
A Study on the Current Scenario of Corporate Social Responsibility in India

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Abstract: “A business does not exist in isolation simply as a way of making money”. Customers, suppliers and local community are all affected by business. CSR is considered as the essence of the modern business practice having social responsibility in the current scenario. CSR refers to the way the businesses are managed bringing about an overall positive impact on an emerging scenario over all the business operations. CSR takes all into account and helps the business to create and maintain effective relationship with their stakeholders. CSR has been developed in recent years to make corporate aware of social responsibility as an important segment of their business activity. But CSR in India has yet to receive widespread recognition and facing issues and challenges as a form of obligation towards society at large. With a new law making it obligatory for India to conduct Corporate Social Responsibility (CSR) activities, this could soon become a benchmark for others. Apart from gauging the changes in the CSR scenario after the introduction of the Companies Act 2013, changes in CSR scenario means the changes in the amount spending, of CSR and the targeted spending, and the challenges faced, followed by the steps that the Indian government took in 2013. It provides maximum benefit to society and as well as company also. The companies should use CSR to integrate economic, environmental and social objectives with the company's operations and its growth. This paper throws light on the major issues and challenges faced by the Corporate Social Responsibility in current scenario in India.

Keywords: Corporate Social Responsibility (CSR), Benchmark, Stakeholders, Social Obligation, Companies Act 2013, Challenges, The Indian Government

Introduction

Corporate Social Responsibility (CSR) has been assuming greater importance in the corporate world in different sectors. CSR envisages the ideal whereby enterprises integrate social and environmental concerns in their business

operations and their interaction with their stakeholders usually on a voluntary basis. CSR is about the behavior of businesses over and above what is ordinarily required by regulatory bodies and legal requirements. In a societal structure, we have many stakeholders, one amongst them are companies or Corporate Houses. These Corporate houses are meaningfully contributing from “their kitty” which impact their internal stakeholders and also open handedly support societal initiatives. In India companies like TATA and Birla are practicing the Corporate Social Responsibility (CSR) for decades, long before CSR became a popular basis. There are many instances where corporate have played a dominant role in addressing issues of education, health, environment and livelihoods through their corporate social responsibility interventions across the country.

At one end of the spectrum, CSR can be viewed simply as a collection of good citizenship activities being engaged by various organizations. At the other end, it can be a way of doing business that has significant impact on society. For this latter vision to be enacted in India, it will be necessary to build CSR into a movement. That is to say, public and private organizations will need to come together to set standards, share best practices, jointly promote CSR, and pool resources where useful. An alliance of interested stakeholders will be able to take collective action to establish CSR as an integral part of doing business – this is not a passing fad. There are more than 1,000,000 registered companies in India out of which less than 1percent companies are traded on the Indian Stock Exchange. A new Trend has started in Corporate is the establishment of special committees within the board of directors to oversee CSR activities. Groups of corporate are being encouraged to come together to promote CSR. It currently consists of 70 multinational corporate houses and 25 national partner organizations and has become a unique resource for building capability in CSR.

The scene of CSR in India changed with the introduction of Companies Act 2013. The industrial lobbies are abuzz with the CSR clause introduced by the Companies Act 2013. According to the Indian Institute of Corporate Affairs, of the 1.3 million companies in India, about 6,000-7,000 companies are covered under the new CSR rule 3. Scholars, industry insiders, politicians and the civil society are debating the earmarking of 2 percent of the net profits of a qualifying company for CSR initiatives and earmarking the avenues for CSR initiatives under Schedule VII. The same has been discussed in detail under ‘Industry Sentiments’.

What is CSR?

The term generally applies to company efforts that go beyond what may be required by regulators or environmental protection groups. Corporate social responsibility may also be referred to as “corporate citizenship” and can involve incurring short-term costs that do not provide an immediate financial benefit to the company, but instead promote positive social and environmental change.

Definition of CSR

It is important to note that Indian companies and stakeholders give a broader definition of CSR than MNC’s and stakeholders. According to the Indian Corporate: “Sustainable development implies optimizing financial position while not depleting social and environmental aspects and CSR implies supporting issues related to children, women and environment”.

Corporate social responsibility can also be defined as a “continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large”.

Corporate Social Responsibility (CSR) In India

The New Companies Act 2013 has introduced a new Section on Corporate Social Responsibility (CSR), Section 135, making CSR mandatory for all Companies. According to the act any company having a net worth of rupees 500 crore or more or a turnover of rupees 1,000 crore or more or a net profit of rupees 5 crore or more should mandatorily spend at least 2 percent of last 3 years average net profits on CSR activities as specified in Schedule VII of the Companies Act, 2013 and as amended from time to time. The rules came into effect from 1 April 2014. The rules further say that CSR is not charity or mere donations.

Why Corporate Social Responsibility?

The main aim of Corporate Social Responsibility is to embrace responsibility for the company’s actions and encourage a positive impact through its activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere. There are many numbers of business models developed in order to achieve CSR objectives. Being a good corporate citizen the companies have to be internally well

governed and externally responsible. In other words, CSR and corporate governance are two sides of the same coin.

Review of Literature

Over the past decades, the concept of CSR has become an important concept in the study of researchers, scholars and industrialists etc. So, the present researchers have made an effort with this review paper for those researchers, analysts and industrialists who are connected with CSR (whether social responsibility, social accounting, social reporting or any other area related to CSR).

Mc William and S. Seigal (2010) provided the importance of CSR as a strategy of enhancing reputation of companies. The study indicated that firms selling convincing goods which come under the umbrella of CSR activities, leads to consumer loyalty and increased revenue. Further the study also indicated the importance of advertising for providing information to consumers about the social welfare activities of the firm. Beside this the study also included the importance of media and T.V etc. in order to aware the consumers about firm's activities and increasing as well damaging the reputation. In this way the study concluded about the reputation of firm through CSR.

Agunis, Glovas (2012), Paper entitled "what we know and don't know about corporate social responsibility: A review and research agenda" in Journal of management, based on 588 journal articles and 102 books. The study provided a framework of CSR actions which affects external as well as internal stakeholders and outcomes of such actions. The paper also enhanced the knowledge regarding levels, forms of CSR; need to understand CSR with outcomes etc.. Further the researcher also suggested a framework of research design, data analysis and measurement for future research of CSR.

Mallen (2012), in this article, the researcher depicted how the trends of CSR have changed from last so many years. This change has affected both the society and business. The researcher explained three basic things about the changes in trend. These are:

1. The relationship between business and society has changed. This is happening because of social and environmental problem around the world. Because of these conditions, business and society came closer.

2. The businessman's strategy of developing business also affected society a lot. Businesses new ideas, concept, developments also came with CSR management that reflects in their product and services.
3. The other parties like outside agencies and firm's own goals also interfere the firm's activity.

The economic Times (2012), news highlighted the views of former president Dr APJ Abdul Kalam in a CSR award function organized by industry body ASSOCHAM. Kalam said that companies should devote some part of its goal to corporate services. It should make mandatory for all the companies to spend a percentage of its profit on corporate social responsibility. Kalam also discussed the proposed bill on corporate spending on CSR. They assumed greater importance of CSR in building the lives of the country's citizens.

Bhattacharyya and Chaturvedi (2012), article entitled "CSR looks set to emerge as an independent stream with measurable output" on India CSR site, stated about the proposed bill of CSR that how the bill will affect the company's policies. The researchers presented their views and said that due to this bill, company's activities will change a lot the companies who has not engaged in CSR activities till now, will start investing on society. Further, who has already engaged in these areas will get a strong foundation or bond with the society.

Bansal, Parida, and Kumar (2012), paper entitled "Emerging Trends of Corporate Social Responsibility in India" in KAIM Journal of Management and Research analyzed 30 companies of 11 sectors listed in the Bombay Stock Exchange with the help of their annual reports. Some of these sectors were Transport Equipment sector, Finance and Metal Mining sector, IT and Power, Capital goods, Telecom, Housing, FMCG, Oil and Gas and Cipla. The paper considered the nature and areas of society in which the companies are investing. By considering all those areas it was concluded in the paper that today companies are not working only to earn profit but also have realized the importance of being social friendly. So, on the basis of the paper it can be said that social responsibility has now started taking a turn in the new direction.

The Economic Times (11 Jan. 2013), news highlighted about the company Dell's strategy of motivating its employees in initializing CSR. The news discussed that company's employees are the power that forced the company

to do more for the society. Company with its employees has engaged in social responsibility activities in the areas of education, environment and employee's welfare. Beside Dell Company, the news also discussed other companies like Maruti and Godrej that these companies also provide induction training to its employees for preparing them for community services. Maruti Company run a program named e-parivartan for a group of employees to make them aware about community problem and their solution.

Phases of Corporate Social Responsibility

Among other countries India has one of the richest traditions of CSR. CSR has gone through many phases in India. The history of CSR in India has its four phases which run parallel to India's historical development and has resulted in different approaches. However the phases are not static and the features of each phase may overlap other phases.

In the first phase charity and philanthropy were the main drivers of CSR. In the second phase, during the independence movement, there was increased stress on Indian Industrialists to demonstrate their dedication towards the progress of the society.

The third phase of CSR (1960–80) had its relation to the element of “mixed economy” led to enactment of legislation regarding corporate governance, labour and environmental issues.

In the fourth phase (1980 until the present) Indian companies started abandoning their traditional engagement with CSR and integrated it into a sustainable business strategy.

Research Objectives

1. To understand the concept of Corporate Social Responsibility in India.
2. To find out the scope of Corporate Social Responsibility.
3. To explore the robustness of Corporate Social Responsibility in society in the current scenario.
4. To get the knowledge about the emerging challenges and issues.

Research Methodology

Looking into requirements of the objectives of the study the research design employed for the study is of descriptive type. Keeping in view of the set objectives, this research design was adopted to have greater accuracy and

in depth analysis of the research study. Available secondary data was extensively used for the study. The investigator procures the required data through secondary survey method. Different news articles, Books and Web were used which were enumerated and recorded.

Current Status of CSR in India

Companies have specialized Corporate Social Responsibility teams that formulate policies, strategies and goals for their CSR programs and set aside budgets to fund them. These programs are often determined by social philosophy which have clear objectives and are well defined and are aligned with the main stream business. The programs are put into practice by the employees who are crucial to this process. Corporate Social Responsibility programs ranges from community development to development in education, environment and healthcare etc. For example, a more comprehensive method of development is adopted by some corporations such as Bharath Petroleum, and Hindustan Unilever Limited. Provision of improved medical and Sanitation facilities, building schools and houses, and empowering the villagers and in the process making them more self-reliant by providing Vocational training and a knowledge of business operations are the facilities that these corporations focus on. Many of the companies are helping other people by providing them good standard of living.

CSR Given by The Companies' Act, 2013 in India

The Companies Act, 2013 in India, the concept of CSR is governed by clause 135 of the Companies Act, 2013, which was passed by both Houses of the Parliament, and had received the assent of the President of India on 29 August 2013. The CSR provisions within the Act is applicable to companies with an annual turnover of 1,000 crore INR and more, or a net worth of 500 crore INR and more, or a net profit of five crore INR and more.

The Act lists out a set of activities eligible under CSR Companies are:

1. Every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during any financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.

2. The Board's report under sub-section (3) of section 134 shall disclose the composition of the Corporate Social Responsibility Committee.
3. The Corporate Social Responsibility Committee shall,—
 - 3.1. Formulate and recommend to the Board, a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII;
 - 3.2. Recommend the amount of expenditure to be incurred on the activities referred to in clause and
 - 3.3. Monitor the Corporate Social Responsibility Policy of the company from time to time.
4. The Board of every company referred to in sub-section (1) shall,—
 - 4.1. After taking into account the recommendations made by the Corporate Social Responsibility Committee, approve the Corporate Social Responsibility Policy for the company and disclose contents of such Policy in its report and also place it on the company's website, if any, in such manner as may be prescribed; and
 - 4.2. Ensure that the activities as are included in Corporate Social Responsibility Policy of the company are undertaken by the company.
5. The Board of every company referred to in sub-section (1), shall ensure that the company spends, in every financial year, at least two per cent. of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy, Provided that the company shall give preference to the local area and areas around it where it operates, for spending the amount earmarked for Corporate Social Responsibility activities:

Issues and Challenges

Many companies think that corporate social responsibility is a peripheral issue for their business and customer satisfaction is more important for them. They imagine that customer satisfaction is now only about price and service, but they fail to point out on important changes that are taking place worldwide that could blow the business out of the water. The change is named as social responsibility which is an opportunity for the business. Some of the drivers pushing business towards CSR include:

1. The Shrinking Role of Government

In the past, governments have relied on legislation and regulation to deliver social and environmental objectives in the business sector. Shrinking government resources, coupled with a distrust of regulations, has led to the exploration of voluntary and non-regulatory initiatives instead.

2. Demands for Greater Disclosure

There is a growing demand for corporate disclosure from stakeholders, including customers, suppliers, employees, communities, investors, and activist organizations.

3. Increased Customer Interest

There is evidence that the ethical conduct of companies exerts a growing influence on the purchasing decisions of customers. In a recent survey, more than one in five consumers reported having either rewarded or punished companies based on their perceived social performance.

4. Growing Investor Pressure

Investors are changing the way they assess companies' performance, and are making decisions based on criteria that include ethical concerns. A separate survey revealed that more than a quarter of share-owning ethical considerations when buying and selling stocks.

5. Competitive Labour Markets

Employees are increasingly looking beyond paychecks and benefits, and seeking out employers whose philosophies and operating practices match their own principles. In order to hire and retain skilled employees, companies are being forced to improve working conditions.

6. Supplier Relations

As stakeholders are becoming increasingly interested in business affairs, many companies are taking steps to ensure that their partners conduct themselves in a socially responsible manner. Some are introducing codes of conduct for their suppliers, to ensure that other companies' policies or practices do not tarnish their reputation. A CSR project can begin in response to a crisis or adverse publicity that a company may suffer. The motive for launching CSR can vary between philanthropy or notions of corporate citizenship. In India, over time, the expectations of the public

has grown enormously with demands focusing on poverty alleviation, tackling unemployment, fighting inequality or forcing companies to take affirmative action.

7. Lack of Community Participation in CSR Activities

There is a lack of interest of the local community in participating and contributing to CSR activities of companies. This is largely attributable to the fact that there exists little or no knowledge about CSR within the local communities as no serious efforts have been made to spread awareness about CSR and instill confidence in the local communities about such initiatives.

8. Need to Build Local Capacities

There is a need for capacity building of the local non-governmental organizations as there is serious dearth of trained and efficient organizations that can effectively contribute to the ongoing CSR activities initiated by companies. This seriously compromises scaling up of CSR initiatives and subsequently limits the scope of such activities.

9. Issues of Transparency

Lack of transparency is one of the key issues. There is an expression by the companies that there exists lack of transparency on the part of the local implementing agencies as they do not make adequate efforts to disclose information on their programs, audit issues, impact assessment and utilization of funds. This reported lack of transparency negatively impacts the process of trust building between companies and local communities, which is a key to the success of any CSR initiative at the local level.

10. Non-Availability of Well Organized Non-Governmental Organizations

It is also reported that there is non-availability of well organized nongovernmental organizations in remote and rural areas that can assess and identify real needs of the community and work along with companies to ensure successful implementation of CSR activities. This also builds the case for investing in local communities by way of building their capacities to undertake development projects at local levels.

11. Visibility Factor

The role of media in highlighting good cases of successful CSR initiatives is welcomed as it spreads good stories and sensitizes the local population about various ongoing CSR initiatives of companies. This apparent influence of gaining visibility and branding exercise often leads many nongovernmental organizations to involve themselves in event-based programs; in the process, they often miss out on meaningful grassroots interventions.

12. Narrow Perception Towards CSR Initiatives

Non-governmental organizations and Government agencies usually possess a narrow outlook towards the CSR initiatives of companies, often defining CSR initiatives more donor-driven than local in approach. As a result, they find it hard to decide whether they should participate in such activities at all in medium and long run.

13. Non-Availability of Clear CSR Guidelines

There are no clear cut statutory guidelines or policy directives to give a definitive direction to CSR initiatives of companies. It is found that the scale of CSR initiatives of companies should depend upon their business size and profile. In other words, the bigger the company, the bigger is its CSR program.

14. Lack of Consensus on Implementing CSR Issues

There is a lack of consensus amongst local agencies regarding CSR projects. This lack of consensus often results in duplication of activities by corporate houses in areas of their intervention. This results in a competitive spirit between local implementing agencies rather than building collaborative approaches on issues. This factor limits company's abilities to undertake impact assessment of their initiatives from time to time.

Challenges for Indian Corporate

The concept of CSR is now firmly rooted on the global business agenda. But in order to move from theory to concrete action, many obstacles need to be overcome. A key challenge facing business is the need for more reliable indicators of progress in the field of CSR, along with the dissemination of CSR strategies. Transparency and dialogue can help to make a business appear more trustworthy, and push up the standards of other organizations at the same time. A lack of understanding, inadequately trained personnel,

non availability of authentic data and specific information on the kinds of CSR activities, coverage, policy etc. further adds to the reach and effectiveness of CSR programmes. But the situation is changing

The Times survey pointed few of the following challenges/responses from participating organisations.

1. Lack of community participation in CSR activities
2. Issues of transparency
3. Narrow perception towards CSR initiatives
4. Lack of consensus on implementing CSR issues
5. Non-availability of well organised non-governmental organizations
6. Need to build local capacities
7. Visibility factor
8. Non-availability of clear CSR guidelines

Findings

1. CSR Strategies are focusing on protection rather than competitive advantage by regulatory liability and maintaining a license to operate in the current business.
2. Social involvement of business enhances a harmonious and healthy relationship between the society and business seeking mutual benefit for the both.
3. Education is the most preferred area of CSR for Indian companies, with 85 percent of the companies surveyed engaged in it, followed by health (67.5%) and rural development and livelihoods (57.5%).
4. Corporate have the expertise, strategic thinking, manpower and money to facilitate extensive social change in current scenario.
5. Effective partnerships between corporate, NGOs and the government will place India's social development on a faster track.
6. In India, it was found that some public sector companies can spend up to 5 percent of their profits on CSR activities.
7. Increased growth momentum of the economy helped Indian companies grow rapidly and this made them more willing and able to contribute towards CSR.

8. It was found that the Growing Investor Pressure, supplier relations & Competitive Labour Markets the stakeholders are becoming increasingly interested in business affairs, many companies are taking steps to ensure that their partners conduct themselves in a socially responsible manner.
9. Challenges like transparency and dialogue can help to make a business appear more trustworthy, and push up the standards of other organizations at the same time.
10. Lack of Consensus on Implementing CSR Issues is overcome to certain extent because the Companies Act 2013 has given its new provisions regarding CSR.
11. It is found that corporate houses and non-governmental organizations should actively consider pooling their resources and building synergies to implement best CSR practices to scale up projects and innovate new ones to reach out to more beneficiaries.
12. Some of the positive outcomes that can arise when businesses adopt a policy of social responsibility include:

Company Benefits	Benefits to the Community	Environmental Benefits and the General Public
Improved Financial Performance	Charitable Contributions	Greater Material Recyclability
Lower Operating Costs	Employee Volunteer Programs	Better Product Durability and Functionality
Enhanced Brand Image and Reputation	Corporate Involvement in Community Education, Employment and Homelessness Programs	Greater Use of Renewable Resources
Increased Sales and Customer Loyalty	Product Safety and Quality.	

Company Benefits	Benefits to the Community	Environmental Benefits and the General Public
Greater Productivity and Quality		
More Ability to Attract and Retain Employees		
Reduced Regulatory Oversight		
Access to Capital		
Workforce Diversity		
Product Safety and Decreased liability.		

Recommendations and Suggestions

1. In order to meet the expectations of all stakeholders the corporate need to identify, support and develop the best CSR initiatives to crystal the future of CSR in India.
 2. To create awareness about CSR amongst the corporate to make CSR initiatives more effective company's core business and should build collaborative relationships.
 3. It is recommended that appropriate steps be undertaken to address the issue of building effective bridges amongst all important stakeholders for the successful implementation of CSR initiatives.
 4. It is noted that only medium and large corporate houses are involved in CSR activities, that too in selected geographical areas. This issue builds a case for more companies to be brought under the CSR domain.
 5. While focusing on urban areas, it is recommended that companies should also actively consider their interventions in rural areas on education, health, girl child and child labor as this will directly benefit rural people.
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6. As per the Act to strengthen the private sector the corporate houses should offer incentives which should include a formal partnership with local administration, easy grant of 12A, 80G and Foreign Contribution Regulation Act (FCRA) license and other fiscal incentives including matching project grants and tax breaks for social and development projects.
7. The CSR must help the corporate houses to maintain a judicious balance between their business and societal concerns by involving professionals from the corporate sectors in participating in civic issues.
8. As there are a number of companies involved in CSR activities, it is recommended that an accreditation mechanism should be put in place for companies through an independent agency for mainstreaming and institutionalizing CSR in the main business framework of the companies.
9. Considering the diverse issues and different contexts that exist currently in the CSR domain, it is recommended that companies involved in CSR activities urgently consider pooling their efforts into building a national alliance for corporate social responsibility.
10. In order to push the development agenda in a mission mode, it is recommended that realistic and operational models of engagement between all three important stakeholders – the Government, the non-governmental organizations and the private sector – are jointly explored and addressed.
11. Selecting CSR Program
The Company shall, while selecting a CSR activity, give preference to the local area and areas around which it operates in. For an activity to be included by the Company as its CSR activity, it should be relating to any one or more of the following activities, as listed in the Schedule VII to the Companies Act, 2013:
 - 11.1. Promotion of education.
 - 11.2. Promoting gender equality and empowering women
 - 11.3. Conducting workshop and training programs for women.
 - 11.4. Providing Education to under privileged children.

- 11.5. Focus on education the girl child and the underprivileged by providing appropriate infrastructure, and groom them as future value creators.
- 11.6. Empowerment of women for education, health & self-employment.
- 11.7. Conserving National Heritage and Environment.
- 11.8. Measures for the benefit of armed forces veterans, war widows, and their dependents.
- 11.9. To provide training to promote rural sports, nationally recognized sports, and Para Olympic sports and Olympic sports.
- 11.10. To contribute to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and welfare of the Scheduled Castes, the scheduled Tribes.
- 11.11. To provide contributions or funds provided to technology incubators located within academic institutions which are approved by the Central Government.
- 11.12. To contribute in rural development projects.

Conclusion

To conclude CSR as a business imperative must not be accepted grudgingly or half heartedly. Instead, it must be practiced with full vigor and straight from the heart passion and this certainly helps the companies in the long run to have meaningful impact on society and its future is bright in coming years.

It is important for the corporate sector to identify, promote and implement successful policies and practices that achieve triple bottom line results. It is a joint and shared responsibility of civil society, activist groups, Government and corporate sector to create appropriate means and avenues for the marginalized and bring them to the mainstream.

Clause 135 introduced by the Companies Act 2013 would go a long way in strengthening the social initiatives taken by the companies. It is a unique opportunity to stand up to the challenge of providing equal access

to opportunities. With a system of proper accountability & transparency it can bring about a remarkable change in the society by making the organization socially sensitive and responsible

The concept of corporate social responsibility is now firmly rooted on the global business agenda. But in order to move from theory to concrete action, many obstacles need to be overcome. A key challenge facing business is the need for more reliable indicators of progress in the field of CSR, along with the dissemination of CSR strategies. Transparency and dialogue can help to make a business appear more trustworthy, and push up the standards of other organizations at the same time.

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Empowering the Small Rubber Growers through Rubber Producers' Societies in Non-traditional areas of Dakshina Kannada District, Karnataka: An analysis

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Abstract: *The Indian rubber plantation sector is dominated by smallholdings, which account for almost 93 percent of the total rubber production in the country. Small rubber growers suffer from problems like low productivity, poor quality of processing and weak marketing system. The prevalence of smallholdings makes the sector vulnerable to fluctuations in price, exploitation by intermediaries, etc. To overcome the problems of small rubber growers, the formation of co-operatives called Rubber Producers' Societies (RPSs) was suggested. The present study has assessed the role of RPSs in Empowering the Small Rubber Growers in providing services for input delivery, processing and marketing of natural rubber in DK. The study has revealed that RPS members have a lower cost of production and better price realization for their product compared to non-members. Group processing and community smoke house facility help in production of good quality rubber sheets. Key services provided by RPSs have been under five major categories, viz. marketing, financial efficiency, infrastructural and social factors.*

Key Words: *Rubber Producers' Societies, Natural Rubber, Small Holders, Harvesting, Processing.*

Introduction

India is the fifth largest producer and second largest consumer of natural rubber. Despite not being a very favourable region for growing natural rubber, India continues to record the highest productivity among the major natural rubber producing countries. The rubber plantations occupy 0.4 percent of the gross cropped area and contribute 0.19 percent to the national GDP. The country has considerable potential to expand rubber-based industries due to indigenous availability of raw material, fast growing automobile market, scope for value-addition and avenues for export. Kerala accounts for 78 percent of the area and 90 percent of the production of natural rubber in the country. Natural rubber forms backbones of commercial agricultural scenario of the state and rubber plantations have profound influence on the economic and social status of the people.

The rubber plantation sector in India is dominated by smallholdings, which account for 93 percent of the production and 90 percent of the area of rubber in the country. Though the Rubber Board has formed Rubber Marketing Co-operative Societies from 1960's, these societies could not reach out to a large number of growers, particularly in the rural areas. Transfer of appropriate technology on seasonal basis to the vulnerable section of the rubber planting community in an intelligible manner, coupled with timely delivery of quality inputs and equipments at cheaper rates is perhaps the major criterion that would help maximize production and productivity of rubber from smallholdings. Proliferation of these holdings year after year on the one hand and inadequacy of extension personnel to cater to the information needs of the rubber growers on the other, have been imposing a severe constraint to enhance productivity. A group management system and cooperative effort only could help in overcoming the existing problems, as the smallholders as ordinary growers do not individually have direct influence on prices. With a view to overcome the problems that the small rubber growers experienced in marketing over the years, the Rubber Board had suggested the formation of a grass root level organization in the villages called Rubber Producers' Society (RPS). RPS as an organizational innovation arose in a context wherein the sector was confronted with the challenge of generating adequate supply of natural rubber and driving the nation towards achieving self-sufficiency and import substitution of the commodity, on the one hand, and the pattern of ownership dominated by small and marginal landholders, on the other hand. The underlying objective was to empower the small and marginal growers while ensuring a vibrant natural rubber sector and thus contributing towards inclusive growth. A RPS helps in technology transfer and provision of input delivery services. In addition, it helps in processing and marketing rubber. The society acts as a link between rubber farmers and Rubber Board, so that extension services could be channelized effectively through it. Today there are over 2592 RPSs across India, representing more than 1.22 million farmers, cultivating over seven lakh hectares of which the average holding is 0.54 hectares.

The natural rubber processing standards in the country are in accordance with its domestic requirements. After the removal of quantitative control on the import of rubber in 2001, the indigenous rubber has to face the challenges from potential cheap import, and therefore the processing need to be

standardized, which of course can be accomplished through RPS. The situation also calls for empowering of smallholders to face the challenges of the WTO - mandated regime. Appropriate infrastructure will have to be developed in the rural areas, cost-effective rubber production, quality processing by imparting required training and ensuring access to essential information to the needy. Keeping this in view, the present study was taken up to assess the role of Rubber Producers' Societies in empowering the Small Rubber Growers through Rubber Producers Societies in Non-traditional areas of DK district.

Data and Methodology

The study was both exploratory and analytical, involving qualities as well as quantitative methods. A primary survey of rubber growers who have practical experience was used for materializing the study. In DK district, Sullia taluk and Belthangady taluk together account for 32 percent of the area and 35 percent of production of rubber in Karnataka. Hence, these taluks were selected purposively for collecting primary data on the role of Rubber Producers' Societies in input delivery, processing and marketing of natural rubber. From each taluk, four villages were selected-two with effectively functioning RPSs and two without RPSs. From each village, 15 rubber – producing farmers were randomly identified. A total of 120 farmers comprising 60 RPS members and 60 non-members were surveyed in two taluks. Rubber farmers who were members of Aivernad and Peraje RPSs were surveyed in the Sullia taluk. The non-beneficiary farmers were selected randomly from Ajjavara and Sonangeri villages of the same taluk. In Belthangady taluk, farmers from Ujire and Kokkada villages having RPSs and Mogru and Karaya villages without RPSs were surveyed. The field survey pertained to the year 2014-15. Over the years, the RPSs have played a significant role in promoting scientific cultural practices, group processing and trading to make the small grower self-reliant. RPSs also assist in transfer of technology to members, promote and assist group approach for new planting, replanting, productivity enhancement, availing of bank finance, Rubber Board grants etc., raise nurseries and supply high yielding planting materials to members.

Results and Discussion

The Plantation Enquiry Commission appointed by the Government of India in 1956 examined the marketing problems of the small growers and observed that 'what is needed is a chain of primary co-operative societies to provide

service of maintaining smoke houses for taking delivery of the latex of smallholders and making smoked sheets of uniform and good quality'. Hence, the Commission wanted to establish village level co-operative societies. The Small Holding Economic Enquiry Committee appointed in 1967 under the chairmanship of T.M Abdullah, also studies the problems of rubber industry, giving due importance to small rubber growers. The committee identified the problems of the small rubber growers as uneconomic size of holdings, lack of processing facilities and absence of Small Growers' Organizations to keep them alive to common problems. For capacity building of small rubber growers in processing and marketing, the Rubber Board launched a massive programme of organizing in each village a Rubber Latex Collection Centre modeled on the AMUL pattern of Gujarath. These collection centers were later turned into Rubber Producers' Societies. A RPS is a co-operative society with a group of 50 to 300 small growers residing in a locality, registered under Charitable Societies Act.

Services Provided by Rubber Producers' Societies

The RPS provides different services such as collection of latex sheets and scrap from the members and selling them at remunerative prices to the processors. The Rubber Board supplies the necessary equipments. These services are crucial, as they constitute the income base of small rubber growers. Even though there are differences in the extent of services rendered by the diverse RPSs, they have a critical role in different spheres of the life of small rubber growers. Societies were envisaged to function as an efficient link between the growers and the Board for facilitating extension communications and to adopt suitable measures to increase the production and productivity of small and marginal holdings, which dominate the country's natural rubber sector. Studies have shown that such structural devolution has had several implications in the labour market in the plantations. One major implication has been in terms of labour shortage in plantations, which can be expected to have arisen in the context of a growing economy with highly vibrant industrial, and service sectors, which create new employment opportunities with higher wages. Studies have pointed out to the change in the job expectations of the youth in Karnataka, with better social development indicators and hence development of different expectations about employment. Thus, this phenomenon of the younger generation in the rural areas has contributed to the reported scarcity of labour in the rural casual

labour market. Thus, labour shortage is indeed an indicator of the subtle socio-economic and cultural changes; and the consequence of long established nexus between agricultural work and low economic and social status that makes the younger generation to look for work in other sectors especially white collar or service sector jobs.

Input Services

Input distributions, which are subsidized by the Rubber Board are now channelized through RPSs. Bulk purchases provide the scale economy. The inputs distributed include fertilizers of NPK, polythene sheets and adhesives for rain guarding, plastic cups, head lights, hand sprayers, panel protectants, fungicides, spray oil, power sprayers etc. For constructing community smoke houses, subsidy is provided. Rubber Board supplies the necessary equipments such as platform balance to weigh latex, electric oven to dry sample coagulum for estimating DRC, chemical balance to weigh the dry rubber in the sample and other accessories required. Rubber Board promotes formation of group nurseries through RPSs. Polybags or plastic cups are provided free of cost to RPSs by the board, while budded good quality stumps are supplied at half the cost for planting. This initiative has helped the small rubber growers in learning the techniques of quality sapling production and has ensured their easy availability at prices lower than the open market prices.

Processing and Marketing Services

The RPSs emphasize on activities, which improve the processing and marketing facilities to small rubber growers. For members, training classes are conducted so that better grade rubber sheets can be produced. Facilities for processing good quality rubber are also provided on a group basis. It helps in producing sheets of uniform grade and export quality. The realization of higher prices for better grades has made the small growers 'grade-conscious', leading to improvement in the quality of sheets. Arrangements for marketing of products like latex, grade wise sheets, field coagulum etc, are also made by the RPSs.

Marketing Channels Identified for RPS Members and Non-members

It was found that the farmers of villages having RPSs provided latex sheets directly to them who had employed collecting agents on commission basis for this purpose. This helped the farmers by way of saving on cost or transportation and time. The price of the latex was decided, based on the basis of DRC or quality of the sheets. The RPSs were either selling it to the

Rubber Processing Society at Ujire or selling directly to outside dealers or Co-operative societies or to tyre companies. The profit obtained from the sale of latex or quality grade sheets after meeting the processing costs was equally divided among the member-farmers. Proper grading, economies of scale in the bulk transportation and bargaining power helped the members to realize better prices. Thus RPSs were a strong support in the marketing of natural rubber. In villages without RPS, an individual producer usually processes the latex into low quality sheets; i.e., RSS 4 or RSS 5, were sold to the village or town level dealers. The chances of exploitation were higher in this channel. Price realization was also low or due to weak bargaining power of individual farmer-producer. Additional cost of individual smoking house and drudgery associated with sheet processing machineries was also associated with this channel.

Strengthening the Performance of RPS

The co-operative model of activity is the basic strength of a RPS. The technical as well as financial support provided by the Rubber Board in the form of trainings and expert services improves the performance efficiency of RPS. The infrastructural facilities for group processing, storage and provision for community smoke houses help the societies to perform well. These strengthen the RPSs to be effective in delivering input services to its member farmers. Linkages with tyre manufacturing or other natural rubber based products manufacturing companies ensure a regular demand for the produce and input services by the companies at subsidized rate helps the members of RPSs to be in an advantageous position. Economies of group purchase, own quality sapling nurseries, better bargaining capacity and price realizations, etc are the strengths of RPSs. The RPSs can also start 'trained labour bank' so that the problem of severe labour shortage can be avoided. However, there exists threats of severe competition from local and private traders; RPSs can act as an agent of change to uplift social and economic conditions of the smallholder rubber grower community.

Emerging Challenges Towards a Perspective

We have observed that the regions that responded more intensively to the new organizational innovation were also the ones that withdrew on a larger scale from the new innovation. This is an issue that needs more detailed enquiry. Based on our limited field survey we are inclined to infer that RPS as an organizational innovation seems to have not succeeded in evolving

itself to the changing context in which the sector has been operating. To be more specific, as an inevitable outcome of economic transformation the number of absentee landowners increased, multiple sources of income emerged and the new generation became less interested in farming. No wonder such growers are found hardly interested in working with RPSs. Moreover, RPS has been conceived almost entirely as an organization wherein market forces have hardly any role. From our limited field survey, we tend to believe that the “tribe” of free service providers is almost extinct. Incidentally, we also noted that the bylaws of RPS remain almost intact during the last 30 years of its existence. In general, it could be inferred that there has been certain amount of institutional inertia with respect to RPS as well. While the role of market is not considered in the formation of RPS, given the new context of large number of absentee landowners, holders with multiple income sources and limited interest in cultivation by the young generation, the private players have emerged to provide a package of services to such growers. This emerging trend is likely to pose a major threat to the extension system and it appears that there is room for bringing these new actors into the innovation system. Another major challenge is with respect to the bigger issue of sustainable development and ensuring stable livelihood to the growers. The innovation system, as of now, promotes mono crop based cultural practices, in order to meet its objective to enhance productivity. Further, this cultural practice has been linked to the subsidy scheme for the small growers, wherein the growers have to adopt mono-cropping pattern of cultivation for availing themselves of the subsidy. However, such a provision leads to loss of biodiversity and exposes them to higher risk in terms of reaping the benefits of only one crop even at times of stringency, and losing everything when the crop unfortunately fails outright. Hence there arises a tussle between development and sustainable development; mono-cropping for enhancing productivity and mixed cropping for higher income generation; risk prone cultivation and risk diversifying cultivation. Further, one main challenge is in terms of response of RPS to address the labour shortage problem. The registered workers in the labour banks of the RPSs are given free training and incentives to attract as well as retain the workers.

However, policy shift in favour of Liberalization, Privatization and Globalization has gradually led to integration of the domestic rubber market into world market. The shift of policy in favour of LPG induced with global

competitiveness, export promotion, profitability and global market orientation has some challenges as well as opportunities. Many farmers, especially, the small growers have raised concerns regarding the price fluctuation and they expect some policy measures to provide them relief. The dominance of tyre and other industries may make the situation worse for small growers by weakening their bargaining position. On the other hand, the competition from exporting countries tends to exert additional pressure to the small growers who are operating already with diseconomies of scale. From the discussions, it was found that some growers who were associated with RPS resorts to hoarding, if the price is remunerative enough for them. But those growers have limited risk taking ability and that makes them vulnerable, at times, due to price shock. They undertake supply of quality planting materials at marginal prices and also processing and marketing of the products which can ensure better prices and dependence on intermediaries. Hence drawing from the discussion above, it can be said that RPS appears to be a highly innovative experiment with the potential to address many of the issues confronted by the small growers. However, RPS as an experiment seems to have not evolved adequately in response to the changing context, and a dualistic system appears to exist now in RPS with those within and outside system. While the role of market has not been taken into account in RPS experiment, new market based players appears to have emerged and there is an imperative to bring them also into the innovation system. Thus, the challenge lies in synergizing the emerging challenges and opportunities

Conclusion

The study has been focused on the rubber growers of DK district, specially the small rubber growers who are members of the Rubber Producers' Societies (RPSs). The RPSs have been found effective in transferring new technologies generated by the Rubber Board. These societies provide good quality inputs at a subsidized rate due to financial support from the Rubber Board.

Locally, the production cost of rubber is Rs. 140 per kg and from last year the growers have been carrying out rubber tapping by incurring loss. A lot of agriculturists have been cultivating rubber in many villages of Sullia, Puttur and Belthangady taluks in Dakshina Kannada district. It was also considered a status symbol to own a rubber plantation, but now, it is no more a matter of prestige as the prices have fallen to Rs. 102 per kg. The lowest rate of rubber was recorded in 1998 when the market price was Rs. 30 per kg. In 2012, it reached to Rs. 240 and today the rate is Rs 102 per kg.

Almost majority of the growers have decided to stop rubber tapping if the rate come down to Rs. 95 per kg. As many as 10,000 workers are involved in tapping rubber in Sullia taluk alone. If the tapping is stopped, around 1 lakh people who are dependent on rubber crop will be severely affected. The production of rubber has decreased approximately by two lakh metric tones in the nation. The study has shown that there exists a significant difference in the cost of input, processing and marketing between RPS beneficiaries and non beneficiaries. It is found that marketing channels that included RPSs are more efficient since exploitation by the intermediaries is nil or comparatively low. Production of uniform export quality sheets through combined efforts would help the producer-farmer to fetch better prices. An integral approach aided by the RPSs would be beneficial to the stakeholders as it will promote closer interaction among them and foster better understanding of each other's strengths and weaknesses.

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Energy and Inclusive Growth of Karnataka: Analysis and Policy Implications

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Abstract: *Energy is a crucial factor in the process of development. Availability and access to energy are pre-requisites for the functioning of any system, sector and region which invariably demands for energy security. The present study has made an attempt to analyze, the energy inclusiveness in the process of growth of Karnataka. Census survey data have been used for the study and disparity techniques have been largely used for analysis. Possible pre-testing procedures have been followed to ensure the data validity. Arguments have been made only on the basis of tested results. It has been found from the study that there is significant difference between urban and rural regions in access to energy sources. There is a correlation between development and access to energy sources. It has been found from the impact analysis that regional factors and income have positive impact on use of modern clean energy sources. Therefore, there is a need of integrated energy strategy for inclusive growth of Karnataka. Otherwise, some regions, some districts, some sections of the people will be left-out in development process due to lack of access to energy.*

Key Words: *Cooking, Energy Availability, Inclusive Growth, Clean Energy and Renewable Energy.*

Introduction

Indian plans and development process assumed that growth of the economy will percolate into the marginal sections of the people and groups. But, the assumption of plans has failed to reach the marginal sections of the

economy. The government of India, as remedial measures, has introduced specific programmes for the development of marginal sections of the economy particularly, during the fifth Five Year Plan. These specific programmes have considerably helped some sections of the people to improve their livelihood. However, large sections of the people have been left out of the development process. Accordingly, the government of India in its 11th and 12th plan periods, has introduced inclusive growth strategy to include hitherto excluded people and sections. As a matter of fact, inclusive growth policy will be incomplete without energy component in its inclusive strategy (GOI, 2007). Therefore, energy is must for inclusive growth as well as development process. Energy is a crucial factor in the process of development. It has been found from the studies that there is a significant positive relationship between energy and development. Availability and access to energy are pre-requisites for the functioning of any system, sector, and region which invariably demands for energy security (Premakumara, 2012). At the same time, availability of clean energy is necessary and sufficient condition for sustainable development (Hancock and Vivoda, 2014). Accordingly, in the present paper, an attempt has been made to analyze the availability and use of different energy sources for cooking purposes. The study will examine the status of use of energy for cooking both at urban and rural areas of Karnataka. The study will also analyze the disparities between urban and rural areas in use of energy sources for cooking. Based on the analysis, the present study will also evaluate eco-efficiency of energy use for cooking.

Review of Literature

There are two sets of distinct arguments related to energy and development. The first set of argument is that energy has significant impact on production. Energy will result in the development (Masih, 1996 and Asafu-Adjaye, 2000). It implies that, without energy, the other inputs like labour and capital may not be used productively in production process. However, contribution of energy to the development varies, based on the availability and efficient use of energy. Accordingly, energy has been considered as a factor in the production process and development. The other argument is that, energy is not at all a factor of production, since the value of energy in total production is very negligible. Therefore, energy may not play a significant role in development process (Cheng, 1995 and Yu E. J., 1992). However, the widely accepted argument is

that energy is a crucial factor in production process. As a matter of fact, energy is essential for economic development, and eco-efficient and clean energy is critical for sustainable development. Adequate and reliable and affordable energy are the pre-requisites for development (Premakumara, 2012). The other important dimension argues that there has been significant association between energy efficiency and development (Sascha and Andreas, 2015; Sreenivas, 2014).

Most of the early literatures on causation of economic growth on energy consumption have confirmed the causation by using uni-directional Granger-causality Tests (Yu E., 1984; Kraft J. K., 1978; Lin, 2003; Soytaş, 2003; Mozumdar, 2007). During late 90's economists like Nachane and others have employed Engel-Granger Models to estimate the causation of electricity and energy on economic growth (Nachane, 1988; Masih, 1996; Asafu-Adjaye, 2000; Thoma, 2004; Hansen, 2002; Yoo, 2005). Meanwhile, the co-integration techniques were also used to estimate long-run relationship between energy consumption and economic growth. Jumbe and Huang have proved bi-directional relationship between energy consumption and economic growth (Jumbe, 2004; Huang 2008). Estimation of multi-dimensional relationship has also proved the role of energy in overall economic development (Tamizan, 2009; Shahbaz, 2012). Recently, Sadorsky has proved the influence of financial development on energy consumption (Sadorsky, 2010). Very recently, ARDL bounds test was used to prove the causation of energy demand on export (Shahbaz, 2013). There is a need of stable energy security in a country to have sustainable balanced economic development. Since the concept of energy security and inclusive energy policy are more complex, multidimensional, and contextual, the most of the previous studies have tried to define the concept of energy security (Bohi and Toman, 1996; Baldwin, 1997). The recent studies have tried to estimate and forecast the energy security (Kamonphorn & Hironobu, 2014; Ito, Zhidong, and Komiyama, 2005). A few studies have also tried to develop the dimensions and indicators to measure the energy security (Lixia and Youngho, 2014). However, there are no unique studies which analyze the inclusiveness of energy in the development process specifically. To be more specific, there are no intensified studies to examine use of energy for cooking, particularly in Karnataka by using Census data. Hence, there is valid justification and rationale for the present study.

Methodology

The present study has used cross sectional secondary data collected from Census 2011. The data collected at district level for all households, for use of energy for cooking. Firewood, crop residuals, LPG, and kerosene have been considered for analysis of use of energy for cooking. Radar is used for presentation of district level data in order to understand the availability and use of particular energy source for lighting and cooking. Dummy variable regression model is used for difference analysis to estimate the impact of region on use of energy sources. All necessary steps have followed for data process and normality tests have conducted for variables and parameters.

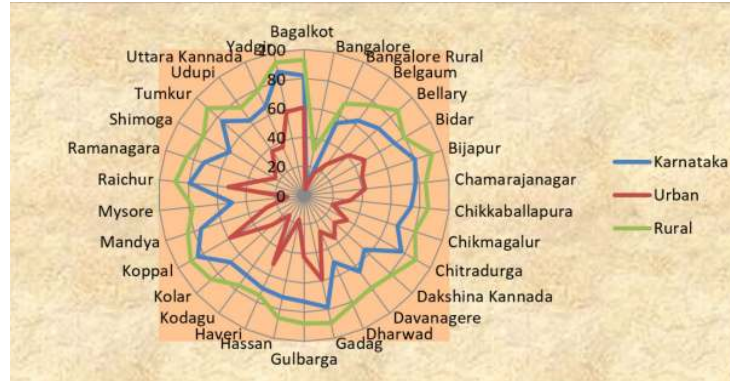
Analysis of Use of Energy for Cooking in Karnataka

Cooking is one of the most essential basic needs of households. Households use different energy sources for cooking purpose. In this part of analysis, an attempt has been made to evaluate the energy use and its eco-efficiency in cooking activity. Most of the households use electricity, firewood, crop residuals, cow dung, LPG, Solar, kerosene, bio-gas and many other sources of energy for cooking. Electricity, LPG, biogas, and solar are the modern as well as eco-efficient forms of energy sources being used for cooking. On the other hand, firewood, crop residuals, kerosene are treated as traditional and non-eco-efficient forms of energy sources being used for cooking. However, in the present study, firewood, crop residuals, LPG, and kerosene have been considered for analysis. With this background, in the present analysis, an attempt has been made to estimate the energy availability and accessibility to urban and rural households in Karnataka. An attempt has also been made to estimate the difference between urban and rural energy availability for cooking in Karnataka.

The Use of Firewood for Cooking in Karnataka

In the following section, an attempt has been made to present the relative status of use of firewood in rural and urban Karnataka. The blue line presents district wise use of firewood in Karnataka, red line shows firewood use in urban Karnataka and green line depicts firewood use in rural Karnataka.

Figure 1: Use of Firewood for Cooking in Karnataka



Source: Census 2011

It has been found from the above graph that in Karnataka, the lowest use of firewood was found in Bangalore district. In rural Karnataka, the highest firewood using households are found in Yadgir, Bagalkot, Bellary, Bijapur, Chamarajanagar, Chikkaballapura, Chitradurga, Gadag, Gulbarga, Hassan, Kolar, Koppal, Mandya, Raichur, Ramanagar, and Tumkur districts. In urban Karnataka, the highest firewood using households are found in Yadgir, Bagalkot, Koppal and Gadag districts. Therefore, there has been a wide range of disparities in use of firewood for cooking in Karnataka. It is also clear from the above graph that, firewood is a major source of energy for cooking in Karnataka. Accordingly, the growth process of Karnataka, has failed to reduce the dependency on firewood, which is the most eco-inefficient form of energy source.

With this background, an attempt has also been made to estimate the difference between urban and rural Karnataka in use of firewood for cooking with the help of dummy variable regression model.

$$FC = \alpha + \hat{\alpha} D1 + e$$

Where;

FC = Firewood for Cooking

α = Intercept (Value of benchmark, in the present context it is the value for rural)

$\hat{\alpha}$ = Difference between bench mark and D1

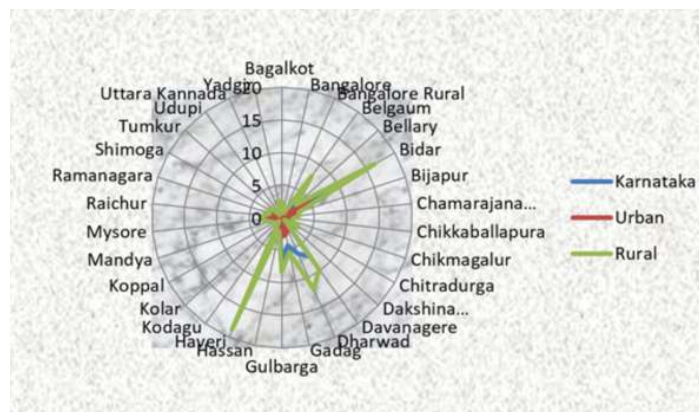
D1 = Dummy for urban (1 for dummy and 0 for otherwise)
FC = 81.60 - 46.987 D1
(t): (33.788) (-13.757)
Sig: 0.000 0.000
 $R^2 = 0.761$, $F = 189.261$, Sig: 0.000

It has been found from the results of dummy variable regression model that, the average firewood use for cooking in rural Karnataka is 81.60 per cent. This is acceptable. The difference between urban and rural is -46.987 per cent. This is negative and acceptable. Therefore, there is a significant difference between urban and rural Karnataka in use of firewood for cooking. The use of firewood for cooking is significantly low in urban Karnataka. Though the firewood is a renewable energy source, it is not an eco-efficient energy form. Therefore, dependency on firewood has to be reduced particularly, in rural Karnataka with specific measures.

The Use of Crop Residuals for Cooking in Karnataka

In the following section, an attempt has been made to present the relative status of use of crop residuals in rural and urban Karnataka. The blue line presents district wise use of crop residuals in Karnataka, red line shows crop residuals use in urban Karnataka and green line depicts crop residuals use in rural Karnataka.

Figure 2: Use of Crop Residuals for Cooking in Karnataka



Source: Census 2011

It has been found from the Figure 2 that, in Karnataka, the highest crop waste use was found in Bidar district. In urban Karnataka, the highest solar using households are found in Bidar district. On the other hand, the lowest found in Bangalore district. In rural Karnataka, highest solar using households are found in Haveri, Bidar, Dharwad and Davanagere districts. Therefore, there has been a wide range of disparities in the use of crop waste for cooking in Karnataka. It is also identified from the Figure 2 that, crop waste is not a major source of energy for cooking. Accordingly, though, the crop waste is not a major source, still rural Karnataka has been depending on crop waste, which is the most eco-inefficient form of energy source.

With this background, an attempt has also been made to estimate the difference between urban and rural Karnataka in use of fire wood for cooking with the help of dummy variable regression model.

$$CC = \alpha + \hat{\alpha} D1 + e$$

Where;

CC = Crop Waste for Cooking

α = Intercept (Value of benchmark, in the present context it is the value for rural)

$\hat{\alpha}$ = Difference between bench mark and D1

D1 = Dummy for urban (1 for dummy and 0 for otherwise)

CC = 4.050 - 2.670 D1

(t): (6.561) (-3.059)

Sig: 0.000 0.003

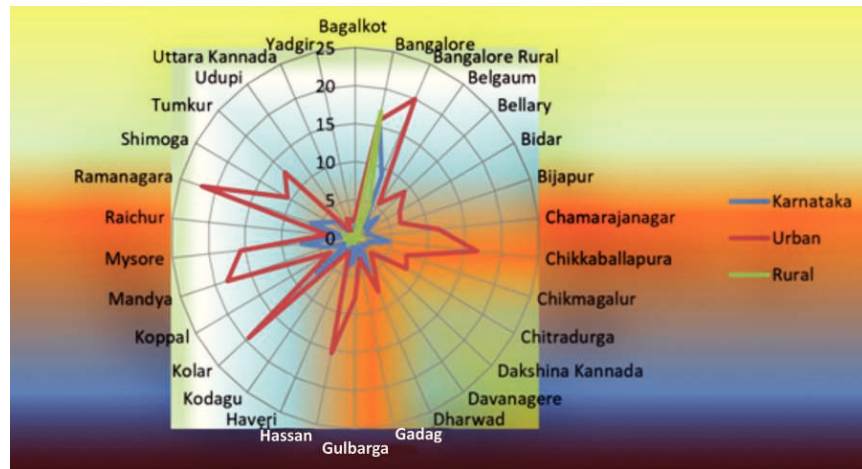
R² = 0.139, F = 9.355, Sig: 0.003

It has been found from the results of dummy variable regression model that, the average firewood use for cooking in rural Karnataka is 4.050 per cent and it is acceptable. The difference between urban and rural is -2.67 per cent and it is negative and acceptable. Therefore, there is a significant difference between urban and rural Karnataka in use of firewood for cooking. The use of firewood for cooking is significantly low in urban Karnataka. Accordingly, there is need of addressing this issue in order to improve the eco-efficiency of energy use.

Status of Use of Kerosene for Cooking in Karnataka:

In the following section, an attempt has been made to present the relative status of use of kerosene in rural and urban Karnataka. The blue line presents district wise use of kerosene in Karnataka, red line shows kerosene use in urban Karnataka and green line depicts kerosene use in rural Karnataka.

Figure 3: Use of Kerosene for Cooking in Karnataka



Source: Census 2011

It has been found from Figure 3 that, in Karnataka the highest Kerosene use has been found in Bangalore district. In urban Karnataka, the highest Kerosene using households are found in Bangalore rural, Ramanagara and Kolar district and lowest found in Uttara Kannada district. In rural Karnataka, highest solar using households are found in Bangalore district. Therefore, there has been a wide range of disparities in use of Kerosene for cooking in Karnataka. It is also identified from the above graph that, Kerosene is also a major source of energy for cooking. Accordingly, the growth process of Karnataka has to be considered in order to decrease the dependency on kerosene, which is also the most eco-inefficient form of energy source.

With this background, an attempt has also been made to estimate the difference between urban and rural Karnataka in use of kerosene for cooking with the help of dummy variable regression model.

$$KC = \hat{\alpha} + \hat{\alpha} D1 + e$$

Where;

KC = Kerosene for Cooking

$\hat{\alpha}$ = Intercept (Value of benchmark, in the present context it is the value for rural)

$\hat{\alpha}$ = Difference between bench mark and D1

D1 = Dummy for urban (1 for dummy and 0 for otherwise)

$$KC = 1.233 + 7.710 D1$$

(t): (1.363) (6.023)

Sig: 0.178 0.000

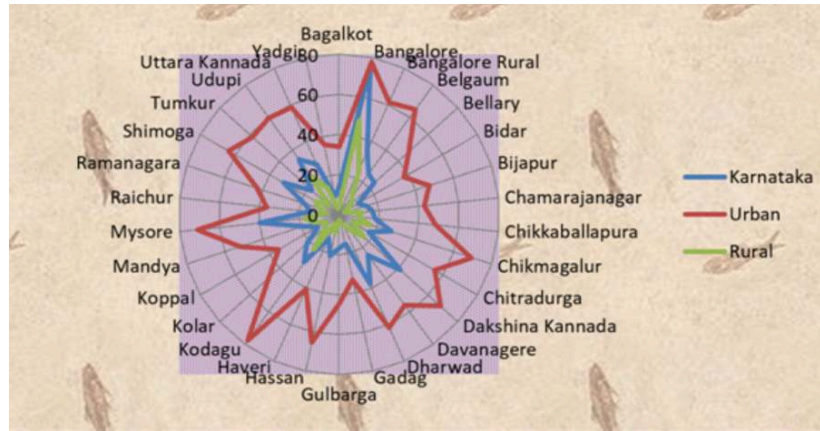
R² = 0.385, F = 36.280, Sig: 0.000

It has been found from the results of dummy variable regression model that, the average kerosene use for cooking in rural Karnataka is 1.233 per cent which is not acceptable; means that, there is no guarantee of use of kerosene for cooking in rural area. The difference between urban and rural is 7.71 percent and it is positive and acceptable. Therefore, there is a significant difference between urban and rural Karnataka in use of kerosene for cooking. The use of kerosene for cooking is significantly high in urban Karnataka. Accordingly, a large number of households still use kerosene as a major energy source for cooking particularly, in urban Karnataka. Hence, in urban Karnataka, it is necessary to address this issue.

Status of Use of LPG for Cooking in Karnataka

In the following section an attempt has been made to present relative status of use of LPG in rural and urban Karnataka. The blue line presents district wise use of LPG in Karnataka, red line shows LPG use in urban Karnataka and green line depicts LPG use in rural Karnataka.

Figure 4: Use of LPG for Cooking in Karnataka



Source: Census 2011

It has been found from Figure 4 that, in Karnataka the highest LPG users are found in Bangalore district. In urban Karnataka, the highest LPG using households are found in Bangalore, Mysore, Kodagu and Chikmagalur districts. In rural Karnataka, the highest LPG using households are found in Bangalore districts. Therefore, there has been a wide range of disparities in use of LPG for cooking in Karnataka. It is also identified from the above figure that, LPG is a major source of energy for cooking in urban Karnataka. But, it is not so in rural areas. Accordingly, the growth process of Karnataka has failed to promote LPG for cooking in rural areas.

With this background, an attempt has been also made to estimate the difference between urban and rural Karnataka in use of LPG for cooking with the help of dummy variable regression model.

$$LPGC = \hat{\alpha} + \hat{\alpha} D1 + e$$

Where;

LPGC = LPG for Cooking

$\hat{\alpha}$ = Intercept (Value of benchmark, in the present context it is the value for rural)

$\hat{\alpha}$ = Difference between bench mark and D1

D1 = Dummy for urban (1 for dummy and 0 for otherwise)

$$\text{LPGC} = 11.587 + 41.557D1$$

(t): (5.564) (14.111)

Sig: 0.000 0.000

$R^2 = 0.771$, $F = 199.107$, Sig: 0.000

It has been found from the results of dummy variable regression model that the average LPG use for cooking in rural Karnataka is 11.587 percent, which is acceptable. The difference between urban and rural is 41.557 percent, which is positive and also acceptable. Therefore, there is a significant difference between urban and rural Karnataka, in use of LPG for cooking. The use of LPG for cooking is significantly low in rural Karnataka. Accordingly, there is a need to promote LPG in rural areas for cooking, which is eco-efficient.

Conclusion

The present study analyzed the use of energy sources for cooking in both rural and urban areas of Karnataka. Firewood is the major source for cooking in rural areas. LPG is the major source for cooking in urban areas. However, there is a wide range of disparities in the availability and use of firewood in rural areas. There is also a wide range of disparities in the availability and use of LPG in urban areas among the districts. A large number of households are still using kerosene as an alternative for LPG in urban area and alternative for firewood in rural areas. Therefore, in Karnataka, relatively, the use of energy for cooking is not eco-efficient in rural areas compared to urban areas. India is a signatory for Kyoto and Doha agreements on Carbon to reduce it by 18 percent. The present status of, use of energy in Karnataka for cooking will not up-hold the Kyoto and Doha agreements, because of its energy eco-inefficiency. Therefore, there is dire need for government intervention to restrict the use of firewood in rural areas and to promote LPG or biogas for cooking in rural areas. The government intervention is also needed to restrict the use kerosene in urban areas and also to promote solar and LPG for cooking in urban areas. As a matter of fact, to materialize these strategies, the energy programmes need to be integrated with housing programmes and others. As per the estimations, the installation cost of solar in total cost of house construction is less than 4 percent and increasing return to scale operates as the size of solar panel increases. Therefore, the government may make mandatory of installation of solar with the construction of houses with necessary subsidy schemes and strategies.

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Psycho-Emotional Problems and the Coping Strategies of the Elderly in Urban India

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Abstract: *Today the needs and problems of the elderly are rejected to a vast extent and the matter is made worse as government classifies these people based on caste and other socio cultural dimensions. Therefore all the elderly are not seen in the same view. There are various other needs such as Biological, Social, Psycho- Emotional, Security needs and others. The elderly population in India has been rapidly rising. The cycle of age is catching up; the young country will be older in next few decades. The enhancement of medical facilities have pushed the average life expectancy increased to 68 years. In a country like India where elders are treated with utmost respect is now rapidly changing into a westernized world. The following descriptive study not only assesses the physical- psychological problems but also their needs. The sample size consists of 250 respondents above the age of 60.*

Key Words: *Elderly, Physical Problems, Social Problems, Coping Strategies.*

Introduction

Population ageing is the most significant result of the process known as demographic transition. Population ageing involves a shift from high mortality/fertility to low mortality/fertility and consequently an increased proportion of older people in the total population. Many of the governments of developing countries, until the early 1980s, perceived that population ageing as an issue only among developed countries. However, as a consequence of their rapid fertility decline over the past few decades, these developing countries have been increasingly aware of various population ageing problems (United Nations, 2002).

A total of 418 million persons were at age 65 and over in the entire world and approximately 60 percent of these elderly persons were residing in developing regions, and this proportion increased by 7.7 percent in the second half of the 20th century. In Asia, the population aged 65 and over was 216 million in 2000, which corresponded to 5.9 percent of the total Asian population. This proportion in Asia was considerably lower than in Europe

(14.7%). Owing to the large population size in Asia, however, the elderly residents in the Asian countries amount to 51.6 percent of the aged population of the world as a whole. According to the 2000 United Nations population projections, this percentage would be expected to rise to 57.9 percent in 2025 and to 62.1 percent in 2050 (United Nations, 2001).

Objectives

1. To study the Psycho-Emotional Problems of the Elderly.
2. To assess the Physical Problems faced by the elderly of the elderly.
3. To review the Social Status of the elderly based on the problems they face.
4. To find out the Physic-care essentials of the elderly.
5. To find out Coping Strategies used by the elderly.

Methodology

This study has been undertaken in Dakshina Kannada District of Karnataka State, comprises of Corporation, Municipalities and Villages. The respondents of the study were the elderly or the senior citizens from 60 years and above. Social mapping was drawn to see the different apartments, houses, shops available in the vicinity. During this process, the investigator could build rapport with the elderly for the collection of authentic data. The respondents could feel comfortable and express their needs and problems without fear or hesitation.

250 respondents have been selected using Simple Random Sampling from the sample frame. The sample frame was prepared using the help of District Survey Book, Help line for the elderly and the Trusts.

The "Interview Schedule" method was the tool for data collection that is used by the investigator for the purpose of collecting data from the respondents. The Interview Schedule contains a total of 61 questions in 6 different aspects of the problems under the study.

Attitude about Health among Elderly

Health featured as an important factor in well-being. Ill health and managing long-term health conditions impact on relationships and experiences of loss and can cause instability and uncertainty due to fluctuations. With age, the speed of the regulation of the body slows down because all physiological functions including cardio respiratory, digestive and excretory declines with age but to different extents.

Ailment, i.e. illness or injury, mean any deviation from the state of physical and mental well-being. An ailment may not cause any necessity of hospitalisation, confinement to bed or restricted activity. This also includes cases of visual, hearing, speech and loco-motor disabilities. Injuries cover all types of damages, such as cuts, wounds, fractures and burns caused by an accident, including bites to any part of the body.

With the global trend towards an increasingly ageing population, it is clear that nurses need to be equipped with the knowledge and skills to fulfil significant roles in responding to future health and support needs. It is important to evaluate the attitudes of nurses, healthcare assistants, and nursing students towards older people. A survey was undertaken in a rural county in the Republic of Ireland and accordingly it is reassuring that, the healthcare workers hold positive attitudes towards older people.

Health is very important for a healthy living let it be old, young or infants. Healthy body thinks positive and doesn't indulge in negative thinking. A relative majority (59.2%) of the elderly had minor illness such as blood pressure and sugar, while 22.4 percent of the respondents had good health on the whole. 7.6 percent of them had serious illness and a mere 1.2 percent of them are incapacitated to bed.

The study divides physical health related problems to various types:

1. Nutritional Problems: Food habits and Digestive troubles
2. Physical problems: Bone related, Chest problems, Eye and Ear concerns and Speech related problems
3. Neurological problems
4. Sexual related problems
5. Psychological problems
6. Social problems.

According to "Central Statistics Office Ministry of Statistics and Programme Implementation" by the Government of India (2011) states that about 64 per thousand elderly persons in rural area and 55 per thousand elderly in urban area suffer from one or more disabilities. Most of the common disability is loco-motor disability, about 3 percent of them suffer from it. The next is hearing disability (about 1.5%) and blindness (1.7% in rural and 1% in urban areas).

Table 1: Health Problems Faced by the Elderly

Health Problems	Yes	No	Total
Problems of Digestive Complaints	48 (19%)	202 (81%)	250 (100%)
Kidney Trouble	18 (7%)	232 (93%)	250 (100%)
Difficulties in Hearing	54 (22%)	196 (78%)	250 (100%)
Problems of Pains in Joints	160 (64%)	90 (36%)	250 (100%)
Problems of Pains in Chest	29 (12%)	221 (88%)	250 (100%)
Heart Trouble	33 (13%)	217 (87%)	250 (100%)
Difficulties in Breathing/Asthma	32 (13%)	218 (87%)	250 (100%)
Difficulties in Vision	122 (49%)	128 (51%)	250 (100%)
Problems of Diabetes	93 (37%)	157 (63%)	250 (100%)
Problems of Tremors	6 (2%)	244 (98%)	250 (100%)
Any Other Health Problems	27 (11%)	223 (89%)	250 (100%)

The above table represents the health related problems faced by the elderly in Dakshina Kannada. Majority (64%) of the respondents in the study said they had joints pain, while 49 percent of them complained difficulties in vision. 37 percent of them had diabetes, while 22 percent of them had difficulties in hearing. 19 percent had problems related to digestive system, while 13 percent had problems in breathing/asthma and heart. 12 percent and 11 percent had pains in chest and other health related problems respectively. A mere of 7 percent and 2 percent had problems with kidney and have tremors.

Nutritional Problems

Food is an essential content for any human to survive. The person's eating habits plays an important role for the wellbeing of himself. Nutritional problems do co-exist either due to deficiency or poor digestion absorption. Of the global population of over 6 billion, almost 10 percent are elderly. Consumption of alcohol and other dangerous solid or liquid food may cause lot of tension in the health as it results in change of food habits too. The alcohol high on sugar and liquid results in diabetes and ulcers. Heavy intake of fibre content develops gastric problems; excess proteins will affect kidneys and Urinary system. It is right to say that stomach is the answer and the problem for most of the physical problems and ageing people have to show more concern of digestion related issues. 19 percent of the respondents said they have complains related to the digestive system and further 7 percent of the respondents complained about kidney stones and constipation.

Awareness about proper food habits as per ones physical condition is utmost important. The elderly should be noted, and the children should take care of their aged parents and the food should be well cooked.

Physical Problems

The India Development Report 2002 also notes: 'most industrialized countries provide safety nets to their citizens. They take care of the poor, unemployed, sick and old through publicly provided safety nets. Conditions requiring chiropody was greater among the elder population. Nearly half of the elder population suffering from giddiness. The prevalence of deafness is known to increase with age amongst the elderly.

The most widespread condition affecting those, 65 and older, is coronary heart disease, followed by stroke, cancer, pneumonia and the flu. Accidents, especially falls that result in hip fractures, are also unfortunately common in the elderly.

M E Yeolekar (2005), states that very few people reach old age, completely free of disease. An epidemiological transition prevails whereby because of longer survival of man, more and more chronic degenerative diseases will have to be managed. Old age also tends to be characterized by concurrent presence of multiple diseases. Advanced age in fact is a risk factor by itself in the causation of several diseases particularly vascular. In developing

countries infectious diseases and tropical conditions like pneumonias, septicaemia and protozoa diseases that tend to get complicated, co-exist simultaneously with diseases such as hypertension, diabetes mellitus, coronary artery disease, stroke and neoplasm, situations that were hitherto predominantly associated with the developed nations. Degenerative conditions such as osteoarthritis, cataract and dementia tend to be universal.

Matilda, (1970) states that fewer men than women were in poorest health, and in the most restricted category of mobility. Similarly women aged 70 and over were more severely incapacitated on Townsends personal incapacity score than men in the same age group. One can speculate that this may be the price women have to pay for their greater ability to survive. The prevalence of some of the disabilities such as impaired bladder control, and foot has to be taken with utmost care.

1. Bone Related Problems in Elderly

In the Research of “*National Academy on an Ageing Society*” (2000) the term arthritis literally means “joint inflammation,” but it is generally used to refer to a family of more than 100 different conditions that affect the joints and may also affect muscles and other tissues. The most common form of arthritis—degenerative arthritis or osteoarthritis—results from the breakdown of the tissue inside the joints.

Prakash (2000) in his study reported that 14.6 percent elderly persons had musculoskeletal problems in which 8.4 percent males and 17.3 percent females were suffering from arthritis of knee joints and 2.6 percent males and 2.7 percent females were suffering from spondylitis. Loss of estrogen at the time of menopause increases a woman’s risk of getting osteoarthritis. 64 percent of the elderly said that they suffer from joint pain in this age.

The risk factors for osteoporosis are female gender, advancing age, small built, calcium and vitamin D deficiency, sedentary lifestyle, smoking, alcoholism and caffeine excess. Preventive strategies for falls need comprehensive medical, rehabilitative and environmental interventions.

2. Chest and Lungs Related Issues in Elderly

The elderly are more prone to chest related diseases as they grow older. They may face problems like heart failure, stroke, asthma etc. An article by Skarnulis (December 9, 2006) says that Cardiovascular Disease (CVD)

affects younger baby boomers more than one-third of men and women in the 45 years to 54 years age group, and the incidence increases with age. Cardiovascular diseases, which are diseases of the heart or blood vessels, are the leading cause of death in the U.S. They include arteriosclerosis, coronary disease, arrhythmia, heart failure, hypertension, orthostatic hypotension, stroke, and congenital heart disease. 13 percent of the respondents said that they have heart and chest related problems.

Wikipedia states that, asthma is the most common reason for presenting to the emergency room with shortness of breath. It is the most common lung disease in both developing and developed countries affecting about 5 percent of the population. Other symptoms include wheezing, tightness in the chest, and a non productive cough. 13 percent of the aged have difficulty in breathing and have asthma related problems.

3. Eye Related Illness

Barry (1977), the eye is one of our most important sense organs. With age the eye muscles tend to become less flexible, and various parts of the eye function less effectively. In general the, vision, like the other sense becomes less sharp with age. Colour vision becomes less good as one grows older. The lens of the eye gradually yellows with age.

An article by Skarnulis (2006) says that age-related eye diseases- macular degeneration, cataract, diabetic retinopathy, and glaucoma - affect 119 million people aged 40 and older, according to the 2000 census. And that number is expected to double within the next three decades. A large 49 percent of the aged people said that they suffer poor eyesight.

4. ENT Related Illness

Hearing acuity also declines with age. Fine discriminations between similar sounds, pitches and frequencies become harder to make. Among the aged high frequencies become more difficult to perceive with increasing age. This is especially true with men. As people grow older, it becomes harder for them to hear high-pitched sounds and those at low intensity. If the vision holds up, he may learn to read lips.

An article by *Skarnulis* (2006) says that the incidence of hearing loss increases with age. 29 percent of those with hearing loss are 45-65;

43 percent of those with hearing loss are 65 or older. 76 percent of the respondents said that they have no problem in hearing, while 22 percent of them agreed that they have issues related to hearing

5. Muscle Related Illness

As people age, they begin to lose muscle mass all over their body. Most elderly people lose most of their muscle mass from their legs, core arms and face. However, it is possible to lose muscle mass in your chest, face, and mouth. If you lose muscle strength in these areas, then your speech and your ability to swallow could be affected. Other issues that affect your central nervous system such as Parkinson's disease and Ataxia can also cause dysarthria. According to Carefect Blog Team, home health care services (April 14, 2014), a slurred speech, or dysarthria, is a common disorder that affects much of the elderly population. The condition occurs when the muscles of the mouth, face and throat become weakened and stop working properly.

Neurological Problems

As we age, many neurological disorders become common. Life style or behavioral risk factor plays a role in the change. These are brain function changes that are inevitable, irreversible with current technology, and while mostly decremental, do not cause symptoms on their own.

An article by Santosh B Salagre (2007), states that sleep disorders are common in elderly with difficulty in onset of sleep or its maintenance, frequently leading to excessive daytime sleepiness. In most of the cases, it is secondary to some medication or medical or psychiatric illness, a disorder which is common in the elderly.

The aged brain leads to dementia, a brain disease that causes long term loss of the ability to think and reason clearly, that is severe enough to affect a person's daily functioning. For the diagnosis to be present, it must be a change from previous baseline mental function. The most 75 percent common form of dementia is Alzheimer's disease . Other forms include Lewy Body Dementia, Vascular Dementia, Front Temporal Dementia, Progressive Supranuclear Palsy, Corticobasal Degeneration. Vascular dementia is a type of dementia that is caused by disease or injury to blood vessels in the brain, mostly strokes. These cases are very rare to find but, Alzheimer is such a disease, normally be diagnosed only after second stage.

Psycho-Emotional Problems of the Elderly

Parkes (1971) base on the concept that any type of change whether positive (changing jobs) or negative (death of a close friend) can be stressful. Many of the life events with the highest stress ratings commonly occur in late adulthood, such as death of spouse or close family member, personal injury and illness, retirement, change in financial status and change in living conditions. These stressors are seen as having a cumulative effect in old age people.

Cowgill and Holmes (1972) says that there is a general tendency in old age to shift toward more sedentary, more advisory and supervisory activities, to those involving more mental exertion than physical and those directed toward group maintenance more than economic production. Changes in technology, the occupational system, urbanization, residential mobility and the family have all been harmful to old people.

Sometimes stressful events tax individuals beyond their ability to cope. Responses to stress can be grouped into three main categories:

1. Physiological responses
2. Behavioral responses
3. Self reported subjective states

Caplan, (1964), has identified the following characteristics of effective coping behaviors that cut across different types of life transitions and crises:

1. Active exploration of reality issues and search for information.
2. Free expression of both positive and negative feelings and a tolerance of frustrations.
3. Active invoking of help from others.
4. Breaking problems down into manageable bits and working them through one at time.
5. Awareness of fatigue and tendencies toward disorganization with pacing of efforts and maintenance of control in as many areas of functioning as possible.
6. Active mastery of feelings where possible and acceptance of inevitability where not possible. Flexibility and willingness to change.
7. Basic trust in oneself and others and basic optimism about outcome.

Depression and Suicidal Tendency

Rosalie and Robert (1984) Depression is a loosely used term that has entered the common language to depict a gloomy mood state in the elderly that could be transient or prolonged, reality based or without obvious reason. They have affective disturbance characterized by a variety of symptoms such as feelings of worthlessness, psychosomatic complaints, and lethargy, sleep and appetite problems, crying jags and suicidal thoughts. If in fact, a person is faced with a future that seems to offer much pain and little hope of personal pleasure or fulfilment, then suicidal plans may develop despite excellent reality testing and no previous history of cyclical depression. Many depression scales contain items about loss of libido, operationalized as having less interest in sex. Those items have been criticized because many elderly persons within and outside institutions have narrowed opportunity for sexual expression and therefore a socially determined lack of interest

Social Problems

Matilda (1970) states that old people have complex feelings of loneliness, alienation and disengagement of the very old. It's because of most often illness, housing difficulties and family problems. "I struggle on as I am", these feelings of resignation were to certain extent confirmed by a more indirect measure of positive and negative attitudes to the world around them.

In addition to feelings of loneliness and depression discovered a fair amount of psychiatric disorder. Their confusion and regressive behavior such as soiling and wetting, leaving taps on proved a great strain to some of the families. Specific anxieties such as fear of failing eyesight or decreasing mobility were common and often well founded. Suspiciousness, feeling of hostility or frank paranoid delusions was noted in old people. 32 percent of the respondents feel sad when their opinion is not considered in the family, while 23 percent feel that they are not accepted.

Several old people would not consult their doctors. Thus it may not be deducted that the doctors' unawareness of their patient's problems was due to lack of care or interest. Hence an important task for social workers would be to bring these clients psychiatric conditions to the attention of their medical practitioners and to collaborate with them in any attempts to bring about an improvement in their circumstances.

Leaner and Kube, (1955) highlighted three fears that come with old age.

1. Fear of Dependence and Uselessness

As a person ages he begins to fear retirement, unemployment, financial insecurity, loss of mental keenness and manual skill and the possibility of having to rely on children to support. But in India the situation is slowly changing but has not worsened, 89 percent of the respondent stated that family is responsible in taking care of the elderly. 93 percent of the respondents stated that Elderly should be taken care at home.

2. Fear of Illness

As one gets older, fall in health often becomes a problem. An old person is no longer able to see or hear as he used to, his reflexes slow down, strength begins to ebb and such things as digestion and circulation grow sluggish as in the study 59 percent of the respondents had minor illness and they feared it will lead to a bigger problem/chronic illness.

3. Fear of isolation

The aged develop the fear that in case they are afflicted by any infectious diseases, they may be isolated. The unpleasant specter of invalidism also moves step by step, threatening them to shut themselves off completely from their already shrinking social contacts. 4 percent of the respondents said that they were alone because their children had settled abroad and thus they feel lonely. The loss suffered due to death of friends, of spouses and of colleagues aggravates the older persons' feeling of isolation and imminence of their personal death.

Neglect

Depriving an elderly of food, heat, clothing or comfort or essential medication and depriving a person of needed services to force certain kinds of actions, financial and otherwise. The deprivation may be intentional (active neglect) or happen out of lack of knowledge or resources (passive neglect).

The prevalence of depression among geriatric population in rural area is very high. The depression was significantly more among females. Tellez Zento *et al* also reported the same observation. In his present study 15.8 percent males and 20 percent females felt neglected/ignored by their kins. This indicates the need of geriatric psychiatry services in rural areas of India.

Table 2: Duration of Living Alone and Reason for Living Alone by the Elderly

Reason for Living Alone	Duration of Living Alone				Total
	Less than 5 years	6-10 years	More than 10 years	Living with the Family	
Living with Family	0	0	0	218	218 100%
Children Settled Abroad	5 45.5%	4 33%	2 22%	0	11 4.4%
Adjustment Problem with Children	1 9%	6 50%	1 12%	0	8 3.2%
Wish to be Independent	4 36.5%	0	2 22%	0	6 2.4%
Own Property	1 9%	1 8.5%	2 22%	0	4 1.6%
Spouse Died and No other Family Member	0	1 8.5%	2 22%	0	3 1.2%
Total	11 100%	12 100%	9 100%	218 100%	250 100%

The above table shows the elderly who are living alone. It is heart warming to say that majority (87.2%) of them live with their family. Thus there is always a support and they do not feel neglected. Most elders (4.4%) are living alone because children are settled abroad and 3.8 percent of the aged have adjustment problems with their children. In rare 1.2 percent cases the aged are orphans having no spouse and any family members to look after them.

The old-age dependency ratio climbed from 10.9 percent in 1961 to 13.1 percent in 2001 for India as a whole. For females and males the value of the ratio was 13.8 percent and 12.5 percent in 2001. About 65 per cent of the aged had to depend on others for their day-to-day maintenance. Less than 20 percent of elderly women but majority of elderly men were economically independent. Among economically dependent elderly men 6-7 percent was financially supported by their spouses, almost 85 percent by their own children, 2 percent by grand children and 6 percent by others. Of elderly women, less than 20 percent depended on their spouses, more than 70 percent on their children, 3 percent on grand children and 6 percent or more on others including the non-relations. Of the economically independent men more than 90 percent as against 65 percent of women were reported to have one or more dependents.

Matilda (1970), states that nearly two-thirds of the old people were living alone. Those who lived alone had significantly more domiciliary services, both meals –on-wheels and home help, than the rest of the group. Not unnaturally they felt lonelier and more depressed than the rest. Although old people living with their spouses were on the whole less lonely, they experienced great difficulties when both partners were failed and incapacitated, or even when one of them was very ill or confused and had to be looked after by others. The ten of the applicants were living with their married daughters and their families. Old people who lived with married daughters and their families appeared to experience more stress and interpersonal difficulties.

The study stated that 92 percent of the respondents said that they were not being teased and 2 percent of them said they are not included in decision making so they feel insecure and lonely. The elders even after attaining retired age still carry the burden of the family members; this may be due to many reasons as some are financially dependent (19.2%); and 25.2 percent of them said they have dependents who are partially dependent.

Strategies to Cope with Health Related Issues

Prevention and control of health problems of elderly necessitates a multifaceted approach incorporating active collaboration of health, social welfare, rural/urban development and legal sectors. A community based geriatric health-care program should start with the development of a comprehensive policy so as to include not only medical aspects, but other determinants as well. Strong political commitment and social action are imperative for the effective implementation of customized policy at the grass root level.

Table 3: Coping Strategies Taken by Aged with the Health Related Issues

Strategy of Coping with Health Problems	Frequency	Percentage
Health Care	116	46.4%
Care of Family	38	15.2%
Love and Care of Spouse	24	9.6%
Meditation	8	3.2%
Daughters' Care	5	2.4%
Sharing Problems	3	1.2%
Prayer	5	2.4%
Not Aware of Any	49	19.6%
Total	250	100%

Elderly subjects may present stress symptoms due to physical, psychological and social changes during ageing process. Therefore the different coping strategies are to be taken to look after the aged. As per the table above the best (46%) way to cope with health issue is having a conducive health care or medical treatment to be taken. The rest of them say that most of the health issues are related to psychological understanding of the aged and thus the family care and love is important to cope with health issues, 15 percent say they are cared by the family and thus they cope health related issues. 3.2 percent of them meditate and 1 percent of the elderly say they share their grievance to others reducing their pains.

As the elderly population is likely to increase in the future, and there is a definite shift in the disease pattern, i.e. from communicable to non-communicable, it is high time that the health care system gears itself to growing health needs of the elderly in an optimal and comprehensive manner.

There is a definite need to emphasize the fact that disease and disability are not part of old age and help must be sought to address the health problems. The concept of Active and Healthy ageing needs to be promoted among the elderly, which includes preventive, promotive, curative and rehabilitative aspects of health (NPHCE).

Physical-Psycho Care

Social measures should develop a culture wherein children should voluntarily take the responsibility of looking after their aged parents; regulatory mechanisms, which makes it obligatory for the members of society to look after their elder parent's development of a health insurance scheme to cover their health-care needs; (World Health Organization 2001); development of pension schemes with contribution from employee, employer and government advocating the construction of elderly-friendly houses/roads/staircases; WHO (2003) promotion of primary prevention to inculcate healthy life-styles in early adulthood; information, education and communication strategies toward, three broad groups namely elderly persons, the middle aged who would move into elderly age group in the near future and younger people who are the potential care providers for their elderly parents/relatives regarding the issues of hygiene, nutrition, physical exercise, avoidance of tobacco and alcohol, accident prevention measures and awareness about recognition of early signs/symptoms of common geriatric problems training and re-training of medical and paramedical staff to effectively understand the special health needs of the elderly; immunization services; necessity of periodic health assessment in early detection of conditions, provision of prostheses and other medical aids development of gerontology units and ensuring effective communication; can be implemented in a strategic manner for achieving the best outcome.

Kumar and Anand (2008) states that the problems afflicting the elderly are multi-dimensional problems and invariably involve many aspects of national life. No single sector of national life is willing to accept the problem of old age as its own. Each sector is only too willing to pass the buck to another. For instance, the health sector believes that problems of the aged are essentially social in character; hence their care is the responsibility of the social sector. The social sector, in turn, considers that it is the responsibility

of the health sector and so on. The latter considers the problem as a matter of concern of labour and also being economic, so the onus is shifted to the realm of economic department. In recent years, scholars have focused on the comparative roles of informal care and formal care. Their relative importance in caring for the elderly has been a matter of debate. Issues such as the complementarity between, and the balance of, the two forms of age care, the diminishing role of informal care in contrast to the increasing role of the state, in the care of the elderly have engaged attention of scholars. It is increasingly felt that attempts should be made to weave the two forms of care together. The problems faced by the elderly generally arise from: inequality of opportunity for employment; inadequate income; unsuitable housing; lack of social services and of provisions for sustaining physical and mental health; stresses and strains produced by changing family patterns and family relations; and lack of meaningful activities in retirement. It needs to be understood that many of the problems require lifelong drug therapy, physical therapy and long-term rehabilitation.

In a review of less developed countries' governments' perceptions and policies on ageing (articulated in documents submitted to the World Assembly on Ageing, 1982 and the United Nations Population Inquiry of 1984), it was summarized that some of the vital issues common to all are the values of the traditional family system are still very important and the aged command respect and attention from the young members of the family who have the responsibility of caring for their elders. In recent economic and social changes, particularly migration, has created a decline in the traditional system of assigning responsibility in the family and in its capacity to cope with some of the fundamental needs for the elderly in the country. Many elderly persons are without means of support and without kin who are available or willing to look after them. The government here has thus to assume its responsibility.

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Significance of Arecanut Crop in the Agrarian Economy of Kerala

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Abstract: *Arecanut is used by all sections of people as masticator either alone or in combination with betel leaves, lime and tobacco. It is an essential requisite for several religious and social ceremonies and also in human and veterinary medicine. The arecanut palm grows in different climatic and soil conditions and is grown in India, Bangladesh, Sri Lanka, Malaysia, Indonesia, Philippines and Myanmar. According to the recent data on area and production of arecanut in different countries, India stands first with a total area of 445 thousand hectares producing about 730 thousand tonnes of arecanut. In India, among the arecanut growing states, Kerala, Karnataka and Assam account for 95 per cent of the total area and 90 per cent of the total production. In earlier days, India was an importer of arecanut; now it is exporting which accounted 7057 tonnes valued at Rs. 81.19 crores.*

Key Words: *Agrarian Economy, Arecanut, Kerala.*

Introduction

Kerala is predominantly an agricultural state. Agriculture is the main source of livelihood. It contributes nearly 48 percent of the state's income and sustains nearly 48 percent of the total work force in employment. Agriculture supplies raw materials for a number of industries like rubber, coir, cashew, etc. It supplies less than 50 percent of the food grains requirements of the state and supplies fodder for a large cattle population. Again, agricultural commodities account for 75 percent of the foreign exchange earnings for Kerala. It is also a main source of revenue for the state government. Economic development of Kerala, thus, depends to a considerable extent, upon the development of agriculture.

In Kerala, arecanut is cultivated in all districts and the proportion of area in the state is very high compared with other states (Karunakaran, 2015). In terms of income, it occupies an important place in the economy of Kerala. Arecanut is predominantly a small farmer's Crop. Since more than 75 per cent of the holdings are of less than two hectare in size (GoI, 2015), any change in its cultivation either in terms of area, production or productivity will seriously affect the weaker sections of the agriculture population of the state. Due to the importance of this crop, the present study is an attempt to analyse the significance of arecanut cultivation against the background of the agricultural sector of Kerala. More specifically the following are the two important objectives of this paper:

1. To analyse the arecanut cultivation in Kerala among the major states in India and
2. To analyse the significance of arecanut crop in the state against other important crops in the background of the agricultural sector of Kerala.

Methods and Materials

The study is based on secondary data and was collected from various research publications, different magazines, journals and official web-sites and publications of Govt of India and Kerala.

Arecanut Cultivation and its Importance in Kerala

Arecanut is an important commercial crop which occupies a special position in the culture and social life of the people of Kerala. It is used by all sections of people as masticator and is an essential requisite for several religious and social ceremonies. It is also used as an input in agro-based industries. The crop's commercial value is enhanced by the fact that apart from being used as masticators, it is also used in the manufacture of human and veterinary medicine, dyeing clothes, ropes, etc., manufacture of liquor, ply board manufacture, preparing sweets, savories and biscuits, preparing chewing gum, tooth paste and pan-masala which find wide application in various industries like textiles, dyes and chemicals.

**Table 1: Statewise Distribution of Arecanut Area and Production
- 2013-14**

Sl. No.	State	Area (in '000 hectare)	Percentage of Total Area	Production (in '000 tonnes)	Percentage of Total Production
1	Andhra Pradesh	0.48	0.11	0.26	0.04
2	Assam	68.04	15.28	89.00	12.19
3	Karnataka	218.01	48.99	457.56	62.68
4	Kerala	100.01	22.47	100.02	13.70
5	Maharashtra	2.20	0.49	3.58	0.49
6	Meghalaya	17.11	3.84	24.68	3.38
7	Tamil Nadu	6.70	1.50	8.62	1.18
8	Tripura	4.70	1.06	9.92	1.36
9	West Bengal	11.39	2.56	21.16	2.89
10	Goa	1.74	0.39	2.90	0.39
11	Mizoram	10.14	2.28	6.05	0.83
12	Nagaland	0.22	0.05	0.12	0.07
13	Andaman and Nicobar Islands	4.23	0.95	5.88	0.81
14	Pondicherry	0.06	0.01	0.08	0.01
15	All India	445	100.00	730.00	100.00

Source: Computed from Cocoa, Arecanut and Spices statistics, Directorate of Cocoa, Arecanut and Spices Development, Kozhikode, Kerala.

Arecanut husk, the outer cover of the areca fruit, is used for fiber, hard boards and plastics, pulping and pepper boards. It is also used as an inferior fuel and mulch. Possibilities exist also for using areca husk as manure. Leaf sheath, another raw material obtained from the arecanut palm, is widely used now-a-days for making ply-boards, decorative veneer panels, picture mounts, house sandals, gin washes, brief cases, bags, tea and coffee trays, file boards and many other fancy and utility products. Arecanut stem and leaf forms a useful building material in the villages (Jose and Jayasekhar, 2008).

Because of the hardness and golden cover of arecanut stem, the timber can be used for making a variety of elegant utility articles. The leaves are great source of organic manure also.

The significance of arecanut also lies in the fact that Kerala is the second largest producer of arecanut in the country. She ranks second in the case of area under cultivation. Table 1 gives the state wise distribution of arecanut area and production during 2013-14. The data presented in the table reveals that the state accounts for 22.47 percent of the area under arecanut in India contributing to 13.70 percent of national production.

Table 2: Area and Production of Arecanut in Kerala as a Percentage of Area and Production of Arecanut in India (1965-66 to 2013-14)

Year	Area in '000 hectare in India	Area in Kerala	Percentage of Area in Kerala	Production in '000 tonnes	Percentage of Production in Kerala	
1965-66	138.1	64.5	46.71	119.9	40.2	33.52
1970-71	167.3	85.8	51.28	141.0	53.0	37.59
1975-76	177.5	76.6	43.15	160.0	47.7	29.81
1980-81	185.2	61.2	33.04	195.9	53.1	27.11
1985-86	185.6	56.8	30.62	216.2	50.3	23.26
1990-91	223	64.8	29.06	290.1	65.3	22.51
1995-96	273	76.1	27.87	333.5	77.4	23.21
2000-01	315.2	87.4	27.73	373.1	87.9	23.56
2005-06	381.1	108.2	28.39	483.1	119.3	24.69
2013-14	445.0	100.01	22.47	730.00	100.02	13.70

Source: Computed from Cocoa, Arecanut and Spices statistics, Directorate of Cocoa, Arecanut and Spices Development, Kozhikode, Kerala.

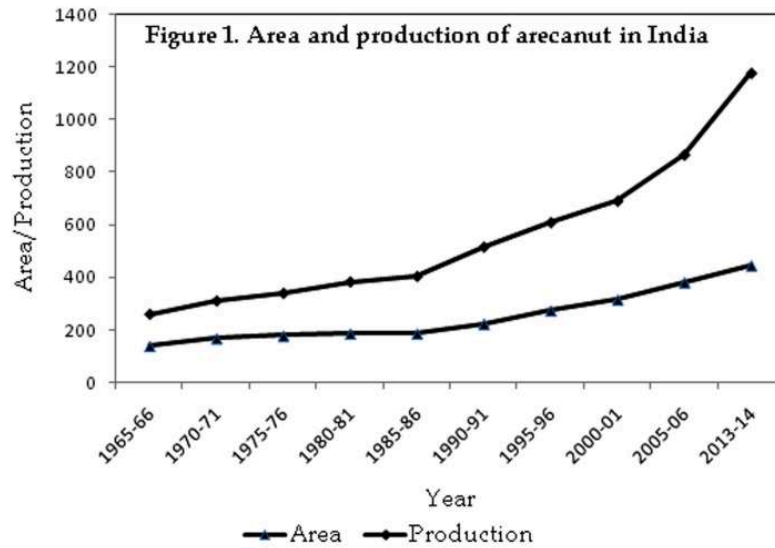
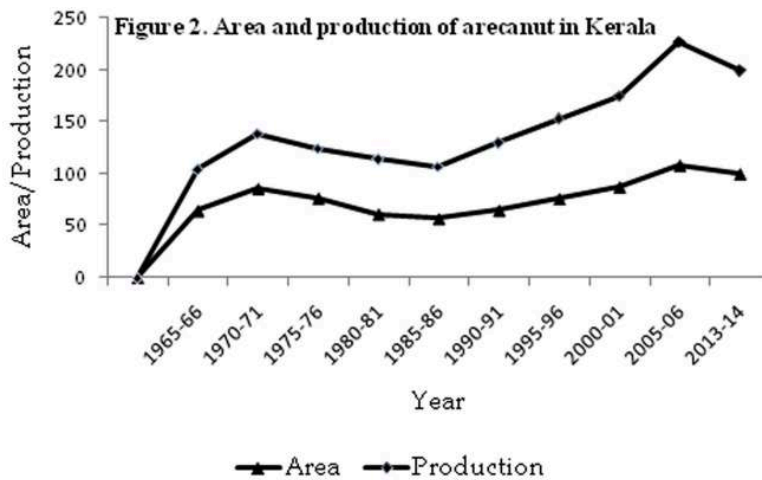


Table 3: Districtwise Area and Production of Arecanut in Kerala in 2013-14

Sl. No.	Districts	Area (in hectare)	Percentage of Total Area	Production (in tonnes)	Percentage of Total Production
1	Thiruvananthapuram	1001	1.00	476	0.48
2	Kollam	1913	1.91	1251	1.25
3	Pathanamthitta	1210	1.21	833	0.83
4	Kottayam	1581	1.58	1103	1.10
5	Alappuzha	1304	1.30	513	0.51
6	Ernakulam	4463	4.46	3924	3.92
7	Idukki	2381	2.38	1795	1.79
8	Trissur	6424	6.42	4268	4.27

Sl. No.	Districts	Area (in hectare)	Percentage of Total Area	Production (in tonnes)	Percentage of Total Production
9	Palakkad	9562	9.56	8402	8.40
10	Malappuram	18644	18.64	18838	18.84
11	Kozhikkode	9897	9.89	8875	8.88
12	Wayanad	12181	12.18	3985	3.98
13	Kannur	9959	9.96	12103	12.10
14	Kasaragod	19488	19.49	33652	33.65
15	State	100008	100.00	100018	100.00

Source: Computed from Cocoa, Arecanut and Spices statistics, Directorate of Cocoa, Arecanut and Spices Development, Kozhikode, Kerala.



The area and production of arecanut in Kerala as a per cent of area and production of arecanut in India over 1965-66 to 2013-14 are given in table 2. The data per cent in the table confirmed the mixed trend in area and production of arecanut in the state.

Table 4: Area Under Arecanut as a Percentage to Total Net Area Sown

Year	Total Net Area Sown	Area under Arecanut	Percentage of area under Arecanut to Total Net Area Sown
1960-61	1923.72	54.26	2.82
1965-66	2064.34	64.48	3.12
1970-71	2169.00	85.82	3.96
1975-76	2189.17	76.62	3.50
1980-81	2179.59	61.24	2.81
1985-86	2190.99	58.69	2.68
1990-91	2190.89	64.8	2.96
1995-96	2190.79	70.9	3.51
2000-01	2190.69	87.4	3.99
2005-06	2132.48	108.2	5.07
2013-14	2050.99	100.01	4.88

Area in '000 hectare

Source: Computed from (i) Statistics for planning (various issues), Department of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram. (ii) Economic Review (various issues), State Planning Board, Govt. of Kerala, Thiruvananthapuram.

In Kerala the area and production of arecanut is spread in almost all districts. Table 3 shows that Kasaragod ranks top in area and production of arecanut. The per cent of arecanut production and area is lowest in Thiruvananthapuram district.

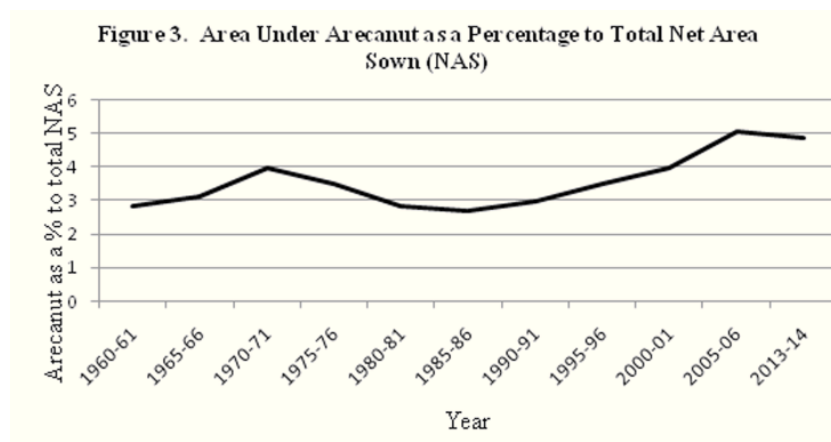


Table 5: Area under Arecanut as a Percentage of Total Area under Important Plantation Crops.

Year	Arecanut	Coconut	Rubber	Cashew nut	Pepper	Coffee	Tea
1960-61	6.12	56.48	13.86	6.13	11.25	1.89	4.24
1965-66	6.14	55.81	14.24	8.32	9.49	2.25	3.76
1970-71	6.74	56.46	14.07	8.06	9.23	2.48	2.95
1975-76	6.02	54.46	16.20	8.57	8.50	3.28	2.96
1980-81	4.73	50.34	18.38	10.92	8.35	4.48	2.79
1985-86	4.04	48.48	22.73	9.48	8.36	4.52	2.39
1990-91	3.98	49.57	25.28	4.11	10.35	4.61	2.12
1995-96	3.84	49.53	24.32	5.59	10.38	4.46	1.87
2000-01	4.59	48.64	24.92	4.84	10.62	4.45	1.93
2005-06	5.58	46.68	24.95	4.23	12.33	4.33	1.81
2013-14	5.89	47.68	32.32	2.34	4.95	5.03	1.78

Source: Computed from (i) Statistics for planning (various issues), Department of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram. (ii) Economic Review (various issues), State Planning Board, Govt. of Kerala, Thiruvananthapuram.

In Kerala, arecanut is one important perennial crop employing 4.88 per cent of the Net Area Sown (NAS) (Table 4). Among the important plantation crops, the per cent of area command by arecanut is 5.89. This is clear from table 5 which presents area under arecanut as a per cent to total area under seven important plantation crops.

Conclusion

A unique feature of Kerala's agriculture is that the cropping pattern in the state has shifted in favour of commercial crops. In this shift, plantation crops increased considerably. Arecanut is an important commercial crop in Kerala. It finds a place in all religious, social and cultural functions of the people. Kerala accounts for 23 per cent of the area under arecanut in India contributing to 14 percent of national production. During the past five decades, the arecanut cultivation in Kerala underwent expansion in area under cultivation associated with increase in production. The analysis of inter-district performance also supports this. A comparison of the compound growth rates of arecanut productivity during the five decades revealing slight increase in the growth of arecanut productivity and supporting it. Realising the significance of arecanut crop in the agrarian economy of Kerala policy efforts may be taken on the part of the authority to protect and uplift this crop.

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Sustainable Development and Building Inclusive Societies

Building Skills for Social Sustainability of Tribal Youth through Micro Enterprise Development - A Study Conducted in Kudumbashree Mission Pathanamthitta District-Kerala.

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Abstract: *In Kerala the social sustainability of Tribal Youth is vested with the social innovations. In Kerala the social mobility and social inclusion are programs mainly impacted by the Community Development Programs of Kudumbashree Mission. The Tribal Development Project of Kudumbashree implemented has a lot of convergence programs for tribes. Among these the social innovation programs of Tribal Youth is successful in Pathanamthitta district. The Tribal Youth in Kerala considered as the age group belongs to 18 to 40 years as per State Youth Policy norms in the specified areas. This paper strictly explains the social sustainability of the tribal youth and role of Kudumbashree for empowering their sustainable development through micro enterprise development. The objectives of the study: (1) to explain the demographic profile and livelihood patterns of Tribal Youth in Kerala. (2) To explain the social sustainability of Tribal Youth through micro enterprise development in Kerala. (3) To find out the role and impact of Kudumbashree programs for their sustainability. (4) To observe the impact of social sustainability in decentralization process. The methodology for the study is mainly used by secondary data analysis. Social survey, observation visit conducted in various government departments and collected secondary data and it is extracted exclusively for youth studies as per the youth policy norms. The data analysis and interpretation done with the support of Tables and Figures collected from various sources. The study concludes that, to explain demographic profile and livelihood patterns of tribal youth in Kerala, they make a conceptual frame work about the tribal youth in Kerala. The important thing is that Kudumbashree is a poverty eradication mission and specially focusing the Youth Empowerment.*

Key Words: *State Youth Policy, Tribal Youth, Social Sustainability, Community Participation, Decentralized Governance, Empowerment and Leadership.*

Introduction

In Kerala the social sustainability of Tribal Youth is vested with the good governance and better community participation. Kerala State Youth Policy

provides the base line for their development. Age group belongs to 18 to 40 considered to be the Tribal Youth in Kerala as per the State Policy Norms. Now a day's Youth are frequently a focal point in our country and they are considered as highly emotional, high risk taking behavior, vulnerable, treated as power for future. To bring their energy in positive and creative way, through the ages, men and women have interacted with the environment for their social sustainability and social inclusion. Urbanization, industrialization, depletion of forests and natural resources, and growing population have all led to the world's current environmental resources. In Kerala the youth play a great role in socio economic and political development. The attitude of the youth now-a-days move forward against the social and political environment. In the coming scenario, youth will be the change makers, who through their knowledge, observation and action will combat challenges for the better social inclusion.

Objectives

1. To explain the demographic profile and livelihood patterns of Tribal Youth in Kerala.
2. To explain the social sustainability of Tribal Youth through micro enterprise development in Kerala.
3. To find out the challenges and issues that is considered as obstacles in active community participation.
4. To find out the role and impact of Kudumbashree programs for social sustainability of Tribal Youth.
5. To observe the impact of social sustainability in decentralization process.

Methodology

The methodology used for the study was analysis of data available through secondary sources. Observation visits conducted in various government departments and collected secondary data and it is extracted exclusively for youth studies as per the youth policy norms. FGDs, Group Discussions are conducted for the purpose of statistical analysis of Kudumbashree.

Literature Review

85 percent of youth population lives in developing countries of which 60 per cent in Asia. The annual growth rates of youth population have

slowed down in every region during the 1990s, according to United Nations statistics. Developed regions, and Eastern Asia — comprising China, Japan and others suffered a negative growth rate. As a proportion of total population between 1980 and 1995, the number of young people has dropped everywhere except Africa. In industrialized countries and East Asia, declining fertility rates have created aging populations, and social and economic policies are sometimes tilted in their favour. At the same time, middle-aged people still consider themselves young. Occurrence known as the “prolongation of youth” — which is now considered a global phenomenon. Young people in developing nations worried more about crime and the environment, while those in the industrialized world expressed grave doubts about the future of the world and tended to reject “the old way of doing things”. American high school students were somewhat unique because, unlike most young people, they often held part-time jobs after school hours and on weekends, were more involved with dating, spent less time reading and doing homework, and had the highest levels of self-reported stress and academic anxiety.

Youth in India

Youth in 21st Century are aspiring for just global order. They are looking for democratic process in all spheres of life; whether it is education, employment or decision making the issues concerned for youth is fast changing in tune with the technological innovations affecting the day to day life of them. As ESCAP has pointed out “it is important to recognize youth as a unique group in society due to the many aspects of vulnerability they face while passing through a major stage in their lives”. Youth defined as those who belongs to the age group of 13-35 in the National Youth Policy 2003, is considered as the most vital segment of the population. Across the globe youth is being treated as assets for their countries’ development and enormous investment is going on to develop the human capital. As per the 2001 Census of India, the size of youth population in the country is 422.3 million, with 219 million males and 203 million females. Apart from this with 2011 census the percentage is with slight difference. The table below shows the general population of Youth in India on the basis of 2011 Census. The data analysis done with the help of secondary sources collected from different government departments and other organisation.

Table 1: General and Youth Population of India - 2011 Census

	Total	Male	Female
General Population	1210854977	623270258	587584719
Sex Ratio	1000	940	
Youth Population-India (15-29 years)	333364636	172911297	160453339
Percentage	27.53	27.74	27.30
Sex Ratio		1000	927
Youth Population- UN norms (15-24 years)	231950671	121567089	110383582
Percentage	19.15	19.50	18.78
Sex Ratio		1000	908

Note: The figure shows the youth population of India as per the Census report. As per the National Youth policy the total youth population is 27.53 percent. Among this male youth population is 27.74 percent and the female youth population is 27.3 percent.

Socio-Economic Profile of Tribal Youth in India

Scheduled Tribes are the ethnic groups of historically disadvantaged people that are given recognition to the tribes in the constitution of India. The term tribe is nowhere defined in the constitution and in fact, there is no satisfactory definition for the same. According to Dr D N. Majumdar scheduled tribe refers to a collection of families or groups of families, bearing a common name, members which occupy the same territory, speak the same language and observe certain taboos regarding marriage, profession or occupation and have developed as well as assessed system of reciprocity and mutuality of obligations

Table 2: Scheduled Tribe Youth population of India-2011 Census

	Total	Male	Female
General Population	104545716	52547215	51998501
Sex ratio		1000	989
Youth Population-India (15-29 years)	28310793	14190928	14119865
Percentage	27.79	27.00	27.15
Sex Ratio		1000	994
Youth Population- UN (15-24 years)	19927193	10009621	9917572
Percentage	19.06	19.04	19.07
Sex ratio		1000	990

Source: 2011 Census

Note: The table shows the comparison of Tribal Youth population with National Youth policy and UN Youth policy. The figure shows the total population of India is that 104455716. As per National Youth policy the total Tribal Youth population of India is 27.9 percent and among this 27 percent is male youth and 27.15 percent is female youth are residing in India. As per UN norm the age group is 15 to 24 Years. From this the total Tribal Youth in India is 19.06 percent among this 19.04 percent is male and 19.07 percent is female Tribal Youth are residing in India.

Tribal Youth in Kerala-An overview

In Kerala there are 43 communities of scheduled tribes residing in the rural places of Kerala as per the SC ST orders Amendment act 2002. The total families of scheduled tribes in Kerala are enumerated as 107965 spread over all the districts of the State. Wayanad District has 36135 ST families (33.47%) followed by 14315 families (13.26%) in Iduki, 13223 families (12.25%) in Palakkad and 11598 families (10.74%) in Kasargod.

78 percent of Scheduled Tribe families in the State are located in five districts, namely; Wayanad, Iduki Palakkad, Kasargod, and Kannur. Apart from the Tribal Youth population there is no data base with the government and any other document. So for the study purpose the data extracted from the census report 2011, as per the Kerala State Youth Policy 2012. The data belongs to the age group of 18-40.

Table 3: Scheduled Tribe Youth Population of Kerala-2011 Census

	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
General									
Population	484839	238203	246636	433092	213208	219884	51747	24995	26752
Tribal youth									
Population	196281	94674	101607	177195	85593	91602	19086	9081	10005
Percentage	40.48	39.74	41.19	40.91	40.14	41.65	36.88	36.33	37.39
Sex Ratio		1000	1073		1000	1070		1000	1101

Source 2011 Census

Note: The table shows the Tribal Youth population of Kerala. Total Tribal Youth population in Kerala is 40.48 percent among this 39.74 percent is male and 41.19 percent is female. In rural area the total youth population is 40.91 and among this 40.14 percent is male and 41.65 is female. In urban area the total Tribal Youth population is 36.88 percent among this 36.33 percent is male and 37.39 percent is female and 40.48 percent are youth in Scheduled Tribe in the State. 1000:1073 is the sex ratio among STs. Scheduled tribes' youth are 0.58 percent of the total population of the state. Above table shows Scheduled Tribe Youth are residing more in rural areas.

Social Sustainability of Tribal Youth through Micro Enterprise Development; a Study in Kudumbashree Mission at Pathanamthitta District Kerala

The three tier organisational structure is Neighbourhood Groups. (NHG). NHG is a voluntary association of 20-40 women members, who represent

poor households identified through the four risk factors of a neighbourhood. Area Development Society, the middle structure is formed at the ward level by federating 8-10 NHGs belonging to a particular ward or Area. Community Development Society is the crest of the structure formed ,at the Panchayath, Block or District level, by federating all ADSs. Kudumbashree now covers 991 Panchayath as well as 58 Municipalities across Kerala. Currently 7848 NHGs, ADS and CDS is remarkable. Each NHG selects a five member volunteer committee having specific responsibilities, such as president and secretary, Community Health Volunteer, Income Generation Activities Volunteer and Infrastructural Volunteer. While the health volunteer takes primary responsibility for assessing the health needs of the neighbourhood groups, the assessment of the nature and kind of income generation activities and infrastructure activities belongs to income generation and infrastructure volunteers respectively. The President and Secretaries of all the federated NHGs constitute general body of ADSs, which elects a Governing Body consisting of a President, Secretary and a five member committee. The Governing Body members and the Chair Persons of all ADSs constitute general Body of CDS. The General Body of CDS elects a Governing Body consisting of President and a five member committee. An important component of the kudumbashree structure is associated with, and backing from, Local Self Governments and bureaucracy both at the ADS and CDS levels. For instance, a ward level monitoring and advisory committee is formed under the chairmanship of a ward member of the local body to integrate the activities of ADSs with the local Governments. Also representatives of Resource persons selected from that local body who are involved in implementing poverty alleviation and women empowerment programs are also be nominated as members of the general Body of CDS. While the project Officer of the urban and rural programs is nominated as the member secretary, other Government Officials and representatives of Resource Persons are nominated as members of Governing Body of CDS. It also has a monitoring advisory committee with Municipal Chair Person or President of the Panchayath as its Chairperson and Municipal or Panchayath Secretary as Convener.

In Pathanamthitta district Youth has key concern of all social development programs of Kudumbashree initiated in Pathanamthitta district. As far as

NHG group of Tribal Youth is taken in to consideration, Sustainability means that NHG becomes permanent movement to carry out programs for their social sustainability. They are the ethnic groups of historically disadvantaged people that are given recognition in the Indian Constitution. They are Kanikan, Mala Arayan, Malai Pandaram, Malavedan, Malayan, Mudugar, and Ulladan. There are 7 categories of scattered settlements of Panjayaths such as, Ranni, Perunad, Seethethode, Chittar, Pandalam, Kodumon etc. However Ulladan, Malavedan, Mala Arayan and Arayan and Mali Pandaram are the major communities. These four communities constitute the 93.38 percent of the Scheduled Tribes in Pathanamthitta district. Malayan, Mudugarand, Kanikaran are the other communities settled in Pathanamthitta district. The non tribes as member of tribal families number 409 resulting their representation as 6.41 percent of tribal population in the district. The Project Implementation pattern of the Kudumbashree is Target areas of Tribal Settlement. Most of the people in tribal settlement belongs to BPL families, so the beneficiary selection is very easy to find out. With the support of Tribal Development Department, Kudumbashree implemented Developmental programs Such as Educational programs, Housing schemes, Health schemes, Assistance for Marriage of ST girls, Resettlement of Landless Tribes. Kudumbashree act as a mediator for implementing these projects. The sustainable livelihood and poverty eradication program of tribals in Pathanamthitta District is based on the Livelihood pattern of Tribes. Through the tribal special project especially focussed on the Tribal Youths. The programs and activities basically developed through the social sustainability and social inclusion activities. For this purpose formed the tribal youth SHGS and NHGs. Educational development, skill development, group micro enterprise development are mainly field level programs for their social inclusion in social mobility in the specified areas.

The social sustainability and inclusive development of Tribal Youth are strictly based on the social entrepreneurship development programs of Kudumbashree. But the inclusion in the society decides their livelihood patterns and political conditions. 1. Employment Status, 2. Unemployment 3. Health 4. Basic Amenities 5. Land and Development 6. Social Security and Development etc are the main factors. Most of the Tribes are engaging in agricultural activities, animal husbandry, collection of forest

products, collection of herbal plants, work in forest area etc. 17.37 percent tribes are working in forestry sector and 23.41 percent of tribes are working in agriculture and allied sectors and also 59.22 percent of tribes are working in non agriculture sector such as petty trade MNREGS, plantation sector, and collection of herbal products from the forest. Kudumbashree implemented a holistic health program for tribes, because health is the major problem that they are facing. For effective sustainable development a proper health care is must. The main problems they are facing include lack of food security, sanitation, and safe drinking water, poor supply of drinking water, poor supply of nutrition etc. In Pathanamthitta District 43 families living without health care institutions and services. Services of health care workers are not available to 9 families of Seethethode Panchayath. There are 18 families based on the field experience are not benefited by the programs of Immunisation, cleaning, health awareness programs conducted by the tribal development department with the support of different agencies. Most of the tribal families of Pathanamthitta district are facing drastic health problems. There are 383 tribal families with differently abled and mentally retarded persons and patients of chronic deceases are facing serious health problems. Apparently the Malavedan, Mannan, Muduvan, and Mudugar families are affected by malnutrition. 387 families affected by malnutrition in Pathanamthitta district. Another important lively hood problem faced by the Tribal community is absence of basic amenities. In Pathanamthitta district 9.55 percent tribal families are Houseless families. Kudumbashree implemented House Program for houseless with the support of Tribal Development Department. It is the main responsibility to find out the landless beneficiaries. In Pathanamthitta District 19 families are settled in forest area. That means 44.19 percent of them are inside the forest. Kudumbashree organised social camps for forming SHGs in that area for their sustainable development. From the study in tribal Panchayaths of Pathanamthitta District there are 342 families belong to without ration cards. It was a drastic situation because 54.38 families belong to BPL, even though they didn't access apt social security measures. And also 16.98 percent of tribes are living without election ID cards. Being a democratic country, the marginalised and deprived sector but not seen by the bureaucrats are living without these types of socio-democratic measures.

MNREGS is successful projects implemented by Govt of Kerala, but specifically say some of the STs of Pathanamthitta district didn't register due to lack of awareness. 86.10 percent of tribal people didn't register in MNREGS. Apart from this Kudumbashree implemented convergence programs for Tribal Youth through different types of training programs and entrepreneurship development activities. They started small scale business and they become self reliant through the intensive programs of Kudumbashree.

Findings

The developmental programs of kudumbashree in Pathanamthitta district are successful based on the study. Micro entrepreneurship development program for youth is impacted for their social inclusion. They got EDI trainings, Skill development programs, additional acquisition programs and became social entrepreneurs. They started small scale group business with the support of Kudumbashree bank linkage scheme. The main problem traced out from the study is, educational status of Tribal Youths is very weak compared to other districts and the political influence and bureaucracy negatively affects the dignity and worth of the Tribal Youth for their active social participation. And also the Government funds are not properly utilised in such a manner. Active participation of Kudumbashree through micro enterprise development made positive change in the livelihood and sustainable development of Tribal Youth. Even though they are marginalised, empowerment programs of Kudumbashree made a social change and they come out to the society and actively participated in the Community Based Organisations of Kudumbashree Programs through micro enterprise development. They got Capacity Building Trainings, Entrepreneurship Development Programs, Gender Sensitive Trainings, Training for Marketing and other allied activities. It comes to a positive drastic change in the social cultural, educational, economical, and spiritual dimensions of their life.

Conclusion

Cultural disparity is the main problem of the Tribal Youth in Kerala. The modern culture must not be imposed on them. Tribal youth in Kerala plays a major role in state's development. So it is necessary to give apt support for their active community participation and with the implementation

of different developmental programs of government. The convergence programs of Kudumbashree lead to a change in their social sustainability. They have come forward for political participation and they are educationally developed. The socio cultural circumstances also are changed a lot. Apart from this the social mobility and social sustainability are much backward in Kerala. Their social sustainability has changed a lot through the social innovation programs of Tribal Youth. The Skill Development Programs and EDI programs changed the life style of Tribal Youth in Pathanamthitta district. They started small groups of organisations and it leads to improve the self sustainability and social mobility.

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