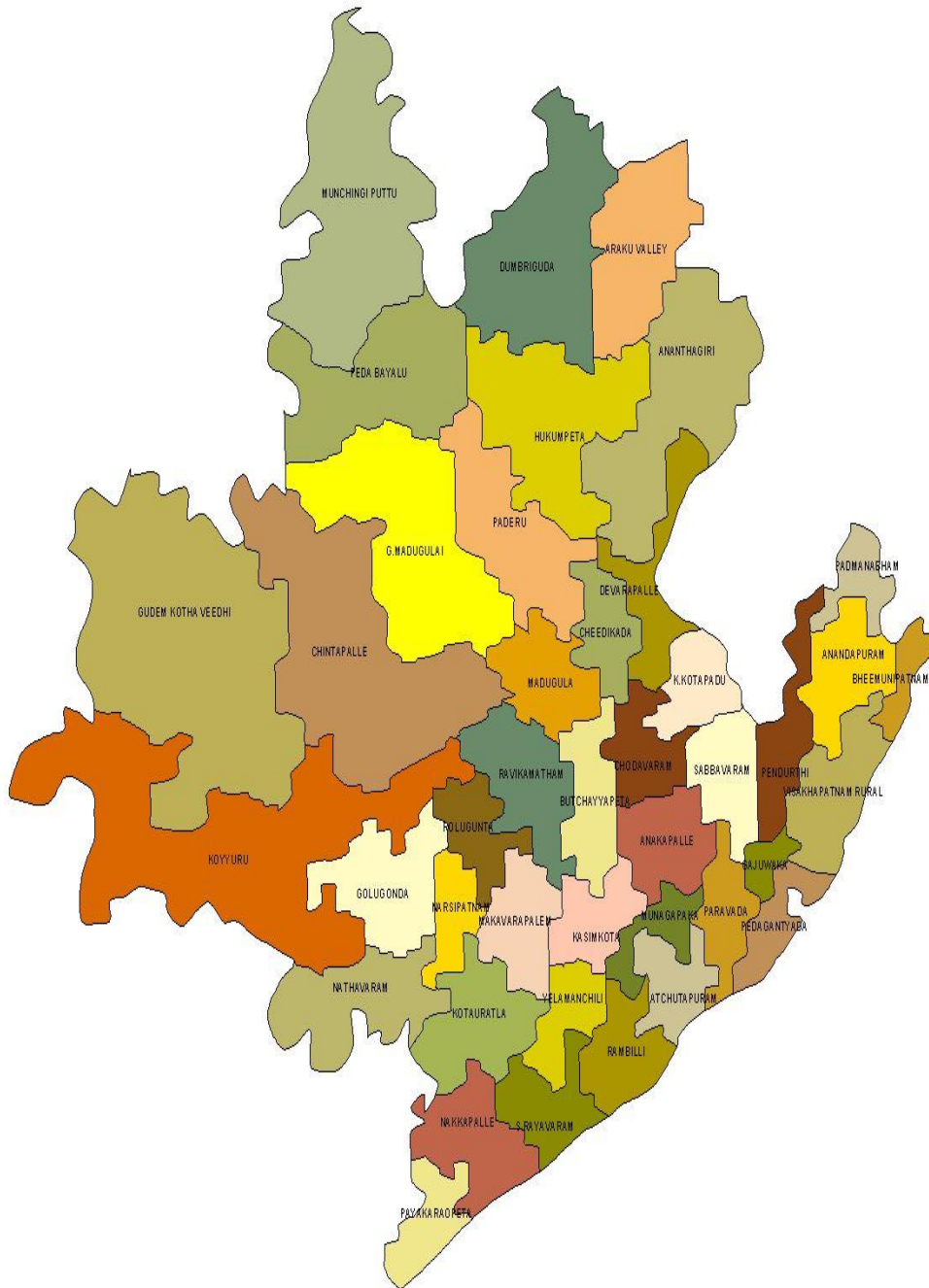


# VISAKHAPATNAM DISTRICT

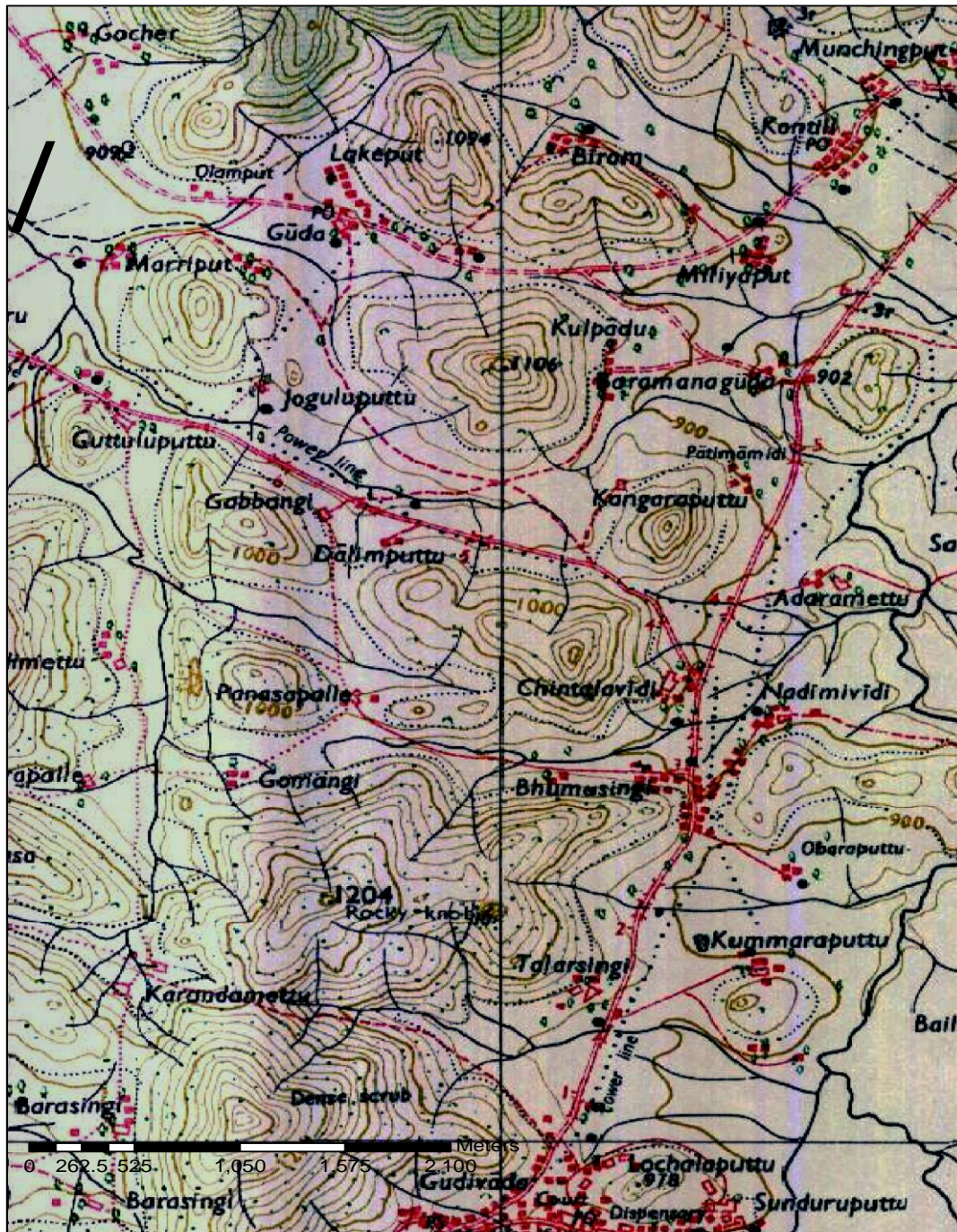


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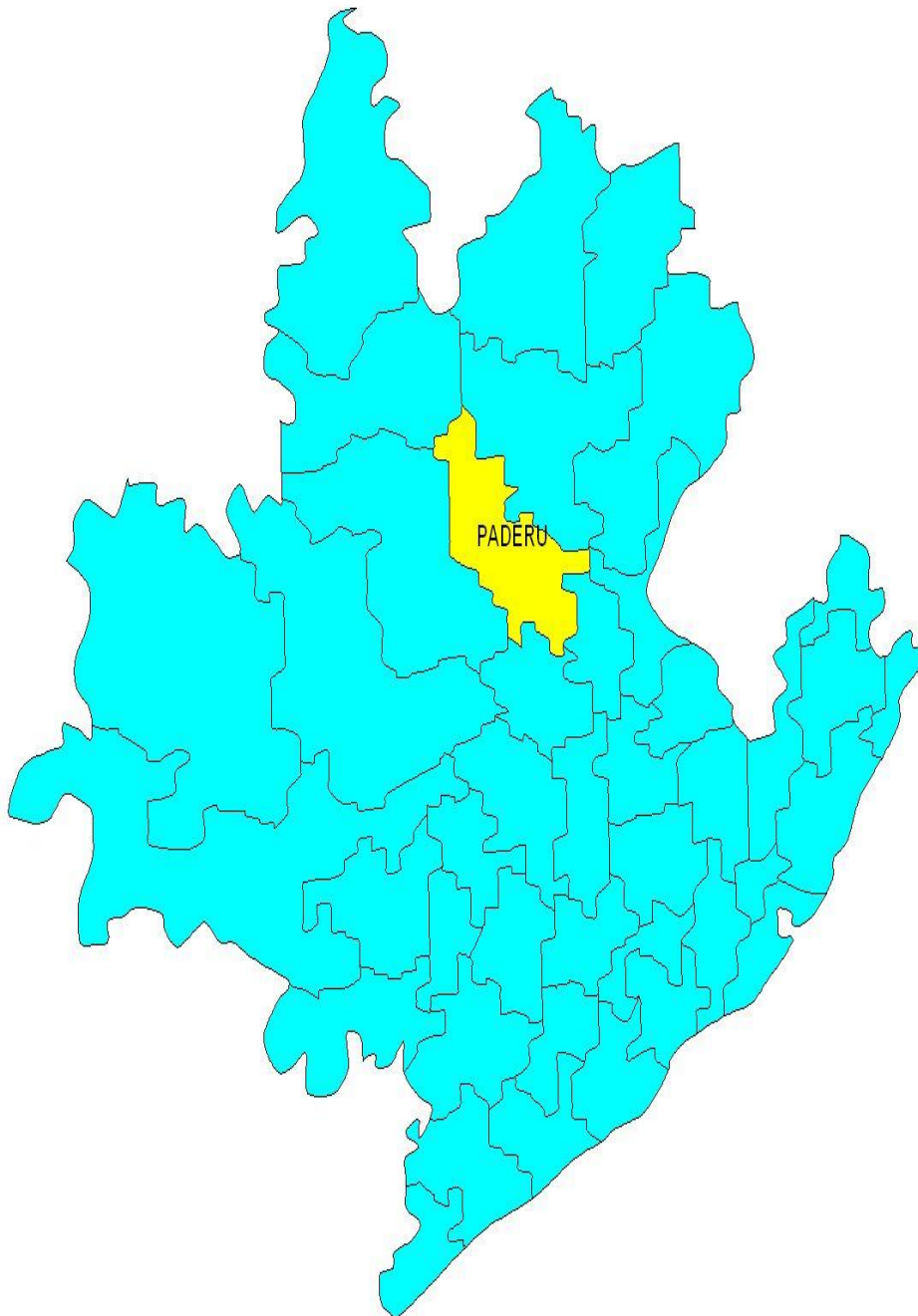
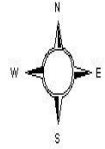
- ANAKAPALLE
- ANANDAPURAM
- ANANTHAGIRI
- ARAKU VALLEY
- ATCHUTAPURAM
- BHEEMUNIPATNAM
- BUTCHAYYPETA
- CHEEDIKADA
- CHINTAPALLE
- CHODAVARAM
- DEVARAPALLE
- DUMBRIGUDA
- G.MADUGULAI
- GAJUWAKA
- GOLUGONDA
- GUEM KOTHA VEEDHI
- HUKUMPETA
- K.KOTAPADU
- KASIMKOTA
- KOTOURATLA
- KOYYURU
- MADUGULA
- MAKAVARAPALEM
- MUNAGAPAKA
- MUNCHINGI PUTTU
- NAKKAPALLE
- NARSIPATNAM
- NATHAVARAM
- PADERU
- PADMANABHAM
- PARAVADA
- PAYAKARAO PETA
- PEDA BAYALU
- PEDAGANTYADA
- PENDURTHI
- RAMBILLI
- RAVIKAMATHAM
- ROLUGUNTA
- S.RAYAVARAM
- SABBAVARAM
- VISAKHAPATNAM RURAL
- YELAMANCHILI







## PADERU MANDAL , VISAKHAPATNAM DISTRICT



## VI. IMPACT OF SMC WORKS UNDER EGS ON HUNGER IN SELECTED VILLAGES

The implementation of SMC works in this region is a Policy-Intervention by the Government to improve the conditions of natural resources, occupation (soil, moisture, biomass, livestock, agriculture and so on) and productivity at the same time by improving the soil moisture conditions, fertility and management practices of natural resources in the selected area. Watershed development projects or SMC works in general parlance try to regulate water resources and moisture regime in the selected care by controlling water flows and retaining moisture within soils are some of the fundamental interventions any watershed development project. It is expected that entire patch of watershed is “treated” for effective management of natural resources in a given watershed area. Usually the interventions are initiated from the ridge area and slowly progress towards the valley region. In this process, the rain water falling on the ridge areas (top portions of the watershed area) is controlled through various engineering and vegetative measures.<sup>16</sup>

The same logic is relevant to take watershed as a unit, rather than village as a unit, there may be several watersheds. When village is taken as a unit for development to identify watersheds within the village area (ridge, valley, drainage lines and outlets) and develop action plans for each watershed separately. Ad-hoc interventions would be meaningless and can cause damage to all the treatments/interventions.<sup>17</sup> In this research, we have attempted to delineate the boundaries of watershed area of the selected villages and to find out whether the SMC works already executed in the region under NREGS –AP fall within the command area or not. It was found that the SMC works were executed at the strategic positions only and they were not mere ad-hoc interventions in the name of employment generation programmed.

There search findings tells us about the Village profiles that include, Monthly income, the Food calendars, Decision matrices, Water tables, Historical transects, Scoring and ranking of the causes of hunger and work schemes available in the area etc.

**Monthly income**

Village: Gutthuluputtu  
Participants: 30

Date:

11.12.2010

Months	Daily labor for Men	Daily labor for Women	Livelihoods			Total Rs. (Per month)
May-Jun	Rs.100/-	Rs.100/-	Wage-seekers			1500/-
Jun-July	Do-	Do-	Do-			1500/-
Jul-Aug			Do-			1500/-
Aug-Sep			Do-	Flower selling		600/-
Sep-Oct			Do-			1000/-
Oct-Nov			Do-			1000/-
Nov-Dec			Do-		Coffee seeds selling	2500/-
Dec-Jan			Do-			1000/-
Jan-Feb			Do-			3000/-
Feb-Mar			Do-			1500/-
Mar-Apr			Do-	Tamarind selling	Agricultural labourers	1800/-
Apr-may			Construction of buildings			1200

**Remarks:** “The job cards get exhausted by the month of October what other employment can we seek? The number of days should be increased to 150 days per annum because we cannot use other’s card, can we?” says the villagers in the interviewing schedule administered to them. We do not have any savings left as you know it is a hand to mouth existence.

Signature of the enumerator

## Food Calendar for the year 2010

<u>Months</u>	<u>Items of food consume</u>							from CPR
	rice	dal	veg	milk	meat/fish	fruits	others	
<b>Magh</b> (Jan-Feb)	20	5	1	0	4	3	ganji	0
<b>Fagun</b> (Feb-Mar)	20	5	1	0	4	3	ganji	0
<b>Chitra</b> (Mar-Apr)	20	5	1	0	4	3	ganji	0
<b>Baisakh</b> (Apr-May)	20	5	1	0	4	3	ganji	0
<b>Jyesta</b> (May-June)	10	3	1	0	0	5	ganji	0
<b>Ashadh</b> (June-July)	5	0	0	0	0	0	ganji	0
<b>Sawan</b> (july-aug)	5	0	0	0	0	0	ganji	0
<b>Bhado</b> (Aug-Sep)	5	0	0	0	0	0	ganji	0
<b>Kuar</b> (Set-oct)	5	0	0	0	0	0	ganji	0
<b>Kartik</b> (Oct-Nov)	3	0	0	0	0	0	ganji	0
<b>Aghan</b> (Nov-Dec)	3	0	0	0	0	0	ganji	0
<b>Pushya</b> (Dec-Jan)	15	2	0	0	2	7	ganji	0

**Date** : 11.12.2010

**Participants:** Men (in No.) 12                      Women (in No.) 15

**Village** : Ubbariputtu

## Food Calendar for the year 2010

<u>Months</u>	<u>Items of food consume</u>							CPR	Eggs
	Rice	dhal	veg	milk	meat/fish	fruits	others		
<b>Magh</b> (Jan-Feb)	11	10	7	0	7	2	ganji	2	4
<b>Fagun</b> (Feb-Mar)	11	10	7	0	7	2	ganji	2	4
<b>Chitra</b> (Mar-Apr)	11	10	7	0	7	2	ganji	2	4
<b>Baisakh</b> (Apr-May)	11	10	7	0	7	2	ganji	2	4
<b>Jyesta</b> (May-June)	9	4	5	0	5	4	ganji	4	6
<b>Ashadh</b> (June-July)	9	4	5	0	5	4	ganji	4	6
<b>Sawan</b> (july-aug)	7	5	4	0	4	2	ganji	1	3
<b>Bhado</b> (Aug-Sep)	5	2	2	0	2	1	ganji	1	3
<b>Kuar</b> (Set-oct)	3	1	1	0	1	0	ganji	0	1
<b>Kartik</b> (Oct-Nov)	6	7	3	0	5	4	ganji	2	4
<b>Aghan</b> (Nov-Dec)	12	8	5	0	5	4	ganji	2	4
<b>Pushya</b> (Dec-Jan)	14	8	5	0	5	4	ganji	4	6

**Date : 11.12.2010**

**Participants: Men (in No.) 4                      Women (in No.) 11**

**Village : Guttuluputtu**

**Decision Matrix: Men & Women (Guttuluputtu Village)**

<b>Major decisions Of the HHs</b>	<b>Decisions taken by Men</b>	<b>Decisions taken by the women</b>	<b>Joint - decisions</b>	<b>Who has major role</b>
Expenditure on clothes		<b><u>Yes</u></b>		<b><u>F</u></b>
Quality of food to eat		<b><u>Yes</u></b>		<b><u>F</u></b>
Repair of houses and c/o houses			<b><u>Yes</u></b>	<b><u>Both</u></b>
Education to children			<b><u>Yes</u></b>	<b><u>Both</u></b>
Child immunization		<b><u>Yes</u></b>		<b><u>F</u></b>
Practice of family operation			<b><u>Yes</u></b>	<b><u>Both</u></b>
Voting in elections	<b><u>Yes</u></b>	<b><u>Yes</u></b>		<b><u>Both</u></b>
Scale of HH Produce				<b><u>-</u></b>
Festival and visit to fairs			<b><u>Yes</u></b>	<b><u>Both</u></b>
Keeping money		<b><u>Yes</u></b>		<b><u>Both</u></b>
Children's marriage			<b><u>Yes</u></b>	<b><u>Both</u></b>

Signature of the enumerator

## Historical transect of Farming system and Crops

Village : **Ubbariputtu** Participants: **Men 6 Women 8** Date: **11.12.2010**

Decade	Occupation	Cropping pattern
1940	Farmers, daily wage labourers on a daily wage of Rs.16/month.	More crops and lesser population
1950	Do-	Do-
1960	Do-	Do-
1970	Do-	Do-
1980	Daily wage labourers, farmers, artisans, stone crushers etc.	Crops grown were mainly paddy, millets, saffron, tamarind, coffee, pulses and some variety of vegetables.
1990	Wages for men in construction works was Rs.54/day and for men and for women Rs.34/day.	Rice, coffee, saffron and tamarind, flowers especially, chrysanthemum which does yield much cash.
2000	Do-	Do-
2010	Under EGS, equal wages to men & women , almost Rs.120/day on the amount of work done.	

As narrated by an 88 year old Bhimanna s/o Balanna Surla of Ubbariputtu village.

Signature of the enumerator:



## Historical Transect of Farming System and Crops

Village : Gutthuluputtu

Participants: Men 4      Women 7

Date: 11.12.10

Decade	Occupation	Cropping pattern
1940	“Cannot say”, they said.	“Cannot say”, they said.
1950	Masonry, daily wage labourers, agricultural labourers, farmers etc	“Paddy, cereals, millets, and crops less sown in those days as the soil needed more fertilizers. The soil is sandy and gets washed away by heavy rainfall”.
1960	Do-Rs.0.50/day for females and Rs.1/day for males and in spite of that they could save some annas.	Do-
1970	Do-	Paddy, Ragi, Millets, samarlu, pulses, saffron, flowers, vegetables like, cabbage, raddish, pumpkin etc
1980	Do-	Do- “Not much change has happened since then except the rise in prices”.
1990	Rs.20/day- do-	“Rs.15/Kg DF and Rs.8/Kg Urea are required for cultivation, government used to give subsidies to the farmers for purchasing these fertilizers”.
2000	Rs.50/--do-	“Now they have withdrawn the farmer subsidies which is very unfortunate”, opined one farmer.
2010	Rs.100/day	“We are buying subsidies from the local shopkeepers at a higher price and that too the adulterated ones”, said one participant. “However, Development is taking place now in this area”, he said.

Signature of the enumerator:

## Scoring and ranking of causes of hunger

Village : Gutthuluputtu

Participants : Men 4 Women 7

Date: 11.12.2010

S.No.	Causes of Hunger & Poverty	Scoring	Ranking	Remarks
1.	Alcoholism	20	I	Great Menace
2.	Laziness	20	II	Due to Alcoholism
3.	Anger	15	III	Result of alcoholism
4.	Large families	10	IV	“What can we do?”
5.	Landlessness	2	VIII	do-
6.	Lack of resources	4	VI	No work
7.	Illiteracy	5	V	-
8.	Shortage of money	2	VII	No work

## Scoring and ranking of causes of hunger

Village : Ubbariputtu

Participants : Men 6 Women 8

Date: 11.12.2010

S.No.	Causes of Hunger & Poverty	Scoring	Ranking	Remarks
1.	Alcoholism	5	I	Great Menace
2.	Laziness	2	IV	Due to Alcoholism
3.	Anger	2	IV	Result of alcoholism
4.	Large families	2	IV	“What can we do?”
5.	Landlessness	2	IV	do-
6.	Lack of resources	3	III	No work
7.	Illiteracy	3	III	-
8.	Shortage of money	4	II	No work

**Decision Matrix: Men & Women**

<b>Major decisions Of the HHs</b>	<b>Decisions taken by Men</b>	<b>Decisions taken by the women</b>	<b>Joint - decisions</b>	<b>Who has major role</b>
Expenditure on clothes			<b><u>Yes</u></b>	<b><u>Both</u></b>
Quality of food to eat			<b><u>Yes</u></b>	<b><u>Both</u></b>
Repair of houses and c/o houses			<b><u>Yes</u></b>	<b><u>Both</u></b>
Education to children			<b><u>Yes</u></b>	<b><u>Both</u></b>
Child immunization		<b><u>Yes</u></b>		<b><u>F</u></b>
Practice of family operation		<b><u>Yes</u></b>		<b><u>F</u></b>
Voting in elections			<b><u>Yes</u></b>	<b><u>Both</u></b>
Scale of HH Produce				<b><u>=</u></b>
Festival and visit to fairs	<b><u>Yes</u></b>			
Keeping money		<b><u>Yes</u></b>		
Children's marriage			<b><u>Yes</u></b>	<b><u>Both</u></b>

Ubbariputtu Village Date: 11.12.2010 Participants 14

Signature of the enumerator

## Economics of Crop Cultivation

Expenditure in cultivating a crop in One bigha of land		Recovery from the crop grown on one bigha of land	
Items	Cost (Rs.)	Items	Price received in Rs.
Seed - Coffee Saffron	Nil Rs.5000/-	Seed retained	Rs.25,000/p.a Rs.10,000/p.a
Labour	1000/- Rs.1000/-	Grains	-
Fertilizers & Pesticides	-	Hay	-
Hiring of Bullocks, plough & labour	2000/-	-	-
<b>Total</b>	<b>Rs.9000/-</b>	<b>Total</b>	<b>Rs.35,000/-</b>

Village: Guttuluputtu

Participants: 30

Date: 11.12.2010

Signature of the enumerator:

**Economics of Crop Cultivation**

Expenditure in cultivating a crop in One bigha of land	Recovery from the crop grown on one bigha of land
---	--

Items	Cost (Rs.)	Items	Price received in Rs.
Seed - Coffee	Nil	Seed retained	Rs.25,000/p.a
Saffron	Rs.5000/-		Rs.10,000/p.a
Labour	1000/- Rs.1000/-	Grains	-
Fertilizers & Pesticides	-	Hay	-
Hiring of Bullocks, plough & labour	2000/-	-	-
Total	Rs.9000/-	Total	Rs.35,000/-

Village: Ubbariputtu

Participants: 30

Date: 11.12.2010

### PRA5-Schemes implemented in the village

Schemes	For whom implemented	How it could be improved	Any new schemes	Remarks
Indira Awas	poor	-	-	Payments due
SGRY	poor	-	Closed	-
ICDS	poor	-	-	Anganwadi teacher is active
PHC	poor	Sub-center closed	-	Building dilapidated
Social Security Pensions	poor	Every pensioner must get equal pension ,i.e., Rs.500/-	“How can we survive on Rs. 200/p.m pension amount, It should be increased”Said the villagers.	Payment system should be strengthened.
NREGS	poor	good	Wage employment & land distribution to the poorest of the poor.	good
RWS	poor	Drinking water facilities should be improved	One- million wells scheme – a well for every village.	Condition is very bad.
Pasukranthi scheme/IKP	poor	Plough-bullocks, goats, sheep and buffaloes are needed and the government must give subsidies at a cheaper rates	-	Other mandals are getting the benefits the scheme, why not our village.
Other	-	-	-	-

**Village: Gutthuluputtu**

**Date: 11.12.2010**

**Participants: Males 12      Females 18**

**Signature of the enumerator**

**WATER TABLE REPORT**

<u>GRAM PANCHAYAT</u>	<u>VILLAGE</u>	<u>BORE-WELL</u>	<u>MPWS</u>	<u>OPEN WELL</u>	<u>ST POPN</u>	<u>EXISTING WATER LEVEL</u>	<u>AS ON 01/04/2010</u>
GUTTULU PUTTU	<u>GUTTULU PUTTU</u>	2	1	=	<u>531</u>	<u>27.14 LPCD</u>	<u>PC3</u>
<u>UBBADI PUTTU</u>	<u>UBBADI PUTTU</u>	2	-	1	161	22.72 LPCD	PC3

DATE:  
MANDAL:

SIGNATURE OF THE ENUMERATOR



## VII. OBSERVATIONS

The records suggest that the government had provided wage employment in the implementation of the scheme thereby raising the income level of the wage-seekers; whether there was any impact on the level of hunger in the selected villages is the point of departure. The research inquiry suggests that the wage-seekers who were the marginal and small farmers having alternate source of livelihood such as livestock's and agricultural lands came into the 'safety-net' by receiving the benefits of the scheme and are able to have a square –meal a day; however, the landless labourers and the persons with no alternative source of income were found to be totally dependent on the EGS without which it was impossible for them to have meals twice a day. They have become dependent on the EGS to the extent that they even stopped migrating to other areas in search of employment and in a way severed the linkages with the outside contractors, though temporarily; how far this scheme would provide them the food security is the question yet to be answered.

The wage-seekers were requesting for the increase in the number of days under EGS up to 150 days. As their job cards gets exhausted by the month of October, they were lamenting that there is not even a complete single meal a day available for the ensuing months (see the food calendars prepared through PRA).

*The case study of Ubbariputtu village* reveals the fact that due to allotment of EGS works (read SMC works) to the Fixed Labour Groups (FLGs), the wage-seeker's names have fallen into the list of works at other locations creating a problem to them to work in other villages. As it is, there is no problem for them to work, the act says that they will be provided with transport allowances also if the work place allotted is more than 5Km away from their habitations. If we look into the socio-cultural dimensions, the work place allotted may not be acceptable to them, in the instant case; the people from those villages were objecting them to work in their villages. In a closed and conservative society as theirs (100% ST Population), it is an expected outcome that these villagers either would not prefer to work in adjacent villages or they would be prevented by the local people of those villages. As a result, the villagers of Ubbariputtu village were demanding those works in their villages which fell into the quota of other FLGs. Although there is availability of the works in the area (within 5 Km) from the villages the wage-seekers are unable to fend for their living and suffering from hunger. It is a question of logistics which could have been sorted out at the Departmental level, the field assistant and the Mandal Technical Assistant could have prepared new estimates for the wage-seekers by bringing it to the notice of the MPDO for obtaining administrative sanctions. The apathy of the Village Organizations is another part of the story which is evident from the PRA constructed. There should be a proper coordination of government departments, NGOs, People's representatives and the people at large for success of any scheme. Ubbariputtu village is a sad story of poor implementation of government schemes, the execution of SMC works is only one instance.

*The case study of Guttuluputu village* is somewhat encouraging as the wage-seekers were turning to works and that their job cards get exhausted by the month of the September bearing testimony to the fact that the scheme is really beneficial to them and that they are able to get food security to the level envisaged by the government. As regards the development of the lands of the beneficiaries, they were quite vocal about the fact that the land productivity has increased and the common pool resources have improved. They wished that the market linkages should be strengthened at the local level and were not happy about their commercial dealings with the

saahukars of Jholaput and other regions. As regards the Ward member being an active person or not, they said that he was; however the fact is that he is himself a wage-seeker and having a no say in the village politics. The sarpanch and the President of the Mandal have not taken any steps to renovate the dilapidated building of Health sub-center, though funds are available in their accounts under XII finance grant.

### VIII. CONCLUSION

1. In the comparative aspect, Guttuluputu village fared better in terms of socio-economic, external linkages, crop production, and in the execution of schemes in the village as it is the HQ village of the Gram Panchayat. In all respects Ubbariputtu village is neglected partly due to political apathy.
2. In both the villages, the EGS through the construction of the SMC works raised the income levels of the wage-seekers.
3. The interviewing schedules and PRAs such as Chapatti tools could only elicit casual answers from the participants as they were reluctant to tell the truth, however the PRA tools such as the food calendars gave deeper insights into their nutritional intake which was found to be far below the prescribed level and therefore, they are found to be hungry. There were some months especially from August to November when they were found to be going in utter starvation.
4. The hypothesis holds good since the raise in the income levels of the wage-seekers through SMC works had no effect in reducing the level of hunger as their nutritional intake is still found to be very low, even though they say that they are getting a square meal a day. The food calendars throw enough light on the levels of hunger in certain months when they go without taking a proteinaceous diet! The case of Ubbariputtu village is an example of those starving masses in India who should be brought within the 'safety-net' immediately by introducing more schemes which may have an overall impact on their human development. In other words, without such schemes like EGS, these people will be at the brink of starvation for almost the entire year.
5. The GIS methodology used during the research was an evaluation study to check whether the SMC works initiated in the areas were properly planned or not and that they are not mere ad-hoc interventions in the name of employment generation. The drainage-maps of these two villages (see Annexure) confirm the proper geographic construction of these works, strategically speaking and the area is suitable for initiation of more number of SMC works to preserve and maintain natural resources of the region.
6. The safe drinking water was a problem for the people of Ubbariputtu Village, they survive on the murky water of the Open well constructed in the village, and this is another threat to their health as potable water is required for absorption of the food taken. Therefore, again looking at this angle also, the people of Ubbariputtu are suffering from hunger. The water table chart in the research findings shows that 30 litres of water per day per head is available in the villages which is more than sufficient to the villagers throughout the year.
7. The decision-making matrices prepared for the villages using closed observatory participatory methods shows that the women folk are empowered by the raise in their incomes through the EGS programme and they are able to exert more influence in the decision-making processes at the households.
- 8.

## IX. RECOMMENDATIONS

Sustainable Rural Livelihoods should base their strategies to meet the needs on local livelihood skills and systems. Ultimately, the creation of sustainable livelihoods in a community requires a collection of locally identified strategies implemented over time. In a broader sense, sustainable rural livelihoods approaches are about informing enabling, initiating and supporting appropriate socio-economic choices for sustainable well-being of communities in ways that involve all sections of society across class, caste, and gender divides and giving meaningful role and voices to the landless, poor, women and those marginalized.

Mere employment generation through SMC works will not cater to their basic needs; their livelihoods should be strengthened and diversified by proper linkages with other services. The beneficiaries whose lands are developed under the EGS should be provided with the benefits of the schemes such as Pasukranthi (animal rearing) wherein they may have the opportunity to make some value-additions. This may increase crop productivity and food security of the house-hold and the village as well, as most of the persons of the village is found to be supplementing their food intake by gleaning or collecting the food from the common resource pools.

The government has to improvise the services of the Rural Water Supply (RWS) Dept. in the construction of the new open wells and in the maintenance of the defunct bore-wells in the region for providing safe- drinking water to the people. **One properly maintained open well per village** should be the motto as the bore-wells require repairs frequently and any delay in the part of the Rural Water Supply Departments (especially in the hilly areas as these) would throw these people to unwarranted problems relating to health and life.

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