Poverty and the Common Property Resource: The Inter-linkage

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Abstract

A property on which well defined collective claims by an exclusive group are established, having the characteristic of a public good such as indivisibility, shall be termed as a common property resources. Broadly define, common property resources are those used by a community without any exclusive individuals' ownership or access rights.

In the context of sustainable development the dependency of Private Property Resources (PPR) on Common Property Resources (CPR) plays a major role. Sustainable Development requires a well maintenance of CPR for the sake of future generation.

There is also a very crucial linkage between the poor and the CPR. The poor people often depend significantly, on the products of CPR in the form of collection of fuel woods, forest products – timber and non-timber. According to the World Resource Institute (1990), nearly 500 million people in India depend upon Non Timber Forest Product (NTFP) for their livelihood.

Jhargram, a subdivision of West Midnapore district in West Bengal is an under- privileged rural area, situated at the lap of nature with a blend of tribal and non-tribal population. In Jhargram more than fifty percent (51.02%) of the geographical area under CPR category. Chandri, Dudhkundi, Sapdhara and Lodhasuli are the four villages of Jhargram block where the study was conducted.

In this paper attempt has been made to find out: (i)whether there is gender bias in collection of CPR (ii) whether there is any decline in supply of fuel-wood from CPRs and if yes, its impact on poor and the possible reasons for the decline. (iii) whether the forest officers are playing as a negative role to protect the CPR and finally (iv) whether people's participation in the form of Bon Committee to protect the CPR is working or not.

The survey finds that fuel wood collection is mainly performed by the female members of the family. Supply of fuel wood is declining for the poor and unscrupulous hobnobbing between the forest officials and the poacher is one of the main reasons behind this decline. And most surprisingly the formation of Bon Committee is playing indeed as a negative catalytic agent behind the cutting forest in an illegal way as they get cut money to allow poaching. In the survey, it has also been found that in many situations, though not always; co-ordination and leadership problems play a dominant role

Introduction

Each living being requires sure fundamental necessities that nature gives, for example, land, water, climate, light, timberland, and biodiversity. In smaller terms, an asset is implied as something that is valuable and profitable, which fulfills or fulfills human needs. Throughout the year, ecological assets have been arranged into four sorts in light of the relationship between the assets and asset client. They are (a) private property resources, (b) state property resources, (c) open access resources, (d) common property resources (CPR).The present study is confined to common property resources.

A property, on which all around characterized aggregate cases by a restrictive gathering are built up, the utilization of the assets is subtractive, having the normal for an open decent, for example, indivisibility, should be termed as common property resources. common property resources common pastures, forests, Waste land, although rare in the western countries, are still important in the rural areas of developing countries. Broadly define, common property resources are those utilized by a group with no selective people's proprietorship or access rights.

Some natural resources are Common Property Resources (CPR). The portraying components of these assets are: Firstly, utilization diminishes all out supply of the assets. Furthermore, it is hard to apply the rejection rule that keeps individuals from utilizing the CPR. Such assets are critical for both generation and utilization of rustic family units, vocation and the standardized savings framework. At long last, for numerous situations asset clients have themselves built up tenets to bar pariahs and control asset use. The formation of such basic property asset foundations has guaranteed manageability of such resources.

This article first exhibits village level evidence in regards to the reliance of poor families on common property resources, a second area remarks on their decrease and the causal variables, while the last segment looks at open intercessions including the country poor and common property resources. As indicated by Jodha (1986), “common property resources are community’s natural resources where every member has access & usage facility with specified obligation without anybody having exclusive property rights over them.”

This situation is not inescapable, however, provided the poor are offered elective choices that will diminish their reliance on the common resources and that will regulate the usage enhance the regeneration and raise the productivity of common property resources.

The substantial reliance of the provincial poor links these resources to the progression of neediness and to improvement intercessions focused on poor people. Thus, any adjustment in the status and profitability of regular property assets specifically impacts the economy of the rustic poor. The weight on the staying basic property assets has quickly expanded as a joined aftereffect of the lessened zone in these resources and populace growth.

Also, moreover stuffing, another basic explanation behind the corruption is an extricating of customary organization. State mediations have been incapable in substituting formal for the past casual social authorizations and standard plans for securing, updating and directing the utilization of normal property. Thus, numerous have gotten to be open access assets, with everybody utilizing them with no complementary commitment to look after them.

The lessening in area zone, poor support and the decrease in conveying limit lead to diminished supplies of items for the individuals who rely on upon normal property assets. Found in connection to before confirmation of the country poor's overwhelming reliance on these assets, their decrease speaks to an unequivocal stride towards further pauperization of poor people. This is a great instance of the endless loop of destitution and asset corruption strengthening each other.

Objective of the Study

The objective of the survey is to determine the functions of common property resources and dependence of the rural poor on CPR. The objective of this survey is to find out whether rural poor depends on CPR in Jhargram on the purpose of their cooking media and also for their income sources. Collection of CPR and gender issues is an important objective of our survey.

Another very important objective of this survey is the declining aspect of CPR in the study villages in Jhargram. Whether the supply of the fuel-wood from CPR is declining or not in the area of the study villages and how it affects the rural poor are the two main objectives of the study. What are the reasons behind declining nature of CPR and how these problems can be solved are very important objectives of the survey.

It is the general perception that forest officers play a very important role for protecting CPR and the participants of the local people are equally important to protect CPR.

In this study attempt has been made to find out that in Jhargram Block whether the forest officer are acting as a negative or positive stimulant to protect CPR and the formation of ‘Bon Committee’, the indicator of people’s participation has come out with a fruitful outcome or not.

Methodology of the Study

Jhargram sub division in Paschim Medinipur district in West Bengal has been selected for the study, as there are not so many studies on Common Property Resources (CPR). Jhargram Block has been selected for study because it has the larger forest area as well as CPR area in the sub division. From the Jhargram four villages were selected based on the higher area under CPR. They are Chandri, Dudhkundi, Sapdhara and Lodhasuli.

The random Sampling technique was used to select sample household. Households were categorized into two sector poor and non-poor. Sample households were then selected from each village under each category.

Thus a total of 400 households of which 69.75 percent poor and 30.25 percent non-poor formed the sample size for the study.

Primary data was collected from the households through the personal interview method. The secondary data for CPR area was collected from the Block Office, Forest Office, Gram Panchayat Office and Agricultural Offices.

The results of the analysis have been presented under the following heads:

1. General characteristics of CPR in the study villages.
2. Use of CPR land for fuel-wood collection
3. Dependence on CPR land for income
4. CPR and gender issues
5. Future prospects of CPR in study Villages.
6. Performance of the '*Bon-Committee*'.

Review of Literature

Late writing on CPR administration reprimanded "Hardin's Tragedy of the Commons" regularly comes about, not from any inborn disappointment of basic property, but rather from institutional inability to control access to assets, and to settle on and uphold inner choices for aggregate use. These evaluates contend that Hardin's 'catastrophe of house's is pertinent just to the circumstance of allotment of 'open get to assets' and not to lodge i.e. basic property assets (Bromley et al, 1992). If there should arise an occurrence of open-access and unregulated basic property people don't get-appropriate motivating forces to act in a socially effective manner. As indicated by property rights school the issue of overexploitation and debasement of regular property assets (CPR) can be determined just by making and authorizing private property rights. The researchers of second school of thought supporter that exclusive the allotment of full power to direct the house to the outside organization i.e. state property administration can lessen the over-misuse of CPR (Hardin, 1968). Establishment working at the group level for overseeing regular pool assets has developed as a third probability. An expanding number of researchers promoter that decentralized aggregate administration of CPR by their clients could be a proper framework for misrepresenting the 'tragedy of commons' (Wade, 1988; Jodha, 1986; Chopra et al., 1989, Ostrom, 1990). Ostrom (1990) contends that aggregate activity for CPR administration will be long persisting and effective under states of very much characterized limits. The achievement of the property rights administration relies on the coinciding of environment and administration limits, the determination and representation of interests, the coordinating of administration structures to biological community qualities, the control of exchange expenses, and the foundation of checking, authorization and selection forms at the fitting scale.

Reliable with developing hypothetical writing, there is sufficient exact exploration in India managing hall and the reliance of poor on the CPR. Jodha (1986) watched that rustic poor are vigorously reliant on CPR for their vocation. In an investigation of 21 locale of seven States of India he found that the privatization of CPR as a system to help the country poor yielded a

negative results furthermore diminish the efficiency of the house. Iyenger (1989), in his investigation of Gujarat, has watched that it is the populace weight affected privatization that is primarily in charge of the debasement of CPR. Chopra et al. (1989) in their investigation of Hariyana highlights the significance of participatory administration in controlling the CPR. They contend that administration's inability to protect CPR together with their intemperate abuse for formative exercises has prompted genuine corruption of nature with biological repercussions. In a comparative study in North Western Himalayan district, Gibbs and Bromley (1989) noticed that a well working normal property administration will likely be recognized by i) at least debate and constrained exertion important to look after consistence, ii) an ability to adapt to dynamic changes through adjustment, for example, the landing of new generation strategies, iii) an ability to suit shock or sudden stuns, and iv) a mutual impression of decency among the individuals as for inputs and results, The significance of exchange expenses in any financial trade is highlighted by numerous researchers. Exchange costs connected with exchanging are diminished by an expansion in levels of trust between exchanging accomplices and the improvement of establishments that give motivating forces to enduring participation. In any case, in numerous observational studies, physical information and property rights are taken as variables and exchange expenses of asset administration. It has been accounted for that exchange expenses of group based woods administration are fundamentally higher for poorer clients.

Much of the time, profits by asset administration are surpassed by administration costs. A portion of the studies have just touched upon the issue of CPR and part of regular property foundations in directing the entrance and protection runs however no complete exertion has been had to incorporate the effect of neighborhood administration organizations on provincial nearby employments and maintainability of basic property assets at the group level. McKean (1992) contended that qualification to results of the center fluctuates to an astonishing degree. Foundations don't generally diminish exchanges costs however may really, when they are wasteful, build exchange costs. Taking into account survey study on CPR administration in Zimbabwe, Campbell et al. (2001) contend that there is a reasonable level of lost positive thinking about CPR establishments. Understanding the determinants and effect of normal property organizations and distributional ramifications of CPR administration is fundamental for educating backwoods approaches and programs in Nepal and other South Asian Countries where much arrangement accentuation as of now is being put in advancing group based establishments for woodland asset administration and neediness lessening through better administration of the house.

Data Analysis

Table 1: CPR AREA IN JHARGRAM BLOCK

1) Name of the block	Jhargram
2) Total geographical area	53950 Ha
3) CPR area	
(a) in the year (2007-2008)	
(i) Forest	15400 Ha
(ii) Cultivated area	26424 Ha
(iii) Fallow area	300 Ha
(iv) Cultivable waste area	460 Ha
(v) Non agriculture area	9406 Ha
(vi) Orchard & Pasture area	1760 Ha
(vii) Residual area	200 Ha
Total CPR area (i+iii+iv+v+vi)	27326 Ha
CPR area as a percentage	
of total geographical area	50.65
(b) in the year (2007-08)	
(i) Forest	15400 Ha
(ii) Cultivated area	26424 Ha
(iii) Fallow area	
(iv) Cultivable waste area	460 Ha
(v) Non agriculture area	9906 Ha
(vi) Orchard & Pasture area	1760 Ha
(vii) Residual area	
Total CPR area (i+iii+iv+v+vi)	27526 Ha
CPR area as a percentage	
of total geographical area	51.02

(Source: District Statistical Handbook, Govt. of West Bengal 2008)

The changing proportion of land area under different categories has been taken from village level land records and are presented in Table 1.The area under the forest, Fallow area, Cultivable waste area ,Non agriculture area ,Orchard & Pasture area form the CPR land for a village. The table shows in the past (2007-2008) about 27326 acres of CPR land, which amounts to nearly 50.65 percent of the total geographical area, was available in the block. But the area has increase to 27526 acres of the CPR land which is the 51.02 percent of the total geographical area. More than fifty percent of the total geographical area of the block is under CPR category.

Table 2: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY COOKING MEDIA

Name of Villages	Category of House holds	No. of House-holds	Cooking media (Percentage)				
			Fuel wood	Fuel wood & Dung cake	Fuel wood, Dung cake & Crop Residue	Fuel wood & Dry leaf	Others (Kerosene)
Chandri	Poor	72	94.44	27.77	11.11	83.33	——
	Non-poor	28	83.33	31.13	——	66.66	33.33
	All	100	91.66	29.16	8.33	79.16	8.33

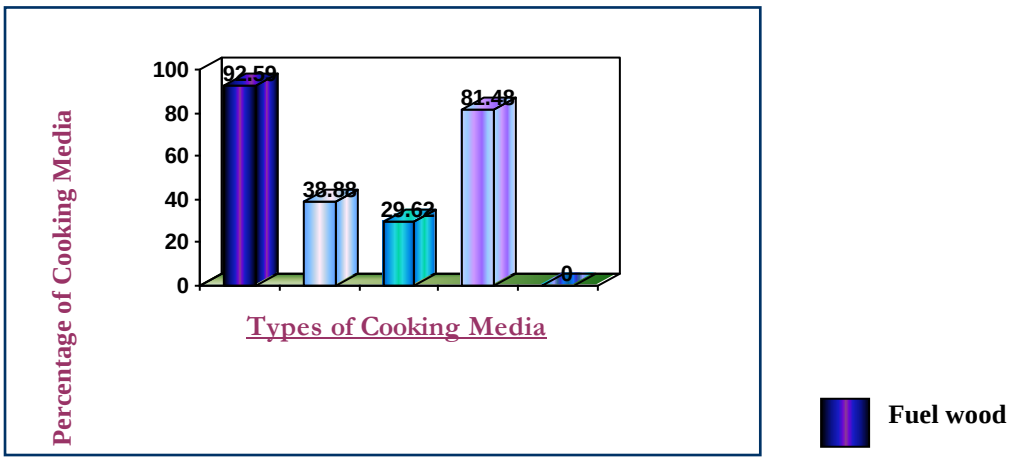
Dudhkundi	Poor	65	92.30	53.84	50	84.61	——
	Non-poor	35	87.5	37.5	37.5	87.5	——
	All	100	90.47	47.61	42.85	85.71	——
Sapdhara	Poor	70	92.85	50	35.71	85.71	——
	Non-poor	30	88.88	44.44	——	77.77	——
	All	100	91.30	47.82	21.73	82.60	——
Lodhasuli	Poor	72	88.88	22.22	33.33	66.66	——
	Non-poor	28	93.75	25	12.5	75	31.25
	All	100	92	24	20	72	20
All-Villages	Poor	279	92.59	38.88	29.62	81.48	——
	Non-poor	121	89.74	33.33	12.82	76.92	17.94
	All	400	91.39	36.55	22.58	79.56	7.52

(Source: Field Survey)

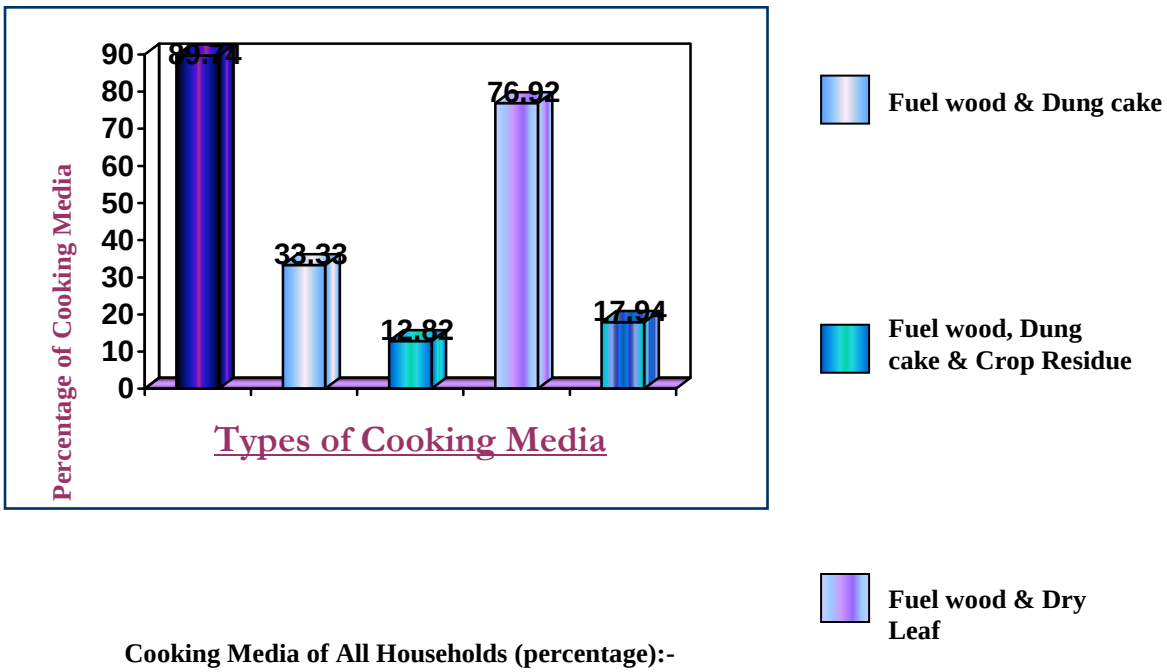
The most widespread use of CPR land was for the collection of Fuel Wood for cooking media. However, dependence of CPR land for Fuel wood was not significant in all the study villages. The percentage distribution of household by cooking media is presented in Table 2 .It may be observed from the table that there seemed to be a shift, though a nominal one, in favor of other sources of cooking energy such as kerosene, in the study villages.

Exclusive use of fuel wood was highest (92 percent) in Lodhasuli village followed by Chandri (91.66percent) and Sapdhara (91.30 percent) and Dudhkundi (90.47 percent).This indicated that the availability of CPR land was limited in Dudhkundi and Sapdhara villages. Whenever there was lack of fuel wood, dry leaf had been used to meet energy requirement. Fuel wood had been collected from the reserve forest free of cost. Dung Cake, Crop Residue were derived from both own sources as well as from other sources.

Diagram 1: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY COOKING MEDIA



Cooking Media of Non-Poor (percentage):-



Cooking Media of All Households (percentage):-

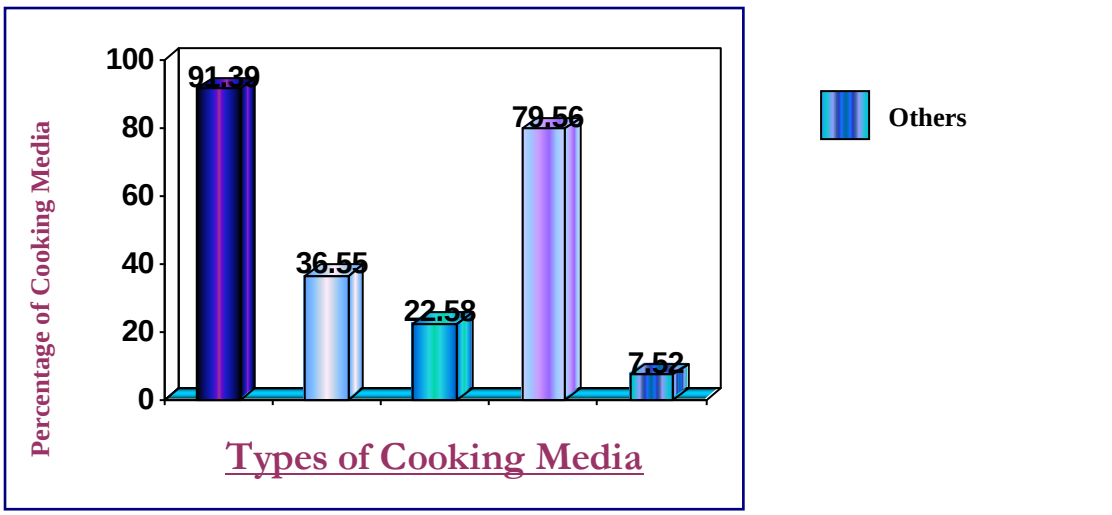


Table: 3: OTHER ASPECTS OF FUEL WOOD COLLECTION

Name of Village	Category of Household	No. of Household	Average Fuel Wood Collection (Kg/day)	Average time spent/collection (hours)	Average Distance from home to CPR (in Km)
Chandri	Poor	72	22.6	3.2	2.06
	Non-poor	28	19.25	2.75	2.75
	All	100	21.67	3.07	2.25
Dudhkundi	Poor	65	15.09	2.81	2.09
	Non-poor	35	17.16	2	2.33
	All	100	15.82	2.52	2.17

Sapdhara	Poor	70	16.9	2.27	2.09
	Non-poor	30	17.85	1.85	1.42
	All	100	17.20	2.14	1.88
Lodhasuli	Poor	72	22	2.66	1.83
	Non-poor	28	19.15	2.38	1.85
	All	100	21.20	2.58	1.84
All Villages	Poor	279	19.16	2.79	2.04
	Non-poor	121	22.86	2.23	1.96
	all	400	20.27	2.62	2.01

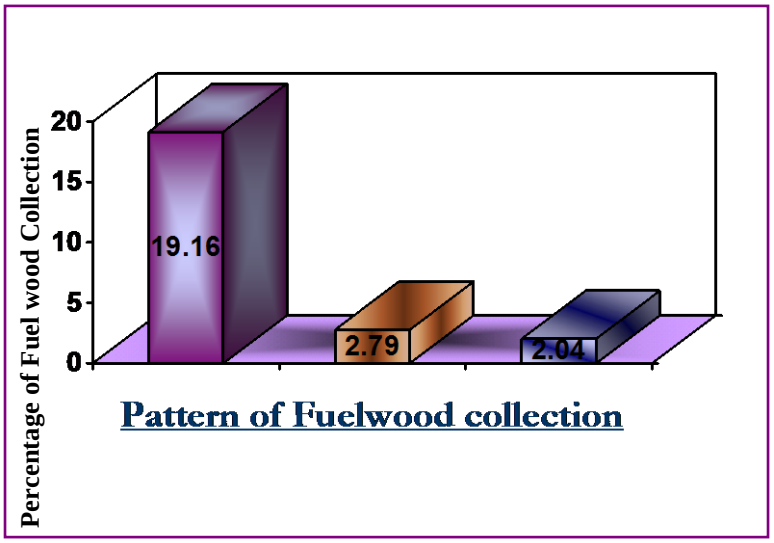
(Source: Field Survey)

Some other aspects of fuel wood collection from CPR that emerged during the survey are presented in Table 3.On average, the poor used 19 kg, the non poor used 23kg and all households used 20 kg of Fuel wood per day. Between the villages the household consumption of Fuel wood per day varied from 22kg in Chandri to 16kg in Dudhkundi. Generally, households in the study villages regularly went for fuel wood collection. But in summer, they collected fuel wood more intensively, to be stored for rainy season, when Fuel wood collection would be very difficult.

Table 3 shows that the distance between the place of dwelling (habitation) and source of fuel wood collection (forest) was around 2km. But to collect fuel wood, people had to go deep into forest due to the congestion of fuel wood collectors at the outcast of the forest. This resulted in an increase in the time spent of Fuel wood collection. The average time spent per collection of Fuel wood varied between a minimum two hours and a maximum of three hours. The major reason of using CPR as collecting fuel wood is the short distance between the villages and forest.

Diagram 2: OTHER ASPECTS OF FUEL WOOD COLLECTION

Fuel wood Collection by Poor (percentage):-



Fuel wood Collection by Non- Poor (percentage):-

Fuel wood Collection by All Household (percentage):-

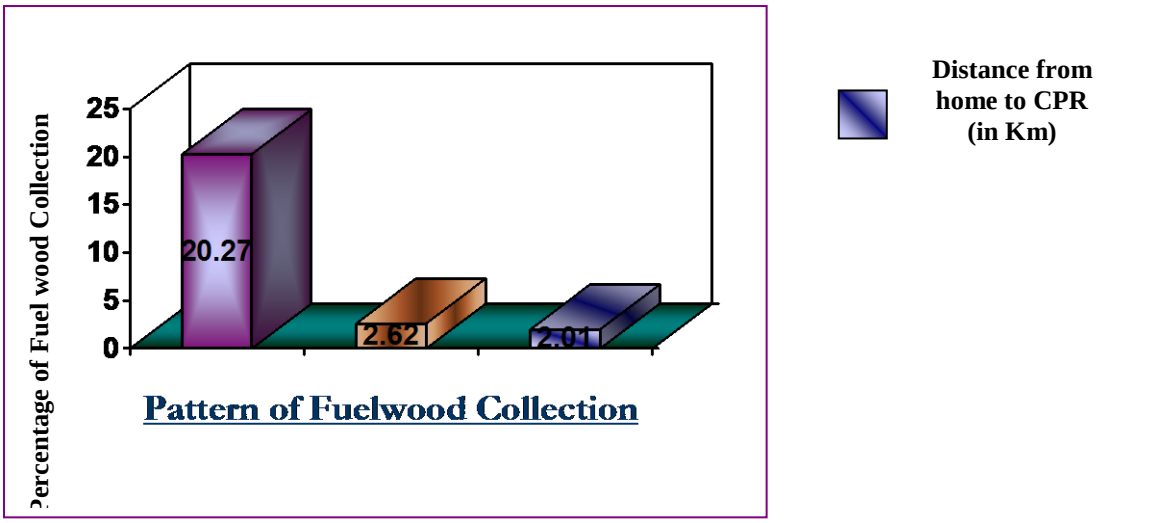


Table 4: CONTRIBUTION OF CPR TO GROSS INCOME OF HOUSEHOLD

Name of Village	Category of Household	No. of Household	Total Income per Household from All Sources (Rupees/month)	Total Income per Household from CPR (Rupees/month)	CPR Income as Percent of Total Income
Chandri	Poor	72	1086	274	25.23
	Non-poor	28	2383	290	12.16
	All	100	1449	278	19.18
Dudhkundi	Poor	65	1153	306	26.53
	Non-poor	35	2075	310	14.93
	All	100	1476	307	20.79

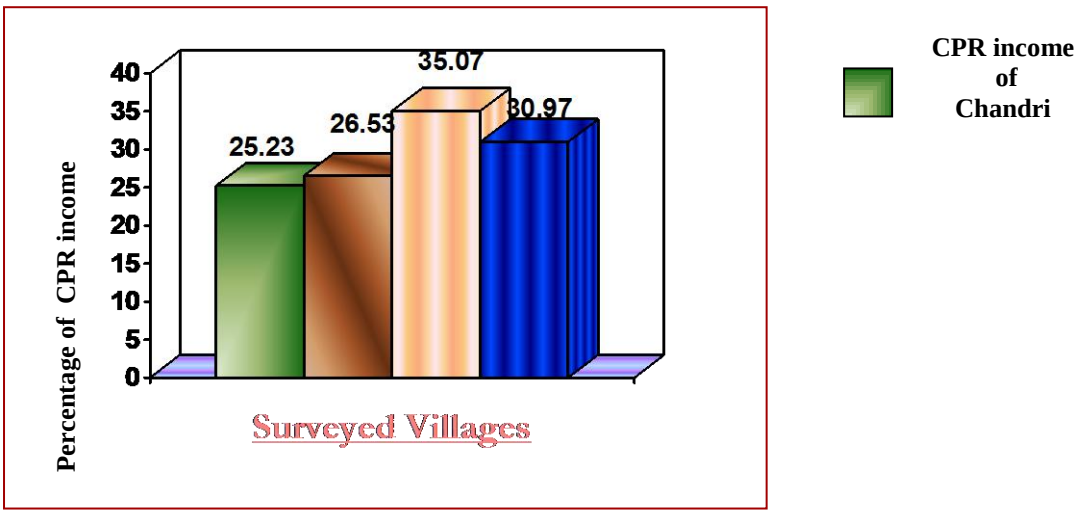
Sapdhara	Poor	70	1089	382	35.07
	Non-poor	30	2372	406	17.11
	All	100	1474	389	26.39
Lodhasuli	Poor	72	1188	368	30.97
	Non-poor	28	3331	475	14.25
	All	100	1788	398	22.25
All Villages	Poor	279	1120	327	29.19
	Non-poor	121	2706	407	15.04
	All	400	1600	351	21.93

Source: Field Survey

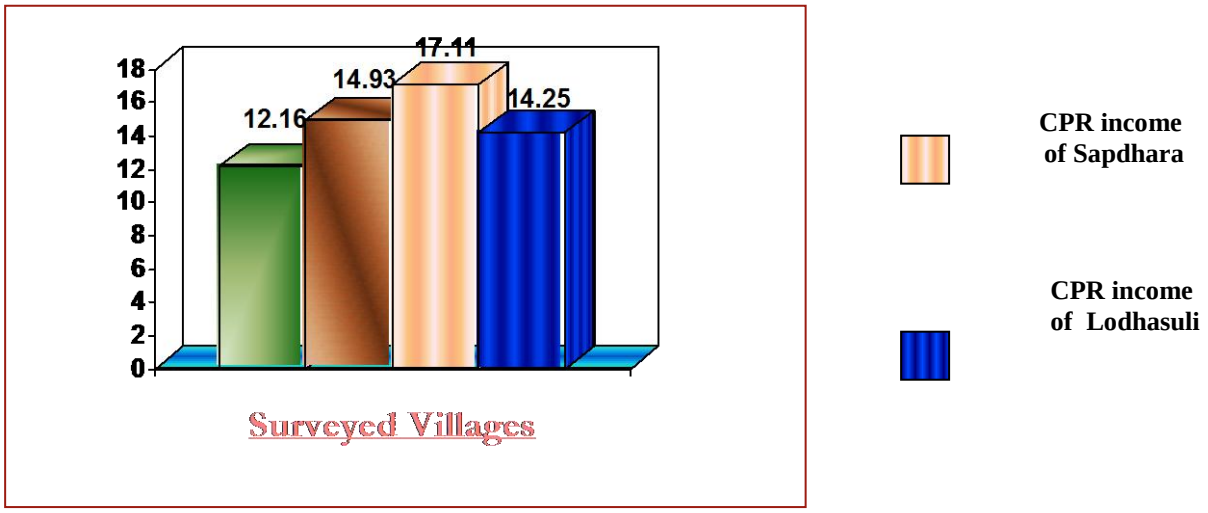
CPR plays a crucial role in the household economy of the rural poor. It can be seen from Table 4 that average total income per household from all sources for the poor (taking all the villages together) is Rs.327 and that for the non poor households is Rs.407.The average per capita monthly income of the poor households from the CPR ranged between Rs.382 and Rs.274 in different study villages during the reference period. The CPR income for the non – poor ranged between Rs.475 and Rs.290. CPR Income as a percent of Total Income (taking poor and non-poor together) varied from 26.29 percent in Sapdhara village to 19.18 percent in Chandri. For the poor category it varies from 35.07 % (Sapdhara) to 25.23 % (Chandri). And that for the non poor varies from 17.11% (Sapdhara) to 12.16% (Chandri). For the all the villages taken together this figures are 29.19% (Poor) 15.04 % (Non-Poor).

Diagram 3: CONTRIBUTION OF CPR TO TOTAL INCOME OF HOUSEHOLD

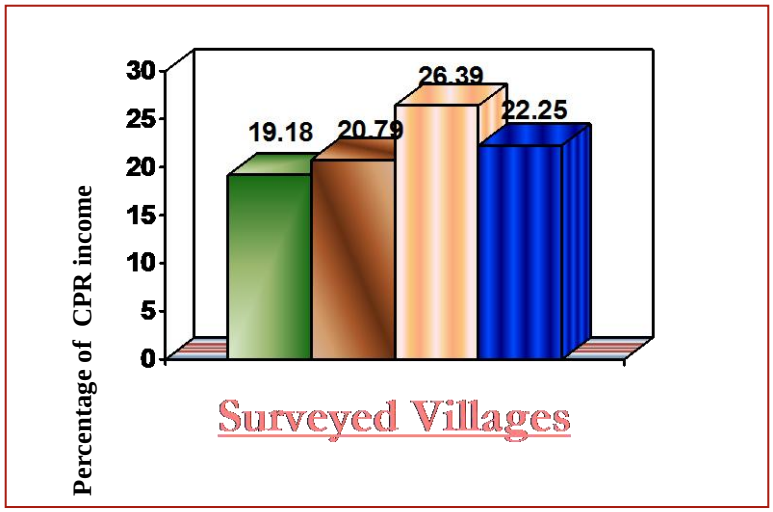
CPR Income as Percent of Total Income of Poor



CPR Income as Percent of Total Income of Non Poor



CPR Income as Percent of Total Income of All Household



PERSONS COLLECTING FUEL WOOD

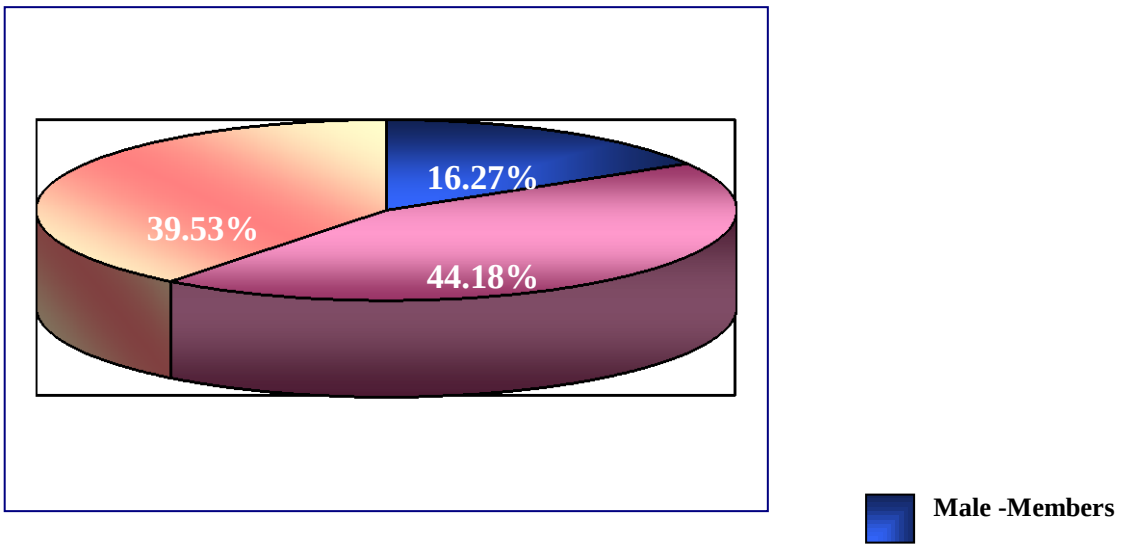
Category of Household	Numbers of Household	Members Collecting Fuel wood	Only Male - Members	Only Female - Members	Both Male and Female Members
Poor	279	222 (79.56)	36 (16.27)	98 (44.18)	88 (39.53)
Non-poor	121	93 (76.92)	20 (16.66)	68 (56.66)	15 (13.33)
All	400	315(78.75)	56 (14.00)	166 (41.5)	103 (25.75)

N.B. (Figures in the parenthesis represent percentage)
Source: Field Survey

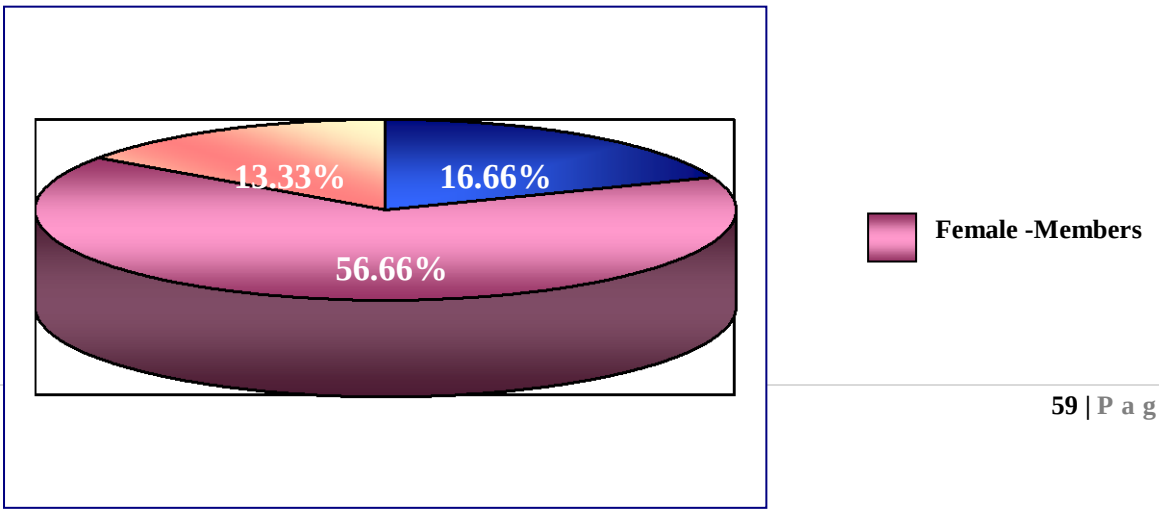
One of the objectives of the present study was to analyze the gender factor in CPR collection. The general view held by some researchers was that CPR product collection was mostly done by women and children [Beck and Ghosh 2000]. However, this study showed that CPR product collection was largely done by the women members of the family. It can be seen from table (5) that not all the members of the family, but only 79.56 % , in case of poor and 76.92 %, in case of non poor collect fuel wood. For the poor category of house hold, in 44.18 % cases only female members collect fuel wood, where as in only 16.27 % cases only male members collects fuel-wood. The figures are 56.66 % and 16.66 % respectively in case of non-poor category of household. However there are only 25.75 % cases, taking poor and non-poor category, where both male and female members collect fuel wood. In case of poor category, the figure is 39.53 % and for the non poor category the figure is 13.33%. Thus in the study villages fuel wood collection was dominated by female members.

Diagram 4: PERSONS COLLECTING FUEL WOOD

Collecting Fuel wood by Poor (percentage)



Collecting Fuel wood by Non-Poor (percentage)



Collecting Fuel wood by All Households (percentage):-

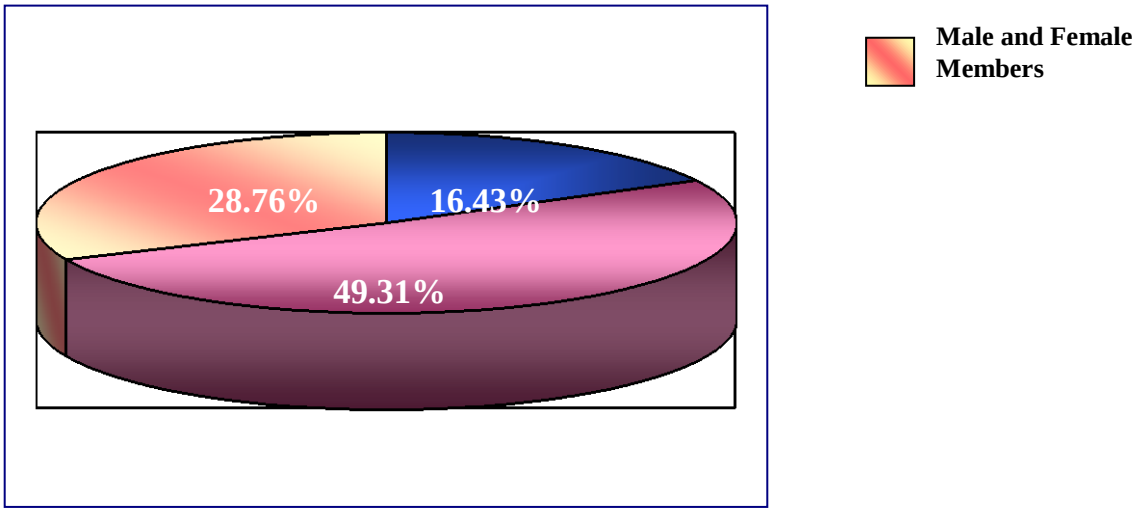


Table 6: OCCUPATION OF THE VILLGERS

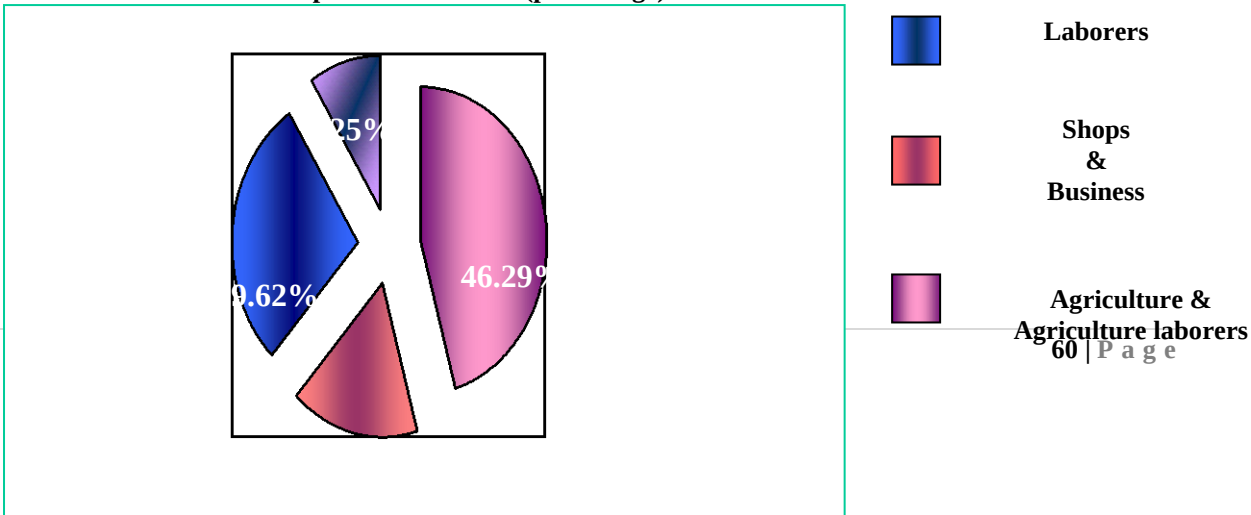
Name of Village	Category of Household	Numbers of Household	Agriculture & Agriculture laborers	Shops & Business	Laborers	Others
All Villages	Poor	279	127 (46.29)	45 (16.66)	82 (29.62)	25 (9.25)
	Non-Poor	121	36 (29.75)	23 (19)	33 (27.27)	29 (23.96)
	All	400	163 (40.75)	68 (17.00)	115 (28.75)	54 (13.5)

N.B.(Figures in the parenthesis represent percentage)
Source: Field Survey

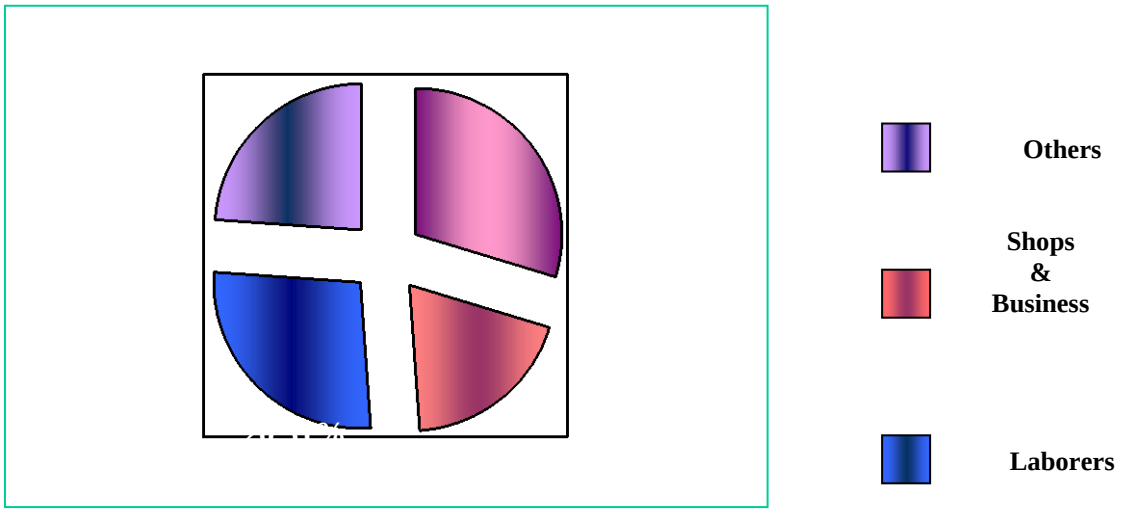
To observe the occupational pattern of the sample villages was of much interest of the study. Because it was to examine that whether the occupational pattern has any co-relation with the CPR collection or not. As was expected most of poor category house hold (46.29%) and also of the non-poor category house hold (29.75%) are engaged in agriculture or as an agricultural laborers (as shown in table 6). The second largest occupation is non agricultural labor both for poor (29.62%) and non-poor (27.27%) category of sample house hold. Thus it is not very difficult to infer that persons who usually collect fuel wood as CPR are heavily dependent upon agriculture.

Diagram 5: OCCUPATION OF THE VILLAGERS

Occupation of the Poor (percentage)



Occupation of the Non Poor (percentage)



Occupation of the All Household (percentage)

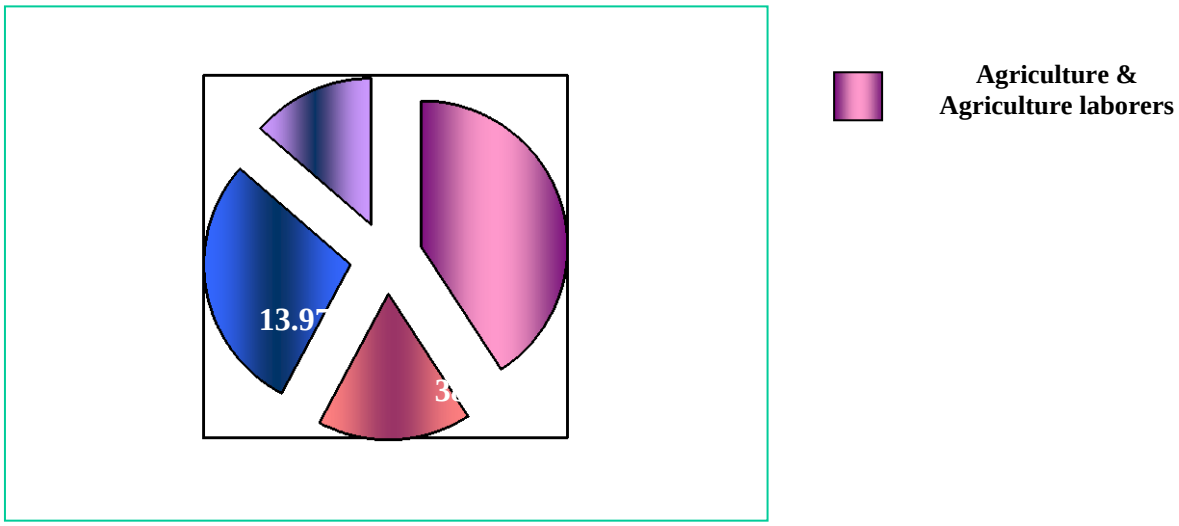


Table: 7: AWARENESS ABOUT BIO-GAS AND ALTERNATIVE ENERGY

Name of All Villages	Category of Household	All Numbers of Household	Biogas	Solar energy
All	Poor	279	42 (14.81)	19 (7.40)

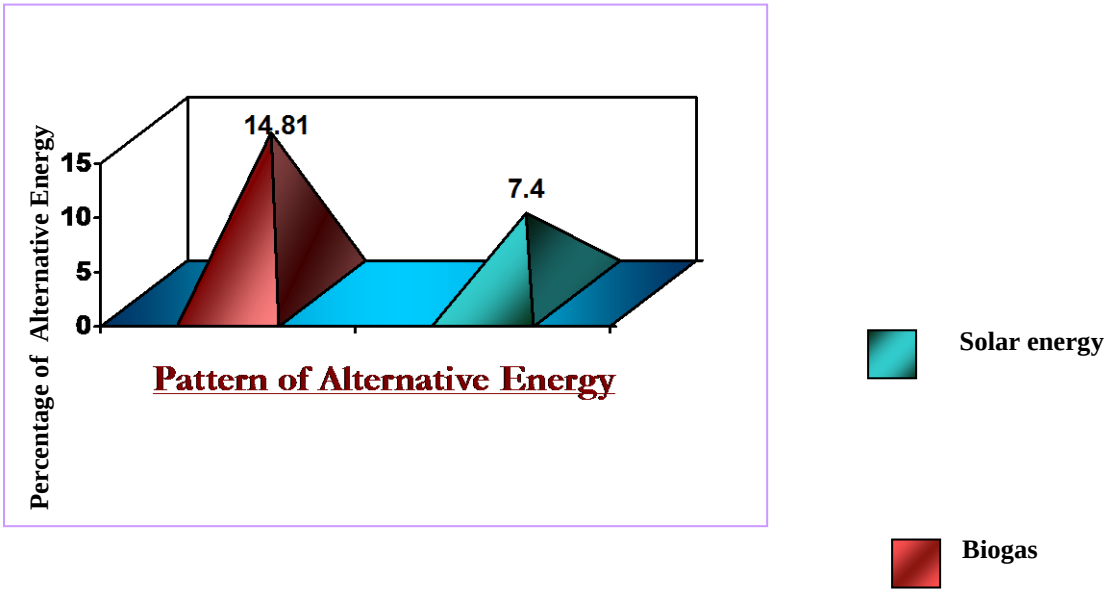
Villages	Non-poor	121	53 (43.58)	28 (23.07)
	All	400	95 (23.75)	47 (11.75)

N.B. (Figures in the parenthesis represent percentage)
Source: Field Survey

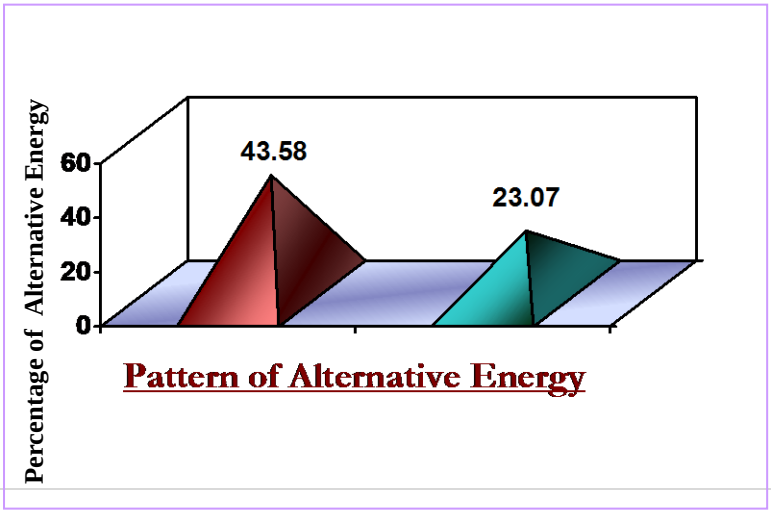
Table 7 the shows the awareness of the sample house holds about the alternative source of energy. The result is indeed disheartening as only 14.81 % of poor house hold is aware about the bio gas and 7.40 % about solar energy. The figure is little bit better for the non poor category of house hold. For this category awareness about the bio gas and solar energy is respectively 43.58% and 23.07%. Lack of awareness about these alternative sources of energy in fact forces them to depend heavily on CPR.

Diagram 6: AWARENESS ABOUT BIO-GAS AND ALTERNATIVE ENERGY

Awareness about Alternative Energy by Poor (percentage)



Awareness about Alternative Energy by Non-Poor (percentage):-



Awareness about Alternative Energy by All Household (percentage):-

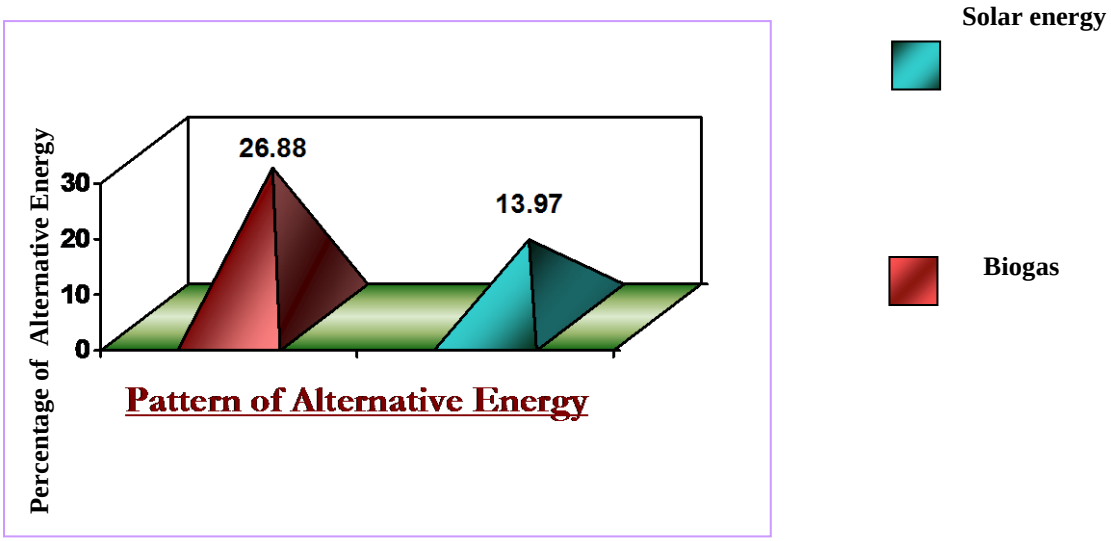


Table: 8: WHETHER CPR IS DECLINING OR NOT

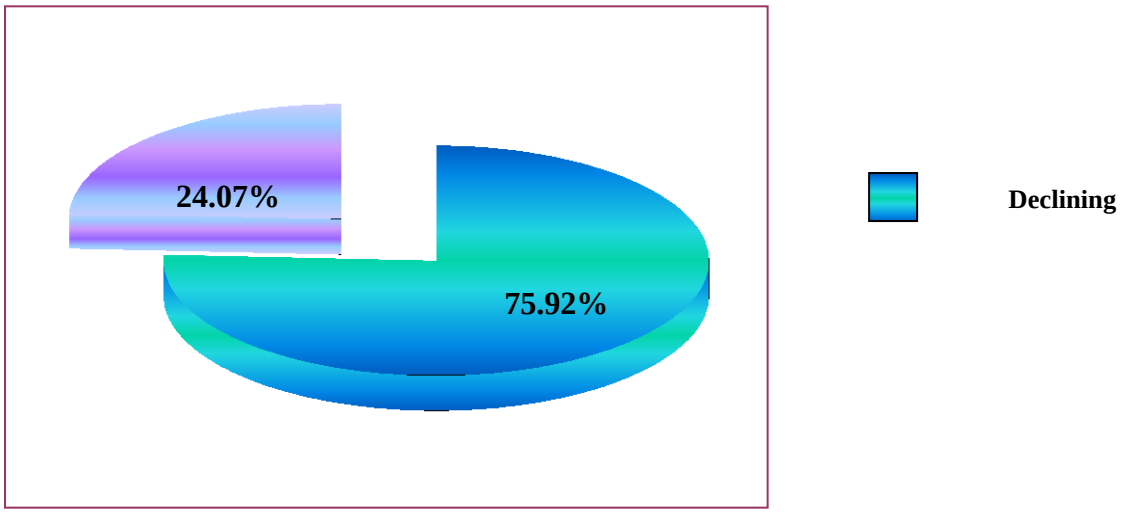
Name of Village	Category of Household	Numbers of Household	Declining (in %)	Increasing (in %)
Chandri	Poor	72	83.34	16.66
	Non-poor	28	83.34	16.66
	All	100	83.34	16.66
Sapdhara	Poor	65	69.24	30.76
	Non-poor	35	75	25
	All	100	71.43	28.57
Dudhkundi	Poor	70	85.72	14.28
	Non-poor	30	77.73	22.27
	All	100	82.61	17.39
Lodhasuli	Poor	72	55.56	44.44
	Non-poor	28	56.25	43.75
	All	100	56	44
All Villages	Poor	279	75.92	24.07
	Non-poor	121	69.23	30.76
	All	400	73.11	26.88

Source: Field Survey

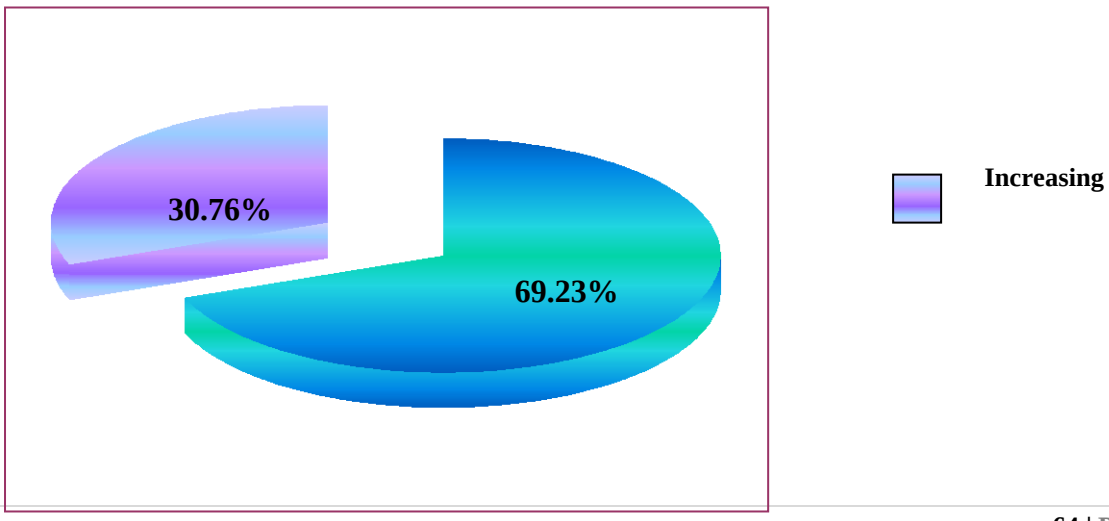
Another important objective of this study was to analysis whether CPR is declining or not. 75.92 percent of the poor households and 69.23 percent of the non poor household response that, the supply of fuel wood was declining (table 8). 73.11 percent of all households (taking poor and non poor But only in the case of the Lodhasuli village, the households response that in their area the supply of fuel wood is increasing. 44.44 percent of poor and 43.75 percent of non poor households in the Lodhasuli village response that the CPR is increasing in their area. It's a very interesting finding in our survey. The reduction in land area, poor maintenance and the decline in carrying capacity lead to reduced supplies of products for those who depend on common property resources. This decline represents a definite step towards further pauperization of the poor. This is a classic case of the vicious circle of poverty and resource degradation reinforcing each other.

Diagram 7: WHETHER CPR IS DECLINING OR NOT

CPR is declining or not for the Poor (percent)



CPR is declining or not for the Non Poor (percent)



CPR is declining or not for the All Household (percent):-

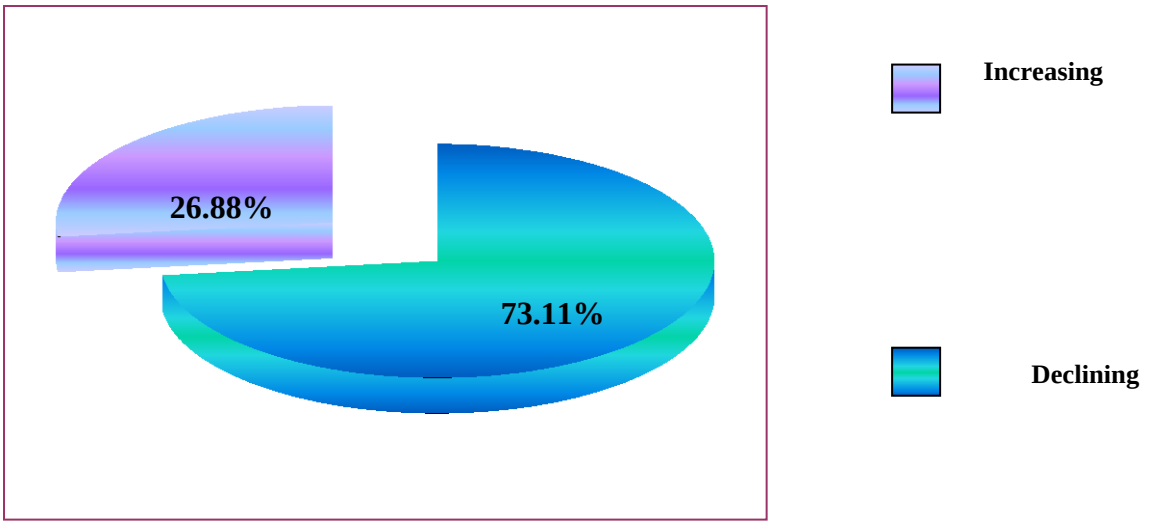


Table: 9
REASONS BEHIND DECLINING

Name of Village	Category of Household	Numbers of Household	Poaching by bon – committee (in %)	Migration (in %)	Forest officers (in %)	Other (in %)
Chandri	Poor	72	13.33	26.66	40	20
	Non-poor	28	20	40	40	——
	All	100	15	30	40	15
Sapdhara	Poor	65	33.33	22.22	22.22	22.22
	Non-poor	35	33.33	16.66	33.33	16.66
	All	100	33.33	20	26.66	20
Dudhkundi	Poor	70	16.66	33.33	41.66	8.33
	Non-poor	30	28.57	28.57	28.57	14.28
	All	100	21.05	31.57	36.84	10.52
Lodhasuli	Poor	72	20	20	40	20
	Non-poor	28	22.22	33.33	33.33	11.11
	All	100	21.42	28.57	35.71	14.28
All Villages	Poor	279	19.51	26.82	36.58	17.07
	Non-poor	121	25.92	29.62	33.33	11.11
	All	400	22.05	27.94	35.29	14.70

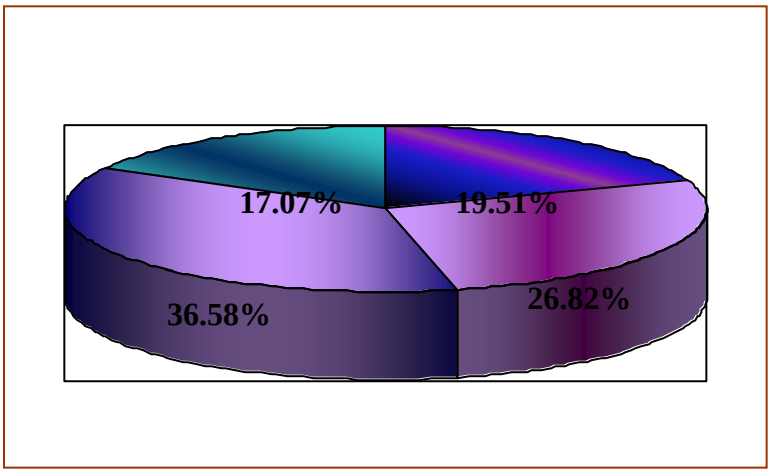
Source: Field Survey

Table 9 reveals the reasons behind the declining nature of CPR. Poor and Non Poor category households are of same opinion regarding this. According to 36.58% of poor house holds and 33.33% of non-poor households, the main reason behind this decline is role of forest officers. They encourage the poachers to cut the tree illegally in exchange of handsome incentive! The second major reason behind this is migration. According to 26.82% of poor category and 29.62% of non poor category house holds believe that rural people are being centered in

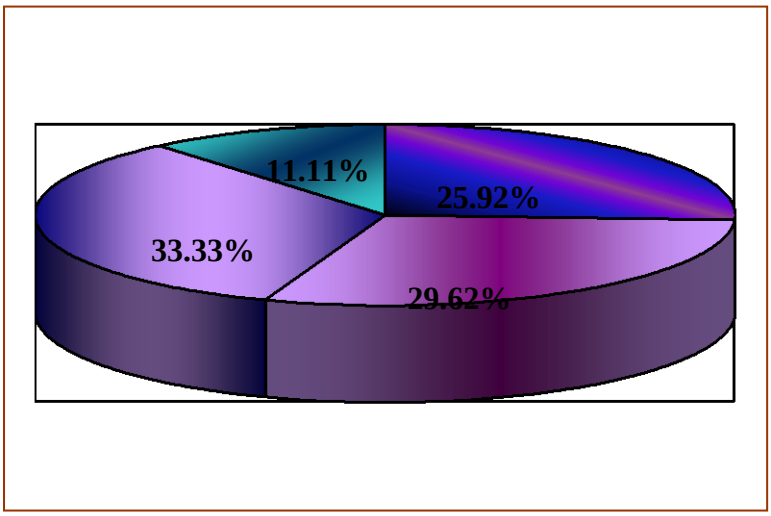
around the places where there is affluence of CPR for their livelihood. As a result the pressure on CPR is going up which in turn leads to excessive use of CPR by the rural people. However the role of *Bon Committee* is also very significant in this case. They should act as a protecting force of CPR, but they are also engaged in poaching activities in reality. They themselves are cutting trees on a mutual understanding basis. The mechanism of joint forest management is not working at all in these villages.

Diagram 8: REASONS BEHIND DECLINING

Reasons behind Declining by Poor (percentage)



Reasons behind Declining by Non Poor (percentage)



Reasons behind Declining by All Household (percentage)

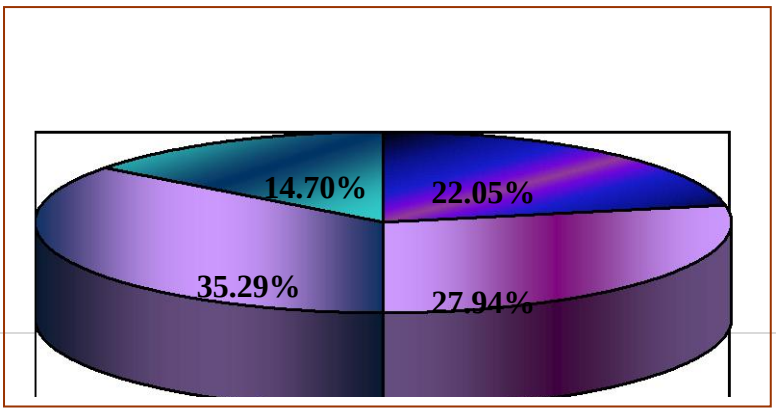


Table: 10: RESPONSIBILITY OF BON COMMITTEE BEHIND DECLINING

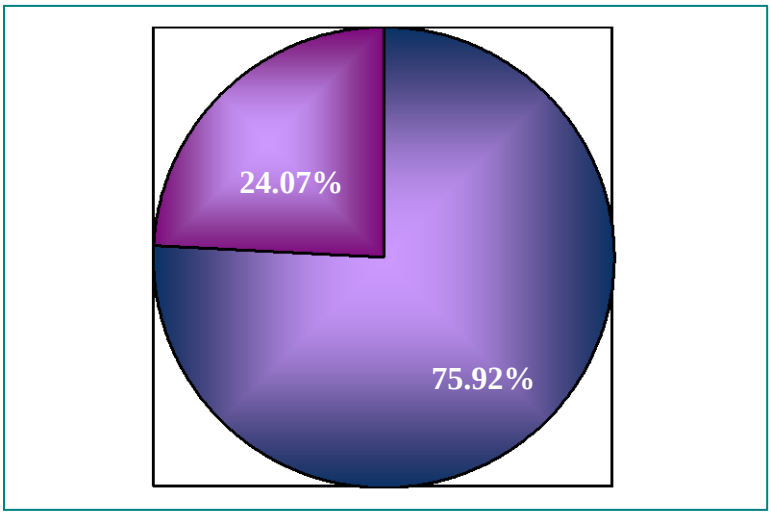
Name of Village	Category of Household	Numbers of Household	Yes (in %)	No (in %)
Chandri	Poor	72	83.33	16.66
	Non-poor	28	33.33	66.66
	All	100	70.83	29.16
Sapdhara	Poor	65	69.23	30.76
	Non-poor	35	75	25
	All	100	71.42	28.57
Dudhkundi	Poor	70	78.57	21.42
	Non-poor	30	88.88	11.11
	All	100	82.60	17.39
Lodhasuli	Poor	72	66.66	33.33
	Non-poor	28	87.5	12.5
	All	100	80	20
All Villages	Poor	279	75.92	24.07
	Non-poor	121	76.92	23.07
	All	400	76.34	23.65

Source: Field Survey

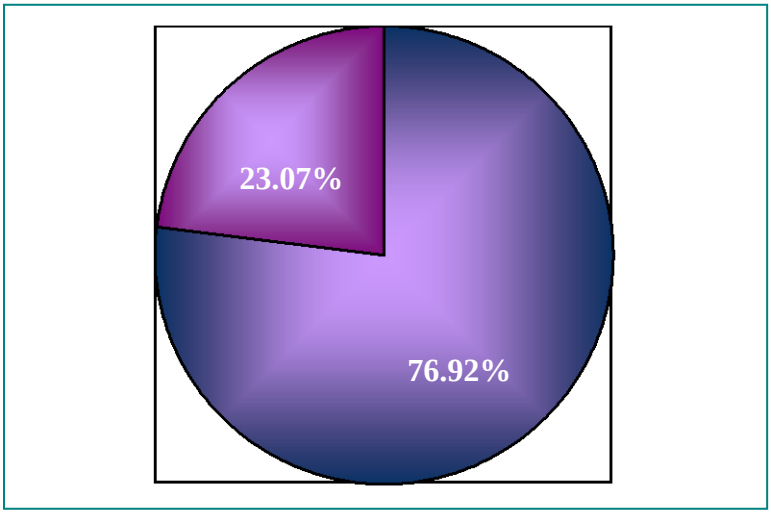
In few villages, a committee had been formed by the members of the household called 'Bon Committee', which maintain the total forest. If anybody cut big tree from the forest he used to pay a large amount of penalty to the 'Bon Committee' as well as to the forest department. Table 11 is basically the continuation of Table 10. Most of the surveyed households (more than 75%) have said that *Bon Committee* is the responsible for declining of CPR and they are nor performing their duties at all. In few villages 'Bon Committee' restrict the open access to forest. When poaching is done, then the members of the households who belong to *Bon* Committee get a large amount of money and also a percent of the cutting woods. Only the non poor category of the village Chandri (66.66%) believes that there is no responsibility of *Bon Committee* behind this decay of CPR.

Diagram 9: Responsibility of Bon Committee behind Declining

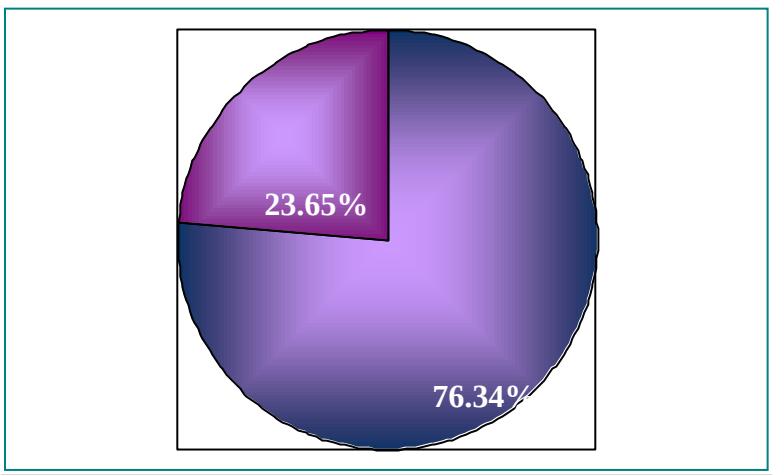
Bon Committee Responsibility by Poor (percentage)



Bon Committee Responsibility by Non Poor (percentage)



Bon Committee Responsibility by All household (percentage)



Yes

No

Conclusions and Policy Prescriptions

The study shows that the rural poor in most areas continue to depend heavily on rapidly shrinking common property resources. An invisible process of pauperization is developing as the costs of production, largely the time of the rural poor, for collecting common resources increase and their output decreases. The overall variety and quality of products are declining. The decline of the common property resources reflects various dimensions of rural poverty.
The main findings of the study following has been summarized below.

- More than fifty percent of the geographical area of the surveyed villages is under CPR category.

- There is marginal declining of non-agriculture area and shortage of the fallow area.

- Fuel wood collection from CPR is the main source of cooking media. Households mainly depend on the fuel-wood collected from the forest. The others sources of cooking media are dung cake, crop residue, dry leaf, kerosene and others. Fulfillment of households' requirements of cooking media depends on CPR.

- The major reason of using fuel wood collected from the forest is the short distance between the villages and forest. For the rainy season they maintain the stock of fuel woods and dry leaf.

- Income from CPR accounted for a major proportion of the total income of the poor households and non-poor households.

- One of the major CPR based activities; viz. fuel wood collection was mainly performed by the female members of the family.

- Agriculture and agricultural laborer activity are the main occupation of the house holds of the surveyed villages.

- In few villages, a committee has been formed by the members of the household called 'Bon Committee', which is assigned to protect the total forest. If anybody cut big tree from the forest he has to pay a large amount of penalty to the 'Bon Committee' as well as to the forest department.

- The reduction in land area and the decline in carrying capacity lead to reduced supply of CPR for those who depend on common property resources. Reduction of CPR in turn leads to further aggravation of poverty of the local people.

- The main causes behind the declining of the supply of Fuel wood are the poaching by 'Bon Committee', migrated people, & forest Officials.

- Only in the Lodhasuli village supply of fuel-wood is increasing.

- Most of the surveyed households have said that CPR was open to all for fuel collection. In few villages 'Bon Committee' restrict the open access to forest.

- Only the surveyed villagers of the Lodhasuli have heard of the alternative cooking media like biogas, solar energy. But they have not any knowledge about its use.

- There is a very important role-play of the bon committee. When poaching is done then the committee members get a large share of money and also a share of the cutting woods.

- The CPR crisis can be averted only through specific positive measures, which ensure the retention, regeneration, development and sustainable utilization of CPR.

- The study shows that in many situations, though not always, co-ordination and leadership problems playing an important role.

Based on the results of our study the following policy measures may be suggested

- The government should have a clear policy for the retention of CPR. Any further unlimited use of CPR should be strictly avoided.

- Fuel wood supplying trees should be planted on available village common lands on the basis of cost benefit sharing between government and the people.

- Rural households should be encouraged to grow fuel wood and fodder on own personal lands. For households having more land (non-poor) it should be made compulsory to grow fuel wood and fodder on personal lands.

- Use of alternative fuels like biogas and other bio-fuels like solar energy should be popularized and made available to rural households at an affordable cost.

- The rural households who derive benefits from CPR should be convinced about the benefits of regeneration of CPR and sustainable utilization, which will inspire the people to protect and regenerate them.

- An attempt is required to restrict any further curtailment of common property resources. Public welfare and development programmes need to be sensitized to common resource issues while general development policies should be intended to improve resource productivity. Environmental stability can be made more successful if they are reoriented with a common property perspective.

- The regulation of common resource use is equally important. This calls for the involvement of user groups and the mobilization of a community strategy that complements state interventions with the essential participation of local people.

These measures are not easy to implement. The hurdles that may come in the way of the implementation should be handled. However their implementation in an effective and time bound manner will ensure the sustainability of CPR and will certainly avert the tragedy of the commons.

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