

# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

I  
J  
R  
C  
M



A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

*Indexed & Listed at:*

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A.

as well as in Open J-Gate, India (link of the same is duly available at Infibnet of University Grants Commission (U.G.C.))

Registered & Listed at: Index Copernicus Publishers Panel, Poland & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 1667 Cities in 145 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

[www.ijrcm.org.in](http://www.ijrcm.org.in)

# CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	THE MEDIATING EFFECT OF RISK ON ATTITUDE AND SUCCESS TOWARDS LIFE SATISFACTION OF MSME ENTREPRENEURS <i>DR. LATHA KRISHNAN &amp; DR. T. J KAMALANABHAN</i>	1
2.	DETERMINANTS OF CAPITAL STRUCTURE IN NIGERIAN FIRMS: A THEORETICAL REVIEW <i>OWOLABI, SUNDAY AJAO &amp; INYANG, UDUAKOBONG EMA</i>	7
3.	THE EFFICIENCY OF MARKET RISK DISCLOSURES IN JORDANIAN COMMERCIALS BANKS <i>DR. ADEL ANWAR YOUSEF SAID</i>	12
4.	CONTRIBUTION OF NON-MARKET WORKS IN BANGLADESH: CONSIDERING LOCATION, EDUCATION, FAMILY RELATION & MARITAL STATUS <i>DR. MD. AOULAD HOSEN</i>	17
5.	EMPIRICAL EVALUATION OF QUALITY EDUCATION EARNING'S POTENTIAL AND THEIR ROLE IN POVERTY ALLEVIATION IN PAKISTAN <i>DR. ABDUL QAYYUM KHAN &amp; REHANA NAHEED</i>	24
6.	TOURISM: THE DEPTH OF ITS MEANING <i>PINKY PAWASKAR &amp; DR. MRIDULA GOEL</i>	26
7.	MANAGEMENT OF DOMESTIC BIODEGRADABLE WASTE: A STUDY OF COMPOST PRACTITIONERS IN KOLHAPUR <i>DR. RAJENDRA BHUPAL PATIL</i>	33
8.	MANAGEMENT OF COMMON PROPERTY RESOURCES THROUGH PEOPLE'S PARTICIPATION UNDER JOINT FOREST MANAGEMENT: A MICRO LEVEL ANALYSIS IN ODISHA <i>RAGHUNATH SAHOO &amp; DR. MAMATA SWAIN</i>	38
9.	ECONOMIC VALUE ADDED PRODUCTIVITY OF MCL <i>DR. S. RAJAMOCHAN &amp; DR. T. VIJAYARAGAVAN</i>	44
10.	DOES BANK CREDIT CAUSE ECONOMIC GROWTH IN THE LONG-RUN? TIME-SERIES EVIDENCE FROM ETHIOPIA <i>K.SREERAMA MURTY, K. SAILAJA &amp; WONDATERAHU MULUGETA DEMISSIE</i>	49
11.	CONSUMPTION PATTERN AND EXPENDITURE ELASTICITIES OF RURAL POOR HOUSEHOLDS IN PUNJAB <i>GURSHARAN KAUR &amp; PARAMJEET KAUR DHINDSA</i>	57
12.	ORIGIN OF ECONOMETRICS <i>DR. RAJESHWAR SINGH</i>	62
13.	ORGANIZATIONAL CULTURE IN PENNAR INDUSTRIES LTD. <i>DR. K. SELVI</i>	67
14.	AN EMPIRICAL STUDY ON SOCIAL IMPACT OF SELF HELP GROUP MEMBERS IN KANCHIPURAM DISTRICT <i>DR. D. BASKAR &amp; DR. K. SUNDAR</i>	70
15.	MANGALORE SPECIAL ECONOMIC ZONE – GROSS ROOT LEVEL REALITIES AND SEZs PROBLEMS <i>S.P. KIRAN &amp; DR. D.V. GOPALAPPA</i>	79
16.	GENDER PERSPECTIVE & ECONOMIC DEVELOPMENT - A CASE STUDY OF HARYANA <i>RENU &amp; DR. KARAN SINGH</i>	81
17.	FOOD SECURITY THROUGH THE MECHANISM OF PUBLIC DISTRIBUTION SYSTEM <i>DR. SATYAWAN BARODA &amp; SARIKA SURI</i>	88
18.	RESOURCE CONVERGENCE IN 'PEOPLES PLANNING' BY WOMEN NEIGHBORHOOD GROUPS AND PEOPLE'S ELECTED WOMEN REPRESENTATIVES: A CASE STUDY OF DECENTRALISED LOCAL SELF GOVERNANCE <i>DR. JOSEPH ABRAHAM</i>	92
19.	IMPACT OF RECESSION ON DIAMOND INDUSTRY IN INDIA: STRATEGIC SOLUTIONS <i>MUKESH R. GOYANI &amp; DR. HEMANDRI TIKAWALA</i>	99
20.	COST-BENEFIT ASSESSMENT OF COMMON PROPERTY RESOURCES (CPRS) IN RURAL WEST BENGAL: AN EVALUATIVE STUDY <i>DR. SWARUP KUMAR JANA &amp; CHITTARANJAN DAS</i>	114
21.	ASSESSING THE RELATIONSHIP BETWEEN AWARENESS AND ATTITUDE OF TOURISTS TOWARDS ECOTOURISM AND CONSERVATION IN KERALA <i>DR. P. R. SHINI</i>	119
22.	RISK MINIMIZATION TRADING STRATEGIES IN BULLISH MARKET <i>ANJALI CHOKSI</i>	123
23.	FARMER TO MARKET LINKAGES: REVAMPING UNDER THE EMERGING VALUE-CHAIN SYSTEM <i>DR. ARUN BHADAURIA</i>	136
24.	RELATIONSHIP BETWEEN COMMERCIAL BANKS STOCK RETURNS AND MONETARY VARIABLES IN INDIA <i>SHINIL SEBASTIAN</i>	140
25.	FACTORS DETERMINING EMPOWERMENT OF GRAM PRADHANS IN BARABANKI DISTRICT OF UTTAR PRADESH <i>BHAVANA SINGH</i>	145
26.	ASEAN AND NORTHEAST INDIA: FODDER INDUSTRY IS A NOVEL PARADIGM SHIFT <i>DHANANJOY DATTA</i>	151
27.	CONTENTMENT ON DISCIPLINARY PRACTICES AMONG UNIVERSITY EDUCATORS: A CASE STUDY <i>S. M. DHANA SUNDARESWARAN</i>	156
28.	MEASURING FACTOR CONTENT OF INDIAN TRADE IN THE PRE AND POST LIBERALISATION PERIODS <i>DR. TUSHAR DAS</i>	162
29.	SUPPORTIVE MEASURES OF TOURISM PRACTICES: A STUDY OF JAMMU AND KASHMIR <i>VIKAS SHARMA, AMIT SHARMA &amp; SHAFQAT AJAZ</i>	166
30.	CHANGING SCENARIO OF PUBLIC EXPENDITURE ON EDUCATION: REVIEWING THE EXPERIENCE OF INDIA <i>PRABINA KUMAR PADHI</i>	170
	<b>REQUEST FOR FEEDBACK</b>	173

**CHIEF PATRON**

**PROF. K. K. AGGARWAL**

Chancellor, Lingaya's University, Delhi  
Founder Vice-Chancellor, Guru Gobind Singh Indraprastha University, Delhi  
Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

**FOUNDER PATRON**

**LATE SH. RAM BHAJAN AGGARWAL**

Former State Minister for Home & Tourism, Government of Haryana  
Former Vice-President, Dadri Education Society, Charkhi Dadri  
Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

**CO-ORDINATOR**

**DR. BHAVET**

Faculty, M. M. Institute of Management, MaharishiMarkandeshwarUniversity, Mullana, Ambala, Haryana

**ADVISORS**

**DR. PRIYA RANJAN TRIVEDI**

Chancellor, The Global Open University, Nagaland

**PROF. M. S. SENAM RAJU**

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

**PROF. M. N. SHARMA**

Chairman, M.B.A., HaryanaCollege of Technology & Management, Kaithal

**PROF. S. L. MAHANDRU**

Principal (Retd.), MaharajaAgrasenCollege, Jagadhri

**EDITOR**

**PROF. R. K. SHARMA**

Professor, Bharti Vidyapeeth University Institute of Management & Research, New Delhi

**CO-EDITOR**

**DR. SAMBHAV GARG**

Faculty, M. M. Institute of Management, MaharishiMarkandeshwarUniversity, Mullana, Ambala, Haryana

**EDITORIAL ADVISORY BOARD**

**DR. RAJESH MODI**

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

**PROF. SIKANDER KUMAR**

Chairman, Department of Economics, HimachalPradeshUniversity, Shimla, Himachal Pradesh

**PROF. SANJIV MITTAL**

UniversitySchool of Management Studies, Guru Gobind Singh I. P. University, Delhi

**PROF. RAJENDER GUPTA**

Convener, Board of Studies in Economics, University of Jammu, Jammu

**PROF. NAWAB ALI KHAN**

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

**PROF. S. P. TIWARI**

Head, Department of Economics & Rural Development, Dr. Ram Manohar Lohia Avadh University, Faizabad

**DR. ANIL CHANDHOK**

Professor, Faculty of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

**DR. ASHOK KUMAR CHAUHAN**

Reader, Department of Economics, Kurukshetra University, Kurukshetra

**DR. SAMBHAVNA**

Faculty, I.I.T.M., Delhi

**DR. MOHENDER KUMAR GUPTA**

Associate Professor, P.J.L.N. Government College, Faridabad

**DR. VIVEK CHAWLA**

Associate Professor, Kurukshetra University, Kurukshetra

**DR. SHIVAKUMAR DEENE**

Asst. Professor, Dept. of Commerce, School of Business Studies, Central University of Karnataka, Gulbarga

***ASSOCIATE EDITORS***

**PROF. ABHAY BANSAL**

Head, Department of Information Technology, Amity School of Engineering & Technology, Amity University, Noida

**PARVEEN KHURANA**

Associate Professor, Mukand Lal National College, Yamuna Nagar

**SHASHI KHURANA**

Associate Professor, S.M.S. Khalsa Lubana Girls College, Barara, Ambala

**SUNIL KUMAR KARWASRA**

Principal, Aakash College of Education, Chander Kalan, Tohana, Fatehabad

**DR. VIKAS CHOUDHARY**

Asst. Professor, N.I.T. (University), Kurukshetra

***TECHNICAL ADVISORS***

**DR. MOHITA**

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

**AMITA**

Faculty, Government M. S., Mohali

***FINANCIAL ADVISORS***

**DICKIN GOYAL**

Advocate & Tax Adviser, Panchkula

**NEENA**

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

***LEGAL ADVISORS***

**JITENDER S. CHAHAL**

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

**CHANDER BHUSHAN SHARMA**

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

***SUPERINTENDENT***

**SURENDER KUMAR POONIA**

## CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects like Accounting Education; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Monetary Policy; Portfolio & Security Analysis; Public Policy Economics; Real Estate; Regional Economics; Tax Accounting; Advertising & Promotion Management; Business Education; Management Information Systems (MIS); Business Law, Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labor Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; Public Administration; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism, Hospitality & Leisure; Transportation/Physical Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Digital Logic; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Multimedia; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic and Web Design. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email address: [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com).

## GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: \_\_\_\_\_

**THE EDITOR**  
IJRCM

**Subject:** SUBMISSION OF MANUSCRIPT IN THE AREA OF.

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

**DEAR SIR/MADAM**

Please find my submission of manuscript entitled ' \_\_\_\_\_ ' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

**NAME OF CORRESPONDING AUTHOR:**

Designation:

Affiliation with full address, contact numbers & Pin Code:

Residential address with Pin Code:

Mobile Number (s):

Landline Number (s):

E-mail Address:

Alternate E-mail Address:

**NOTES:**

- a) The whole manuscript is required to be in **ONE MS WORD FILE** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
- b) The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:  
**New Manuscript for Review in the area of** (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)
- c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
- d) The total size of the file containing the manuscript is required to be below **500 KB**.
- e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
- f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS:** The author (s) **full name, designation, affiliation (s), address, mobile/landline numbers, and email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.
6. **MANUSCRIPT:** Manuscript must be in **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER**. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.
7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.
9. **MAIN TEXT:** The main text should follow the following sequence:

**INTRODUCTION****REVIEW OF LITERATURE****NEED/IMPORTANCE OF THE STUDY****STATEMENT OF THE PROBLEM****OBJECTIVES****HYPOTHESES****RESEARCH METHODOLOGY****RESULTS & DISCUSSION****FINDINGS****RECOMMENDATIONS/SUGGESTIONS****CONCLUSIONS****SCOPE FOR FURTHER RESEARCH****ACKNOWLEDGMENTS****REFERENCES****APPENDIX/ANNEXURE**

It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed **5000 WORDS**.

10. **FIGURES & TABLES:** These should be simple, crystal clear, centered, separately numbered & self explained, and **titles must be above the table/figure. Sources of data should be mentioned below the table/figure.** It should be ensured that the tables/figures are referred to from the main text.
11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.
12. **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:
  - All works cited in the text (including sources for tables and figures) should be listed alphabetically.
  - Use **(ed.)** for one editor, and **(ed.s)** for multiple editors.
  - When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
  - Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
  - The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
  - For titles in a language other than English, provide an English translation in parentheses.
  - The location of endnotes within the text should be indicated by superscript numbers.

**PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:****BOOKS**

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

**CONTRIBUTIONS TO BOOKS**

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

**UNPUBLISHED DISSERTATIONS AND THESES**

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

**ONLINE RESOURCES**

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

**WEBSITES**

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 <http://epw.in/user/viewabstract.jsp>

## MANAGEMENT OF COMMON PROPERTY RESOURCES THROUGH PEOPLE'S PARTICIPATION UNDER JOINT FOREST MANAGEMENT: A MICRO LEVEL ANALYSIS IN ODISHA

**RAGHUNATH SAHOO**  
**ASST. PROFESSOR**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**APEX INSTITUTE OF TECHNOLOGY & MANAGEMENT**  
**PAHALA**

**DR. MAMATA SWAIN**  
**PROFESSOR**  
**DEPARTMENT OF ECONOMICS**  
**RAVENSHAW UNIVERSITY**  
**CUTTACK**

### ABSTRACT

*In this study, an attempt has been made to analyze the benefits of forest dwellers and the people's participation on the management of Common Property Resources (CPRs) on different category of households through working on Joint Forest Management (JFM) among four villages in Keonjhar district of Odisha. Our study has covered 200 households (120 poor and 80 non-poor) comprising of landless and agriculture labourer, marginal and small farmers (poor households), and middle and large farmers (non-poor households) from four villages of two different blocks where JFM are operating since 2000. The household level benefits have been estimated in terms of employment generation, income from timber and non-timber forest products (NTFP), and fuel wood collection from community managed forests. It has been found that the income and employment opportunities among poor households are more than non-poor households in the study area since the establishment of JFM. Our results have also established that the voluntary collective action through people's participation as an alternative solution to village communities and government in management of common property resources through JFM. Measures are required to ensure retention, regeneration and sustainable utilization of CPRs to provide livelihood security to the CPR dependent rural communities.*

### KEYWORDS

Common Property Resources, Joint Forest Management.

### INTRODUCTION

In a developing economy like India, the development of rural economy through effective and proper management of Common Property Resources (CPRs) such as forests has increasingly become an integral part of sustainable development policy in the past couple of decades. This policy initiative has become popular due to strong disillusionment with the performance of central management policy to provide sufficient incentives to the users to manage CPRs in a sustainable way. Some researcher (Jodha, 1986; Wade, R. 1987; Chopra et al., 1990) found that the well organized community-based institutions can play a significant role in overcoming the socio-economic problems faced by the rural economy and can avoid the tragedy of commons as envisaged by Hardin (1968). In this context, an identification and preservation of community-based forest resources through granting community property rights over local natural resources deserves serious concerns in so far as they can be highlighted as an instrument to enhance for poverty alleviation, environmental conservation and economic development.

The recognition of community-based forest has led to the devolution of forest resource management from centralized to local level user groups in India (Behera, 2006). In fact, Government of India adopted a participatory approach in management, protection and development of forest resources under the aegis of joint forest management (JFM) that was introduced in the National Forest Policy of 1988 followed by June 1990 circular issued by the Government of India in this regard. Till date, almost 22 states have issued requisite orders to facilitate implementation of the JFM elicit people's participation in managing the forest resources. JFM is a policy-based programme, which seeks to establish management 'partnerships' between village forest dependent communities and the state for the sustainable management and benefit sharing of forest. With the introduction of Joint Forest Management (JFM) in the 1990s, a policy sought the involvement of village communities and voluntary agencies in the regeneration of degraded forest land. Under JFM, the forest department (mostly a local forest official as the secretary of the committee) and the village community enter into an agreement to constitute a committee to jointly protect and manage the village forest. The key understanding in the arrangement is that in return for protecting forest land and helping in the regeneration and management of the said forest, people will be entitled to usufruct rights over dead fuelwood, timber, NTFPs as well as a significant share ranging between 25 to 50 per cent (it varies from state to state) of timbers (in cash or kind) on final harvesting. But the community and the forest department are expected to share not just the benefits, but the responsibilities too. In other words, JFM strategies bring local forest users, NGOs and the forest department into a common platform for the management of forest. The institutional framework and the procedure of operation, to a certain extent, vary from state to state as each state has issued its own JFM resolution. The JFM programme, over the past decade, has spread all over the country. The area under JFM is now 17, 331, 955.12 hectare and the number of groups involved 84,632 (India State of Forest Report, 2009).

Joint Forest Management (JFM) was introduced into Odisha on 1st June 1988 by JFM resolution and subsequently into other states like West Bengal, Bihar, Gujarat, Rajasthan, Andhra Pradesh, Madhya Pradesh, and Karnataka. This is a co-operative experiment where the foresters, NGOs and the local communities are involved in the protection, regeneration of degraded forest land and management of resources. The stakeholders are ensured property rights in the management of forest resources under the system of JFM. Under this policy initiative, the degraded national forests were handed over to the forest protection committees (FPCs) as community forest under a community based property rights regime. In response to the national forest policy and to ensure equity and social justice, the state governments, which are responsible for forest management under Indian constitution, have started encouraging the communities living nearby the state forests for formation of forest protection committees (FPCs) under JFM. With regard to implementation of the new forest policy, a comparative analysis among the states of India shows that a poor and tribal dominated state like Odisha, which is located in the eastern part of India, is the first state to introduce the participatory approach in the forest management by forming a number of FPCs in a bid to revive the degraded forest resources in the early 1990s. Till date, Odisha has the largest FPCs among all the Indian states. Forest Protection Committee (FPC) is constituted for this purpose by the DFO. The members will be selected from the concerned villages; the villagers will get 25 percent of benefits and can collect all the fallen twigs, grass, fruits, flowers, seeds (excluding cashew) and leaves. Though JFM gives back some of the original rights to the local communities, it still retains the power centre with the forest department.

### OBJECTIVES

- To examine the relationship on participatory approach among poor and non-poor households under JFM;

- To determine the contributions of common property resources from community-based forest resource management under joint forest management (JFM) to the livelihood of rural poor and non-poor;
- To suggest policy measures for sustainable utilization of CPRs to provide secure livelihood to rural poor.

## REVIEW OF LITERATURE

Poverty, property rights and people's participation on the management of CPRs are increasingly becoming a major subject of debate, discussions and investigations, particularly on the issues of local collective actions or community based natural resource management over the past couple of years. One group of researchers advocate that common property resource users can create and sustain the local level institutions that ensure equitable access to, and income from resource management. Furthermore, CPR literature claims that poor people are more dependent on natural resources; they derive higher income and benefits from CPRs. Some researchers', on the other hand, advocates that compared to the non-poor, the poor people may depend more on common resources, but in absolute terms their dependency is lower. Thus, the problems and policies on the participation of local people and institutions on the management of CPRs deserve serious concern in the various studies undertaken by different scholars over the years.

Anderson (1995) found that wealthy and influential villagers in the control of forest councils use these resources for their personal use and poor do not gain from this JFM. A study based on the 180 households in 20 villages of Andhra Pradesh found that the rich households get larger chunk of income from the commercial exploitation of NTFPs by influencing the decision of the FPCs in their favour. In a similar study, Hill and Shields (1998) observed on 130 households in Andhra Pradesh, Madhya Pradesh and Rajasthan that the main losers in the JFM are fuelwood loaders who are often the poorest sub-group within the village studied. Sreedhar and Bhaskar (2000) were found that in their studies of covering a sample of 10 percent of Vana Samrakshana Samithis (VSS) in Anantapur Forest Circle of Andhra Pradesh JFM had considerable impact on forest regeneration and on the livelihoods of the participant households encompassing economic, social, political and environmental domains by using observation and interview method. The forestry works alone generated as much as Rs. 1.89 lakh person days of additional employment through which a sum of Rs. 75.4 lakhs was paid to the members in the form of wages. Furthermore, some members could benefit by the sale of non-timber forest products (NTFPs) while others could get subsidiary occupations. Besides these, VSS activities contributed the way for the emergence of collective and social consciousness among the people, creating a positive attitude towards education, health, family planning and leadership among men and women at the grassroot level. It was also found that people's involvement was not up to the desired level and effective community participation, flexibility in operation and promotion of income generating programmes (IGPs) through the women groups need to be ensured for the sustainability of JFM for initiatives of forest department.

Kumar (2002) found that in his studies on six villages of Ranchi district of Jharkhand the rich who gain under Joint forest management (JFM) is more than the poor who are the net loser in this process by using cost-benefit analysis. The study uses around 3 percent social discount rate (SDR) while estimating the future cost and benefits at present value in terms of social preference to different stakeholders. The low SDR is justified in the study that the future flow of forest in perpetuity is not reduced while extracting as much as forest produce as we desire. The 40 years time horizon has been taken in this study keeping in mind the long gestation period of the forestry projects. In addition, the different weights of 0.58, 0.82, 0.88, 1.34, are attached to different households by stratifying the households into large farmers (more than 4 ha of land), medium farmers (2-4 ha), small farmers (1-2 ha), marginal farmers (0-1 ha) and landless farmers respectively.

In a study of two districts of Nepal, Adhikari (2002) identified that the poor stake holders are currently benefitting less in terms of average annual gross and net income from community forestry than the relatively better off households. Rath and Sahu (2004) have also identified in a poor state like Odisha that there is a good scope for harnessing of CPRs in Odisha. They found that proper utilization of CPRs would bring improvements in the standard of living of the people, particularly the poor and landless labourers and tribals in terms of increasing employment and income generation from them. They have also studied that the success of rural development policy depends on the active people's participation and stakeholders should be granted more management rights over the CPRs, more particularly in the rural area.

## STUDY AREA, METHODOLOGY AND DATA COLLECTION

India, the second highest populated country of the world, inhabits about 16.08 percent of the total world population with 2.47 per cent of world's landmass and about 7 per cent of world's forest area. As per the India State of Forest Report, 2009, the total forest cover of the country (2007 assessment) is 690,899 sq. km and this constitutes 21.02 percent of the geographical area of the country. Of this, 83,510 sq km (2.54 per cent) is very dense forest; 319,012 sq. km (9.71 per cent) is moderately dense forest, while 289,377 sq. km (8.77 per cent) is open forest cover. An examination of the forest coverage area of major states in India reveals that the state of Odisha is well endowed with forest resources in comparison to other major states of India. Odisha, the fifth largest state in terms of forest coverage area is 48,855 sq km. in India, which accounts for 7.07 per cent of the total forest area of the country. Madhya Pradesh accounts for the largest forest cover of the country (11.24 per cent), followed by Arunchal Pradesh (9.74 per cent), Chhatisgarh (8.08 per cent), Maharashtra (7.33 per cent), Andhra Pradesh (6.53 per cent). In fact, the recorded forest area of the country is 769,512 sq. km, accounting for 23.41 per cent of the Country's geographical area. Of this, 430,582 sq km (55.95 per cent) is reserved forests; 206,219 sq. km (26.79 per cent) is protected forests, while 132,711 sq. km (17.24 per cent) is unclassified forests cover.

Though the forest area in the state during 1998-99 was 58,135 sq. km., which constitutes 37.34 per cent of the total geographical area of the state, it had declined over the years. As per the *State Forest Report*, 2009, the state has only 48,855 sq. km of forest cover, i.e., 31.38 per cent of the total geographical area of the state. Further, the grouping of the forest area into different components shows that 7,703 sq. km. (15.76 per cent) is very dense forest, 21,394 sq. km (43.79 per cent) is moderately dense forest and 20,388 sq. km. (47.13 per cent) is open forest. In fact, though the recorded forest area is 58,136, which constitutes 37.34 per cent of the total geographical area of the state. Of this, 26,329 sq km (45.28 per cent) is reserved forests; 15,525 sq. km (26.70 per cent) is protected forests, while 16,282 sq. km (28 per cent) is unclassified forests cover. The total protected and unclassified forest land is 31, 807 sq. km., which constitutes 51.71 per cent of the total recorded forest area on CPR forest land. One of the salient features of the National Forest Policy is to associate people actively in the protection, conservation and management of forests. The National Forest Policy stipulates that 33 per cent of the geographical area should be under forest cover. With a view to enhance the forest coverage area, the State government has initiated many measures and compliance with the provisions made by the National Forest Policy of 1988, it has promoted Village Forest Committees (VFCs), Village Forest Protection Committees (VFPCs), Vana Samrankhyan Samities (VSSs) in different districts of the state. Village Forest Committees (VFCs) were formed under Odisha Forest Rules, 1985. Forest Protection Committees (FPCs) were formed under the National Forest Policy of 1988 and Vana Samrankhyan Samities (VSSs) were formed under 1993 and 1996 resolutions. After from these there are several unregistered committees functioning simultaneously. There were about 1,199 JFM committees in 2005, managing around 14 per cent forest area. Nearly 17 million families were involved in this programme of which around 0.7 million families belonged to tribal communities. By the end of 2010-11, 11,915 Vana Samrankhyan Samities (VSSs) and 398 Eco-Development committees (EDC) were formed in the state for protecting and regenerating forest areas of around 11238 Sq. Km. of forest area for protection through Joint Forest Management approach. All 11,428 families are members of these VSS and EDC (Economic Survey, 2011-12, Government of Odisha). After the Joint Forest Management (JFM) resolution implemented by the state government, so far there have been 9,055 VFCs, 5,520 VFPCs and 640 unregistered groups formed in the state and they are involved in taking care of the management and protection of around 1,21,460 hectares, 6,51,545 hectares and 89,864 hectares of forest area in the state forest respectively (Department of Forest and Environment, Government of Odisha, 2011).

In spite of these natural endowments, the state is regarded as one of the most backward state in India. The state's economy is characterized by low per capita income, low capital formation and inadequate exploitation of plentiful natural resources and poor development of socio-economic infrastructure. Moreover, poverty along with severe unemployment is also widespread in the state. As per the estimates of the planning commission, 47 per cent of population is below poverty line in contrast to all-India average of 26 per cent. Unemployment is also a formidable problem. It had been estimated that the total backlog of unemployment at the beginning of 1999-2000 was of the order of 8.27 lakh. The magnitude of unemployment would be severe in future owing to growing



population and lower employment opportunities being generated in the state. It is also observed that forests are yet to be fully utilized by the state over the last five decades to mitigate the magnitude of poverty and unemployment, due to a number of social, political, economic and climatic factors.

The primary purpose of this micro-level study was to investigate into access of the forest dwelling population into the forest resource and the management in the context of emerging changes in the forest policies, and also their impact on the sustainable livelihood of forest dependent communities. Therefore we adopted multi-stage sampling method to select poor and non-poor households among participant and non-participant households for protecting village forest land. The study was carried out Keonjhar district of Odisha where community based forest resource management institutions under the aegis of JFM has been established since 1995. Four tribal dominated villages in Anandapur and Ghasipura blocks in Keonjhar district of Odisha were selected on the basis of largest forest coverage area under CPRs, largest percentage of CPR area declining and their participatory development on Forest Protection Committees (FPCs) under JFM. The sample villages were finally selected on the basis of operation of JFM area and their participation of both poor and non-poor households for protecting the village forest land in consultation with the local D.F.Os and senior forest officials. The selected villages were Kantipal and Kolimati in Anandapur block and Madanpur and Birgovindpur in Ghasipura block.

The study is based on primary and secondary sources of data. Primary data on household level variables, their dependency on forest land under CPRs for their livelihood and management of community forestry were collected in four villages through three different structured schedules, namely; village schedule, household schedule, schedule for local level institutions and NGOs pertaining to the year 2009. A separate schedule was also canvassing all the households seeking answers to a multiple objective types question pertaining to their perception and understanding of forest Act, Rules, Policy forest conservation, access to forest resources, participation in the protection of village forest and plantation of degraded forest land through JFM on different category of households. In the field investigation, 200 households were covered by using household schedule covering four important areas demographic, land holding pattern, dependency on CPRs for their livelihood and their participation on management of CPRs and utilization. The households were classified into two groups: poor and non-poor. The poor households include landless labourers, agricultural workers, artisans, small farmers ( $\geq 1.00 \leq 1.99$  ha. of land) and marginal farmers ( $\leq 0.99$  ha. of land). The non-poor households include servicemen and small entrepreneurs, very large farmers ( $> 9.99$  ha), large ( $\geq 5.00 \leq 9.99$  ha.), upper middle ( $\geq 3.00 \leq 4.99$  ha.) and lower middle ( $\geq 2.00 \leq 2.99$  ha.) farmers. Sample households were then selected from each village after giving proper weightage to each category. The total number of households for intensive field survey was 200 household: 120 poor and 80 non-poor. Agriculture was the primary occupation of all the sample households in the study villages. All the sample households belonging to different class and caste were dependent on CPRs for their livelihood for collection of fuel wood, food, fodder, timber and non-timber forest product (NTFP) such as harida, bahada, mahula, kendu, sal leave, mango, jamu, jackfruit, sal seeds, medicinal and herbal plants for their domestic consumption and sale. They sell their products through middleman who are mostly non-tribal. The land use pattern of the study villages are categorized as cultivated land, area not available for cultivation, village forest area, and culturable waste and grazing land. Apart from this classification these four villages have provided access rights to the protection and management of state forests. Though caste structure is heterogeneous and comprising various castes, such as, *Brahmins, Khandayat, Teli, Sudras and Tribals*, but the tribal constitute the dominant group in all the study villages. Moreover, it has been found that a large proportion of the total populations in these villages are subsistence farmers and forest dwellers. During the lean agricultural season, when there was no agricultural work, they also earned their livelihood as wage labourer in the construction village road through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Gram Sadak Yojana (PMGSY) and other poverty alleviation programmes. The villages were surrounded by forest from all sides. But the main occupation of STs in the sample villages were hunting, food gathering from CPRs for their personal uses and sell these products to outside traders and also encroachment on CPR land for cultivation.

Under secondary data, information about sample JFM village and the history of their establishment, their land use pattern, demographic trend and to forest resources were collected from their respective forest blocks. A lot of valuable secondary source information was collected from the Department of Forest and Environment, Government of Orissa, SC and ST Welfare Department, Principal Chief Conservation of Forest Office, Economic Survey, Statistical Abstracts, Statistical Hand books, periodicals and journals etc.

**PEOPLE’S PARTICIPATION UNDER JFM IN THE STUDY VILLAGES**

Joint Forest Management (JFM) as a programme had its beginning in the district of Keonjhar in 1995 in eleven selected villages. Our four sample villages namely Kolimati, Kantipal, Madanpur and Birgovindpur reported to have adopted JFM in 2000. Accordingly, around 177 hectares of land was taken up for the purpose of plantation and protection of existing forests under social forestry programme as reported by the Sarpanch and other village leaders. Various groups were formed and responsibilities were distributed among them. One male and one female from each JFM household of the village were nominated as members of JFM. The JFM committees initially resolved to form protection group to watch and ward in order to prevent illegal feeling of trees. However people of all JFM households in all sample villages were very enthusiastic to protect their village forest land. The village Birgovindpur has an highest JFM household member i.e., 63 per cent (34 household member) followed by Kolimati almost 52 per cent (26 household member), Madanpur 50 per cent (23 household member) and Kantipal 42 per cent (22 household member). Almost 55 per cent (66 household members) of sample poor households were the member of JFM whereas it was around 49 per cent (39 household members) of non-poor household. But in overall it was 52 percent (105 household members) under JFM households as shown in Table-1.

**TABLE-1 :PARTICIPATION ON CATEGORY OF SAMPLE HOUSEHOLDS ON JFM(VFCS/VSSS/FPCS)**

Name of the Village	Category of Households	No. of Households	JFM (VFC/VSS/FPC) Households (No.)	Percentage of Participation on JFM Households to total Households	Active Participation Households on JFM (No.)	Percentage of Active Participation JFM Households to total Households
Madanpur	Poor	26	12	46.2	7	26.9
	Non-poor	20	11	55	5	25
	All	46	23	50	12	26
Kolimati	Poor	30	18	36.7	12	40
	Non-poor	18	8	44.4	6	33.3
	All	48	26	54.2	18	37.5
Birgovindpur	Poor	32	21	65.6	14	43.7
	Non-poor	22	13	59.1	7	31.8
	All	54	34	63	21	38.8
Kantipal	Poor	32	15	46.9	8	25
	Non-poor	20	7	35	4	20
	All	52	22	42.3	12	23
All Villages	Poor	120	66	55	41	34.1
	Non-poor	80	39	48.8	22	27.5
	All	200	105	52.5	63	31.5

Source: Field Survey

During 2000-01 people of all these sample villages among JFM households were engaged in watch and ward of their forest on rotation basis. But, since 2004, JFM committees have engaged paid watchers with payment of Rs. 700/ per month in Kolimati, Rs.500/ per month in Birgovindpur since 2003, Rs. 600/ per month in Madanpur since 2004 and Rs. 800/ per month in Kantipal since 2005 for protection of the forest due conflict between participant and non-participant households under JFM. The watchers carry out other activities as per the needs and decisions, of the JFM committee. The village members are provided with

requisite permission by the committee to collect NTFPs and wood as per their household requirements. The timber for the construction of houses by the villagers is primarily examined and permitted by the village committee. Genuine needs of the villagers for the festivals and occasions with respects to such materials are collected from the protected forests.

Table 1 revealed that around 31 percent household members (63 out of 200 sample households) on all villages are actively participated on Joint Forest Management (JFM). The active participation on JFM by the poor is nearly 34 percent (41 out of 120 sample households) than the non-poor households is around 27 percent (22 out of 80 sample households). The active participation on JFM among four sample villages is varied between about 23 percent (in Kantipal village) to nearly 39 percent (in Birgovindapur village). There are village forest committees since 2000 in all sample villages consisting of 105 household's members in pen and paper but work is being done by the forest department to involve the local people (only 63 members) in the management of forest. There were various problems in all sample villages. First, Forest Protection Committees (FPCs) were set up in haste, superfluous action without adequate consultation with other local community except 63 members. Second, there is a conflict among different caste and tribal groups, for instance Juang and Bhuiyan, SCs (Pana) and OBCs (Teli, Gopala), sometimes leading to violence for protection of village forest area. Third, the forest dwellers were getting small timber and firewood from forest formally or informally. But they did not get any additional incentive in these items for their own use under JFM scheme. A Government of Odisha resolution in 1993 on JFM offered 50 percent share in any major/final harvest and 100 percent of intermediate products to forest protection committee, called as Vana Sanrakhyan Samiti. Joint Forest Management seeks to involve and treat local communities as equal partners in the task of protection and management of forest. But the misbalanced power relationship between Forest department and local communities in all sample villages makes this a remote reality. Local communities find JFM unacceptable since this tends to erode decision making at community level and also disregards the traditional knowledge system of the community. The restriction on sale of gathered firewood or small timber was unrealistic as many of the poor forest dwellers depend on sale of these forest produce for their subsistence. Under JFM, Forest Department plays an important role in decisions relating to forest. Fourth, in absence of general body, the Forest protection Committee was not always representative of all different sections of forest users of the village. Fifth, the rights and tenures of the community over forest patch were not specified. Only certain concessions for fulfilling the requirements were spelt out; there was no mention of any share in the intermediate or final harvest in the sample villages.

Apart from protecting the CPRs from further degradation, their participative management, involving all the rural households, particularly the rural poor, promotes the social bond across families at the village level. This will help both poor as well as the non-poor. For example, in the past the poor maintained the livestock of the rich on common grazing lands and in turn used to pay for their services in terms of cash, fodder, fuelwood and livestock. This was both a means to strengthen the social bond at the village as also an assured source of income to the poor. In our study villages, though the development agencies have tried and succeeded in protecting and regenerating the degraded CPRs, they have failed in involving all sections of the rural society in such developmental programme. It appears that the share of poor households in the biomass from the CPRs may further decline as the quantity and quality of biomass from it increases. This is because it is the non-poor who have an absolute control over the use and management of such resources. Even while taking up the degraded CPRs for development it appears that all the households were never consulted or involved. No doubt the officials along with representatives of the rich might have persuaded one or two poor households to accept the scheme. In reality, however, there was no active involvement or participation. The poor as a result of their socio-political and economic submission to the non-poor hardly express their clear views. Keeping the poor in the background a few representatives of the rich try to commercialize and gain from the CPRs. In one village, the forest officials have tried to form the village committee to manage the CPRs, by involving all households. But in practice no committee is active. The leader of the village (elite) plays his own games as does the leader of the poor.

Further, it may be interesting to understand how actually the rural poor perceive the CPRs. In other words to what extent do they protect the CPRs by their participation in the use and management, if equal chance is given. What we have noticed through our own discussions with the poor households in the sample villages is that, even these households largely prefer the available CPRs to be distributed among them as private property resources (PPRs). The reasons for this reaction may be due to: (1) Unequal distribution of PPRs (land and livestock) among the rural families, (2) Lack of CPR-based PPRs among the poor, (3) Neglect of non-market forces in the rural economy, and (4) Lack of proper policy by the government about CPRs, particularly, regularization of the encroached CPRs. Thus, in such a situation promoting participation from all sections of the rural society in the use and management of CPRs seems to be a difficult task.

### INCOME AND EMPLOYMENT FROM CPRs UNDER JFM HOUSEHOLDS

The total dependency of households on the CPR forest land has been calculated by summing up the total income derived from fuelwood, food, fodder, and small timber and non-timber forest products (NTFPs). The average total income received by the households who are participating in the JFM activities is presented Table-2. An examination of the data in table 2 indicates that poor household gets maximum benefits than non-poor household in terms of income from CPRs which are being managed by the forest protection committees under JFM. It can be seen from Table 2 that poor households derived on an average gross income of ₹ 11,550 per household from CPRs and non-poor households derived ₹ 11,651 under JFM. The average gross annual income of the poor households from the CPRs ranged between ₹ 8,546 and ₹ 12,621 in different study villages during the reference period. The CPR income for the non-poor ranged between ₹ 9,651 and ₹ 13,432.

TABLE -2: AVERAGE GROSS INCOME GENERATED FROM CPRs UNDER JFM HOUSEHOLDS ( ₹ PER ANNUM)

Name of the Village	Category of Households	No. of JFM Households	Average Gross Income per Household from all Sources	Average Gross Income per Household from CPRs	CPR Income as a Percentage of Average Gross Income per Household
Madanpur	Poor	12	18456	8546	46.3
	Non-poor	11	22731	9651	42.5
	All	23	20501	9074	44.3
Kolimati	Poor	18	19452	12561	64.6
	Non-poor	8	21849	12697	58.1
	All	26	20190	12603	62.4
Birgovindpur	Poor	21	21753	11634	53.5
	Non-poor	13	26542	11742	44.2
	All	34	23584	11675	49.5
Kantipal	Poor	15	20672	12621	61.1
	Non-poor	7	25561	13432	52.5
	All	22	22228	12879	57.9
All Villages	Poor	66	20280	11550	57
	Non-poor	39	24328	11651	47.9
	All	105	21784	11587	53.2

Source: Field Survey

In our study villages, apart from the benefits of the development it is the non-poor who exploit the available CPRs to a greater extent. Though the poor households get much less average gross income per household from CPRs as compared to the non-poor household, it is relatively more important in their household budget in all the study villages. But the share (per cent) of average gross income per household from CPRs to average gross income per household from all sources is higher among the poor as compared to the non-poor households in our study villages managed by FPCs under JFM. However, despite the non-

poor getting greater absolute benefit, a greater proportion of the household income of the poor was derived from CPRs under JFM. This proportion varied from 46 per cent of the gross income per household in Madanpur village to 64 per cent in Kolimati village and for all the sample poor households it was 57 per cent of their income from CPRs managed by FPCs under JFM. Hence, on an average more than half of the income of the poor was derived from the CPRs, whereas it was 48 per cent for the non-poor and 53 per cent for the entire household in the reference period. Even in the case of the non-poor, the contribution of CPR income as a proportion of gross income per household varied from 42 per cent in Madanpur to 58 per cent in Kolimati under JFM. An examination of the data in the table indicates that poor household's gets maximum benefits in terms of income from CPRs which are being managed CPR forest land by the forest protection committees under JFM due to effective participation and proper functioning in our study villages.

The data in Table 3 establish the fact that the poor households under JFM substantially gain from the employment opportunities generated due to effective and proper functioning of FPCs in our study villages. It is found that the poor households under JFM gain 168 days of employment in the forest-related activities per year in all the study villages as compared to non-poor households engaged 109 days but in overall under JFM households it was 146 days per year. In fact, JFM is very effective and successful in these villages due to more participation on poor household than non-poor and the implementation of micro plan for plantation and proper commercialization of NTFPs are instrumental in creating huge employment opportunities throughout the year for all the participants of 105 households irrespective of their standard of living. Furthermore, it is found that poor households also get a substantial number day's employment and on an average more than four people engaged of CPRs per year from the forest related activities as compared to three people of non-poor households under JFM. Therefore it can be concluded that an effective FPC plays a pivotal role in generating ample employment opportunities and income compared to the non-participant households under JFM in our study area.

**TABLE-3: AVERAGE DAY EMPLOYED , TIME SPENT AND DISTANCE COVERED FROM CPRs UNDER JFM HOUSEHOLDS**

Name of the Village	Category of Households	No. of JFM Households	Annual Average Day Employed per Collection of CPRs (No. of Days)	Annual Average People Employed of CPRs	Average Time Spent per Collection of CPRs (Hours)	Average Distance Covered per Collection of CPRs	Accessibility (Percentage of People who felt CPRs is Open)
Madanpur	Poor	12	128	5	4.54	3.03	33.3
	Non-poor	11	86	6	6.04	3.12	27.3
	All	23	108	5	5.26	3.07	30.4
Kolimati	Poor	18	198	6	6.42	3	33.3
	Non-poor	8	134	5	5.31	3	37.5
	All	26	178	6	6.08	3	34.6
Birgovindpur	Poor	21	151	5	5.27	2.48	57.1
	Non-poor	13	98	4	5.01	3.52	46.2
	All	34	131	5	5.17	2.88	52.9
Kantipal	Poor	15	186	5	5.67	2.88	40
	Non-poor	7	136	4	6.42	3.37	57.1
	All	22	170	5	5.91	3.04	45.5
All Villages	Poor	66	168	6	5.54	2.81	42.4
	Non-poor	39	109	5	5.62	3.27	41
	All	105	146	6	5.57	2.98	41.9

Source: Field Survey

Table 3 also shows that the distance between the place of dwelling (habitation) and source of fuel wood collection (forest) was around 3 km, but to collect fuel wood, the people had to go deep into the forest due to degradation of forests and congestion of fuel wood collectors. It was observed in the study villages that women and children aged between 10 and 15 belonging to the poor households browse over three to four km in JFM household of CPRs (including road sides) for dead and fallen wood, twigs, thorny bushes, dry leaves, roots etc. If wages on labour days spent on such type of fuel wood collection are calculated, even a child has to be paid more than the average wage rate in many other villages. This resulted in an increase in the time spent on fuel wood collection. The average time spent per collection of fuel wood varied between a minimum of four hours and a maximum of seven hours in case of poor households and five to seven hours of non-poor households under JFM

It is generally understood that CPRs like a forest are completely accessible to the people. But in reality people do not have total access to all types of forests. Forest authorities (the forest department) regulate accessibility to the forest area specially when these are under reserve forest or protected area category. Nearly 42 per cent of the poor, 41 per cent of non-poor and 42 per cent of all households in the study villages felt that the CPRs was open for fuel wood collection without any restriction under JFM household.

## CONCLUSIONS AND POLICY IMPLICATION

In this study, we examined the relationship between poor and non-poor households with the income and employment opportunities from CPRs and also their participation through JFM committee. It is found that the poor households on participation of FPCs derive larger benefits from the CPR forest produces in contrast to the non-poor households. Further, the larger number of employment opportunities generated from the CPRs on FPCs goes to participating on poor households. CPR income accounted for on an average more than half of the total income of the poor households and almost 39 percent of the total income of the non-poor households. Around 42 percent of the surveyed JFM households reported that the forest CPR was open for fuel wood collection. About only 52 per cent households are participated on JFM committee and where as only 31 percent of sample households actively participated in the management of CPRs through Joint Forest Management (JFM). Effective participation of local populations, NGOs, panchayat raj and equitable distribution of benefits did not happen in these villages, mainly due to institutional weaknesses.

The important policy implication of this exercise is that both the state and central government should adopt strict JFM policy for implementation at the grass-root level and also encourage the stakeholders to form community based management institutions like FPCs under JFM policy for proper and effective utilisation of CPRs by adopting participatory approach in the rural area. In protection, regeneration and developmental aspects of common property resources more power should be entrusted to NGOs and the panchayati raj institutions with active participation of all the local community to ensure equitable distribution of benefits. The government should integrate the JFM policy with our ongoing poverty alleviation programmes in the forested area by providing both financial and logistic support for the effective management of the forest resources to accomplish the sustainable development goals in the forthcoming years. Further, it should vigorously implement JFM policy in the tribal and poverty ridden forest areas with a view to generate additional income and employment base of the rural economy. JFM should be encouraged to participate in the tribal areas of India and to empower them and more and more FPCs should be formed to participate in the management of CPRs, such as forests, whereby both physical as well as socio-economic environment will improve significantly. Formation of self-help group should be encouraged to meet the credit needs of the local people. Adequate storage facility for primary collectors of CPR products should be provided with assistance from financial institutions. The rural households that derive benefits from CPRs should be convinced about the benefits of regeneration of CPR and sustainable utilization which will inspire the people to protect and regenerate them.

**SCOPE FOR FUTURE RESEARCH**

If the present CPR use structure is continued unaltered, then the future for common property resources in the study villages appears bleak. Due to the degradation of CPRs, many households are already facing shortage of fuelwood and fodder. Many households have therefore started shifting towards other fuels such as dungcake- which constitutes wastage of precious potential manure- and inferior fuels like crop residue for cooking. The degradation of CPR forest increased the time required for fuelwood collection and resulted in the neglect and overexploitation of CPRs, which further accelerated the degradation of CPRs. Thus, there has been a vicious circle of degradation and overexploitation of CPRs. If this vicious circle is not broken, then the 'tragedy of common property resources' is certain to occur.

**ACKNOWLEDGEMENTS**

The paper is a part of Ph.D. work of the first author that was undertaken at NKC Centre for Development Studies (An ICSSR Institute), Bhubaneswar. The first author also thanks ICSSR, New Delhi for awarding a doctoral fellowship to him for conducting the study. The first author is grateful to the forest dwellers and village leaders for their active participation in the collection of data at village level of Ph.D. work.

**REFERENCES**

1. Adhikari, B. (2002): "Property Rights and Natural Resource: Socio-Economic Heterogeneity and distributional Implications of Common Property Resources and Management", EEE Working Papers Series, No.3
2. Anderson, K.E. (1995), "Institutional Flows and Collective Forest Management", *Ambio*, Vol.24, No.6, pp. 349-353.
3. Arnold, J.E.M. and Stewart, W.C.(1991): "Common Property Resource Management in India", *Tropical Forestry Papers*, Oxford Forestry Institute, No. 24, University of Oxford, Oxford.
4. Behera, B. (2006): "Determinants of Sustainable Management of Natural Resources: The Case of Joint Forest Management in India", *Cuvillier Verlag*, Gottingen.
5. Chopra, K., Kadekodi, G.K. and Murty, M.N. (1990), "People's Participation and Common Property Resources", *Economic and Political Weekly*, Vol.24, No. 51, pp A189-A195.
6. Government of India (GOI) (2009): "India State of Forest Report 2009, Forest Survey of India", Ministry of Environment and Forests, Dehradun.
7. Government of Odisha.(GOO), (2011), "Annual Activities Report, 2010-11", Department of Forest and Environment, Bhubaneswar, Odisha
8. Government of Odisha.(GOO), (2012), "Economic Survey 2011-12 and various other issues", Directorate of Economics and Statistics, Bhubaneswar, Odisha
9. Hardin, G. (1968), "The Tragedy of Commons", *Science*, Vol.62. pp.1243-1248
10. Hill, I. And D. Shields (1998): "Incentives for Joint Forest Management in India: Analytical methods and Case Studies", *World Bank Technical Paper No. 394*, The World Bank, Washington D.C., U.S.A
11. Jodha, N.S. (1986), "Common Property Resources and Rural Poor in Dry Regions of India", *Economic and Political Weekly*, Vol. 21, No.27, pp. 1169-1181.
12. Kumar, S. (2002), "Does Participation in Common Pool Resource Management Help the Poor? A Social Cost-Benefit Analysis of Joint Forest Management in Jharkhand, India", *World Development*, Vol.30, No. 5, pp. 763-782.
13. Rath, B. and Sahu, N.C. (2004): "Revitalisation/ Renovation of Common Property Resources (CPRs) Potentials as an alternative Means to Improve the Economy of Odisha" in R.K.Panda (Ed.) *Reviving Odisha Economy. Opportunities and Areas of Action*, APH Publishing Co., New Delhi
14. Sreedhar, G. and K. Bhaskar (2000), "Impacts of Joint Forest Management, Forest Rejuvenation and Livelihoods of Participant Households: Micro Level Experiences from Andhra Pradesh", *Indian Journal of Agricultural Economics*, Vol. 55, No.3, pp. 456-467.
15. Wade, R. (1987), "The Management of Common Property Resources: Collective Action as an alternative to privatisation or state regulation", *Cambridge Journal of Economics*, Vol.11, pp. 95-106.

## **REQUEST FOR FEEDBACK**

**Dear Readers**

At the very outset, International Journal of Research in Commerce, Economics and Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail [info@ijrcm.org.in](mailto:info@ijrcm.org.in) for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com).

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-

**Co-ordinator**

## ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

### *Our Other Journals*

